

Report on Rider 70

Open-Source Instructional Materials

August 2017

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Overview

The General Appropriations Act (GAA), Article III, Rider 70, 84th Texas Legislature, 2015, requires the commissioner of education to set aside \$5,000,000 from the instructional materials fund (IMF) in each fiscal year of the biennium to develop open-source instructional materials. The rider specifies that the materials are to be developed through a request for proposals (RFP) process and in alignment with the requirements of the Texas Education Code (TEC), [§31.071](#).

This report satisfies one of two reporting requirements established by the rider:

The Commissioner shall annually submit a report by September 1 to the Governor, the Lieutenant Governor, the Speaker of the House, the Legislative Budget Board, and the presiding officers of the standing committees of the legislature with primary jurisdiction over public education. . . . The report in fiscal year 2017 shall include information on the number and type of open-source instructional materials developed, use of those materials by school districts and open-enrollment charter schools, and plans for assessing the effectiveness of those materials.

GAA, Article III, Rider 70, 84th Texas Legislature, 2015

As required by the rider, an RFP was issued in November 2015 for state-developed, open-source instructional materials for advanced secondary courses supporting the study of science, technology, engineering, and mathematics (STEM). The RFP specifically called for materials for the following courses:

- High school math courses identified in Texas Administrative Code (TAC), Title 19 Chapter 111 (<http://ritter.tea.state.tx.us/rules/tac/chapter111/index.html>)
- High school science courses identified in 19 TAC, Chapter 112 (<http://ritter.tea.state.tx.us/rules/tac/chapter112/index.html>)
- High school technology applications courses identified in 19 TAC, Chapter 126 (<http://ritter.tea.state.tx.us/rules/tac/chapter126/index.html>)
- Career and technical education courses identified in 19 TAC, Chapter 130, Subchapter O (<http://ritter.tea.state.tx.us/rules/tac/chapter130/ch130o.html>)

The proposals were scored using the rubric shown on the following page. The full RFP can be read at <http://www.govcb.com/Title-Open-Source-Instructional-ADP14483198330000046.htm>.

Categories	Possible Points
<p>A. Quality of Technical Component</p> <ol style="list-style-type: none"> 1. Clear description of details for carrying out project (20) <ul style="list-style-type: none"> • Demonstrated understanding of the nature and scope of work involved (10) • Clear plan to make the instructional materials easily accessible to all students (10) 2. Adequacy and appropriateness of project design (20) <ul style="list-style-type: none"> • Demonstrated understanding of the complexity of TEKS-aligned instructional materials development (10) • Demonstrated ability to take appropriate steps to ensure the instructional materials meet TEA quality standards (10) 	40
<p>B. Quality of Management Component</p> <ol style="list-style-type: none"> 1. Evidence of capability to manage project (5) 2. Experience of organization (5) 3. Personnel qualifications (10) 	20
<p>C. Quality of Task/Activity Plan</p> <ol style="list-style-type: none"> 1. Logical and appropriate time frames (Production schedule showing appropriate time allotted for each step in the production process to ensure the product covers TEKS) (10) 2. Activities are of sufficient scope and detail to provide evidence of satisfactory delivery of services and products (Evidence of careful planning for ensuring that product meets standards of professionalism with minimal editing/revision required after delivery) (10) 	20
<p>D. Cost-Effectiveness and Appropriateness of Financial Resources Dedicated to Project (20)</p>	20
<p>E. Quality of Evaluation Component</p> <ol style="list-style-type: none"> 1. Appropriateness of criteria and standards (What evidence will demonstrate that the materials have been effective?) (10) 2. Adequacy and appropriateness of evaluation design (How does the responder plan to demonstrate that the materials have been effective?) (10) 	20
<p>F. Potential Bonus Points (Proposal is for STEM course or courses.) (10)</p>	
<p>Total</p>	120

Five proposals were submitted in response to the RFP. The process concluded with the award of two contracts to create eleven sets of instructional materials for nine high school courses.

Number and Type of Open-Source Instructional Materials Developed

OpenStax

The first contract was awarded to OpenStax, a nonprofit organization based at Rice University, for materials for seven high school courses:

- Statistics
- AP[®] Physics 1
- Advanced Placement[®] (AP) Macroeconomics
- AP[®] Physics 2
- AP[®] Microeconomics
- AP[®] Biology
- Physics

Products created by OpenStax are organized into units and chapters and can be used like traditional textbooks as the entire syllabus for each course. They can also be used to provide supplemental instruction for specific concepts. As of August 28, 2017, the finished products were not yet available, but pre-release samples of some can be accessed at the links below:

- AP[®] Macroeconomics
<http://tea.texas.gov/WorkArea/DownloadAsset.aspx?id=51539614787>
- Physics
<http://tea.texas.gov/WorkArea/DownloadAsset.aspx?id=51539614791>
- AP[®] Physics 1
<http://tea.texas.gov/WorkArea/DownloadAsset.aspx?id=51539614788>
- AP[®] Physics 2
<http://tea.texas.gov/WorkArea/DownloadAsset.aspx?id=51539614790>
- AP[®] Biology
<http://tea.texas.gov/WorkArea/DownloadAsset.aspx?id=51539614786>

Study Edge

The second contract was awarded to Study Edge for materials for four courses: Statistics, Precalculus, Physics, and Chemistry. The materials developed by Study Edge are video books with lessons taught by master teachers. Each lesson is accompanied by a study guide, and all videos include closed-captioning to ensure access for users with hearing disabilities. The lessons may be used to teach an entire course, but TEA anticipates that teachers will more often use them to supplement traditional textbooks and help students succeed in these challenging courses. These materials can be accessed at the links below:

- Statistics
<https://www.texasgateway.org/node/240631>
- Precalculus
<https://www.texasgateway.org/node/242871>
- Physics
<https://www.texasgateway.org/node/242906>
- Chemistry
<https://www.texasgateway.org/book/study-edge-chemistry>

Use of the Materials by School Districts and Open-Enrollment Charter Schools

State-developed, open-source materials are provided free of charge through the Texas Gateway. Samples of the material became available in June 2017, and the finished products became available beginning July 27 with Study Edge Chemistry. All Study Edge products are complete and ready for full implementation. All OpenStax textbooks are expected to be complete in early September, but some supporting materials (lab manuals, teacher editions, etc.) may not be available until the end of September.

TEA has a dedicated webpage (http://tea.texas.gov/Academics/Instructional_Materials/Open-Source_Instructional_Materials/) to promote the use of the free materials. The agency has also created a new landing page in EMAT, the instructional materials ordering system, to promote the free materials and encourage districts to consider them before spending technology and instructional materials funds on materials for these courses.

Plans for Assessing the Effectiveness of the Materials

At the end of the 2017–18 school year, TEA will conduct a survey to collect information on the use and effectiveness of the materials. Additionally, the agency has provided a link on the open-source web page for users to provide feedback on the materials and suggestions for improvement.

The vendors will also collect feedback directly and share data with the agency. In addition to collecting feedback through email, the vendors plan face-to-face and online focus groups to learn about the experiences of users. The information gained through these activities will be used to improve the materials or user experience and contribute to the creation of better materials in the future.

Appendix A—Appropriation Authority

Rider 70. Open Source Instructional Materials. Out of funds appropriated in Strategy B.2.1, Technology and Instructional Materials, the Commissioner shall set aside \$5,000,000 from the State Instructional Materials Fund in each fiscal year of the biennium to issue a request for proposals for state-developed open-source instructional materials under Texas Education Code §31.071. It is the intent of the Legislature that the request should prioritize advanced secondary courses supporting the study of science, technology, engineering, and mathematics. The Commissioner shall require that any external entity developing open-source instructional materials funded by this rider provide any data deemed necessary to assess the progress and success in developing such materials. The Commissioner shall annually submit a report by September 1 to the Governor, the Lieutenant Governor, the Speaker of the House, the Legislative Budget Board, and the presiding officers of the standing committees of the legislature with primary jurisdiction over public education. The report in fiscal year 2016 shall include information on the request for proposal timeline, implementation schedule, and any external entities submitting proposals. The report in fiscal year 2017 shall include information on the number and type of open-source instructional materials developed, use of those materials by school districts and open-enrollment charter schools, and plans for assessing the effectiveness of those materials.

GAA, Article III, Rider 70, 84th Texas Legislature, 2015

Appendix B—Statutory Authority

TEXAS EDUCATION CODE, CHAPTER 31. INSTRUCTIONAL MATERIALS

SUBCHAPTER B-1. STATE-DEVELOPED OPEN-SOURCE INSTRUCTIONAL MATERIALS

Sec. 31.071. PURCHASE AUTHORITY.

- (a) The commissioner may purchase state-developed open-source instructional materials in accordance with this subchapter.
- (b) The commissioner:
 - (1) shall purchase any state-developed open-source instructional materials through a competitive process; and
 - (2) may purchase more than one state-developed open-source instructional material for a subject or grade level.
- (c) State-developed open-source instructional material must be irrevocably owned by or licensed to the state for use in the applicable subject or grade level. The state must have unlimited authority to modify, delete, combine, or add content to the instructional material after purchase.
- (d) The commissioner may issue a request for proposals for state-developed open-source instructional material:
 - (1) in accordance with the instructional material review and adoption cycle under Section 31.022; or
 - (2) at any other time the commissioner determines that a need exists for additional instructional material options.
- (e) The costs of administering this subchapter and purchasing state-developed open-source instructional materials shall be paid from the state instructional materials fund, as determined by the commissioner.

Sec. 31.072. CONTENT REQUIREMENTS.

- (a) State-developed open-source instructional material must:
 - (1) be evaluated by teachers or other experts, as determined by the commissioner, before purchase; and
 - (2) meet the requirements for inclusion on the instructional material list adopted under Section 31.023.
- (b) Following a curriculum revision by the State Board of Education, the commissioner shall require the revision of state-developed open-source instructional material relating to that curriculum. The commissioner may, at any time, require an additional revision of state-developed open-source instructional material or contract for ongoing revisions of state-developed open-source instructional material for a period not to exceed the period under Section 31.022 for which instructional material for that subject and grade level may be adopted. The commissioner shall use a competitive process to request proposals to revise state-developed open-source instructional material under this subsection.

Sec. 31.073. SELECTION BY SCHOOL DISTRICT.

- (a) Repealed by Acts 2011, 82nd Leg., 1st C.S., Ch. 6, Sec. 67(7), eff. July 19, 2011.
- (b) Repealed by Acts 2011, 82nd Leg., 1st C.S., Ch. 6, Sec. 67(7), eff. July 19, 2011.
- (c) Notwithstanding Section 31.022, a school district or open-enrollment charter school may adopt state-developed open-source instructional material at any time, regardless of the instructional material review and adoption cycle under that section.
- (d) A school district or open-enrollment charter school may not be charged for selection of state-developed open-source instructional material in addition to instructional material adopted under Subchapter B.

Sec. 31.074. DISTRIBUTION.

- (a) The commissioner shall provide for the distribution of state-developed open-source instructional materials in a manner consistent with distribution of instructional materials adopted under Subchapter B.
- (b) The commissioner may use a competitive process to contract for printing or other reproduction of state-developed open-source instructional material on behalf of a school district or open-enrollment charter school. The commissioner may not require a school district or open-enrollment charter school to contract with a state-approved provider for the printing or reproduction of state-developed open-source instructional material.

Sec. 31.075. OWNERSHIP; LICENSING.

- (a) State-developed open-source instructional material is the property of the state.
- (b) The commissioner shall provide a license to each public school in the state, including a school district, an open-enrollment charter school, and a state or local agency educating students in any grade from prekindergarten through high school, to use and reproduce state-developed open-source instructional material.
- (c) The commissioner may provide a license to use state-developed open-source instructional material to an entity not listed in Subsection (b). In determining the cost of a license under this subsection, the commissioner shall seek, to the extent feasible, to recover the costs of developing, revising, and distributing state-developed open-source instructional materials.

Sec. 31.076. RULES; FINALITY OF DECISIONS.

- (a) The commissioner may adopt rules necessary to implement this subchapter.
- (b) A decision by the commissioner regarding the purchase, revision, cost, or distribution of state-developed open-source instructional material is final and may not be appealed.

Sec. 31.077. ADOPTION SCHEDULE. The commissioner shall develop a schedule for the adoption of state-developed open-source instructional materials under this subchapter. In developing the adoption schedule under this section, the commissioner shall consider:

- (1) the availability of funds;
- (2) the existing instructional material adoption cycles under Subchapter B; and
- (3) the availability of instructional materials for development or purchase by the state.