

AFFORDABLE TEXTBOOKS FOR WASHINGTON'S STUDENTS: A COST ANALYSIS OF THE OPEN COURSE LIBRARY

In October 2011, the Washington State Board of Community and Technical Colleges launched the Open Course Library, a collection of high-quality, low-cost educational materials to correspond with the 81 largest-enrollment courses in the state. The first 42 courses are available immediately, and the remaining 39 are slated for development in 2012 and release in 2013. This significant investment in affordable course materials shows tremendous potential to reduce the cost of textbooks, which is a serious concern for students in Washington State and across the nation.

The Student PIRGs conducted an informal study to evaluate the Open Course Library's impact on textbook costs. Based on a survey of 22 of the 42 faculty who designed the courses, these faculty and their departments alone will save students \$1.26 million by using these materials in place of traditional textbooks during the 2011-2012 school year. Once the full 81 courses are released, the savings could climb to \$41.6 million annually if adopted statewide. The savings are likely to be even greater, since the materials are freely available for use at any college in the country. Overall, the Open Course Library is clearly a smart investment in lowering the cost of textbooks that will pay off almost immediately.

TEXTBOOK COSTS: A GROWING CONCERN

The cost of college textbooks has become a significant barrier to higher education. The Student PIRGs found that prices have risen more than four times the rate of inflation for the past two decades,¹ and according to the College Board, the average student should budget \$1,168 for course materials during the 2011-2012 school year.² The burden is especially severe at community colleges, where textbooks often rival the cost of tuition. A 2005 GAO study found that textbook costs on average were comparable to 72% of tuition at 2-year public colleges.³

Recent evidence has shown a link between growing college costs and course completion. A survey conducted by the Student PIRGs earlier this year found that 7 in 10 respondents said they had not purchased one or more required text due to cost, even though 78% believed it could hurt their academic performance.⁴ A 2009 report by Public Agenda found that 60% of college dropouts said that textbook costs had affected them financially.⁵

If students can't afford to stay in college, they cannot attain the degrees and credentials they need to enter the workforce. At a time when many Americans are returning to college to increase their employment prospects, reducing barriers such as cost and improving quality of instruction should be a top priority at the local, state and federal levels.

The Obama Administration has already taken steps to support improved workforce education. In September 2011, the Department of Labor awarded \$500 million in grants through the Trade Adjustment Act Community College Career Training program,⁶ which aims to support innovation at community colleges and other 2-year degree-granting institutions. A key feature of this program is a requirement that all materials produced using federal funds must be released to the public under an open license so they can be used by any instructor, college or self-learner in the country. A total of \$2 billion will be awarded over the next four years.

WASHINGTON'S OPEN COURSE LIBRARY

Perhaps the most prominent example of state leadership on this issue is Washington's Open Course Library (OCL),⁷ an initiative to develop affordable digital course materials for the state's community and technical colleges. Launched in the spring of 2010, this innovative program has already received national recognition for its use of an open license, which grants permission for public use of the materials. Furthermore, the project is funded in part by the Washington State government as an investment in reducing the cost of textbooks for the state's college students.

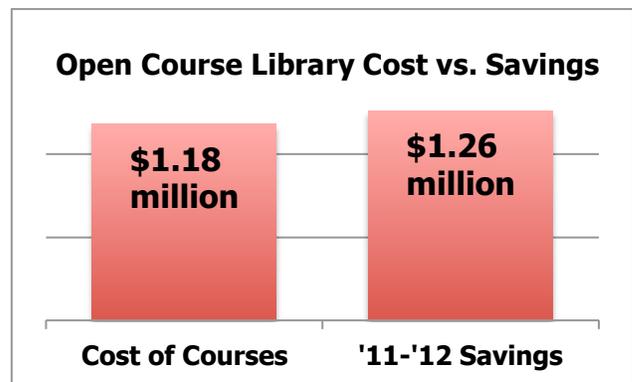
- **81 Courses.** The Open Course Library is a collection of high-quality educational materials for the state's 81 highest enrolled college courses. The first 42 courses were released in October 2011, and the other 39 will follow in early 2013.
- **\$30 Limit.** The materials will be distributed digitally and can be used in place of expensive, traditional textbooks. Some courses include commercially-published materials, but the total cost cannot exceed \$30 per student per term.

- **State Funding.** The program is funded jointly by the Bill & Melinda Gates Foundation and the State of Washington, making it the largest state investment of its kind.
- **Open License.** Materials created through the program must be released under a Creative Commons Attribution license,⁸ which enables free public use anywhere in the world.
- **Faculty Authors.** Courses are designed and peer reviewed by faculty members of the Washington community and technical college system. The authors were compensated through grants and were selected through a competitive process. All authors agree to adopt the materials they produce.
- **Adoption.** SBCTC is developing thorough plans to promote adoption of the OCL materials at the system's colleges. While use is optional, many faculty and departments have already moved to adopt them.

TEXTBOOK SAVINGS ESTIMATE

In conjunction with the release of the first 42 courses, the Student PIRGs conducted an informal study to evaluate just how much the Open Course Library could reduce costs for students. Based on a survey of 22 of the program's 42 course authors, all of whom had agreed to adopt the materials in their own teaching, we have preliminary estimates for the impact of these courses.

- **Student Savings:** The OCL materials cost 90% less on average than the traditional materials previously used by faculty. Each term, this translates to \$102 in savings per student, and \$5,499 per course of students.
- The 42 faculty authors and their departments will save students a total of \$1.26 million by using OCL materials during the 2011-2012 school year. This alone is greater than the \$1.18 million cost of producing the courses.



- Additional faculty have already begun to use some of the OCL materials. The mathematics department at Green River Community College adopted the OCL Pre-Calculus materials, saving students an estimated \$55,948 this fall alone.
- **Projected Savings:** Once all 81 courses are complete, the savings could rise as high as

\$41.6 million if the materials are adopted for all 410,000 annual enrollments at Washington's community and technical colleges. While 100% adoption is unlikely,

usage at other colleges and universities across Washington and the nation will almost certainly produce even greater savings.

CONCLUSION

Overall, the results of this study clearly show that the Open Course Library will not only save students millions on textbooks, but also generate a considerable return on the state's investment. Even in the unlikely case that the faculty who created the courses are the only ones who use them, the program will essentially pay for itself in textbook savings within the first year. Fortunately, between the handful of existing adoptions and SBCTC's efforts to promote adoption, we are confident that the savings will be far greater.

There is already evidence that the impact of these courses will extend beyond Washington. Most significantly, the Saylor Foundation, a non-profit dedicated to free education plans to create professionally edited, modular versions

of the courses. Project Kaleidoscope also intends to use OCL materials, making modifications to suit California's community college students. Furthermore, the department of education in Sao Paulo Brazil plans to do a Portuguese translation of the courses.

While this analysis is based on a very small sample size that is not necessarily representative of the larger faculty population, the findings do at least make a convincing case of the program's cost-saving potential. Once the courses have been on the market for a few terms and more data is available, we intend to conduct a follow-up study to evaluate our original assumptions and revise our projections on student savings.

METHODOLOGY

The results presented in this report are derived from a survey conducted during early October 2011. The 42 faculty authors who participated in developing the OCL courses were invited by email to fill out an online form with a series of questions. All of these faculty had agreed to adopt the materials they create in their own teaching, resulting in 72 individual adoptions of the courses (since some faculty worked on more than one course). In some cases, other instructors in the faculty members' departments adopted the materials as well, in which case the faculty was asked to respond on behalf of the whole department.

The survey requested the following information:

- Name of OCL course (drop down menu)
- First term OCL course will be adopted
- Number of additional terms the OCL course will be adopted
- Expected total enrollment per term in sections using the OCL course
- List of textbook(s) and other course materials used prior to adopting OCL course

Of the faculty invited to take the survey, 22 responded, representing 28 individual course adoptions.

Responses to Student PIRGs Survey			
	Total	Survey	Rate
Faculty	42	22	52%
Adoptions	72	28	39%

Student Savings

Using the information collected, we looked up the cost of the course materials for both the Open Course Library course and the materials previously used by the faculty. From there, we calculated a series of statistics representing the average textbook cost savings.

Survey Findings	
	Avg.
Enrollment Per Term	54.1
Terms Course Will Be Used For '11-'12 ⁹	3.2
Original Course Material Cost	\$113.12
OCL Course Material Cost	\$11.43

Student Savings Statistics		
	Avg. Per Term	Avg. Per Year
Savings Per Student	\$101.69	\$322.75
Savings Per Adoption	\$5,499.00	\$17,453.35
Savings For '11-'12	\$395,928.06	\$1,256,641.25

We calculated "Original Course Material Cost" by estimating the average amount spent by students in the course prior to adopting the OCL materials. First, we looked up the cost of the course materials listed by the faculty member. Then, we used the methodology developed for our 2010 report *A Cover to Cover Solution*¹⁰ to estimate actual student spending, accounting for those who obtain the text at a discount – and those who forego purchasing it altogether. The average amount spent per student was \$113.12.

We calculated "OCL Course Material Cost" by estimating how much students would spend in a course with OCL. We knew that 26 of the courses required no cost, so we assumed the average spent in those courses was zero. Since we did not have enough information to estimate the actual cost of the remaining 16 courses, we took the conservative route and assumed that every student would spend the maximum of \$30. Therefore, the average amount spent per student would be \$11.43.

To calculate "Savings Per Student" per term, we subtracted the average "OCL Course Material Cost" of \$11.43 from the average "Original Course Material Cost" of \$113.12 to get \$101.69. To calculate the average "Savings Per Adoption" per term we multiplied the average Savings Per Student by the average "Enrollment Per Term" to get \$5,499.00. To calculate the average "Savings For '11-'12," we multiplied the average "Savings Per Adoption" by the number of adoptions, 72, to get \$395,928.06. To calculate the average per year for these numbers, we multiplied each by the average "Terms Course Will Be Used For '11-'12," yielding \$322.75, \$17,453.35 and \$1,256,641.25 respectively.

The mean was used to calculate all averages.

Example Adoption	
	Avg.
Original Course Material Cost	\$149.87
OCL Material Cost	\$10.00
Savings Per Student	\$139.87
Enrollment Fall 2011 Term	400
Savings Fall 2011 Term	\$55,947.86
Estimated Savings For '11-'12	\$223,791.46

To calculate the savings for the Green River Community College mathematics department, we first used the same methodology as above to estimate the "Original Course Material Cost." The instructor reported that the actual cost of the OCL materials was zero, but students could purchase an optional print supplement for \$20. Assuming that half of the class chooses to buy the print supplement, the average "OCL Material Cost" would be \$10.00. Subtracting that from the original cost, the average "Savings Per Student" would be \$139.87. Multiplying that by the total enrollment reported by the instructor resulted in an estimated \$55,947.86 in savings for the Fall 2011 term. It is unknown whether the department will continue using the materials in future terms, but multiplying the savings by all four quarters of the '11-'12 school year would result in an estimated \$223,791.46 in savings.

Projected Savings

Additionally, we used our calculations to estimate the potential statewide savings if adopted at all of Washington's 34 community and technical colleges. We knew that all 81 courses slated for development amounted to 410,000 enrollments per year, so multiplying the average "Savings Per Student" of \$101.69 by the projected enrollments would yield \$41.6 million per year in savings.

While it is unlikely that the system will reach 100% adoption of the OCL materials, the savings will likely amplify even greater through use at other colleges and universities across the nation and world.

ABOUT THE STUDENT PIRGS

The Student Public Interest Research Groups (Student PIRGs) is a national network of state-based advocacy organizations that are funded and directed by students. With chapters on 100 campuses across the country, the Student PIRGs work on issues pertaining to the environment, consumer protection and government reform.

More information including previous research can be found at <http://www.studentpirgs.org/textbooks>.

Download a copy of this report at <http://www.studentpirgs.org/textbooks/documents/affordable-textbooks-for-wa-students.pdf>.

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Published October 31, 2011



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¹ The Student PIRGs. 2010. *A Cover To Cover Solution: How Open Textbooks Are The Path To Textbook Affordability*. <http://www.studentpirgs.org/textbooks-reports>.

² The College Board. 2011. *Trends in College Pricing*. <http://www.collegeboard.org/trends>.

³ Government Accountability Office (GAO). 2005. *College Textbooks Enhanced Offerings Appear to Drive Recent Price Increases*. GAO-05-806. <http://www.gao.gov/new.items/d05806.pdf>.

⁴ The Student PIRGs. 2011. *High Prices Prevent College Students from Buying Assigned Textbooks*. <http://www.studentpirgs.org/release/news-releases/textbooks>.

⁵ Public Agenda. 2009. *With Their Whole Lives Ahead of Them*. <http://www.publicagenda.org/theirWholelivesAheadofthem>.

⁶ For the Program Summary, see <http://www.doleta.gov/TAACCCT>.

⁷ For more information and to access course materials, see <http://www.opencourselibrary.org>.

⁸ For more information about this license, see <http://creativecommons.org/licenses/by/3.0>.

⁹ The public community and technical colleges in Washington State operate on a four-quarter school year.

¹⁰ The Student PIRGs. 2010.