

OPEN SOURCE TEXTBOOK REPORT

AUGUST 9, 2016



Special Act No. 15-18

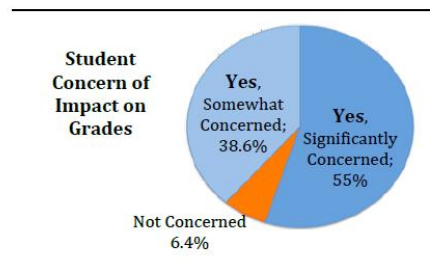
An Act Concerning the Use of Digital Open Source Textbooks in Higher Education

This Act charges the Board of Regents for Higher Education and the University of Connecticut to each establish an open sources textbook pilot to (1) assess the use of high-quality digital open-source textbooks, and (2) promote the use of and access to open-source textbooks within their respective constituent units. The programming for such pilot programs, shall include, but not be limited to, seminars and workshops on awareness and implementation of open-source textbooks and open educational resources for faculty and staff of the institutions of higher education under the jurisdiction of such constituent units and workshops on supportive open educational resources policy and administration for academic leaders of such institutions.

This report covers the state of Open Textbooks and Open Educational Resources from a national and state perspective, and describes the actions taken to date to raise the awareness of the appointed legislative task force, the faculty and key staff at institutions of higher education in Connecticut, and steps taken to analyze potential cost savings and identify barriers to adoption.

CURRENT IMPACT

Since 2006, the cost of college textbooks has increased by 73% - more than four times the rate of inflation.¹ Many students have opted for cost avoidance. In the report, *Fixing the Broken Textbooks Market*, it states that two-thirds of students did not buy or rent some of their required reading even though their decision may have impacted their grade in a course.² The image below illustrates that over 90% of the students opting not to purchase textbooks understood that their decision may impact their grades.³



From: Covering the Costs: Why We Can No Longer Afford to Ignore High Textbook Price³

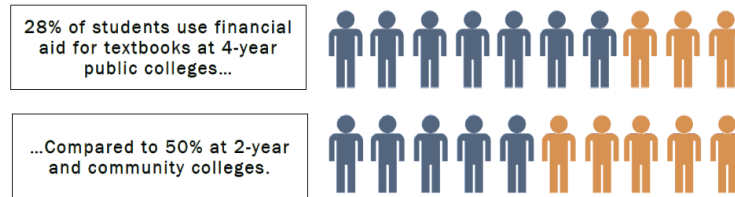
In Connecticut, it has been projected that students at the 48 Connecticut higher education institutions spent over \$147 million textbooks alone in the 2014-2015 academic school year.⁴

Undergraduate Textbook Costs in Connecticut

CT	Classification	Institutions	UG FTE	Projected Textbook Costs	
				\$150/FTE/year	\$1,200/FTE/year
	Totals	48	122,521	\$18,378,150	\$147,025,200

From: Lumen Learning⁴

Many students must utilize financial aid dollars to afford their college textbooks. Nearly 30% of all students attending public 4-year institutions use financial aid for textbook purchases while 50% of community college students must rely on financial aid for book purchases.³



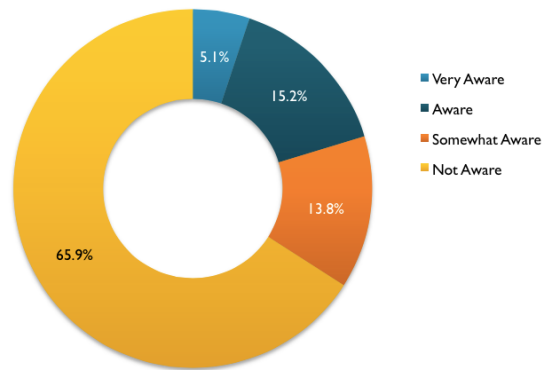
POTENTIAL BARRIERS TO ADOPTION

While a growing number of faculty and institutions are working towards lowering the cost of education for their students, a vast majority remains unaware of the low cost/no cost alternatives provided by Open Education Resources.

AWARENESS

In 2014, the Babson Survey Research Group surveyed U.S. higher education faculty on their perceptions and use of Open Education Resources. The results show that many faculty don't have a solid understanding of the student and faculty benefits offered by OER. Over 65% surveyed were not aware that OERs existed and another 13% were somewhat aware of OER conceptually. The report did go on to state that when presented with the concepts of OER, many faculty indicated a willingness to explore OER options.⁵

AWARENESS OF OPEN EDUCATIONAL RESOURCES



OER Adoption: The Worst of Times and the Best of Times by Phil Hill (Oct. 31, 2014)

COMPENSATION/TIME

The exploration, review, and implementation of OER materials does require a time commitment from faculty to construct a new, or redesign an existing course. Successful initiatives in other states have established scalable stipends that correspond to the amount of work needed. Lower awards are often given for the review and/or adoption while slightly more is available for complex adoptions or minor adaptations; and larger amounts available for new works.

SUPPLEMENTAL MATERIAL AVAILABILITY

Some commercial textbooks are bundled with supplemental instructional materials like presentations and banks of assessment questions that reduce the faculty burden in course design. Some independent OER developments may not contain such supporting materials. Newer OER efforts by [OpenStax](#) and [Lumen Learning](#) do provide the required supplemental instructional materials.

PERCEIVED MANDATE/LOSS OF CHOICE

There may be a **perception** among some faculty that institutionally or legislatively supported OER efforts will eventually be mandated and may limit faculty's ability to choose or control their own materials. With improved awareness, faculty may come to realize that OER provide greater control and choice with the ability to revise and remix materials.

INSTITUTIONAL SUPPORT/COST

While OER materials are free and open by their licensing, there are institutional costs associated with the selection, evaluation, implementation, and maintenance of OER. Beyond the faculty, the library, instructional designers, and information technologists may be involved in the overall support of an OER initiative. Many institutions have successfully integrated OER into their strategic plans and have introduced modest course fees designed to offset institutional costs to support OER adoption. The students still realize significant cost savings.

POLICY

Institutions may need to consider their internal policies regarding intellectual property rights to material developed, as well as recognition for, faculty OER work towards tenure and promotion. Successful institutions have developed OER committees that represent a cross-section of the institution, including students, to discuss institutional concerns and benefits.

AWARENESS BUILDING

Over the past three years, New England higher education organizations have hosted a variety of Open Education Resources events, providing Connecticut institutions an opportunity to gain better understanding of both the student and faculty benefits from OER adoption.

Many institutions have held local/regional workshops and seminars designed to expose faculty to this movement. Some institutions have developed committees and working groups in an effort to support institution-wide OER adoption. Almost all libraries have an OER library guide that provides a collection of vetted materials and search options to assist faculty in the selection and evaluation process.

The following captures the reported awareness efforts happening at Connecticut's public higher education institutions. There may be others that this report does not detail.

UNIVERSITY OF CONNECTICUT

The Office of the Provost established a campus wide committee to oversee efforts to promote and provide resources and guidance to the faculty regarding the availability of free and low cost options for required course materials. The committee is chaired by Vice Provost Martha Bedard and includes members of Undergraduate Student Government, UConnPIRG, Librarians, staff from the Center for Excellence in Teaching and Learning, and administrator from the College of Liberal Arts and Sciences, UConn Bookstore, and Faculty. Some of the actions taken, facilitated or supported by this group include:

- Submission of a grant proposal to the Davis Educational Foundation for the support of Open Texts at UConn – funded at \$99,000
- Approval of a resolution from the University Senate Student Welfare Committee submitted to the University Senate in support of the Open Textbook Initiative
- UConn Student Government (USG) resolution in support of funding the creation of an open textbook in Chemistry- funded at \$21,000
- Became and 'Institutional Partner' with OpenStax, a strategic partnership based on our demonstrated willingness to drive adoption of open educational resources (OER) on campus
- Press release and press conference promoting "Covering the Cost: Why we can no longer afford to ignore high textbook prices"
- USG resolution to support a symposium on Affordable Textbooks- funded at \$600 and held on April 19, 2016. <http://blogs.lib.uconn.edu/news/affordabletextbookssymposium/#.V6jpULgrKck>
- Creation of half time OER staff position in Library and Library working group
- Establishment of library guide <http://classguides.lib.uconn.edu/content.php?pid=662345> and website: <http://open.uconn.edu/>
- Marketing campaign via blogs, Daily Campus, local radio, and UConn story picked up as Associated Press "Big Story: Open source textbooks gain in push for college affordability
- Workshops for faculty held at Storrs, Avery Point and Waterbury campuses

- Institute for Teaching and Learning lunch time seminar for faculty
- Presentation at Department Chairs meeting
- Survey sent to all faculty members. Results are under review and will be replicated and administered by UConn to the faculty in the CSCU system. This will give us baseline data on awareness, barriers, and interest
- Displays of low cost print versions of free electronic texts available from OpenStax at Storrs, Waterbury, Avery Point, and Stamford campuses

CONNECTICUT STATE COLLEGE & UNIVERSITY SYSTEM

Many of the 17 institutions of the CSCU system have OER awareness efforts underway. The system's April 8th Faculty Conference featured two different OER presentations. The CSCU Council of Library Directors has had multiple discussions on how libraries can support campus OER efforts. Lastly, the system has 6 different representatives participating in the legislatively created Open-Source Textbook Task Force.

CONNECTICUT DISTANCE LEARNING CONSORTIUM

Since 2013, CTDLC has led a state-wide awareness campaign on the student and faculty benefits of Open Education Resources. CTDLC has conducted regional workshops, annual conferences, and presented at numerous campus events. CTDLC has also participated on a (inter)national level to form best practices in institutional adoption and support of OER.

TUNXIS COMMUNITY COLLEGE

Tunxis has formed a "Going Open Committee" made up of full time and part time faculty, administrators, librarians, and support staff. The committee has setup numerous meetings to further OER awareness, including two faculty showcases/conferences.

CHARTER OAK STATE COLLEGE

Charter Oak held a faculty summit this past summer where faculty were exposed to the concept of Open Education Resources.

EASTERN CONNECTICUT STATE UNIVERSITY

Eastern Connecticut State University hosted a faculty luncheon on March 8, 2016 to invite faculty using OER to share with their colleagues. About 20 faculty and librarians attended. The Library Director at Eastern also gave an OER presentation to the Library Advisory Committee during the spring semester. A presentation for the President's Extended Staff is planned for the fall 2016 semester.

HOUSATONIC COMMUNITY COLLEGE

Housatonic has held multiple events for both campus representatives as well as the system at large. In the past year, Housatonic has invited all 17 institutions to participate in an OER awareness workshop that featured training on a no-cost homework replacement called MyOpenMath.

MANCHESTER COMMUNITY COLLEGE

On April 28, 2016, Tim Boto and Debbie Herman utilized the April 2016 Division Meeting to educate faculty and promote the use of OERs while recruiting faculty to participate in an open textbook pilot program for the 2016-17 academic year.

WESTERN CONNECTICUT STATE UNIVERSITY

Western is holding a faculty event on August 24th where OER will be highlighted during the full session as well as featured in a break-out session.

QUINNEBAUG VALLEY COMMUNITY COLLEGE

Quinnebaug is planning a fall OER awareness event.

OPEN EDUCATION RESOURCE ADOPTION

For many institutions, faculty alone determine the needed course materials, including textbooks or open-source textbooks. Institutions may not know the full extent of OER adoption on their campus without educating faculty on OER and then surveying their usage. This report only captures what institutions have reported back; there may be additional OER efforts underway.

UNIVERSITY OF CONNECTICUT

UConn faculty are becoming more aware of the importance of keeping course materials, especially textbooks, affordable. Listed below are adoptions as well as steps taken to encourage and support this:

- UConn faculty member Dr. Ed Neth and colleagues completed the open Atoms First Chemistry textbook. It will be available for fall semester through OpenStax, and will be highly publicized, including at the national American Chemical Society annual meeting. The Chemistry department has agreed that it will be used for 3 sections, impacted nearly 2,000 students for a savings of approximately \$600,000. An open textbook in chemistry was piloted successfully in several chemistry section last semester leading to this widespread adoption.
- UConnPIRG students met with faculty across campus to ascertain their willingness to learn more about this topic, resulting in a list of potential adopters to target with information about resources in their discipline.
- A series of competitive mini grants are currently being offered to UConn faculty to both review OER materials in their discipline, or to redesign their course to use OER resources. <http://open.uconn.edu/faculty-incentives-2/> Applications are now under review and will be granted for fall and spring semesters

CONNECTICUT STATE COLLEGE & UNIVERSITY SYSTEM

Based on the success of the Housatonic initiative, CSCU is sponsoring a focused pilot on the expanded use of MyOpenMath throughout the community colleges math courses. A kick-off training event is being explored for August/September 2016.

CONNECTICUT DISTANCE LEARNING CONSORTIUM

CTDLC runs a virtual high school program for the State Department of Education's Adult Education bureau. The program has limited federal funding. CTDLC has been able to expand the curriculum through the use of OER materials so that students have more options to complete their high school credit diploma. Additionally, CTDLC has been seeking grant opportunities for the CSCU system that would aide in the awareness and adoption of OER materials as well as the development of supplemental instructional materials.

HOUSATONIC COMMUNITY COLLEGE

Housatonic has been actively expanding its use of MyOpenMath and a companion OER workbook to save students taking math courses \$230 over the commercial option. Between fall 2014 and spring 2016, Housatonic has impacted over 1,500 students saving over \$350,000 in textbook costs.

Additionally, Housatonic was just named a recipient of a 2 year grant of \$100,000 from the Achieving the Dream organization to develop new degree programs that utilize OER materials.

TUNXIS COMMUNITY COLLEGE

Tunxis's Hendree Milward has adapted the Housatonic MyOpenMath model and augmented his math course with Khan Academy OER materials. Hendree has recently completed his first semester teaching this course with OER materials and has saved 40 students over \$12,000.

MIDDLESEX COMMUNITY COLLEGE

Middlesex's Pam Frost is leading a team to adopt the Housatonic MyOpenMath model locally. She will be piloting the OER materials this fall. The institution hopes to expand the effort to the entire department after reviewing Pam's outcomes. Additionally, Mark Busa is currently reviewing OER materials for his Physics and Environmental Sciences courses.

MANCHESTER COMMUNITY COLLEGE

Manchester has launched a small OER pilot where they are offering faculty incentives to adopt low cost/no cost textbook replacements. To date, 4 full-time faculty and 1 adjunct faculty have joined the pilot, and will be working with the library to identify OER opportunities.

CHARTER OAK STATE COLLEGE

Charter Oak is piloting three summer term courses (Statistics and 2 Human Resources courses) utilizing OER, estimated to save students over \$3,500 this semester.

EASTERN CONNECTICUT STATE UNIVERSITY

Eastern is still collecting information on faculty OER efforts. One faculty member, Allison Speicher, impacted student savings not by replacing an existing textbook, but by designing a new course with low cost/no cost materials from the beginning. Her students spend no more than \$4 in textbooks.

WESTERN CONNECTICUT STATE UNIVERSITY

Similarly, Christopher Kukk has designed a new communications/political science course for Western utilizing free and open materials. Students have no textbook costs for the course.

SOUTHERN CONNECTICUT STATE UNIVERSITY

In 2014, Southern announced that Joe Fields had developed an OER math textbook (*A Gentle Introduction to the Art of Mathematics*) designed to replace an existing commercial resource valued at \$150 per book.

OPEN-SOURCE TEXTBOOK TASK FORCE ROLE

The Task Force is currently working on connected initiatives that will aid and support the growing awareness and adoption of Open Education Resources. First, the Task Force will look to distribute a

faculty survey state-wide, based on the 2014 work that the Babson Survey Research Group created to capture faculty awareness and attitudes towards Open Education Resources.

The results of this survey will help the Task Force understand the perceived barriers faculty have of OER, as well as gaps in their understanding of OER. Based on the findings, the Task Force will seek to adopt, adapt or develop a variety of materials designed to educate faculty in the benefits of Open Education Resources and affordable course content.

Second, the Task Force will seek to collect a variety of tools and resources from the OER community that will aid and support the expansion of OER use.

Lastly, the Task Force will continue to collect and report on local OER efforts with a focus on identifying student savings and academic outcomes.

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4. Lumen Learning
5. *Babson Survey Research Group: Opening the Curriculum: Open Education Resources in U.S. Higher Education, 2014*