Opening the Textbook:

Educational Resources in U.S. Higher Education, 2015-16

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BABSON Survey Research Group

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CONTENTS

Acknowledgments 1

Executive Summary 2

Educational Resources 4

Study Results

- Selecting Educational Resources 6
- Cost to the Student 9
- Awareness of Open Educational Resources 11
- Awareness of Licensing of Open Educational Resources 14
- Awareness of Open Textbooks 18
- Educational Resource Decision Process 21
- Potential Barriers 31
- The Process of Textbook Adoption for Introductory Courses 34
- Discoverability 39
- Future Use 43

Methodology 45

Appendix Tables 49

Questionnaire 61

Babson Survey Research Group 71

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It may be a surprise to some that a commercial publisher would support a study that includes a strong focus on open (non-commercial) resources. Pearson has provided such support and done so without any conditions or special access to the results; they see what you see. Their resources allowed the construction of an expansive, nationally representative faculty sample.

Finally, the report presents results derived from a nationally representative sample of higher education faculty. We want to thank the thousands of faculty members who took the time to provide us with their detailed and thoughtful responses. We understand that you are very busy people, and appreciate your effort very much. This report would not be possible without you, and we hope that you find it useful.

Co-Directors
Babson Survey Research Group
July 2016

EXECUTIVE SUMMARY

Most higher education faculty are unaware of open educational resources (OER) – but they are interested and some are willing to give it a try. Survey results, using responses of over 3,000 U.S. faculty, show that OER is not a driving force in the selection of materials – with the most significant barrier being the effort required to find and evaluate such materials. Use of open resources is low overall, but somewhat higher for large enrollment introductory-level courses.

Selecting Teaching Resources

- Almost all (90%) of teaching faculty selected new or revised educational materials for at least one course over the previous two years.
- The most common activity was changing required materials for an existing course (74%), followed by substantially modifying a course (65%). Creating a new course was the least common activity (48%).
- The most common factor cited by faculty when selecting educational resources was the cost to the students. After cost, the next most common was the comprehensiveness of the resource, followed by how easy it was to find.
- There is a serious disconnect between how many faculty include a factor in selecting educational resources and how satisfied they are with the state of that factor. For example, faculty are least satisfied with the cost of textbooks, yet that is the most commonly listed factor for resource selections.

Required textbooks

- Virtually all courses (98%) require a textbook or other non-textbook material as part of their suite of required resources.
- Required textbooks are more likely to be in printed form (69%) than digital. Faculty require digital textbooks in conjunction with a printed textbook more often than using only digital textbooks.
- Only 5.3% of courses are using an openly licensed (Creative Commons or public domain) required textbook.
- For large enrollment introductory undergraduate courses openly licensed OpenStax College textbooks are adopted at twice the rate (10%) as open licensed textbooks among all courses.

Licensing

- There has been very little change in the past year in the proportion of faculty who report that they are aware of copyright status of classroom content.
- Awareness of public domain licensing and Creative Commons licensing has remained steady.
- Faculty continue to have a much greater level of awareness of the type of licensing often used for OER (Creative Commons) than they do of OER itself, and it is clear that they do not always associate this licensing with OER.

Open Educational Resources

- Faculty awareness of OER has increased in the last year, but remains low. Only 6.6% of faculty reported that they were "Very aware" of open educational resources, with around three times that many (19%) saying that they were "Aware".
- The level of faculty awareness of open textbooks (a specific type of OER) was somewhat lower than that for open educational resources; only 34% of faculty claimed some level of awareness.

Barriers to OER Adoption

- The barriers to adopting OER most often cited by faculty are that "there are not enough resources for my subject" (49%), it is "too hard to find what I need" (48%) and "there is no comprehensive catalog of resources" (45%).
- There has been a decrease in faculty concerns about permission to use or change OER materials, and increases in concerns about the quality of OER and that it is timely and up-to-date.
- Most faculty do not have experience searching for OER materials and cannot compare the ease of finding OER with traditional materials. Only 2.5% thought that it was easier to search for OER.

Future

- The number of faculty claiming that they would use OER in the future (6.9%) is of the same order of magnitude of those already using open resources (5.3%). A larger group (31.3%) reports that they will consider future OER use.

EDUCATIONAL RESOURCES

The objective of this study is to better understand the process by which faculty members select the educational materials that they employ in their courses. The educational resource that people are most familiar with is the required textbook: faculty members select one or more books that all students are required to use through the duration of the course. Faculty also employ a wide range of other materials, some of which are supplemental or optional, and others that are required for all students. This study deals with only core (required) materials, using the following definition:

> *Items listed in the course syllabus as required for all students, either acquired on their own or provided to all students through a materials fee; examples include printed or digital textbooks, other course-complete printed (course pack) or digital materials, or materials such as laboratory supplies*

In addition to examining the overall resource selection process, this study also explores two particular classes of educational materials: those classified as open educational resources (OER) and a sub-set of OER known as open textbooks. The Hewlett Foundation defines open educational resources (OER) as:

> *OER are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge.*[1]

The study also examines the extent to which faculty are aware of and/or adopting open textbooks. These textbooks are alternatives to the traditional commercial textbook, defined by the OER Commons as:

> *An emerging development in OER is open textbooks, which are textbooks that are freely available with nonrestrictive licenses. Covering a wide range of disciplines, open textbooks are available to download and print in various file formats from several web sites and OER repositories. Open textbooks can range from public domain books to existing textbooks to textbooks created specifically for OER. Open textbooks help solve the problems of the high cost of textbooks, book shortages, and access to textbooks as well as providing the capacity to better meet local teaching and learning needs.*[2]

An important aspect of the examination of the use of educational resources is the licensing status of such materials – who owns the rights to use and distribute, and does the faculty member have the right to modify, reuse, or redistribute the content?

[1] http://www.hewlett.org/programs/education-program/open-educational-resources.
[2] http://wiki.oercommons.org/index.php/What_are_Open_Textbooks%3F

The licensing mechanism that faculty are most familiar with is that of copyright. As noted by the U.S. Copyright office, copyright is:

> *A form of protection provided by the laws of the United States for "original works of authorship", including literary, dramatic, musical, architectural, cartographic, choreographic, pantomimic, pictorial, graphic, sculptural, and audiovisual creations. "Copyright" literally means the right to copy but has come to mean that body of exclusive rights granted by law to copyright owners for protection of their work. … Copyright covers both published and unpublished works.*[3]

Of particular interest for this study is the copyright status of the primarily textual material (including textbooks) that faculty select as required materials for their courses.

> *Copyright owners have the right to control the reproduction of their work, including the right to receive payment for that reproduction. An author may grant or sell those rights to others, including publishers or recording companies.*[4]

Not all material is copyrighted. It may be ineligible for copyright, the copyright may have expired, or the authors may have dedicated it to the public domain.

> *Public domain is a designation for content that is not protected by any copyright law or other restriction and may be freely copied, shared, altered and republished by anyone. The designation means, essentially, that the content belongs to the community at large.*[5]

An intermediate stage between the traditional copyright (with "all rights reserved") and public domain, where no rights are reserved, is provided by a Creative Commons license. A Creative Commons license is not an alternative to copyright, but rather a modification of the traditional copyright license that grants additional rights.

> *A Creative Commons (CC) license is one of several public copyright licenses that enable the free distribution of an otherwise copyrighted work. A CC license is used when an author wants to give people the right to share, use, and build upon a work that they have created. CC provides an author flexibility (for example, they might choose to allow only non-commercial uses of their own work) and protects the people who use or redistribute an author's work from concerns of copyright infringement as long as they abide by the conditions that are specified in the license by which the author distributes the work.*[6]

For purposes of this report the term "open-licensed" will be used for material that has either a Creative Commons license or is in the public domain (which, strictly speaking is not an "open" license, but rather the absence of a license).

[3] http://www.copyright.gov/help/faq/definitions.html
[4] http://legal-dictionary.thefreedictionary.com/copyright
[5] http://whatis.techtarget.com/definition/public-domain
[6] https://en.wikipedia.org/wiki/Creative_Commons_license

STUDY RESULTS:

Selecting Educational Resources

"To my students cost is the most important thing. To me, content is the most important." (Full-time Mathematics Faculty)

"The cost of textbooks is a joke. How do we stop this?" (Part-time Natural and Physical Sciences Faculty)

"The most important reason I have for picking a resource: How good are the activities and homework? To elaborate: How much opportunity is there for students to think?" (Full-time Interdisciplinary Studies Faculty)

"Having digital materials that integrate with the LMS with a single sign-on is imperative." (Full-time Social Sciences Faculty)

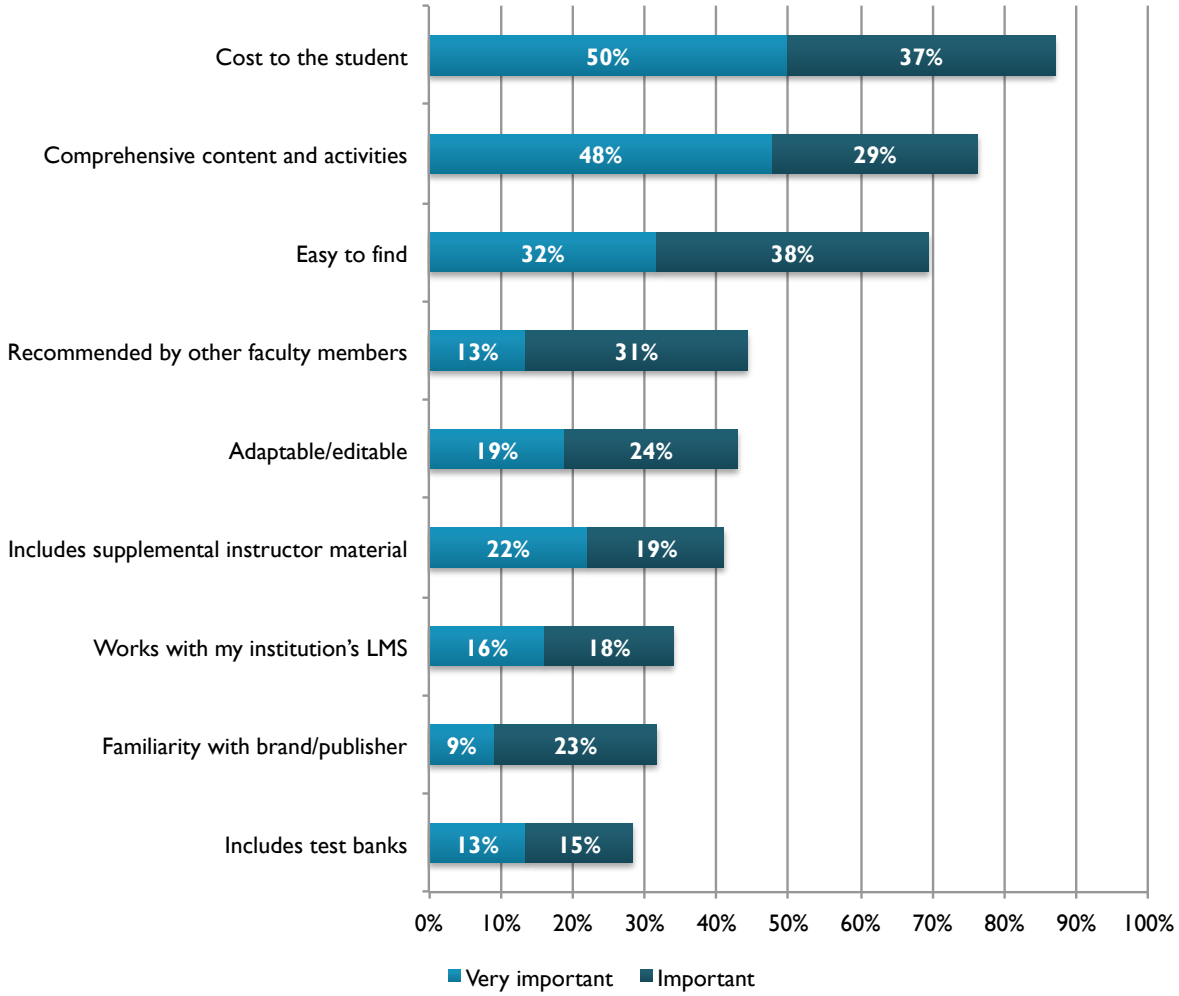
"I need the material to be customizable since I can't cover every topic during the course of a semester. I also like a variety of supplemental materials." (Full-time Social Sciences Faculty)

"Better access to robust, engaging, current and attractively priced learning materials for undergraduate business students is a critical component in reinforcing the value of the university experience." (Part-time Business Faculty)

What is the process by which faculty members select materials to be used in their courses? What factors lead them to pick one resource over another? All teaching faculty survey respondents were asked which of a series of factors were important to them for their decision making in determining what resources would be required for their courses.

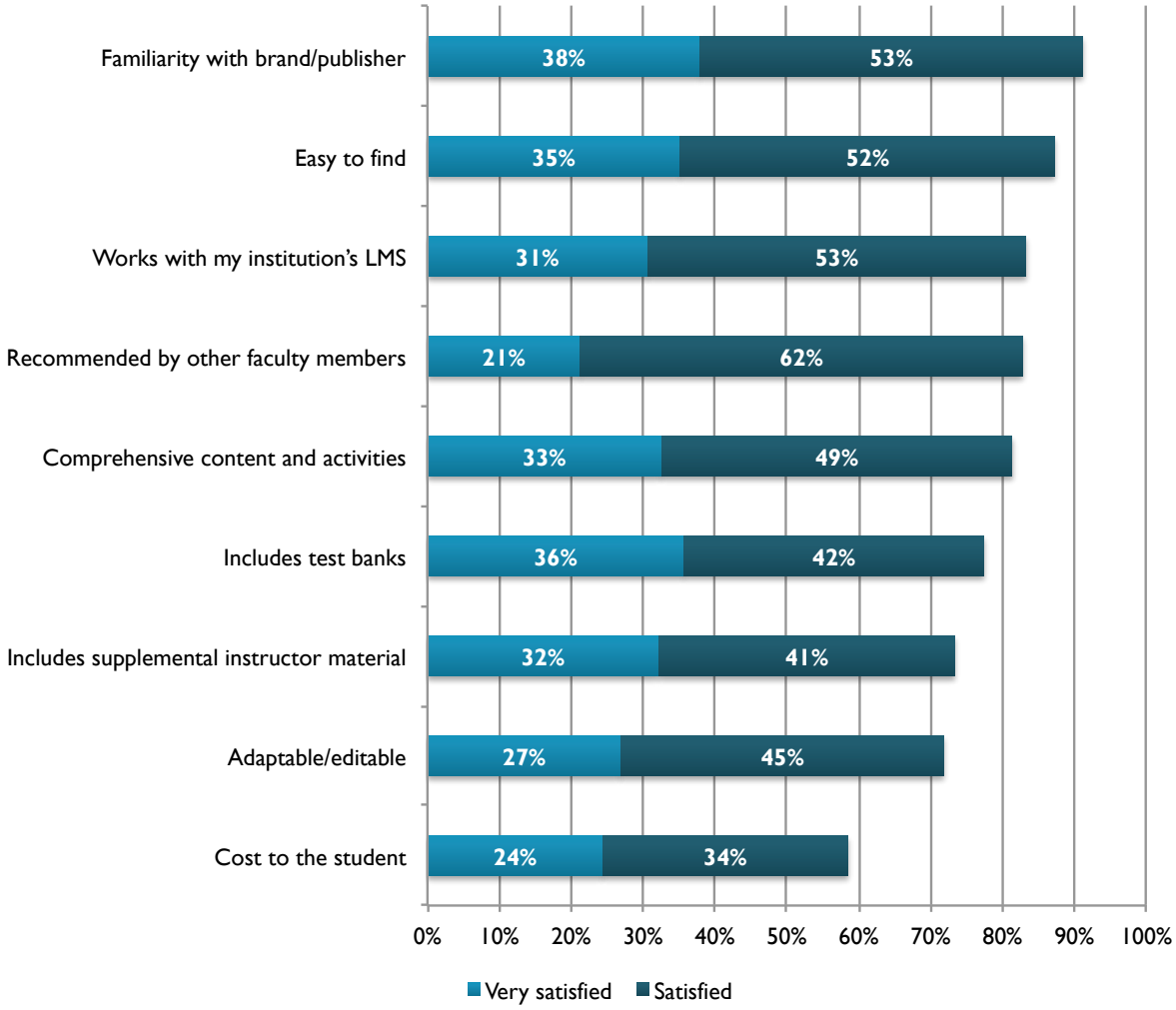
The characteristic mentioned by the greatest number of faculty for judging educational materials was the cost to the students; nearly one-half (50%) of faculty said cost was "Very important," and an additional 37% reported that cost was "Important." After cost, the next most common factor was the comprehensiveness of the resource (48% reporting it as "Very important" and 29% as "Important"). This was followed by how easy it was to find the resource (32% reported that it was "Very important" and 38% as "Important"). No other factors were selected at rates close to these top three – faculty recommendations, how adaptable/editable the resource was, and the inclusion of supplemental material were all mentioned as "Very important" or "Important" by a total of at least 40% of the respondents. The final group of factors, reported as "Very important" or "Important" by nearly 30% of the respondents, were the ability to work with the institution's Learning Management System (LMS), familiarity with brand/publisher, and the inclusion of test banks.

Importance of Factors in Selecting Required Course Material



There is a serious disconnect between how many faculty think a factor is important in selecting educational resources and how satisfied they are with the state of that factor. Of the three most commonly mentioned factors, only one is also ranked among the top three for level of satisfaction. That factor, resources being easy to find, is faculty's third most mentioned factor and second for satisfaction. Cost to the student, selected most often as a factor, has the lowest level of satisfaction. The comprehensiveness of the content and activities, the second most commonly mentioned factor, is fifth in terms of satisfaction. Conversely, the one factor for which faculty are most satisfied, familiarity with the brand/publisher, is not mentioned by as a decision criteria by many faculty.

Satisfaction with Factors in Selecting Required Course Material



Cost to the Student

"I would like to find material at low cost, but high quality is more important." (Full-time Mathematics Faculty)

"At a time when we are concerned about the cost of a university education and student debt, a $246 text is obscene." (Full-time Natural and Physical Sciences Faculty)

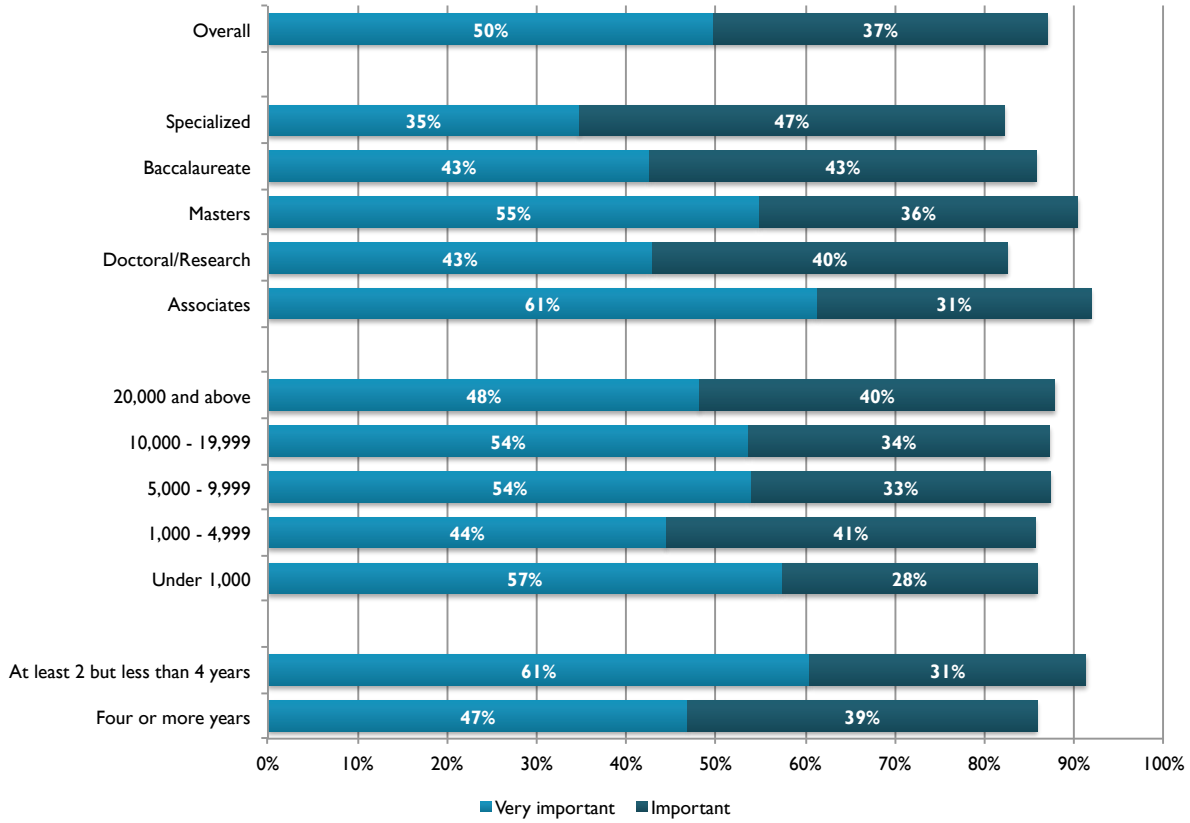
"I am extremely conscientious of student cost and have attempted to use alternative texts but have found them to be marginal in quality." (Full-time Mathematics Faculty)

"The cost of texts is out of control. If I could find more open resources, I would use them gladly." (Full-time Communications Faculty)

"The text is far too expensive--I am the author of the textbook, and the publisher is charging more than twice the price that we had set." (Full-time English Language and Literature Faculty)

A high proportion of faculty at all types of institutions mention cost to the student as an important factor in selecting educational resources. There is a greater proportion at two-year institutions and somewhat fewer at Doctoral / Research institutions, but the variability is small and it remains the most commonly cited factor for all groups.

Importance of Cost to Student in Selecting Required Course Material



Is this answer a "feel good" response, or do faculty really base their decisions on the cost of the resources that they select? We know that the pattern of responses match those seen in other studies, with one finding 86% of faculty ranking the cost of material for students as a top issue in selecting course materials – nearly identical to these results[7]. However, faculty actions may belie their stated level of concern; if cost were primary in their decision process we would expect to see far more low cost and no cost textbook options, both open and commercial, to have been.

It is critical to understand that while faculty are more likely to include cost than other factors in selecting educational materials; this does not mean that they consider cost the most important factor. The difference is subtle, but important. A typical faculty member reports five, six, or more factors as important to their selection process – cost is only one of them. The relative important of these factors varies by faculty member and by course for a particular faculty member. More faculty include cost in the list of factors that they consider, but for many it may be the least important.

In our previous study, when faculty were forced to select their top three factors from a list as opposed to rating each factor, only 2.7% included cost among their top three[8]. This rate is far below that for other factors, such as working with the LMS, ease of finding OERs, and comprehensive content. A low rate on a forced priority selection indicates that faculty do not consider cost as a primary factor, but rather one to be considered only after their other criteria have been met.

Based on a reading of the open-ended comments in this study, it appears that faculty consider cost *ceteris paribus* – all other things being equal. Comments from faculty reinforce the idea that cost to the student is important, but only after content, relevance, quality, and presentation have been considered. Cost alone is not sufficient to drive the resource selection. A further issue is that faculty may not be aware of the cost of the materials that they select: a study by the New York Public Interest Research Group (NYPIRG) found that 28% of faculty reported that they did not typically know the prices of the books that they assigned.[9]

Regardless of how faculty factor cost into their decision-making process, it is clear that they are not satisfied with the current state of affairs related to course material cost. Faculty satisfaction with cost is lower than that for any other factor.

The impact of cost in the selection of educational materials, especially required textbooks, is clearly ripe for further study.

[7] Green, Kenneth, GOING DIGITAL: Faculty Perspectives on Digital and OER Course Materials, Campus Computing Project, 2016

[8] Allen, I Elaine and Jeff Seaman, Opening the Curriculum: Open Educational Resources in U.S. Higher Education, 2014, Babson Survey Research Group.

[9] http://www.nypirg.org/pubs/higher_ed/2008.04.08_StickerShock101.pdf

Awareness of Open Educational Resources

"I am curious and intrigued by these educational resources; but simply do not know enough about them to effectively evaluate them." (Full-time Natural and Physical Sciences Faculty)

"Only heard of OER in last 1-2 years, generally unaware of what available" (Part-time Social Sciences Faculty)

"I don't know anything about Open Resources. My main concern would be that they're vetted properly, and that there was a sufficient presence in my discipline for them to be useful. But I'm definitely open to them." (Full-time English Language and Literature Faculty)

"I use all OERs in ALL of my courses and do not see significant barriers to any faculty member using them." (Full-time Social Sciences Faculty)

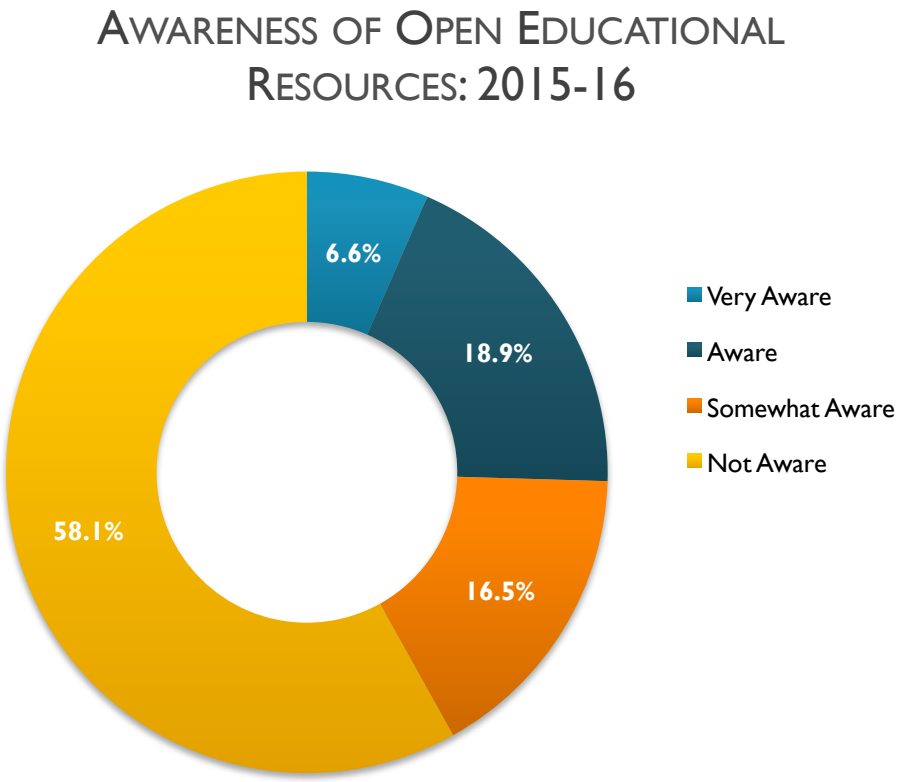
"I would like to know more about OER that will help enhance learning for my students as well as giving me some variety of teaching material." (Part-time Humanities Faculty)

As noted in our previous report[10], the exact wording of the question is critical in measuring faculty's level of OER awareness. Many academics have only a vague understanding of the details of what constitutes open educational resources. Many confuse "open" with "free," and assume all free resources are OER. Still others will confuse "open resources" with "open source," and assume OER refers only to open source software. Because of these differing levels of understanding, the phrasing of the awareness question needs to be specific. The question should provide enough of the dimensions of OER to avoid confusion, without being so detailed that the question itself educates the respondent sufficiently that they could claim to be "aware."

Multiple question wordings were tested for the prior reports in this series. A question with broad definitions but no examples was found to be more precise than a question just using the term "open educational resources." Adding a series of detailed examples of OER was even more precise, but proved too leading for the respondents and artificially boosted the proportion that could legitimately claim to be "aware." The version used here was found to have the best balance in differentiating among the different levels of awareness, while avoiding leading those with no previous knowledge of the concept[11]. This question wording has been used for the past two years so that year-to-year comparisons can be made.

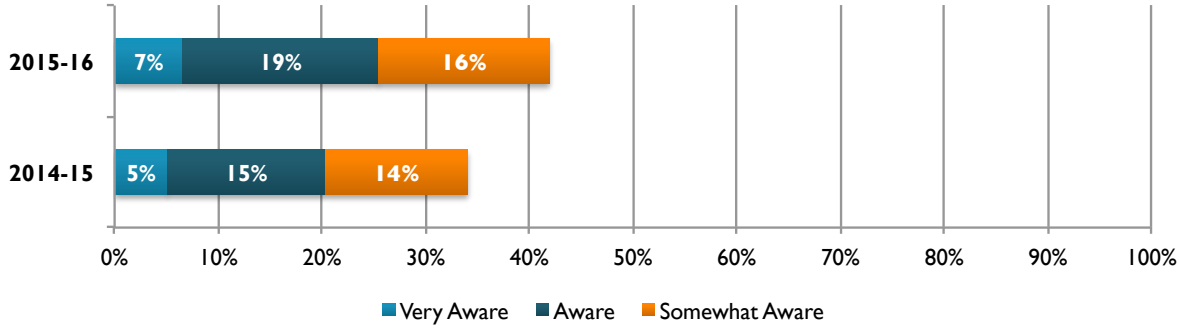
[10] Allen, I Elaine and Jeff Seaman, Opening the Curriculum: Open Educational Resources in U.S. Higher Education, 2014, Babson Survey Research Group.
[11] Additional details are provided in the Methodology section of this report.

When faculty members were asked to self-report their level of awareness of open educational resources, a majority (58%) said that they were generally unaware of OER ("I am not aware of OER" or "I have heard of OER, but don't know much about them"). Only 6.6% reported that they were very aware ("I am very aware of OER and know how they can be used in the classroom"), and around three times that many (19%) said that they were aware ("I am aware of OER and some of their use cases"). An additional 17% of faculty reported that they were only somewhat aware ("I am somewhat aware of OER but I am not sure how they can be used").



The 2015-16 results represent increased awareness of OER as compared to the same question in the 2014-15 survey. Those claiming to be very aware increased from 5.1% to 6.6%, those "aware" from 15% to 19%, and those "somewhat aware" from 14% to 16%. The proportion that reported no awareness dropped from nearly two-thirds (66%) in 2014-15 to 58% this year.

Awareness of Open Educational Resources: 2014-15 and 2015-16



Awareness of Licensing of Open Educational Resources

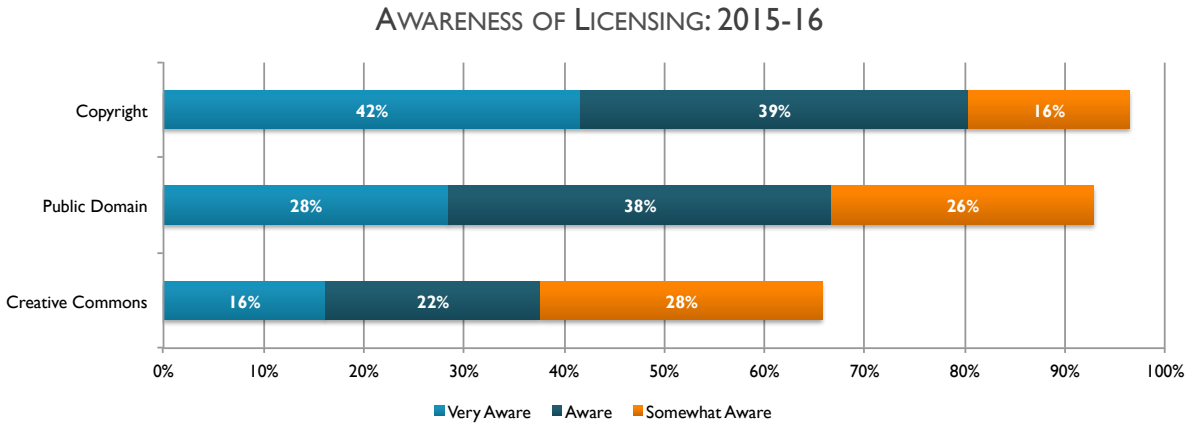
"I am against freely giving faculty intellectual property. It is tantamount to working for nothing. The Universities don't want to pay us and the book companies don't want to pay us." (Full-time Engineering Faculty)

"I am always surprised that not a lot of my students are aware of free public domain resources available to them for self-study. I am constantly having them look for information online and try to read more and find resources in the public domain in addition to the prescribed text book and digital resources. (Full-time Natural and Physical Sciences Faculty)

"I have attended several seminars on OER and Open Textbooks and therefore know a considerable amount about what is available, how it can be used, limitations and reliability. However, in general, I think faculty are not as informed about Creative Commons classifications and the limitations on copyrighted materials." (Full-time Natural and Physical Sciences Faculty)

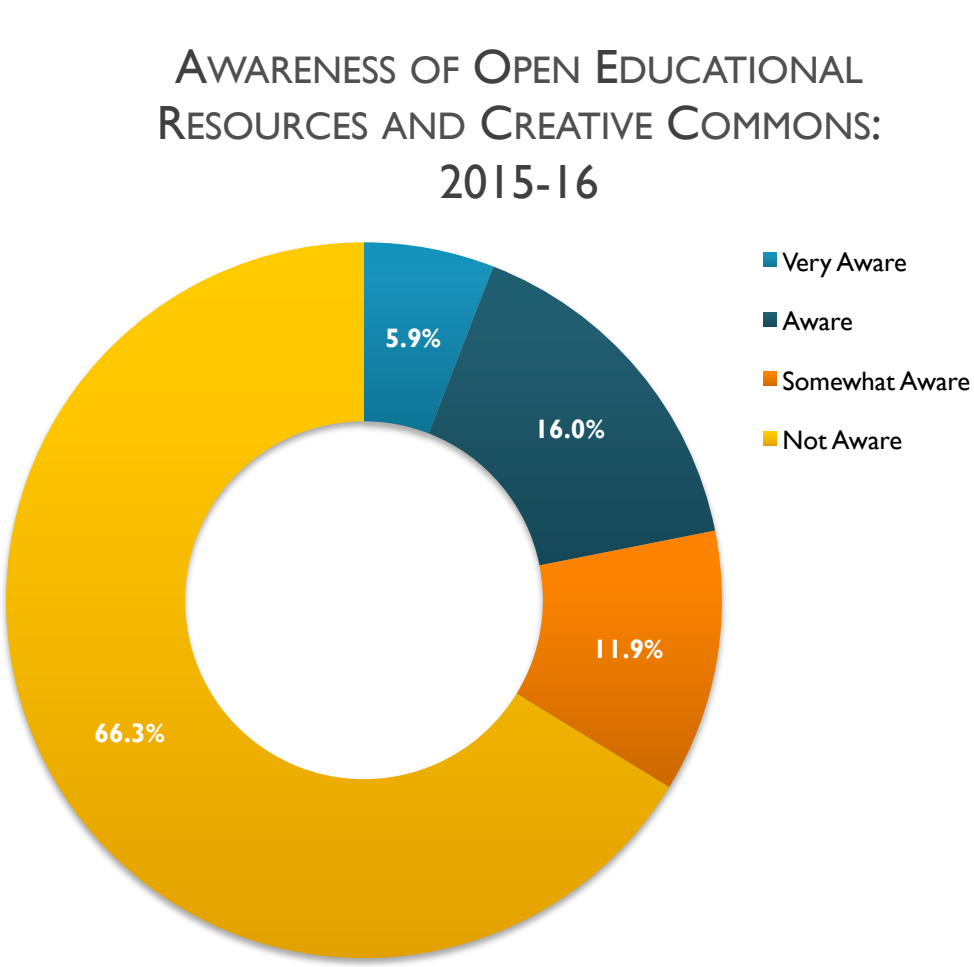
"How do the authors of the open/free materials get paid for their work?" (Full-time Social Sciences Faculty)

Because the availability of open licensing and the ability to reuse and remix content is central to the concept of open educational resources, it is critical to understand faculty awareness of these concepts[12]. Most faculty continue to report a high degree of awareness of copyright status of their classroom content (80% "Very aware" or "Aware"), representing a very small increase over the 78% rate reported last year. Awareness of public domain licensing remained virtually unchanged (67% this year compared to 68% last year). Likewise, the reported level of awareness of Creative Common licensing has shown very little change, with the number reporting that they were "Very aware" or "Aware" growing from 36% last year to 38%.



[12] David Wiley, The Access Compromise and the 5th R, Iterating Toward Openness, http://opencontent.org/blog/archives/3221

While the level of awareness of Creative Commons might lag behind that of copyright and public domain, it is significantly higher than the level of awareness of open educational resources. Faculty continue to have a much greater level of awareness of the type of licensing often used for OER than they do of OER itself. It is clear that they do not always associate this licensing with OER.

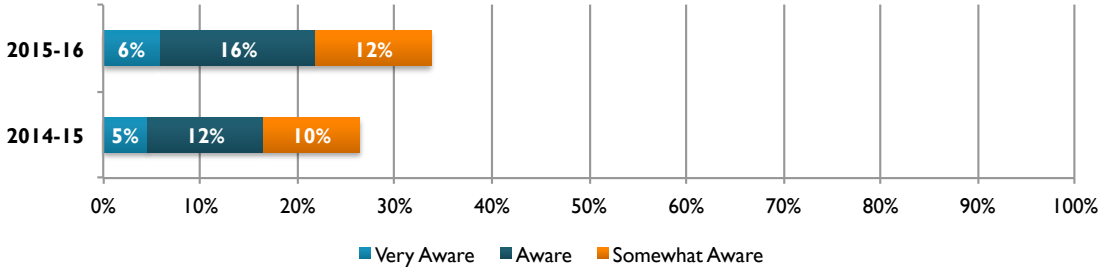


As described earlier, faculty members may have only a "fuzzy" understanding and awareness of open educational resources. By asking additional questions about the related details, we can begin to understand how precise that understanding and awareness might be. Since licensing and the ability to reuse and remix content is critical to the concept of OER, examining the difference between faculty who report that they are aware of OER and faculty who report that they are aware of *both* OER and Creative Commons licensing provides us a good indication of the depth of understanding of OER among faculty members. If faculty who report that they are unaware of Creative Commons licensing are removed for any of the "Aware" categories of the measure of OER awareness, we create a much stricter index of OER awareness.

The level of OER awareness drops when we apply this stricter definition, but only somewhat. Those classified as "Very aware" dips from 6.6% to 5.9%, "Aware" from 19% to 16%, and "Somewhat aware" from 16% to 12%. The overall proportion classified into any of the "Aware" categories changes from 42% when awareness of Creative Commons is not required to 34% when it is required.

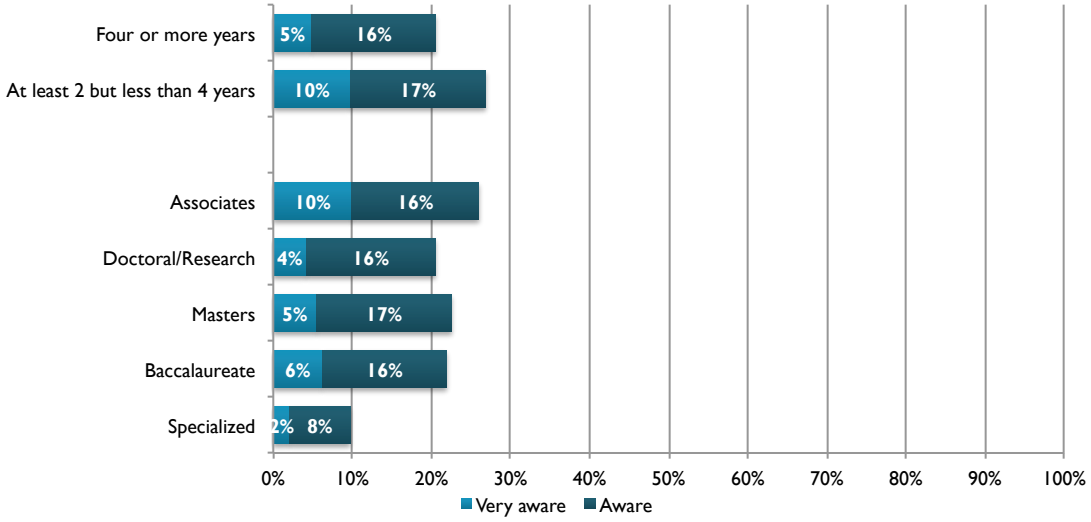
The level of combined awareness of OER and Creative Commons has increased substantially over the levels seen last year. All three categories of awareness are higher in 2015-16 than they were in 2014-15. The total percentage of faculty claiming some degree of awareness using this stricter definition has increased from 26% in 2014-15 to 34% in 2015-16.

Awareness of Open Educational Resources and Creative Commons: 2014-15 and 2015-16



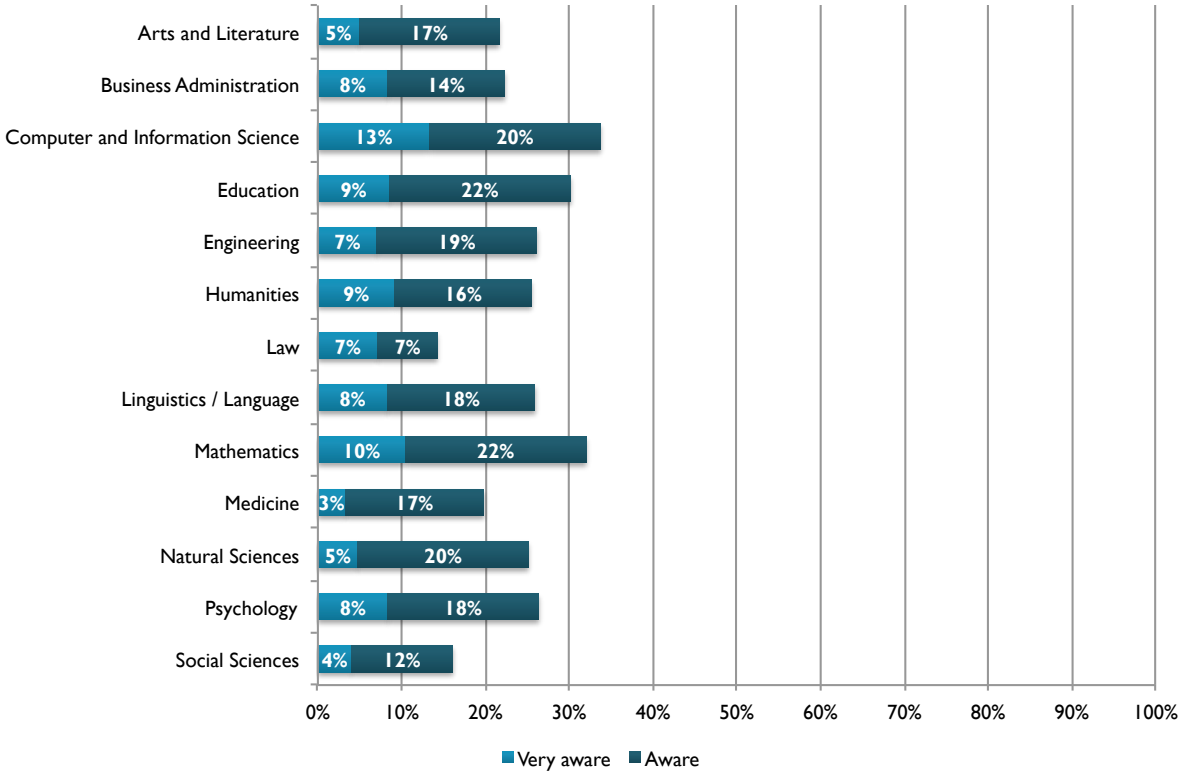
Faculty at two-year institutions report consistently higher level of awareness of OER than faculty at four-year institutions. Faculty at two-year institutions claim higher levels of being "Very aware" (7.4% versus 4.5%) as well as a greater fraction saying that they had any level of awareness (41% versus 32%).

Awareness of Open Educational Resources and Creative Commons: 2015-16



There is little difference in the level of awareness among faculty for most disciplines. The two groups with the lowest level of awareness, Law and Social Sciences faculty, have rates about two-thirds that of the average, while faculty in Computer and Information Sciences and those in Mathematics lead the way in awareness of open educational resources. Nearly one-third of each of these groups claim to be aware or very aware, double the rate of Law and Social Sciences faculty.

Awareness of Open Educational Resources and Creative Commons: 2015-16



Awareness of Open Textbooks

"I've never heard of these open textbook resources, but they sound incredibly useful. My colleagues and I often share ideas and resources, and this sounds similar, but on a much broader scale." (Part-time English Language and Literature Faculty)

"'Open textbooks' sounds, at least from the title, like an assault on copyright. If academics are going to continue to edit and publish textbooks, copyright must be protected." (Full-time English Language and Literature Faculty)

"If you can help us disrupt the textbook-industrial complex, please do so!" (Full-time Natural and Physical Sciences Faculty)

"I have no interest in destroying the business model for academic publishing." (Full-time Communications Faculty)

"Increasingly, it is becoming evident that the model of publishing text for higher education is grossly overpriced. To this extent, I expect that increasing numbers of us will move away from using large publishers. Honestly, they come across as crooked, greedy and dishonest...not much unlike the healthcare industry and associated insurance." (Full-time Education Faculty)

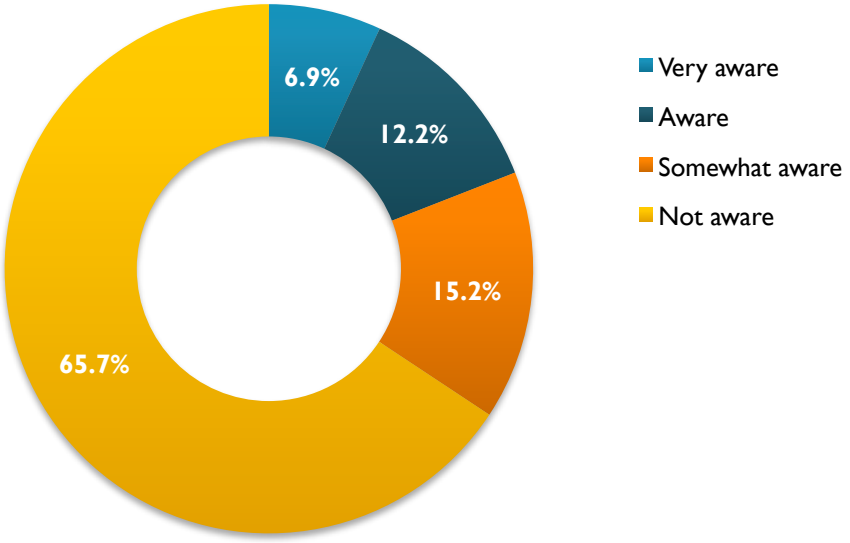
"Sometimes, you get what you pay for. While open textbooks are a good idea, it takes considerable time and effort to produce a quality product. Who will subsidize this?" (Full-time Education Faculty)

In addition to questions about awareness of open educational resources in general, faculty were asked about their awareness of open textbooks. A definition was provided to faculty as part of the question:

> *Open textbooks are textbooks that are freely available with nonrestrictive licenses. Covering a wide range of disciplines, open textbooks are available to download and print in various file formats from several web sites and OER repositories.*

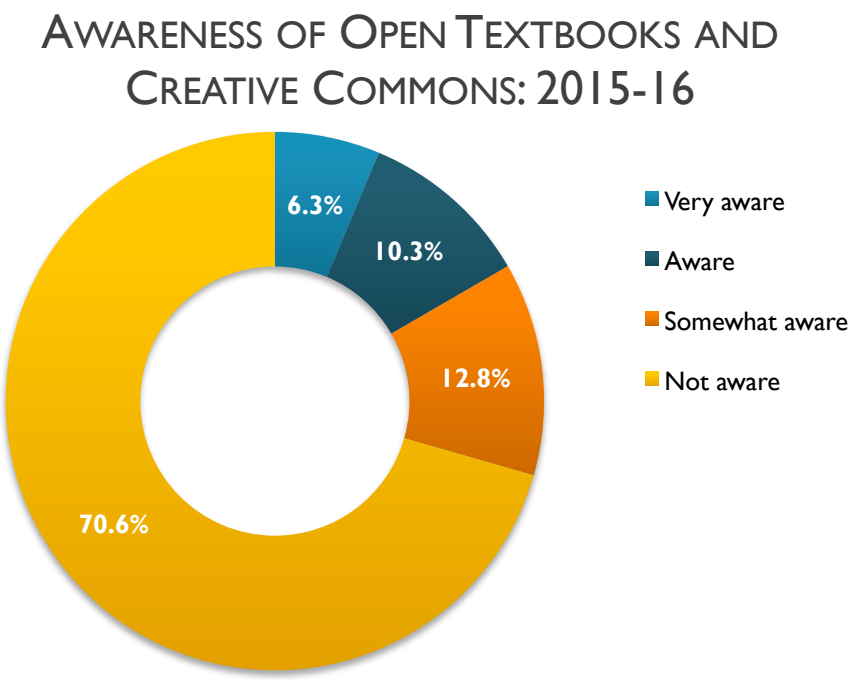
The faculty level of awareness of open textbooks was somewhat lower than that seen of open educational resources, as only 34% of faculty claimed some level of awareness. Of these, 6.9% reported that they were very aware ("I am very aware of open textbooks and know how they can be used in the classroom"), with around twice that many (12%) saying that they were aware ("I am aware of Open Textbooks and some of their use cases"). An additional 15% of faculty reported that they were only somewhat aware ("I am somewhat aware of Open Textbooks but I am not sure if they are appropriate for my needs"). Nearly two-thirds of faculty (66%) report that they were generally unaware of Open Textbooks ("I am not aware of Open Textbooks" or "I have heard of Open Textbooks, but don't know much about them").

Awareness of Open Textbooks: 2015-16



There is concern that, as with open educational resources, faculty members may have only a "fuzzy" understanding and awareness of the concepts of "open" that apply to open textbooks. Adjustments were made here to create a stricter measure that included awareness of *both* open textbooks and Creative Commons licensing. If faculty who report that they are unaware of Creative Commons licensing are removed for any of the "aware" categories of the measure of open textbooks awareness, we create a much stricter index of open textbooks awareness.

The level of open textbook awareness drops when we apply this stricter definition, but less so than the drop for OER. Those classified as "Very aware" go from 6.9% to 6.3%, "Aware" from 12% to 10%, and "Somewhat aware" from 16% to 13%. The overall proportion classified into any of the "Aware" categories changes from 34% when awareness of Creative Commons is not required, to 29% when it is required.



Educational Resource Decision Process

Previous studies in this series have demonstrated that faculty are the key decision makers in finding, reviewing, and selecting educational resources[13]. Academic administrators play a role in some types of institutions (two-year Associates institutions and for-profit institutions), but even here faculty make up the overwhelming majority of decision makers.

While it is clear that faculty hold the locus of control of these key decisions, it is not obvious how frequently they engage in this process. Some faculty report that they are always looking for new material for their courses, with no formal beginning or end to their decision process. These faculty change educational materials whenever they find an alternative sufficiently better than what they are currently using. Other faculty tell us that they review their courses one at a time, often on a rotating schedule.

In order to better understand the frequency of (and factors that impact) the decision about core educational materials, it is necessary to understand when the specific decision is being made. Faculty in this study were asked about three different activities that represent the faculty member making a decision on the required materials for a particular course: creating a new course, substantially revising an existing course, or adding or changing required course materials. The specific question wording used was:

> Over the past two years, either working alone or with others, have you...
>
> Created a new course *(A course that was not previously listed in the course catalog)*
>
> Substantially modified an existing course *(Examples include making a substantive change in the content included in the course, changing the delivery method (e.g., converting a face-to-face course to online) or a similar change of this magnitude. Do not count the normal fine-tuning to a course during its delivery or the typical term-to-term refinements that all courses go through)*
>
> Added or changed required course materials *(Items listed in the course syllabus as required for all students, either acquired on their own or provided to all students through a materials fee, examples include a printed or digital textbook, other course-complete printed (course pack) or digital materials, or materials such as laboratory supplies)*

Deciding on new or revised educational materials is a very common occurrence for teaching faculty. The vast majority (90%) reported that they had performed at least one of these activities over the previous two years, and large numbers had done more than one. The most common activity was changing required materials for an existing course (74%), followed by substantially modifying a course (65%). While creating a new course was the least common activity, almost one-half of faculty (48%) had performed this action over the previous two years.

[13] Allen, I Elaine and Jeff Seaman, Opening the Curriculum: Open Educational Resources in U.S. Higher Education, 2014, Babson Survey Research Group and Allen, I Elaine, Jeff Seaman, with Doug Lederman, Scott Jaschik, Digital Faculty: Professor, Teaching and Technology, 2012, Babson Survey Research Group.

The release of a new edition of a faculty member's current book or program, typically every 2-3 years, may act as a trigger for a faculty material review. This is consistent with the observed 74% rate for "changes course materials." Over half of all survey respondents said that they had both substantially modified an existing course as well as having changed the required materials for another course. One-third (33%) of the respondents reported that they had performed all three types of activities.

The reasons for faculty engaging in the decision process varied considerably, ranging from the need to fill a gap in the curriculum to just being bored of teaching the course the same way for multiple years:

"I was dissatisfied with the level at which students were acquiring (or more accurately, failing to acquire!) essential course content." (Full-time Social Sciences Faculty)

"A new monograph altered my view of the subject sufficiently to believe a complete revision of the course, including texts, to be worth undertaking." (Part-time Social Sciences Faculty)

"An old instructor left and took the materials with her" (Part-time Allied Health Faculty)

"Better course book became available as open education resource so was free to my students. This lowered their costs substantially which was desirable plus it is available so allows easy accessibility to my students." (Full-time Natural and Physical Sciences Faculty)

"Always like to keep courses up to date" (Full-time Education Faculty)

"As an old instructional designer, I get bored with teaching the same class the same way after a couple of times. I need to make it "new for me" to really enjoy it. It is also better (at least I always hope so) for my students." (Full-time Computer Science Faculty)

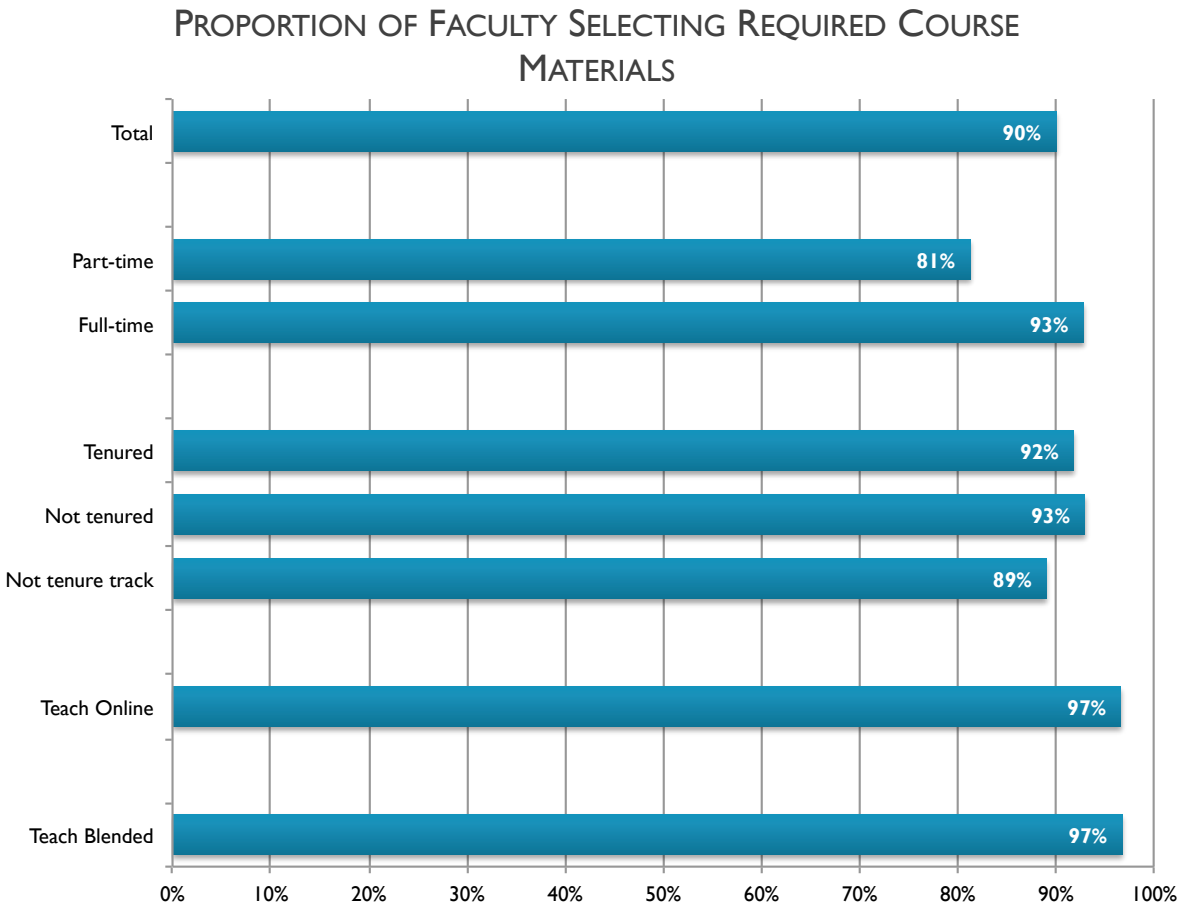
"I inherited the course from a colleague and wished to update the framing of the course to reflect what I saw as current trends in the field." (Full-time Business Faculty)

"Students requested the course; department faculty felt it was a course that should be added to the catalog." (Full-time Natural and Physical Sciences Faculty)

"The course had been taught the same way for some time and failure rates were high. We wanted to try something different." (Full-time Mathematics Faculty)

"A student asked me if such a course existed at our school. The answer was no. I decided to design this course. I proposed it to my department. They accepted it." (Part-time Fine and Applied Arts Faculty)

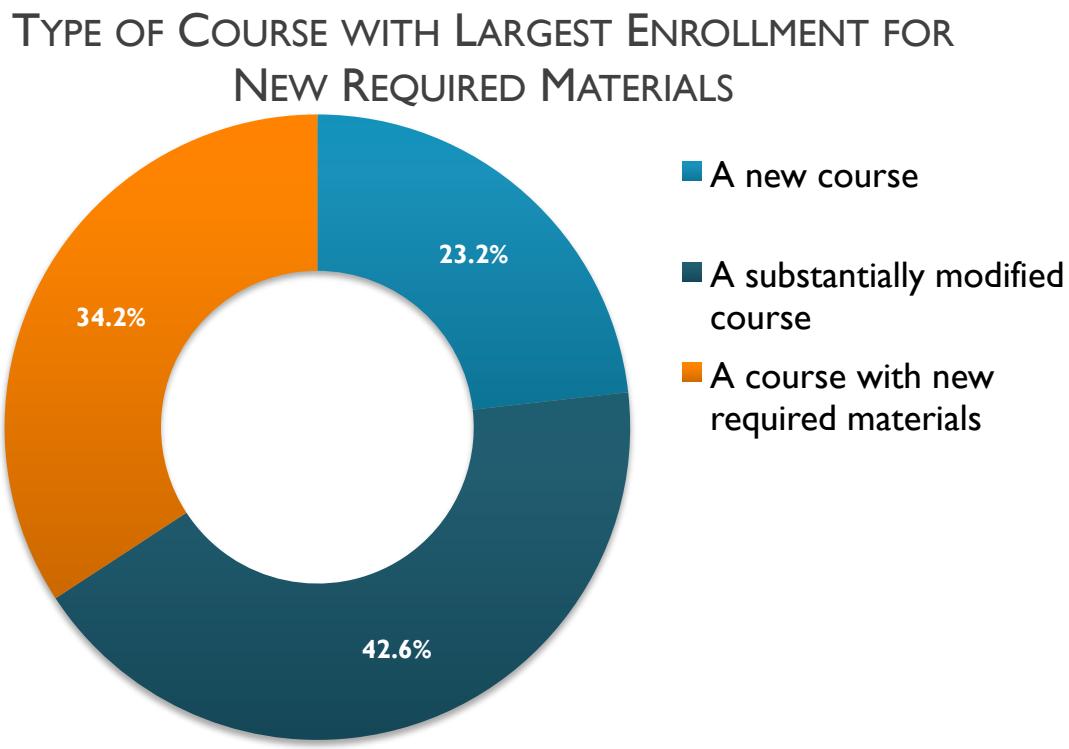
All types of faculty are equally involved in the decision process for required course materials; there is little variation from the overall 90% rate. Even the least involved, part-time faculty members only drop to 81%, while the most involved – those teaching at least one online or one blended course – report 97% levels of involvement.



The factors that influence a faculty member's particular resource selection decision for one course may be very different than for another course. The availability of different resource options, the timeliness of the course material, the level of the student, the time since the course was last revised, as well as a host of other factors can influence that decision. To allow this research to focus on a single decision, the respondents who reported that they had performed an educational resource selection process over the previous two years were asked to select only one course to consider for their responses to a series of questions about those resource selections.

Because one of the concerns of the impact of educational resource selection is the impact on students, faculty who made resource decisions for more than one course were asked to select the one course with the largest enrollment for their responses. If more than one such course had the same level of enrollment, they were then instructed to select the course they were most familiar with. Faculty were then asked a series of resource-related questions about this specific course.

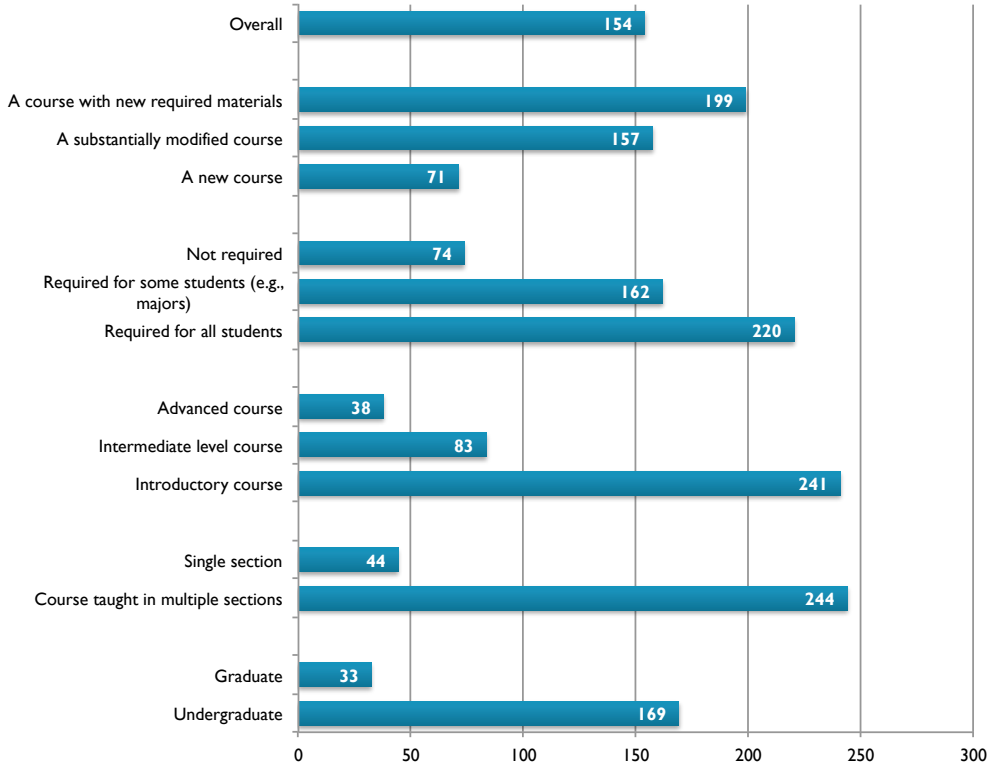
The most common activity that resulted in the selection of required resources was selecting new required materials for an existing course (43%), followed by substantially modifying an existing course (34%). Slightly less than one-quarter (23%) reported on a newly created course.



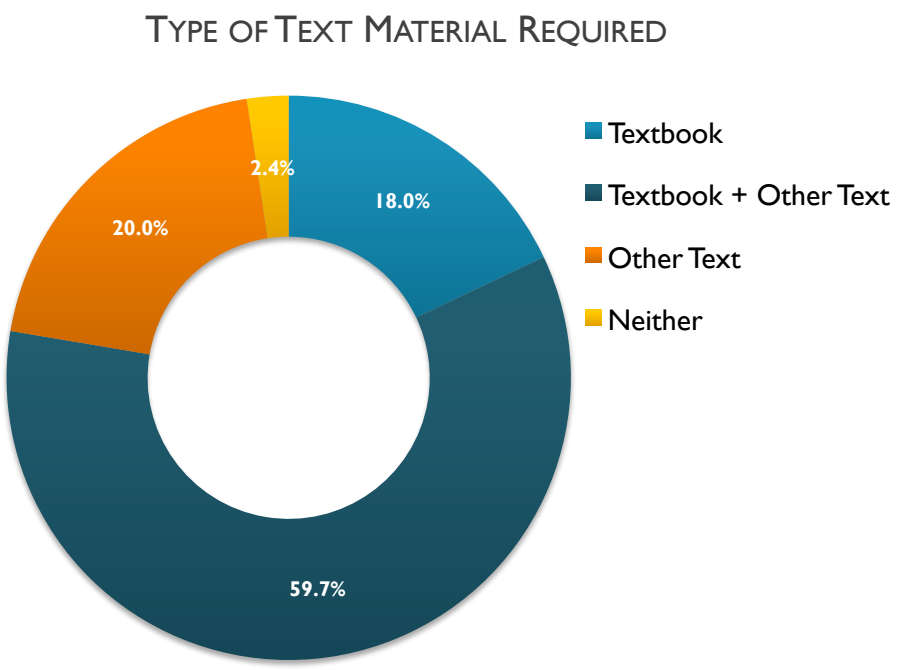
The courses being considered were overwhelmingly undergraduate courses (77%) and those delivered face-to-face (75%), with 13% blended and 12% online. Faculty classified these courses primarily as an "Introductory course" (41%), but intermediate (28%) and advanced level (29%) courses were both well represented.

Asking faculty to focus on the largest enrollment course skews the course size higher than for a typical course: the average enrollment for the courses selected by the faculty was 154 students. Faculty responding about new courses had the smallest average enrollment (71 students), while those replacing required materials for an existing course had the largest (199 students). Required courses, introductory level courses, and courses taught in multiple sections all had average enrollments over 220 students.

AVERAGE ENROLLMENT FOR COURSE BEING CONSIDERED FOR NEW REQUIRED MATERIALS

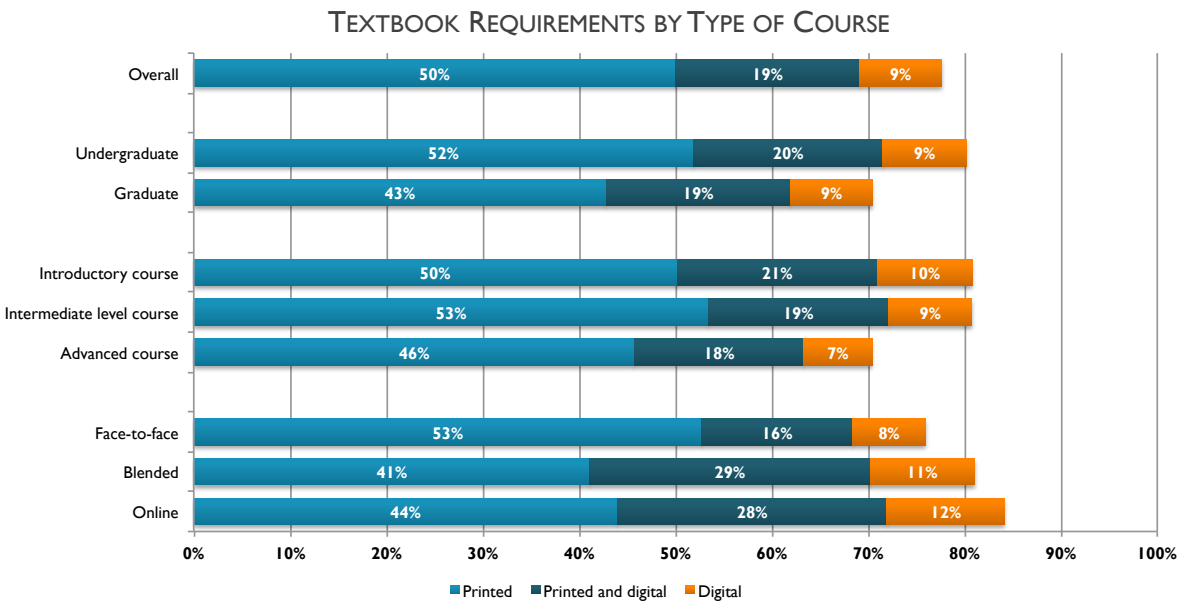


Virtually all of the courses (98%) being considered had a required textbook or other non-textbook material as part of the suite of required resources. Most courses required both a textbook as well as other textual materials.

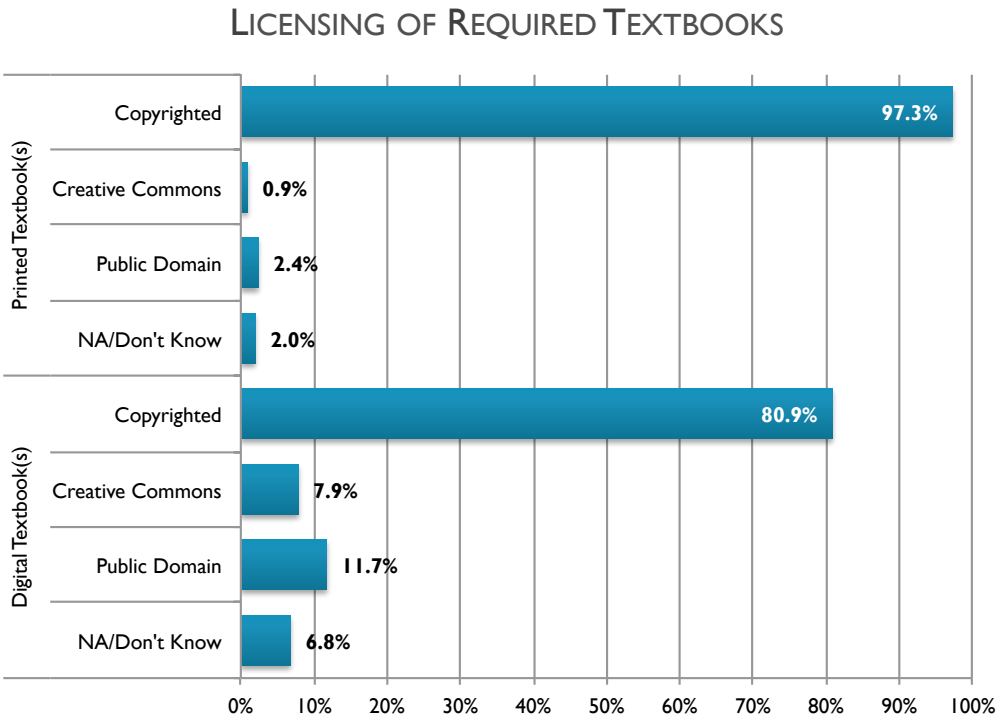


Required textbooks were more likely to be in printed form (69%) than digital, with digital textbooks more often required *in addition* to a printed textbook (19%) than courses requiring only digital textbooks (8.5%). Over three-quarters of all the reported courses require a textbook of some variety.

Advanced courses were less likely to require a formal textbook than introductory or intermediate-level courses. Courses taught using some online component (either as a blended course or fully online) had the highest rates of requiring a formal textbook, and the largest proportion of these textbooks being digital (either in conjunction with a printed text or using only digital textbooks).



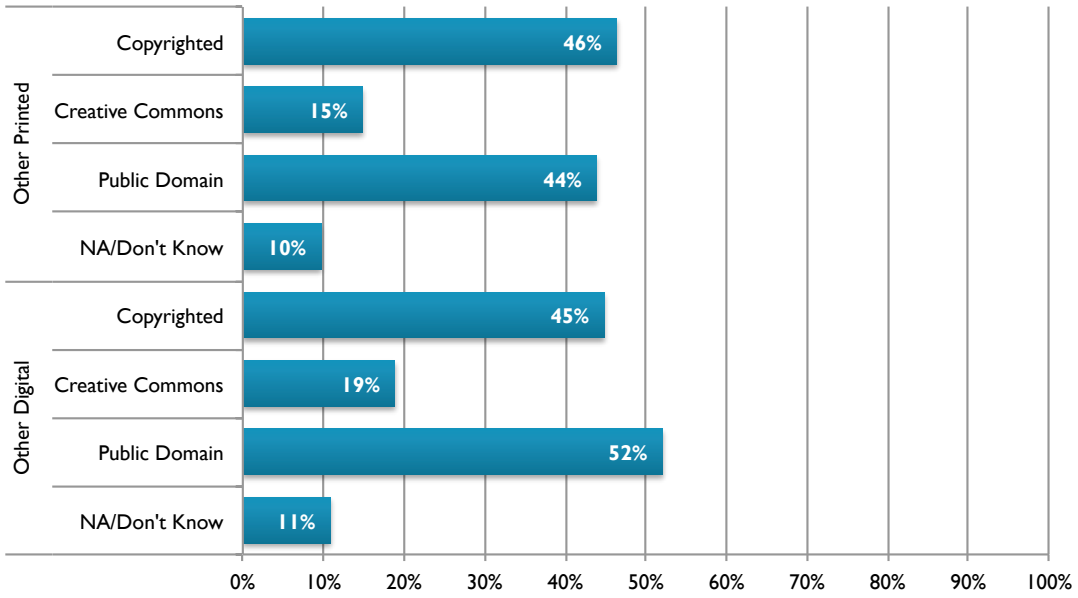
Faculty were far more certain when asked about the licensing status for their required textbooks than they were when asked about licensing in general. Only 2% reported that they did not know the licensing status for their printed textbooks, and 6.8% were unable to reply for their digital textbooks. The overwhelming majority (97%) of faculty with a required textbook report that at least one of their required printed textbooks is copyrighted, with very small percentages reporting either Creative Commons licensing or public domain. (Note that faculty with more than one required printed textbook could select more than one licensing choice.)



Digital textbooks are much more likely to be either Creative Commons licensed (7.9%) or public domain (12%) than their print alternatives. While the overwhelmingly majority of digital textbooks are copyrighted, the relative proportion of openly licensed (Creative Commons or public domain) material is five times higher for digital distribution than it is for printed textbooks.

The proportion of openly licensed material among non-textbook required course material is far higher than it is for textbooks. This non-textbook material may be viewed by faculty members as non-core or supplemental, but it is of sufficient importance in the view of the faculty member that it is listed among the requirements for the course.

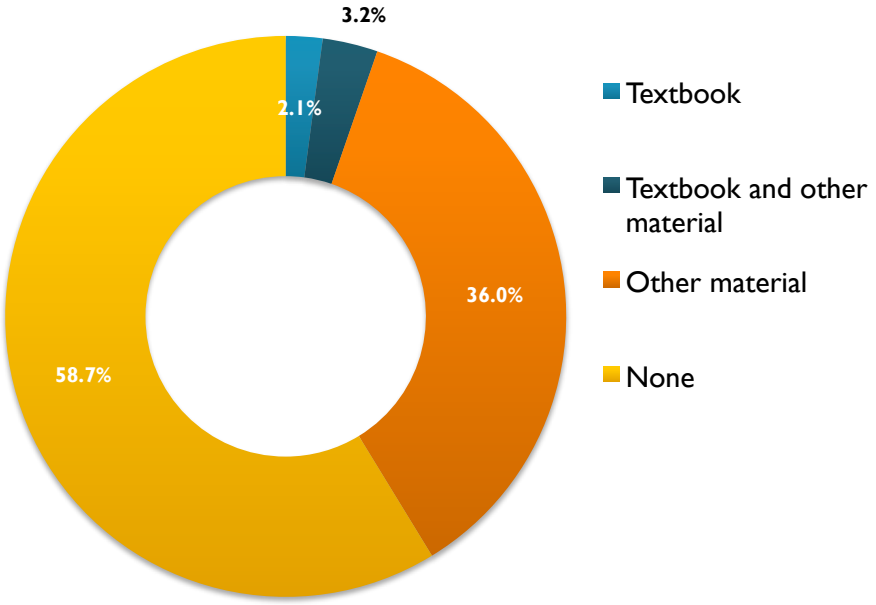
Licensing of Required Material Other Than Textbooks



A large proportion of non-textbook printed material is reported as public domain (44%), as is a majority of the digital-formatted required non-textbook materials (52%). Compared to textbooks, a much larger fraction of this type of material is licensed as Creative Commons (15% for printed, 19% for digital).

When summed across all courses reported by faculty for this survey, only 5.3% report that they are using an openly licensed (Creative Commons or public domain) textbook of any variety. Of these, 2.1% are using an openly licensed textbook, but are not using any openly licensed non-textbook material, while 3.2% are using both an openly licensed textbook as well as openly licensed non-textbook material. The proportion of required non-textbook material that is openly licensed is far higher, with 39% of faculty reporting its use: 3.2% in conjunction with an openly licensed textbook, and 36% using non-textbook material alone.

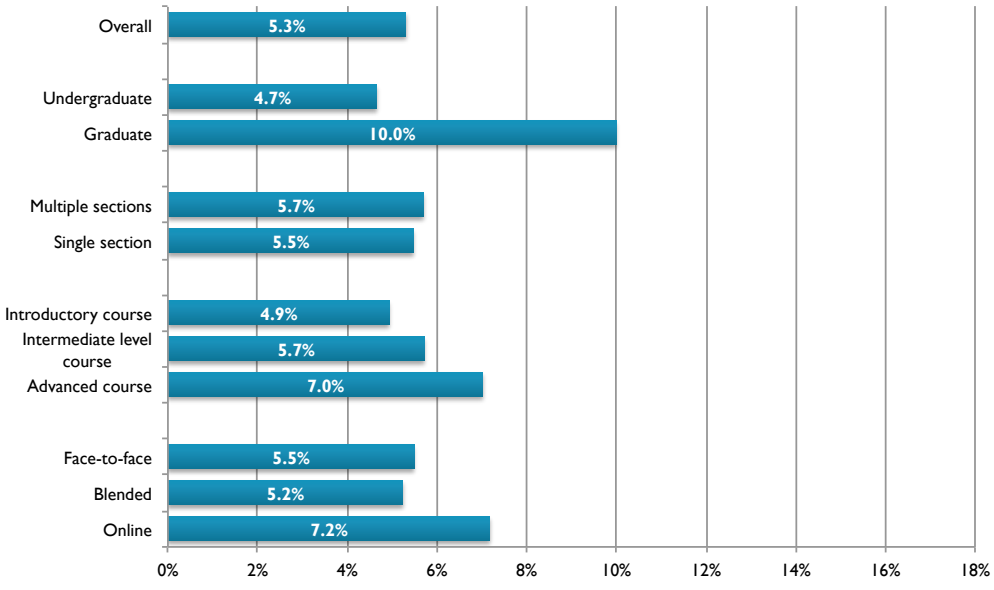
Open Licensed Material Use



It is important to note that the 5.3% rate of open-licensed textbook use represents the rate for the largest enrollment course where faculty have made a choice of required course material over the previous two years. It does not include use in other courses that faculty may teach. So while it represents a good estimate of the proportion of larger enrollment *courses* using these types of resources, it may not be an accurate estimate of the proportion of *faculty* using open-licensed textbooks.

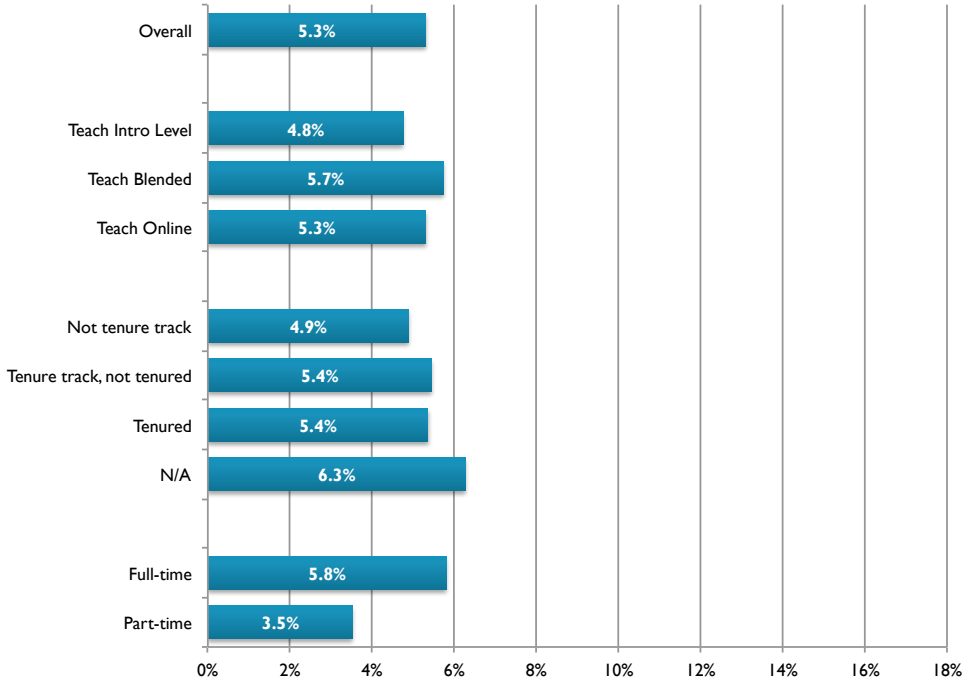
Most types of courses have open-licensed usage rates close to the overall rate of 5.3%, with the only exceptions being graduate-level courses (10%), online courses (7.2%), and courses that faculty classify as "Advanced" (7.0%).

Use of Open-Licensed Textbook By Course Characteristics: 2015-16



The difference in open-licensed usage rates between different types of faculty is smaller than the differences observed between course types. Part-time faculty have adopted open-licensed textbooks at only 60% of the rate of full-time faculty (3.5% as compared to 5.8%). Faculty outside of the tenure track system also have a higher adoption rate (6.3%) than those in the system.

USE OF OPEN-LICENSED TEXTBOOK BY FACULTY CHARACTERISTICS: 2015-16



Higher education faculty are not yet major users of open-licensed material for their required textbooks, with only about one course in twenty having an open-licensed textbook selected over the previous two years. This rate tracks very closely to those who report that they are "Very aware" of open textbooks (5.3% reporting use, and 6.9% reporting that they are aware).

Turning our attention to the adoption of non-textbook materials paints a very different picture, with nearly eight times as many faculty reporting using open-licensed non-textbook resources than having adopted an open-licensed textbook.

Potential Barriers

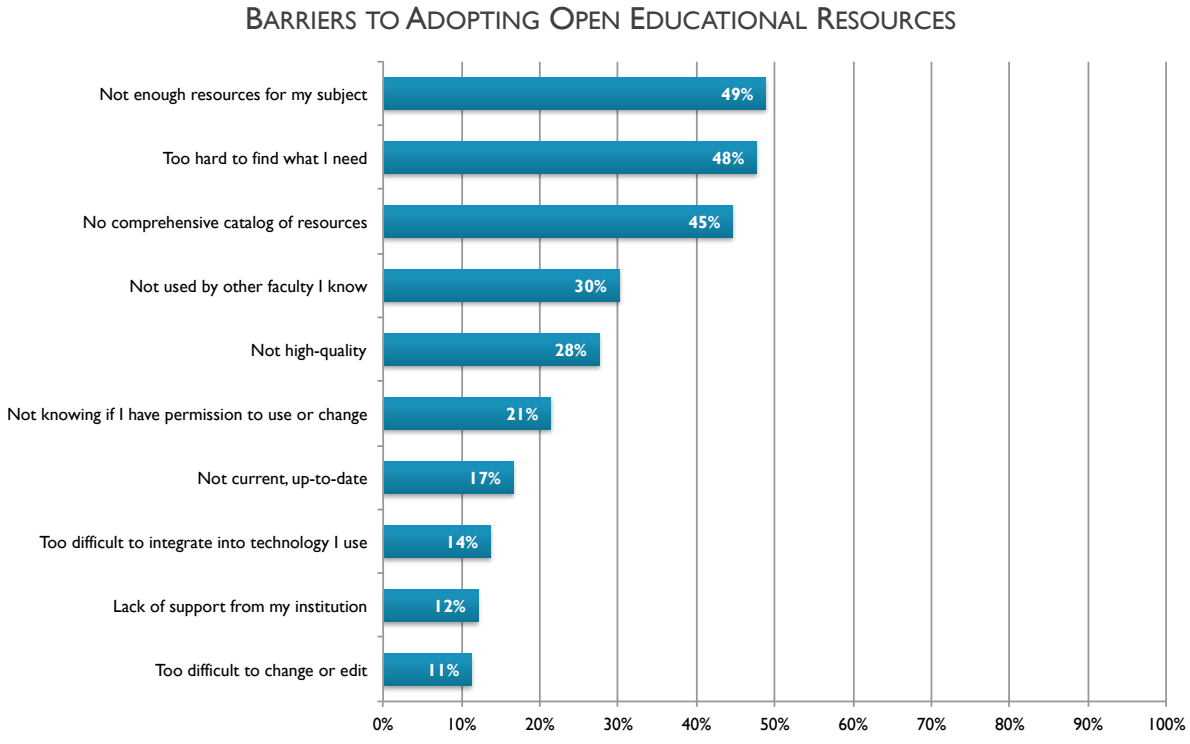
"My biggest hindrance to switching to more open books and OERs is simply the amount of time it takes to find all of these resources on my own. I've gotten to know more common sites to help in these searches, but I've not taken the time to really decide to make the big switch from what I have now (mostly publisher and self-created materials) to the available OERs." (Full-time Social Sciences Faculty)

"I have a concern about the peer reviewed nature of the open access texts. I also think that authors who use their expertise and knowledge to create a textbook are entitled to making money off of them. Why is it okay for people outside of education to publish books and make money, but not educators?" (Full-time Natural and Physical Sciences Faculty)

"My biggest concerns about switching to an open-source textbook are revising my class notes and PowerPoint slides." (Part-time Natural and Physical Sciences Faculty)

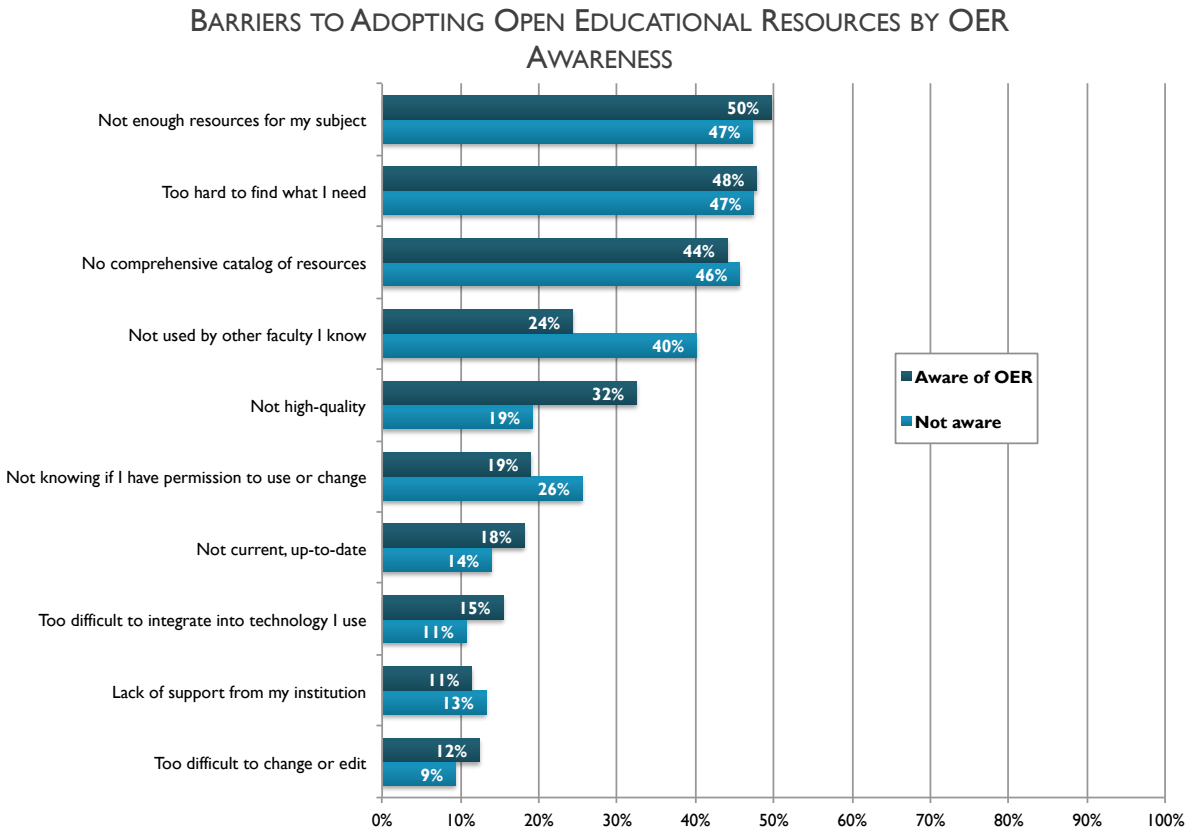
"I'd love to be given a redirection towards good catalogs of open-education resources, along with some sort of feedback from users who have successfully (or unsuccessfully!) incorporated them into their courses." (Full-time Natural and Physical Sciences Faculty)

Previous reports in this series have shown that both faculty and academic leaders believe that one of the most serious issues facing wider adoption of open educational resources is the effort needed to find and evaluate suitable material. Faculty opinions in this study show that this has not changed. The three most-cited barriers to adopting OER all relate to the availability and difficulty in finding suitable resources. Nearly one-half of all faulty report that "there are not enough resources for my subject" (49%), it is "too hard to find what I need" (48%), and that "there is no comprehensive catalog of resources" (45%).



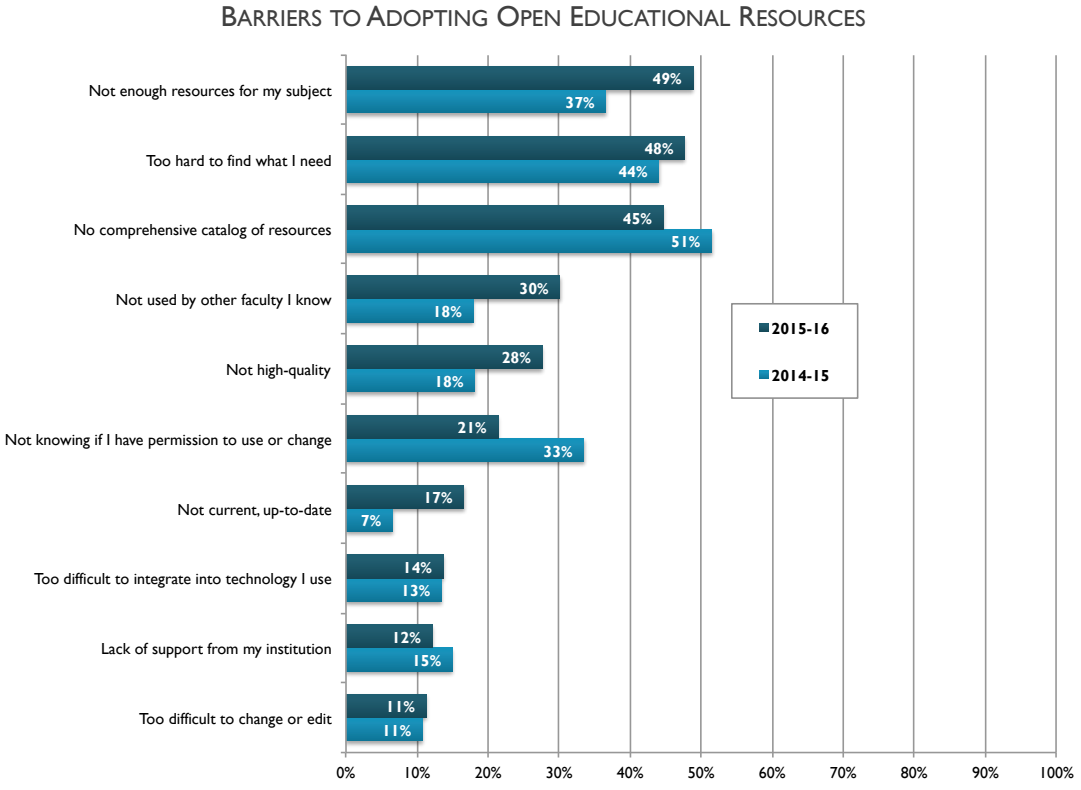
The limited distribution and awareness of OER is also a factor in the fourth-ranked barrier (30%) – other faculty known to the respondent are not using OER. Concerns about quality (28%) are also present among faculty members. Given the limited awareness of Creative Common licensing, it is not surprising that faculty also report (21%) that they have concerns about permissions to use or change the materials. Other potential barriers, while present for some, were not as widely reported as a concern by the survey respondents.

The pattern of reported barriers is very much the same between those who reported that they were aware of OER and those who were not aware, with three important differences. Faculty who are aware of OER are far less concerned about whether it is used by other faculty (24% compared to 40% for faculty who are unaware of OER). They also have less concern about knowing if they have permission to use or change the material (19% compared to 26%). Faculty who are aware of OER, however, are more concerned about the quality of OER offerings, with 32% citing this as opposed to only 19% of those who were not aware of OER.



The lower level of concern of those aware of OER about "permission for use" and "knowing other faculty that use it" most likely comes from their personal exposure to OER, and their greater knowledge of the nature and scope of OER materials. The greater concern about quality for this group should be troubling for the OER community: is awareness of OER confirming concerns about its quality, or does greater OER awareness mean that traditional publishers are being more aggressive in arguing against it?

Comparing the results for the 2015-16 academic year to those for the previous year (2014-15) shows that while the overall pattern is very similar, there have been some important changes. The top three concerns remain the same for both years, albeit in a different order. There has been a drop in the proportion of faculty citing the lack of a comprehensive catalog for OER, and increases in the proportion citing that it is too hard to find the resources they need, and that there are not enough resources for their subject. This may reflect a growing awareness of OER, with more faculty now sufficiently aware to be concerned of coverage for their particular area.



There has been a decrease in faculty concerns about permission to use or change OER materials, and an increase in concerns about the quality of OER and that it is timely and up-to-date. There has also been an increase in faculty reporting that OER not being used by other faculty represents a barrier.

The Process of Textbook Adoption for Introductory Courses

> *"In introductory chemistry fads alter the organization of texts over periods of decades, but the content remains the same. A comparison of common texts (which I did a few years back) demonstrated that all of the most popular texts are effectively interchangeable, down to the examples." (Full-time Natural and Physical Sciences Faculty)*

> *"For large enrollment courses we are considering free, online textbooks that others have made available. Many students at the freshman level do not purchase expensive text books, so we will experiment with this approach in the 2016-17 academic year." (Full-time Natural and Physical Sciences Faculty)*

> *"We are looking into adopting OpenStax Precalculus to decrease cost to students. However, we are concerned with the content and its rigor. The book lacks depth in a number of topics. Also, there are some faculty who would like a textbook that has online homework for students." (Full-time Mathematics Faculty)*

Faculty members who were creating a new course, substantially modifying an existing course, or selecting new required materials were asked about the specifics of the course for which they were responding. Additional questions were then presented to those faculty who were responding about one of the following large enrollment undergraduate introductory courses:

- Principles of Economics
- Macro Economics
- Micro Economics
- Pre-Algebra
- Algebra and Trigonometry
- College Algebra
- Pre-Calculus
- Calculus
- Statistics
- Anatomy and Physiology
- Biology
- Chemistry
- College Physics (Algebra Based)
- University Physics (Calculus Based)

Faculty responding about one of these courses were presented with a list of the most commonly used commercial textbooks (up to eight) for that specific course, along with an open text alternative from OpenStax College, a non-profit OER publisher based out of Rice University. OpenStax has been developing texts and ancillaries designed to meet the scope and sequence requirements of introductory courses since 2012, and have an OER offering for each of the above-listed courses.[14]

[14] There are other open textbook options for several of these courses. OpenStax textbooks were used in this study to provide a consistent alternative for all courses. https://openstax.org/

Faculty respondents were asked to indicate if they were aware of each book, if they considered the textbook for their course, or if they adopted the text.

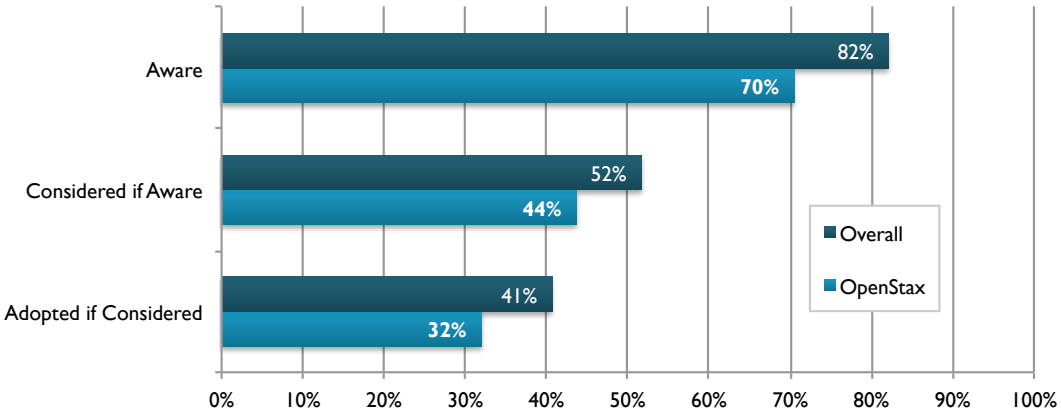
Faculty teaching introductory undergraduate courses are aware of, on average, 5.5 of the listed textbooks. Of these they considered only 2.8 for adoption, and adopted an average of 1.2 texts per course. The vast majority adopted only a single required text, and a few selected two, three, or more. The average adoption rate for a textbook in its corresponding course was 17%. There is considerable variability in adoption rates behind this average; some textbooks are clear market leaders with rates near 50%, while others have rates of only a percent or two.

The adoption rate for open-licensed OpenStax textbooks among these large enrollment courses is lower than the average for commercial texts, but is twice that of the rate for open textbooks in general. OpenStax textbooks are adopted at a rate of 10% among large enrollment undergraduate introductory courses, compared to the 5.3% rate seen for open-licensed textbooks across all courses.

Is the lower OpenStax adoption rate (10%, as compared to 17% for a typical textbook) due to less awareness, fewer faculty considering them, or being rejected at a higher rate if they are considered? The answer is that all three factors play a role; OpenStax textbooks are close to, but slightly lower than, the rates for commercial textbooks for each of these steps.

Looking across all textbooks, faculty claimed to be aware of 82% of listed textbooks. Slightly more than one half of the textbooks that faculty were aware of (52%) were then actively considered in the adoption process. Of those considered, 41% were then adopted. Comparing the OpenStax alternative shows a lower level of awareness (70% compared to 82% overall). Likewise, OpenStax texts have a somewhat lower rate of consideration (44% compared to 52%) and a lower rate of selection for adoption (32% compared to 41%). The result is an overall lower adoption rate of 10% for OpenStax textbooks as compared to all introductory courses textbooks (17%).

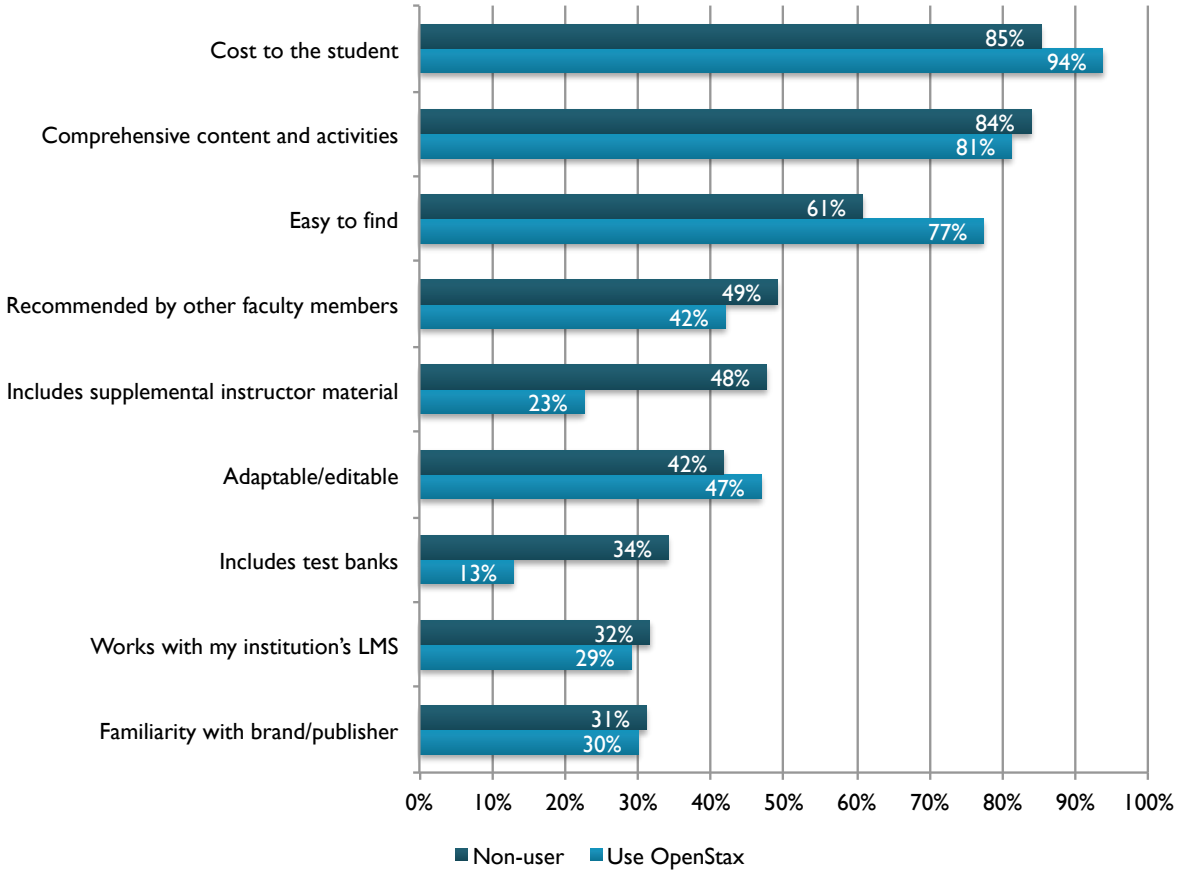
Introductory Textbook Awareness, Consideration, and Adoption



The OpenStax adoption rate, while lower than that for commercial textbooks, is surprising given the newness of their offerings, and the lack of commercial marketing weight behind them. The awareness rate, consideration rate, and adoption rate for OpenStax textbooks are all close to, but somewhat lower than, those for commercial textbook alternatives. OpenStax textbooks will require improvements in each of these steps in order to match the overall adoption rate of the introductory course textbooks. Better awareness, by itself, will not be sufficient.

Faculty teaching large enrollment introductory courses have ratings similar to their peers teaching other courses, when considering the importance of the various factors in determining their required material selections. Those who have decided to use an OpenStax textbook, while very similar on most dimensions, show some clear differences. Among the OpenStax group, having ancillary material (test banks and supplemental instructor materials) is far less important for their decision making process. On the other hand, they rate resources being "easy to find" as more important to their selection that do the faculty teaching introductory courses who have not adopted an OpenStax text.

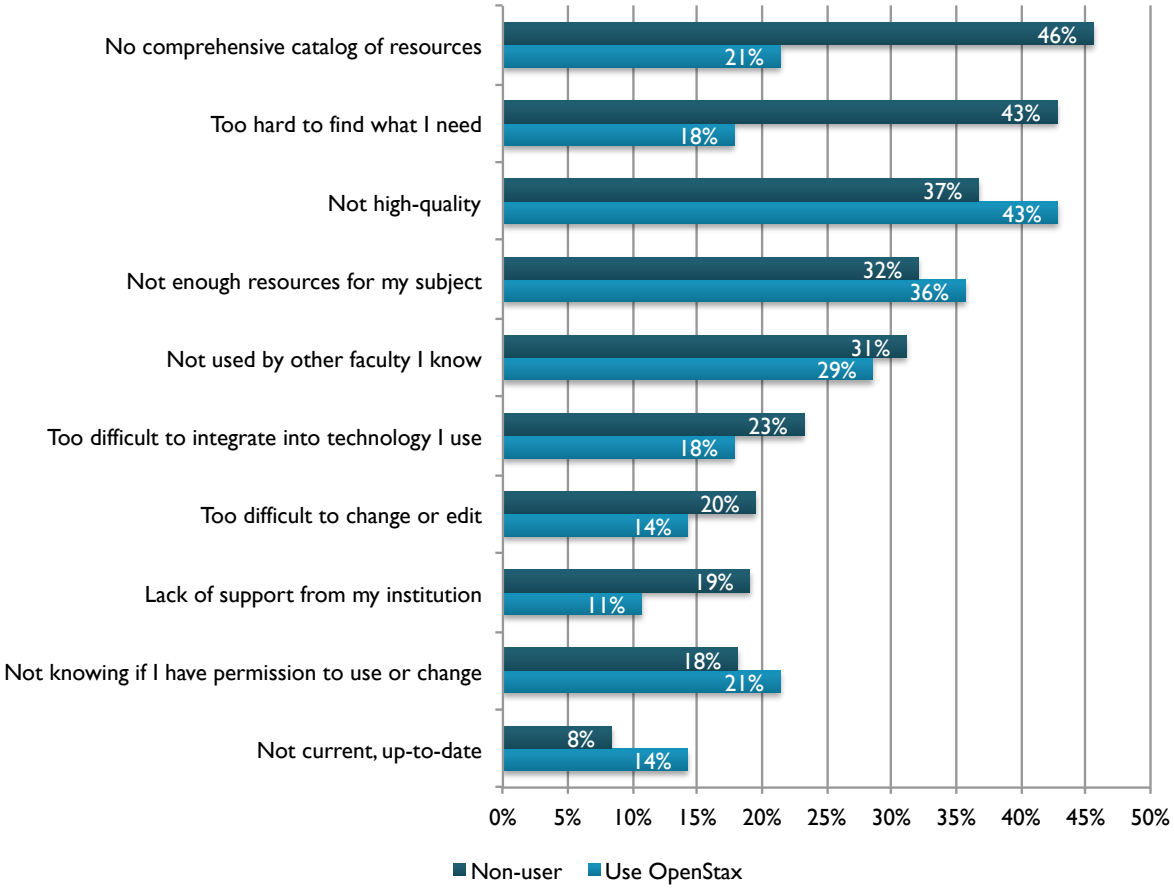
Importance of Factors in Selecting Required Course Material by OpenStax User Status



OpenStax users, by definition, have already found an OER resource to adopt for their course. As such, it is not surprising that they have a very different view of the problems of resource discovery from their peers who have not adopted OER resources. OpenStax users rate the discovery issues of "no comprehensive catalog" and "too hard to find what I need" as far less of a barrier than do their peers who have not adopted an open resource. They do have the same level of concern about the lack of resources, "not enough resources for my subject", as their peers. They are also a bit more concerned about the quality of OER offerings (43% as compared to 37%) than their peers.

A critical issue is that OpenStax users care far less about supplements and test banks as compared to non-users. These supplements are a key selling point for many faculty which leads them to adopt traditional texts. If an instructor does not care about these things, it helps to level the playing field for OpenStax.

Barriers to Adopting Open Educational Resources by OpenStax User Status



In general, faculty teaching large-enrollment undergraduate level courses report very similar goals and concerns as do faculty teaching other types of courses. The adoption rate of open textbooks for these introductory courses is roughly twice that for all courses, probably reflecting the emphasis that open textbook developers have had on these large enrollment courses. It can be expected that the open text adoption rate will continue to increase for these courses, as most of the open alternatives are new to the market and have only begun to compete against well-established commercial texts with their long histories and substantial marketing support.

Discoverability

"I don't know anybody who is using open source textbooks, and I don't have the time at the moment to research what will work best." (Part-time Natural and Physical Sciences Faculty)

"I am interested in open resources, but have not had the time to explore them. That has been more of an issue for not adopting them than anything." (Full-time Social Sciences Faculty)

"I have not even checked for open resource educational materials since I lack the time to investigate what is available and how I can use it. " (Full-time Agriculture and Animal Science Faculty)

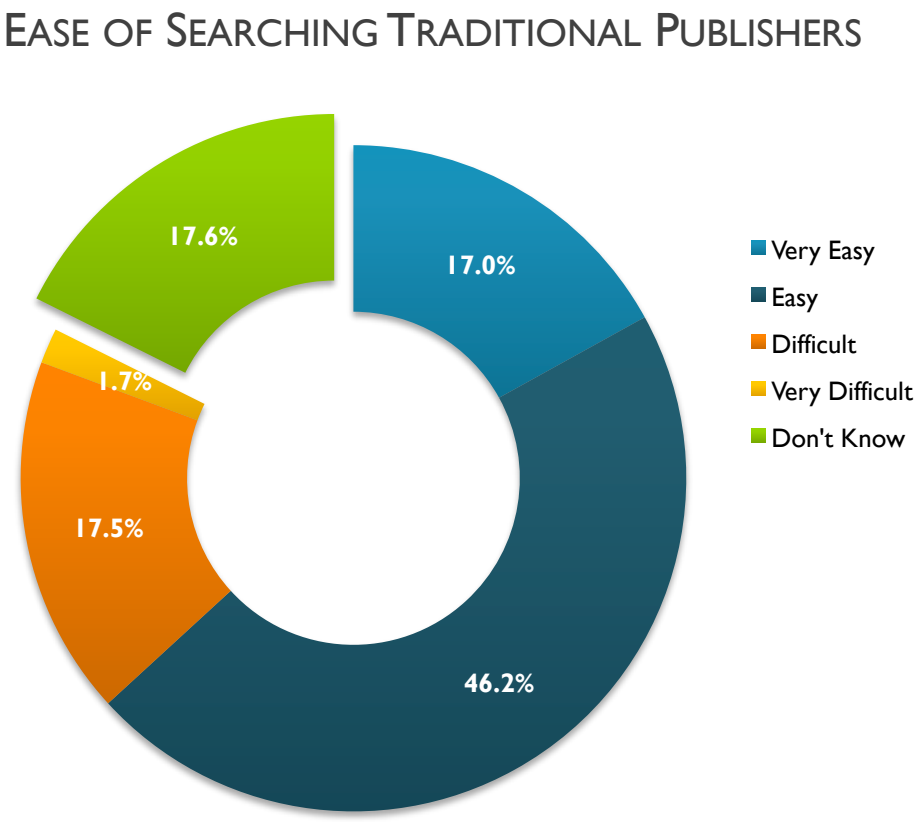
"I have used OER in the past and do so currently but it is very difficult to find OER materials to use and incorporate into my classes." (Part-time Natural and Physical Sciences Faculty)

"Textbooks sent to me with data supporting why this text is a good one to use summarized on one page would help me determine if I should spend time looking into it or not." (Full-time Natural and Physical Sciences Faculty)

"A resource that lists available course materials along with cost, list of supplementary materials, and reviews by other faculty members. It would be nice to have an independent website that offered this for materials from multiple publishers/sources." (Full-time Mathematics Faculty)

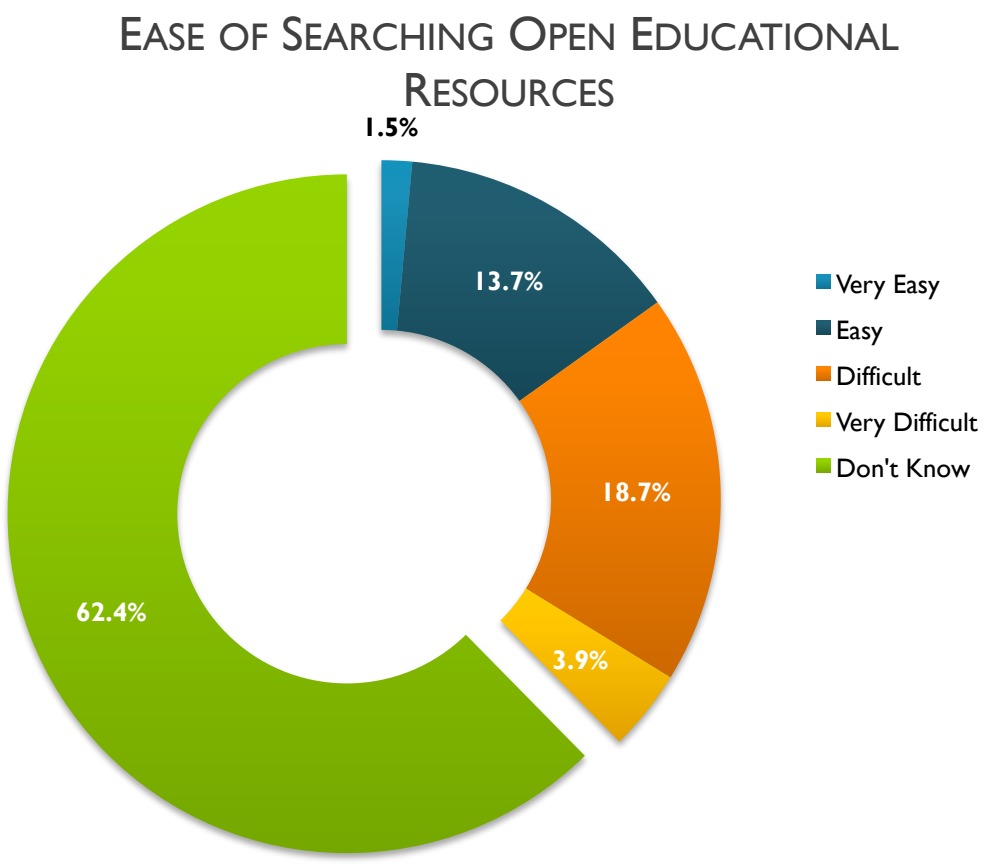
The top three barriers that faculty cite impacting their adoption of open educational resources are related to the ease of finding and selecting the appropriate resource. How do these issues compare to finding and selecting traditional resources? Is the effort required to find appropriate OER materials substantially higher than that for traditional materials, or do faculty have concerns for both types of resources? To probe this issue, faculty were asked to rate how difficult it was to search for traditional resources using a four-point scale, and asked the same question about searching open educational resources.

Nearly two-thirds of faculty reported that searching for resources from traditional publishers was "Easy" or "Very easy," with 17.5% saying it was "Difficult." Very few faculty (1.7%) considered the ease of search for resources from traditional publishers to be "Very difficult." Interestingly, a sizable proportion reported that they didn't know. Does the large proportion reporting that searching is easy reflect that results of years of traditional publishers providing review copies directly to key faculty members? If so, then OER providers may need to understand this lesson, and do a better job of delivering their materials directly to faculty members, rather than relying on faculty to search for and find the best resources.



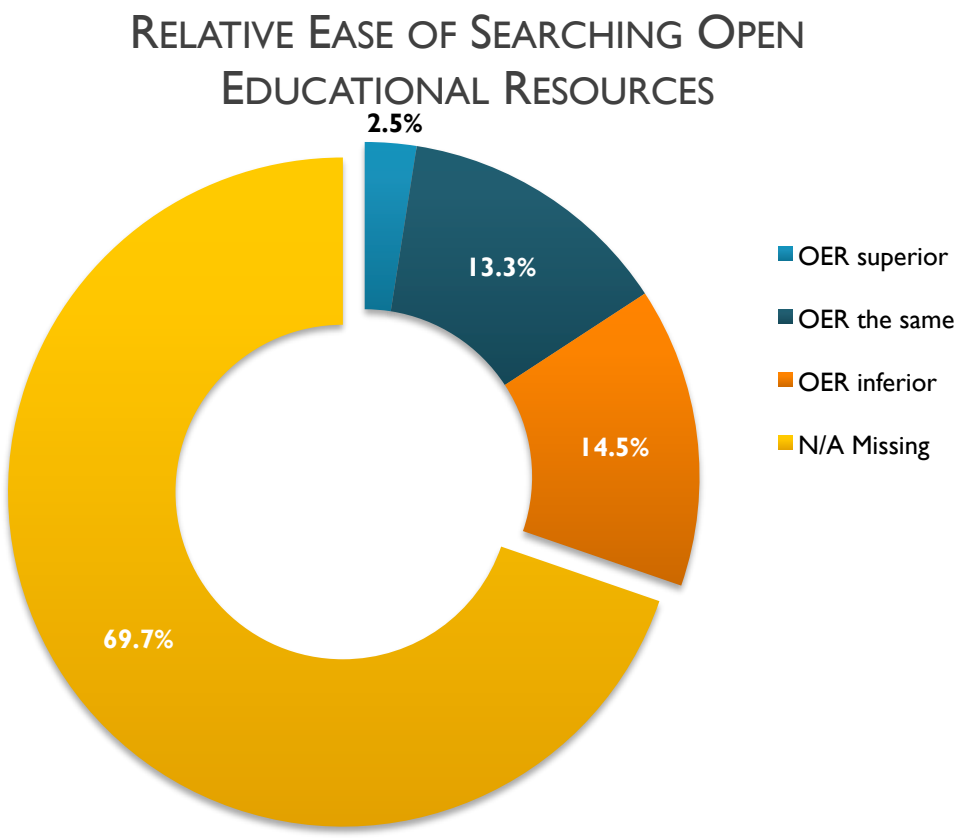
The "Very easy" response for many faculty is a reflection of the extensive marketing and support process of commercial publishers. For many faculty, the search process is as simple as getting the evaluation copy of the textbook from their mail box. In other cases, a publisher's representative actually comes to their office. Faculty still need to consider and evaluate each of these offerings, but the first step of searching is often provided for them.

A far larger proportion of faculty (62%) were unable to provide a rating for the ease of finding OER materials. Given the lack of awareness of OER among faculty, this indicates that they have never tried to find OER materials. Of those that could provide a rating, only 1.5% reported it was "Very easy" and 14% that it was "Easy." Larger percentages of those who had an opinion said it was "Difficult" (19%) or "Very difficult" (3.9%).



There is no corresponding support network for open textbooks that can mirror the extensive network provided by commercial publishers. It requires much more faculty effort to search out open textbooks, especially since many faculty are unaware of the very existence of such alternatives.

Comparing the ratings among those faculty who rated the ease of finding both OER and traditional resources helps us better understand if faculty who report difficulty in finding OER materials are also those having issues with traditional resources, or if there is a real difference in the perceived discoverability of the two types of resources. Most faculty (70%) did not provide a rating for finding both types of resources. The 30% that did provide a rating for both shows that OER discoverability does lag behind that of traditional resources. Only 2.5% gave OER a rating superior to what they gave traditional resources. A larger group (13%) gave identical ratings for both types of materials, while the largest segment (15%) gave a higher rating to the ease of finding traditional resources than they did for finding OER materials.



Discoverability continues to be an important issue for openly licensed resources. All of the top three mentioned barriers relate to the difficulty or inability to find appropriate resources, and faculty ratings of the ease of searching provide further support for this point. Proponents of OER can take a "glass half full" approach and rightfully claim that a majority of those who rated the ease of searching OER and traditional resources report OER to be as good as (or in a very few cases, better than) traditional resources. The "glass half empty" approach is that nearly half of faculty report it was harder to find OER resources.

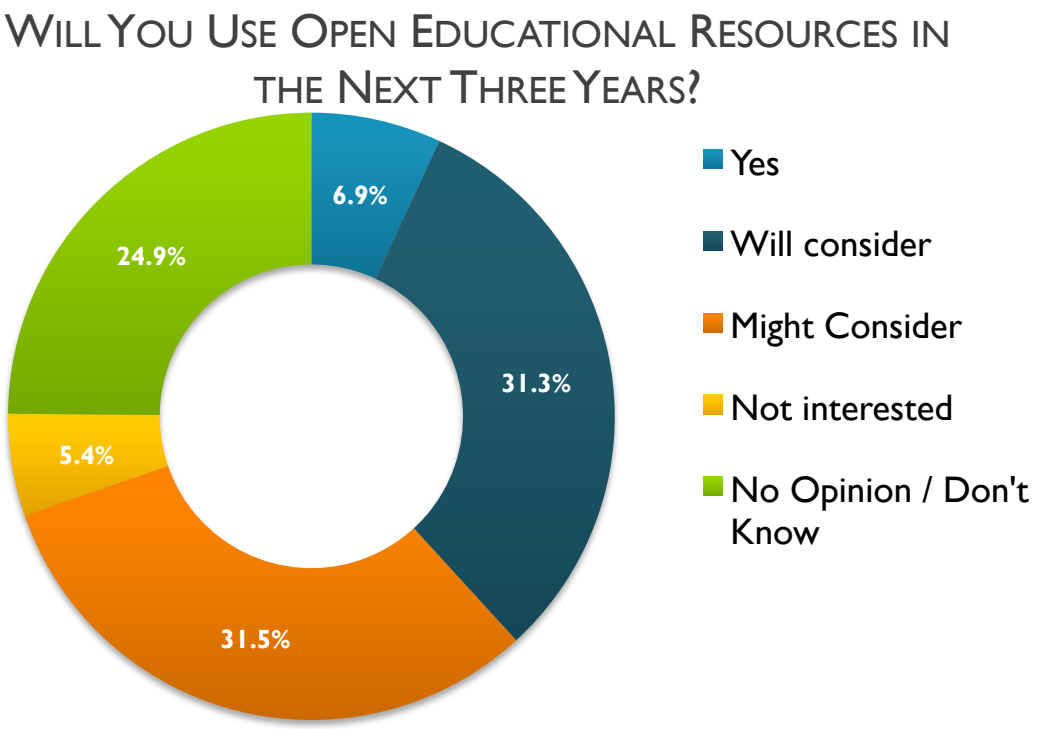
Future Use

"Knowledge is free. The future of education must be in OER." (Full-time Mathematics Faculty)

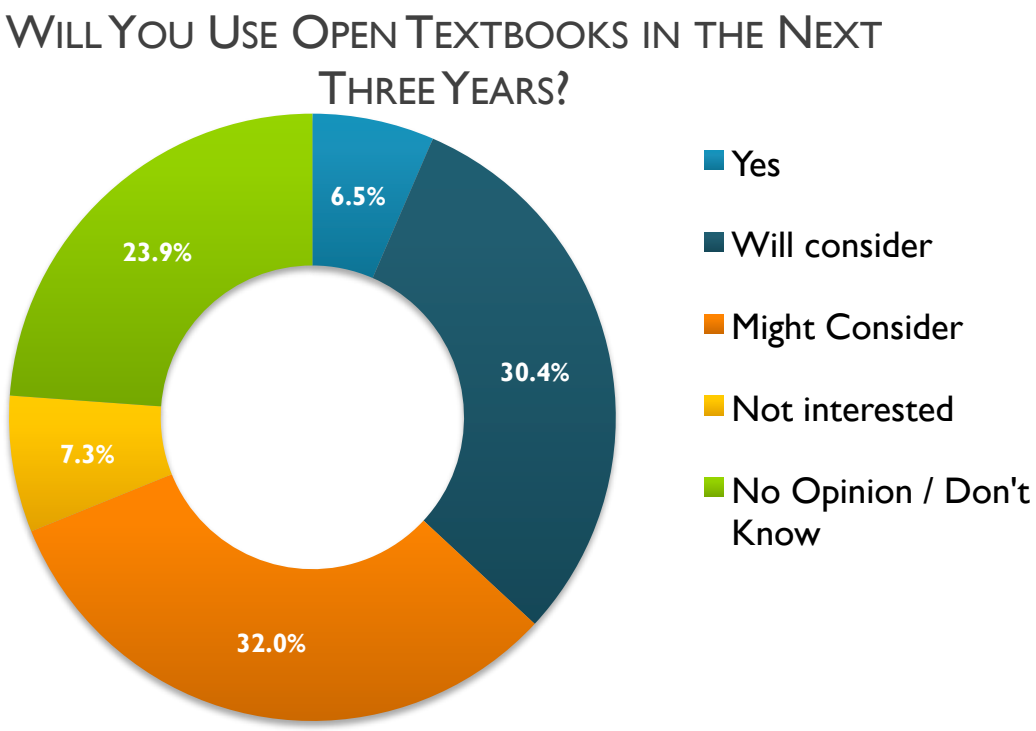
"I only learned about things like OpenStax during this academic year. I love the idea of open-source projects, and I would certainly be willing to try using an open text for a course I'm teaching. I think I would be able to convince others in the department that doing the experiment would be a good idea." (Full-time Natural and Physical Sciences Faculty)

"I am curious about the use of the open resources and would like to know more about them." (Part-time Business Faculty)

Faculty members who are not current users of open educational resources were asked if they expected to be using OER in the next three years. Only 5.4% reported that they were not interested, while an additional 25% had not yet decided and were unable to offer an opinion. The number claiming that they would use OER in the future (6.9%) is of the same order of magnitude of those already using open resources (5.3%). A larger group (31.3%) say that they will consider future OER use.



The same question was posed to faculty members who were not current users of open textbooks to determine their future level of interest, with very similar results. Only 7.3% reported that they were not interested, while an additional 24% had not yet decided and were unable to offer an opinion. A small proportion reported that they would use open textbooks in the next three years (6.5%), while nearly one-third (30.4%) said they would consider them. Overall OER and open textbook use could expand considerably over the next few years if the faculty reporting that they will use or will consider OER and open textbooks follow through on their plans.



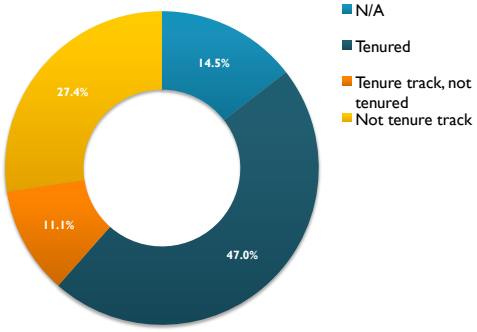
While the overall proportion of faculty who claim that they "Will" use open textbooks in the next three years is small, it would mean a doubling of use if all those who say they will actually did so. The growth potential is even greater if any fraction of those claiming that they "Will consider" open textbooks did decide to adopt an open textbook. It must be noted, however, that this expressed interest may be due to the exposure to the concepts of OER and open textbooks in this survey; faculty without this exposure may be less likely to consider or adopt OER and/or open textbooks. The level of interest and the conversion rate for the general pool of faculty may be far lower.

METHODOLOGY

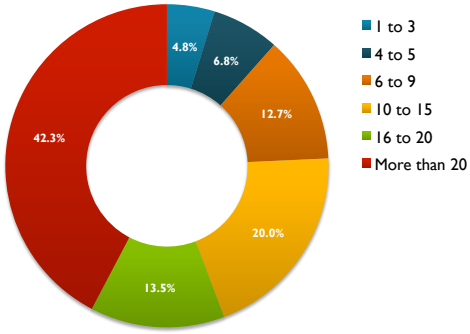
A national faculty sample is used in this analysis, designed to be representative of the overall range of faculty teaching in U.S. higher education. A multiple-stage selection process was used for creating a stratified sample of all teaching faculty. The process began by obtaining data from a commercial source, Market Data Retrieval[15], which has over one and a half million faculty records and claims that its records represent 93% of all teaching faculty. All teaching faculty (defined as having at least one course code associated with their record) were selected for this first stage. Faculty were then randomly selected from the master list in proportion to the number contained in each Carnegie Classification, to produce a second-stage selection of teaching faculty members. This sample was then checked against opt-out lists, as well as for non-functioning email addresses. Approximately 12% of all email addresses were removed at this stage. The number of email addresses that were still receiving mail but no longer actively being used by the individual being addressed (e.g., moved or retired) is unknown. Spam filters at both the institution and the individual level also captured an unknown proportion of these emails.

A total of 3,006 faculty responded to a sufficient number of questions to be included in the analysis, representing the full range of higher education institutions (two-year, four-year, all Carnegie classifications, and public, private nonprofit, and for-profit) and the complete range of faculty (full- and part-time, tenured or not, and all disciplines). More than three-quarters of the respondents report that they are full-time faculty members. Over 28% teach at least one online course and 27% teach at least one blended course.

RESPONDENTS - TENURE STATUS



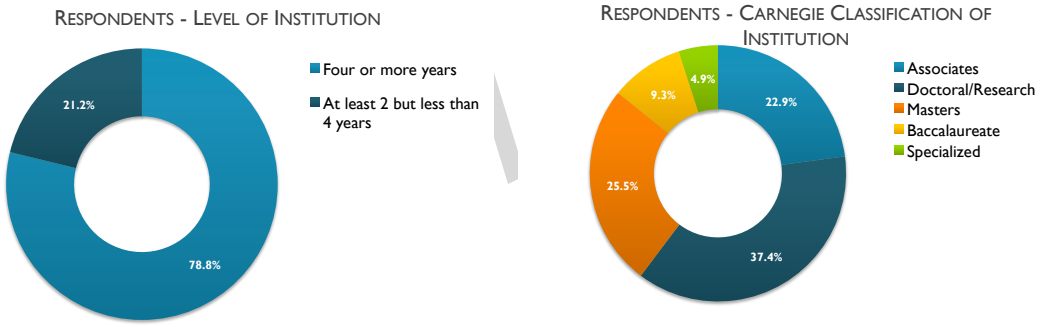
RESPONDENTS - NUMBER OF YEARS TEACHING

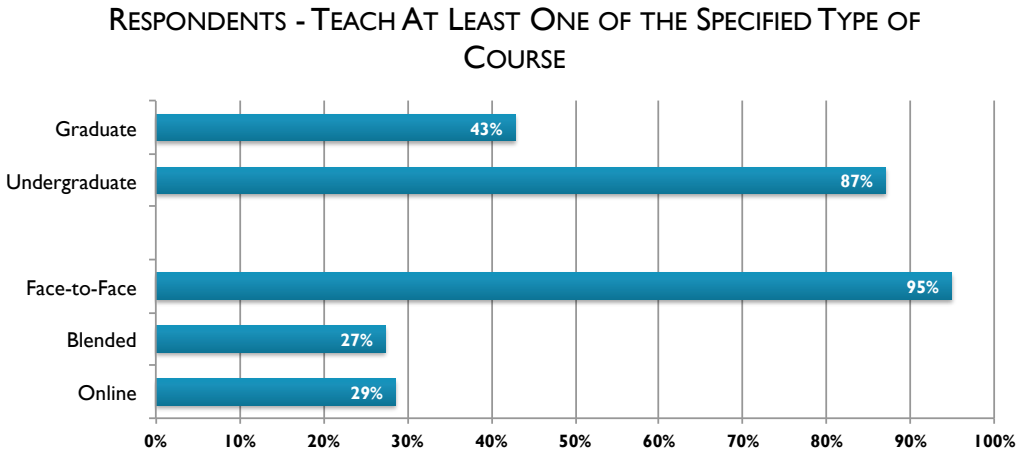


[15] http://schooldata.com/wordpress/wp-content/uploads/2014/06/MDR-Education-Catalog.pdf

Institutional descriptive data come from the National Center for Educational Statistics' IPEDS database[16]. After the data were compiled and merged with the IPEDS database, responders and nonresponders were compared to ensure that the survey results reflected the characteristics of the entire population of schools. The responses are compared for 35 unique categories based on the 2010 Carnegie Classification of Institutions of Higher Education.

Analysis for this report has been conducted for three different subgroups of the survey respondents. A series of questions were directed to all responding faulty (all teaching faculty) on such issues as their criteria for selecting educational resources, awareness of openly licensed resources and open textbooks, resource discoverability and quality, etc. A second set of more detailed questions were directed only to those faculty members who had been through a decision process related to course materials over the past two years. Approximately 90% of all responding faculty qualified for these questions because they had created a new course, substantially modified an existing course, or selected new required course materials.





[16] http://nces.ed.gov/ipeds/datacenter/

A final set of textbook selection questions was directed at faculty members who had recently been through the decision process for a large enrollment undergraduate course. These faculty were presented with detailed lists of possible textbooks that they may have considered, to determine which books they were aware of, considered, and which they finally adopted.

As noted in our previous report, a critical issue in measuring the level of OER awareness is exactly how the question is worded. Many academics confuse "open" with "free," and assume all free resources are OER. Still others will confuse "open resources" with "open source," and assume OER refers only to open source software. Because of these differing levels of understanding, the phrasing of the awareness question needs to be specific. The version selected (listed below) was found to have the best balance in differentiating among the different levels of awareness, while avoiding leading those with no previous knowledge of the concept. This is the same wording as used last year, so that year-to-year comparisons can be made.

How aware are you of Open Educational Resources (OER)? OER is defined as "teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others." Unlike traditionally copyrighted material, these resources are available for "open" use, which means users can edit, modify, customize, and share them.

- ❍ I am not aware of OER
- ❍ I have heard of OER, but don't know much about them
- ❍ I am somewhat aware of OER but I am not sure how they can be used
- ❍ I am aware of OER and some of their use cases
- ❍ I am very aware of OER and know how they can be used in the classroom

Based on our testing, the results from this question may still slightly overstate the level of OER awareness, but this was considered a better option than leading the respondent. By using a series of additional questions, the results from this question can be adjusted to remove those who might have thought that they were aware of OER, but when probed did not have knowledge of all of the aspects that make up the concept.

Because licensing for remixing and reuse is central to the concept of OER, a question about the respondent's awareness of different licensing concepts was asked of all respondents *before* any questions about OER awareness itself:

How aware are you of each of the following licensing mechanisms?

	Unaware	Somewhat Aware	Aware	Very Aware
Public Domain				
Copyright				
Creative Commons				

By combining the responses from the OER awareness question with those of the licensing questions, a combined index of awareness can be constructed. This process was also used in our previous report, so that year-to-year comparisons can be made.

APPENDIX TABLES

Selecting Educational Resources

IMPORTANCE OF FACTORS IN SELECTING REQUIRED COURSE MATERIAL

	Includes test banks	*Familiarity with brand/publisher*	*Works with my institution's LMS*
Very important	13%	9%	16%
Important	15%	23%	18%
Somewhat important	16%	34%	20%
Not important	55%	34%	46%

	Includes supplemental instructor material	*Adaptable/editable*	*Recommended by other faculty members*
Very important	22%	19%	13%
Important	19%	24%	31%
Somewhat important	21%	25%	34%
Not important	38%	32%	21%

	Easy to find	*Comprehensive content and activities*	*Cost to the student*
Very important	32%	48%	50%
Important	38%	29%	37%
Somewhat important	19%	12%	11%
Not important	11%	12%	2%

IMPORTANCE OF FACTORS IN SELECTING REQUIRED COURSE MATERIAL BY TYPE OF INSTITUTION

	Four year	*Two Year*
Familiarity with brand/publisher	31%	36%
Works with institution's LMS	30%	49%
Test banks	23%	50%
Recommended by faculty	43%	51%
Adaptable/editable	40%	54%
Supplemental instructor material	36%	61%
Easy to find	68%	76%
Comprehensive	74%	87%
Cost to the student	86%	91%

SATISFACTION WITH FACTORS IN SELECTING REQUIRED COURSE MATERIAL

	Cost to the student	*Adaptable/editable*	*Includes supplemental instructor material*
Very satisfied	24%	27%	32%
Satisfied	34%	45%	41%
Somewhat satisfied	27%	21%	20%
Not satisfied	15%	7%	7%

	Includes test banks	*Comprehensive content and activities*	*Recommended by other faculty members*
Very satisfied	36%	33%	21%
Satisfied	42%	49%	62%
Somewhat satisfied	16%	15%	15%
Not satisfied	6%	3%	2%

	Works with my institution's LMS	*Easy to find*	*Familiarity with brand/publisher*
Very satisfied	31%	35%	38%
Satisfied	53%	52%	53%
Somewhat satisfied	12%	11%	8%
Not satisfied	5%	1%	1%

IMPORTANCE OF COST TO STUDENT IN SELECTING REQUIRED COURSE MATERIAL

	Very important	*Important*
Overall	50%	37%
Specialized	35%	47%
Baccalaureate	43%	43%
Masters	55%	36%
Doctoral/Research	43%	40%
Associates	61%	31%
20,000 and above	48%	40%
10,000 - 19,999	54%	34%
5,000 - 9,999	54%	33%
1,000 - 4,999	44%	41%
Under 1,000	57%	28%
At least 2 but less than 4 years	61%	31%
Four or more years	47%	39%

Awareness of Open Educational Resources

AWARENESS OF OPEN EDUCATIONAL RESOURCES: 2015-16

Very Aware	*Aware*	*Somewhat Aware*	*Not Aware*
6.6%	18.9%	16.5%	58.1%

AWARENESS OF OPEN EDUCATIONAL RESOURCES: 2014-15 AND 2015-16

	Very Aware	*Aware*	*Somewhat Aware*	*Not Aware*
2014-15	5%	15%	14%	66%
2015-16	7%	19%	16%	58%

Awareness of Licensing of Open Educational Resources

AWARENESS OF LICENSING: 2015-16

	Very Aware	*Aware*	*Somewhat Aware*	*Unaware*
Copyright	42%	39%	16%	4%
Public Domain	28%	38%	26%	7%
Creative Commons	16%	22%	28%	34%

AWARENESS OF OPEN EDUCATIONAL RESOURCES AND CREATIVE COMMONS: 2015-16

Very Aware	*Aware*	*Somewhat Aware*	*Not Aware*
5.9%	16.0%	11.9%	66.3%

AWARENESS OF OPEN EDUCATIONAL RESOURCES AND CREATIVE COMMONS: 2014-15 AND 2015-16

	Very Aware	*Aware*	*Somewhat Aware*	*Not Aware*
2014-15	5%	12%	10%	74%
2015-16	6%	16%	12%	66%

AWARENESS OF OPEN EDUCATIONAL RESOURCES AND CREATIVE COMMONS: 2015-16

	Very aware	*Aware*
Four or more years	5%	16%
At least 2 but less than 4 years	10%	17%
Associates	10%	16%
Doctoral/Research	4%	16%
Masters	5%	17%
Baccalaureate	6%	16%
Specialized	2%	8%

AWARENESS OF OPEN EDUCATIONAL RESOURCES AND CREATIVE COMMONS: 2015-16

	Very aware	*Aware*
Arts and Literature	5%	17%
Business Administration	8%	14%
Computer and Information Science	13%	20%
Education	9%	22%
Engineering	7%	19%
Humanities	9%	16%
Law	7%	7%
Linguistics / Language	8%	18%
Mathematics	10%	22%
Medicine	3%	17%
Natural Sciences	5%	20%
Psychology	8%	18%
Social Sciences	4%	12%

Awareness of Open Textbooks

AWARENESS OF OPEN TEXTBOOKS: 2015-16

Very aware	6.9%
Aware	12.2%
Somewhat aware	15.2%
Not aware	65.7%

AWARENESS OF OPEN TEXTBOOKS AND CREATIVE COMMONS: 2015-16

Very aware	6.3%
Aware	10.3%
Somewhat aware	12.8%
Not aware	70.6%

Educational Resource Decision Process

FACULTY ACTIONS THAT IMPACT REQUIRED COURSE MATERIALS

Created a new course	48%
Substantially modified an existing course	65%
Changed required course materials	74%
Created new course and modified existing course	37%
Created new course and changed required material	40%
Modified existing course and changed required material	54%
Created new course, modified existing course and selected new required material	33%
None of the above	10%

Proportion of Faculty Selecting Required Course Materials

Total	90%
Part-time	81%
Full-time	93%
Tenured	92%
Not tenured	93%
Not tenure track	89%
Teach Online	97%
Teach Blended	97%

Proportion of Faculty Selecting Required Course Materials by Institutional Characteristics

20,000 and above	89%
10,000 - 19,999	91%
5,000 - 9,999	92%
1,000 - 4,999	88%
Under 1,000	91%
Specialized	85%
Baccalaureate	93%
Masters	91%
Doctoral/Research	90%
Associates	90%
Two years	88%
Four or more years	90%

Type of Course with Largest Enrollment for New Required Materials

A new course	23.2%
A substantially modified course	42.6%
A course with new required materials	34.2%

Level of Course with Largest Enrollment for New Required Materials

Undergraduate	76.9%
Graduate	20.6%
Other	2.5%

Delivery Method of Course with Largest Enrollment for New Required Materials

Face-to-face	74.8%
Blended	13.3%
Online	11.9%

Classification of Course with Largest Enrollment for New Required Materials

Introductory course	41.1%
Intermediate level course	27.6%
Advanced course	28.7%
N/A Does not apply	2.6%

Average Enrollment for Course Being Considered for New Required Materials

Overall	154
A course with new required materials	199
A substantially modified course	157
A new course	71
Not required	74
Required for some students (e.g., majors)	162
Required for all students	220
Advanced course	38
Intermediate level course	83
Introductory course	241
Single section	44
Course taught in multiple sections	244
Graduate	33
Undergraduate	169

Type of Text Material Required

Textbook	18.0%
Textbook + Other Text	59.7%
Other Text	20.0%
Neither	2.4%

Type of Textbook Required

Printed	50.0%
Digital	8.5%
Printed and Digital	19.1%
None	22.4%

Textbook Requirements by Type of Course

	Printed	*Printed and digital*	*Digital*
Overall	50.0%	19.1%	8.5%
Undergraduate	51.9%	19.6%	8.7%
Graduate	42.8%	19.2%	8.5%
Introductory course	50.2%	20.8%	9.9%
Intermediate level course	53.4%	18.7%	8.7%
Advanced course	45.7%	17.6%	7.1%
Face-to-face	52.7%	15.7%	7.5%
Blended	41.1%	29.1%	10.8%
Online	44.0%	28.0%	12.2%

Licensing of Required Textbooks

Printed Textbook(s)	Copyrighted	97.3%
	Creative Commons	0.9%
	Public Domain	2.4%
	NA/Don't Know	2.0%
Digital Textbook(s)	Copyrighted	80.9%
	Creative Commons	7.9%
	Public Domain	11.7%
	NA/Don't Know	6.8%

Licensing of Required Material Other Than Textbooks

Other Printed	Copyrighted	46%
	Creative Commons	15%
	Public Domain	44%
	NA/Don't Know	10%
Other Digital	Copyrighted	45%
	Creative Commons	19%
	Public Domain	52%
	NA/Don't Know	11%

Openly licensed Material Use

Textbook	2.1%
Textbook and other material	3.2%
Other material	36.0%
None	58.7%

Use of Open-Licensed Textbook By Course Characteristics: 2015-16

Overall	5.3%
Undergraduate	4.7%
Graduate	10.0%
Multiple sections	5.7%
Single section	5.5%
Introductory course	4.9%
Intermediate level course	5.7%
Advanced course	7.0%
Face-to-face	5.5%
Blended	5.2%
Online	7.2%

Use of Open Educational Resources By Faculty Characteristics: 2015-16

	Textbook	*Textbook and other material*	*Other material*
Overall	2.1%	3.2%	36.0%
Teach Intro Level	1.8%	3.0%	34.3%
Teach Blended	2.1%	3.6%	37.0%
Teach Online	2.4%	2.9%	35.0%
Not tenure track	1.6%	3.2%	35.5%
Tenure track, not tenured	1.3%	4.2%	37.1%
Tenured	2.4%	3.0%	37.9%
N/A	2.9%	3.3%	29.3%
Full-time	2.3%	3.5%	35.7%
Part-time	1.5%	2.0%	37.1%

Potential Barriers

BARRIERS TO ADOPTING OPEN EDUCATIONAL RESOURCES

Not enough resources for my subject	49%
Too hard to find what I need	48%
No comprehensive catalog of resources	45%
Not used by other faculty I know	30%
Not high-quality	28%
Not knowing if I have permission to use or change	21%
Not current, up-to-date	17%
Too difficult to integrate into technology I use	14%
Lack of support from my institution	12%
Too difficult to change or edit	11%

BARRIERS TO ADOPTING OPEN EDUCATIONAL RESOURCES BY OER AWARENESS

	Not aware	*Aware of OER*
Not enough resources for my subject	47%	50%
Too hard to find what I need	47%	48%
No comprehensive catalog of resources	46%	44%
Not used by other faculty I know	40%	24%
Not high-quality	19%	32%
Not knowing if I have permission to use or change	26%	19%
Not current, up-to-date	14%	18%
Too difficult to integrate into technology I use	11%	15%
Lack of support from my institution	13%	11%
Too difficult to change or edit	9%	12%

BARRIERS TO ADOPTING OPEN EDUCATIONAL RESOURCES

	2014-15	*2015-16*
Not enough resources for my subject	37%	49%
Too hard to find what I need	44%	48%
No comprehensive catalog of resources	51%	45%
Not used by other faculty I know	18%	30%
Not high-quality	18%	28%
Not knowing if I have permission to use or change	33%	21%
Not current, up-to-date	7%	17%
Too difficult to integrate into technology I use	13%	14%
Lack of support from my institution	15%	12%
Too difficult to change or edit	11%	11%

The Process of Textbook Adoption for Introductory Courses

Introductory Textbook Awareness, Consideration, and Adoption

	OpenStax	*Overall*
Aware	70%	82%
Considered if Aware	44%	52%
Adopted if Considered	32%	41%

Importance of Factors in Selecting Required Course Material by OpenStax User Status

	Use OpenStax	*Non-user*
Familiarity with brand/publisher	30%	31%
Works with my institution's LMS	29%	32%
Includes test banks	13%	34%
Adaptable/editable	47%	42%
Includes supplemental instructor material	23%	48%
Recommended by other faculty members	42%	49%
Easy to find	77%	61%
Comprehensive content and activities	81%	84%
Cost to the student	94%	85%

Barriers to Adopting Open Educational Resources by OpenStax User Status

	Use OpenStax	*Non-user*
Not current, up-to-date	14%	8%
Not knowing if I have permission to use or change	21%	18%
Lack of support from my institution	11%	19%
Too difficult to change or edit	14%	20%
Too difficult to integrate into technology I use	18%	23%
Not used by other faculty I know	29%	31%
Not enough resources for my subject	36%	32%
Not high-quality	43%	37%
Too hard to find what I need	18%	43%
No comprehensive catalog of resources	21%	46%

Discoverability

Ease of Searching Traditional Publishers

Very Easy	*Easy*	*Difficult*	*Very Difficult*	*Don't Know*
17.0%	46.2%	17.5%	1.7%	17.6%

Ease of Searching Open Educational Resources

Very Easy	*Easy*	*Difficult*	*Very Difficult*	*Don't Know*
1.5%	13.7%	18.7%	3.9%	62.4%

Relative Ease of Searching Open Educational Resources

OER superior	*OER the same*	*OER inferior*	*N/A Missing*
2.5%	13.3%	14.5%	69.7%

Future Use

Will You Use Open Educational Resources in the Next Three Years?

Yes	6.9%
Will consider	31.3%
Might Consider	31.5%
Not interested	5.4%
No Opinion / Don't Know	24.9%

Will You Use Open Textbooks in the Next Three Years?

Yes	6.5%
Will consider	30.4%
Might Consider	32.0%
Not interested	7.3%
No Opinion / Don't Know	23.9%

Survey Methodology

Respondents - Tenure Status

N/A	14.5%
Tenured	47.0%
Tenure track, not tenured	11.1%
Not tenure track	27.4%

Respondents - Number of Years teaching

1 to 3	4.8%
4 to 5	6.8%
6 to 9	12.7%
10 to 15	20.0%
16 to 20	13.5%
More than 20	42.3%

Respondents - Level of Institution

Four or more years	78.8%
At least 2 but less than 4 years	21.2%

Respondents - Carnegie Classification of Institution

Associates	22.9%
Doctoral/Research	37.4%
Masters	25.5%
Baccalaureate	9.3%
Specialized	4.9%

Respondents - Teach At Least One of the Specified Type of Course

Graduate	43%
Undergraduate	87%
Face-to-Face	95%
Blended	27%
Online	29%

APPENDIX: QUESTIONNAIRE

Welcome.

The Babson Survey Research Group is working with the William and Flora Hewlett Foundation in understanding faculty attitudes and practice on the selection of teaching materials and the use of technology in teaching.

The world is changing rapidly. Graduates need higher-order skills and strong content knowledge to succeed in the workforce and participate in our democracy effectively. The foundation's Education Program is making investments to ensure that faculty and students have high-quality resources to meet their needs. We value your feedback and insight to help guide us in meeting this objective.

All respondents will receive a copy of the study report.

Best Regards,
Dr. Jeff Seaman
Babson Survey Research Group

We value your privacy. All survey respondents are provided complete anonymity. No personally identifiable information is ever released.

Please tell us a bit about yourself. *Note: This information is used only to classify the survey responses. No individual-level data will be released. Information that you provide in this survey will not be used to target you for any marketing.*

Teaching Status

Part-time

Full-time

Tenure Status

DROPDOWN LIST:
N/A
Tenured
Tenure track, not tenured
Not tenure track

Your Age

- Under 35
- 35 – 44
- 45 – 54
- 55+

Number of Years Teaching

DROPDOWN LIST:
Less than 1
1 to 3
4 to 5
6 to 9

10 to 15
16 to 20
More than 20

Which of the following have you taught during the most recent academic year?

Please use the following definitions:

- **Face-to-face Course:** A course where all meetings are face-to-face, may use a learning management system (LMS) or web pages to post the syllabus and assignments.
- **Blended/Hybrid Course:** A course where sufficient content is delivered online to create a reduction in the number of face-to-face class meetings.
- **Online Course:** A course in which all, or virtually all, the content is delivered online. Typically have no face-to-face class meetings (with the possible exception of proctored exams).

Please check all that apply.

	Face-to-face course	Blended/Hybrid course	Online Course
Graduate level	❑	❑	❑
Undergraduate level	❑	❑	❑
Other	❑	❑	❑

Over the past two years, either working alone or with others, have you...

❑ Created a new course *(A course that was not previously listed in the course catalog)*

❑ Substantially modified an existing course *(Examples include making a substantive change in the content included in the course, changing the delivery method (e.g., converting a face-to-face course to online) or a similar change of this magnitude. Do not count the normal fine-tuning to a course during its delivery or the typical term-to-term refinements that all courses go through)*

❑ Added or changed required course materials *(Items listed in the course syllabus as required for all students, either acquired on their own or provided to all students through a materials fee, examples include a printed or digital textbook, other course-complete printed (course pack) or digital materials, or materials such as laboratory supplies)*

❑ None of the above

If None of the above Is Selected, Then Skip To When selecting required course material...

Display If Over the past two years SelectedChoicesCount Is Greater Than 1

Considering all the new courses, substantially modified courses, and/or courses with changed required materials that you have been involved with over the past two years, please select the one with the largest enrollment. *(If more than one course has the same enrollment, then select the one you are most familiar with.)*

The following questions will apply to this selected course.
This selected course is:

❍ A new course
❍ A substantially modified course
❍ A course with new required materials

Display If Over the past two years SelectedChoicesCount Is Equal to 1 And Created a new course Is Selected

Considering all the new courses that you have been involved with over the past two years, please select the one with the largest enrollment. *(If more than one course has the same enrollment, then select the one you are most familiar with.)*

The following questions will apply to this selected course.

Display If Over the past two years SelectedChoicesCount Is Equal to 1 And Substantially modified an existing course Is Selected

Considering all the substantially modified courses that you have been involved with over the past two years, please select the one with the largest enrollment. *(If more than one course has the same enrollment, then select the one you are most familiar with.)*

The following questions will apply to this selected course.

Display If Over the past two years SelectedChoicesCount Is Equal to 1 And Added or changed required course materials Is Selected

Considering all the courses with changed required materials that you have been involved with over the past two years, please select the one with the largest enrollment. *(If more than one course has the same enrollment, then select the one you are most familiar with.)*

The following questions will apply to this selected course.

Whose decision was it to create the new course/modify the course/select new required course materials?

- ❍ The decision was mine alone
- ❍ The decision was made by me in concert with others
- ❍ The decision was made at the department level
- ❍ The decision was made at the division level
- ❍ The decision was made the institutional level
- ❍ Other

Why was this decision taken?

Please describe this course.

Level of course

- ❍ Undergraduate
- ❍ Graduate
- ❍ Other

Is this course taught in multiple sections?

- ❍ Yes
- ❍ No

How would you classify this course?

- ❍ Introductory course
- ❍ Intermediate level course
- ❍ Advanced course
- ❍ N/A Does not apply

Course Type

- ❍ Face-to-face
- ❍ Blended
- ❍ Online

Is the course required?

- ❍ Yes, for all students
- ❍ Yes, for some students (e.g., majors)
- ❍ No

What is the discipline of the course?

DROPDOWN LIST:
Arts and Literature
Business Administration
Computer and Information Science
Economics
Education
Engineering
Humanities
Law
Linguistics / Language
Mathematics
Medicine
Natural Sciences
Philosophy
Psychology
Social Sciences
Other

Display If - Is this course taught in multiple sections? - No Is Selected

What is the enrollment of this course for a typical term? *Please enter a single number of your best estimate.*

Display If - Is this course taught in multiple sections? - Yes Is Selected

What is the total enrollment for ALL sections of this course for a typical term? *Please enter a single number of your best estimate.*

Display If - Is this course taught in multiple sections? - Yes Is Selected

What is the typical enrollment of a section that you teach? *Please enter a single number of your best estimate.*

Display If - Level of course - Undergraduate Is Selected And - Introductory course Is Selected And - What is the discipline - Economics Is Selected

Please describe this course.

- ❍ Principles of Economics
- ❍ Macro Economics
- ❍ Micro Economics
- ❍ Other

Display If - Level of course - Undergraduate Is Selected And - Introductory course Is Selected And What is the discipline - Mathematics Is Selected

Please describe this course.

- ❍ PreAlgebra
- ❍ Algebra and Trigonometry
- ❍ College Algebra
- ❍ Precalculus
- ❍ Calculus
- ❍ Statistics
- ❍ Other

Display If - Level of course - Undergraduate Is Selected And - Introductory course Is Selected And What is the discipline - Natural Sciences Is Selected

Please describe this course.

- ❍ Anatomy and Physiology
- ❍ Biology
- ❍ Chemistry
- ❍ College Physics (Algebra Based)
- ❍ University Physics (Calculus Based)
- ❍ Other

What is your role in selecting the required materials for this course?

- ❍ I am solely responsible for the selection
- ❍ I lead a group that makes the selection
- ❍ I am a member of a group that makes the selection
- ❍ I influence the selection, but do not have decision-making power
- ❍ Others make the selection, I have no role
- ❍ Other

Display If What is your role in selecting the required materials for this course? Other Is Selected

Please explain "other" for your role in selecting the required materials.

What types of course materials are required for this course? *(Items listed in the course syllabus as required for all students, either acquired on their own or provided to all students through a materials fee, examples include printed or digital textbooks, other course-complete printed (course pack) or digital materials, or materials such as laboratory supplies).*

	Yes	No
Printed textbook(s)	❍	❍
Digital textbook(s)	❍	❍
Printed material other than textbooks	❍	❍
Digital material other than textbooks	❍	❍
Other materials	❍	❍

Display If What types of mandatory course materials does the course have Other materials - Yes Is Selected

Please specify what other materials are required.

Display If Printed textbook(s) - Yes Is Selected Or Digital textbook(s) - Yes Is Selected Or Printed material other than textbooks - Yes Is Selected Or Digital material other than textbooks - Yes Is Selected

How are the required materials for this course licensed? *(Check all that apply.)*

	Copyrighted	Public Domain	Creative Commons	Other	NA/Don't Know
Printed textbook(s) - Yes Is Selected Printed textbook(s)	❑	❑	❑	❑	❑
Digital textbook(s) - Yes Is Selected Digital textbook(s)	❑	❑	❑	❑	❑
Printed material other than textbooks - Yes Is Selected Printed material other than textbooks	❑	❑	❑	❑	❑
Digital material other than textbooks - Yes Is Selected Digital material other than textbooks	❑	❑	❑	❑	❑

When selecting required course materials, how important are the following factors in your selection?

	Very important	Important	Somewhat important	Not important
Cost to the student	❍	❍	❍	❍
Easy to find	❍	❍	❍	❍
Comprehensive content and activities	❍	❍	❍	❍
Works with my institution's Learning Management System (LMS)	❍	❍	❍	❍
Recommended by other faculty members	❍	❍	❍	❍
Adaptable/editable	❍	❍	❍	❍
Familiarity with brand/publisher	❍	❍	❍	❍
Includes test banks	❍	❍	❍	❍
Includes supplemental instructor material	❍	❍	❍	❍

Display If When selecting required course materials, how important are the following factors in your selection? - Very important Is Greater Than 0 Or When selecting required course materials, how important are the following factors in your selection? - Important Is Greater Than 0

How satisfied are you with the following aspects of the material available to you for selection as a required material for your course(s)?

	Very satisfied	Satisfied	Somewhat satisfied	Not satisfied
If Cost to the student - Very important Or Important Is Selected Cost to the student	❍	❍	❍	❍
If Easy to find - Very important Is Selected Or Important Is Selected Easy to find	❍	❍	❍	❍
If Comprehensive content and activities - Very important Is Selected Or Important Is Selected Comprehensive content and activities	❍	❍	❍	❍
If Works with my institution's Learning Management System (LMS) - Very important Is Selected Or Important Is Selected Works with my institution's Learning Management System (LMS)	❍	❍	❍	❍
If Recommended by other faculty members - Very important Is Selected Or Important Is Selected Recommended by other faculty members	❍	❍	❍	❍
If Adaptable/editable - Very important Is Selected Or Important Is Selected Adaptable/editable	❍	❍	❍	❍
If Familiarity with brand/publisher - Very important Is Selected Or Important Is Selected Familiarity with brand/publisher	❍	❍	❍	❍
If Includes test banks - Very important Is Selected Or Important Is Selected Includes test banks	❍	❍	❍	❍
If Includes supplemental instructor material - Very important Is Selected Or Important Is Selected Includes supplemental instructor material	❍	❍	❍	❍

What changes (if any) to the availability and nature of teaching materials would most improve your ability to select and use the best material for your courses?

How aware are you of each of the following licensing mechanisms?

	Unaware	Somewhat Aware	Aware	Very Aware
Public Domain	❍	❍	❍	❍
Copyright	❍	❍	❍	❍
Creative Commons	❍	❍	❍	❍

How aware are you of Open Educational Resources (OER)? *OER is defined as "teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others." Unlike traditionally copyrighted material, these resources are available for "open" use, which means users can edit, modify, customize, and share them.*

- ❍ I am not aware of OER
- ❍ I have heard of OER, but don't know much about them
- ❍ I am somewhat aware of OER but I am not sure how they can be used
- ❍ I am aware of OER and some of their use cases
- ❍ I am very aware of OER and know how they can be used in the classroom

How aware are you of Open Textbooks? *Open textbooks are textbooks that are freely available with nonrestrictive licenses. Covering a wide range of disciplines, open textbooks are available to download and print in various file formats from several web sites and OER repositories.*

- ❍ I am not aware of Open Textbooks
- ❍ I have heard of Open Textbooks, but don't know much about them
- ❍ I am somewhat aware of Open Textbooks but I am not sure if they are appropriate for my needs
- ❍ I am aware of Open Textbooks and some of their use cases
- ❍ I am very aware of Open Textbooks and know how they can be used in the classroom

Have you used Open Educational Resources or Open Textbooks in any of the following ways for any of your courses?

	Used as required course material	Used as supplemental course material	Not used	Don't Know
Open Educational Resources	❍	❍	❍	❍
Open Textbooks	❍	❍	❍	❍

Display If How aware are you of Open Educational Resources (OER)? I am very aware Is Selected Or I am aware Is Selected Or I am somewhat aware Is Selected Or I have heard of OER Is Selected

What are the three most important deterrents to your use of Open Educational Resources in your courses? *Please drag up to three deterrents to the box on the right (the order in which you drag the three deterrents does not matter).*

Three most important (in any order)
_____ Too hard to find what I need
_____ Not enough resources for my subject
_____ Not high-quality
_____ Not current, up-to-date
_____ No comprehensive catalog of resources
_____ Not knowing if I have permission to use or change
_____ Lack of support from my institution

_____ Too difficult to change or edit

_____ Too difficult to integrate into technology I use

_____ Not used by other faculty I know

Understanding that there is variability, how would you generally rate the quality (factually correct, up-to-date, well-written, organized, effective) of Open Educational Resources and material from traditional publishers?

	Excellent	Good	Average	Poor	Don't Know
Traditional publishers	❍	❍	❍	❍	❍
Open Educational Resources	❍	❍	❍	❍	❍

Understanding that there is variability, how would you generally rate the ease of searching for educational resources for your courses?

	Very Easy	Easy	Difficult	Very Difficult	Don't Know
From traditional publishers	❍	❍	❍	❍	❍
Open Educational Resources	❍	❍	❍	❍	❍

Display If Open Educational Resources - Not used Is Selected Or Open Educational Resources - Don't Know Is Selected Or Open Textbooks - Not used Is Selected Or Open Textbooks - Don't Know Is Selected

Do you think you will use this type of resource in the next three years?

	Yes	Will consider	Might Consider	Not interested	No Opinion / Don't Know
If Open Educational Resources - Not used Is Selected Or Don't Know Is Selected Open Educational Resources	❍	❍	❍	❍	❍
If Open Textbooks Not used Is Selected Or Don't Know Is Selected Open Textbooks	❍	❍	❍	❍	❍

We welcome your comments. Please let us know your thoughts on any of the issues covered in this survey.

May we quote your response? *Published comments will only include attribution of the discipline of the faculty member and if they are full- or part-time ("Full-time Natural Sciences Faculty", "Part-time Mathematics Faculty"). No personal identifiable information will be included.*

❍ Yes
❍ No

May we contact you with follow-up questions?

❍ Yes
❍ No

Thank you.

This is the end of the survey - pressing the "Next" button below will record your responses.

Note: Do not press "Next" until you are sure you are finished - once your survey has been recorded you will no longer be able to edit your responses.

Babson Survey Research Group

The Babson Survey Research Group conducts regional, national, and international research, including survey design, sampling methodology, data integrity, statistical analyses and reporting.

http://www.onlinelearningsurvey.com/

Open Educational Resources

- Opening the Curriculum: Open Educational Resources in U.S. Higher Education
- Growing the Curriculum: Open Educational Resources in U.S. Higher Education

National Surveys of Online Education

- Online Report Card: Tracking Online Education in the United States
- Grade Change: Tracking Online Education in the United States
- Changing Course: Ten Years of Tracking Online Education in the United States
- Going the Distance: Online Education in the United States, 2011
- Online Learning Trends in Private-Sector Colleges and Universities, 2011
- Class Differences: Online Education in the United States, 2010
- Learning on Demand: Online Education in the United States, 2009
- Staying the Course: Online Education in the United States, 2008
- Online Nation: Five Years of Growth in Online Learning
- Making the Grade: Online Education in the United States, 2006
- Growing by Degrees: Online Education in the United States, 2005
- Entering the Mainstream: The Quality and Extent of Online Education in the United States, 2003 and 2004
- Sizing the Opportunity: The Quality and Extent of Online Education in the United States, 2002 and 2003

Higher Education Faculty and Technology

- Digital Faculty, Professors, Teaching and Technology, 2012
- Conflicted: Faculty and Online Education, 2012

Social Media Use in Education

- Social Media for Teaching and Learning 2013
- Blogs, Wikis, Podcasts and Facebook: How Today's Higher Education Faculty Use Social Media, 2012
- Teaching, Learning, and Sharing: How Today's Higher Education Faculty Use Social Media

K-12 Online Learning Survey Reports

- Online Learning In Illinois High Schools: Has The Time Come?
- Class Connections: High School Reform and the Role of Online Learning
- K–12 Online Learning: A 2008 follow-up of the Survey of U.S. School District Administrators
- K–12 Online Learning: A Survey of U.S. School District Administrators

The A·P·L·U-Sloan National Commission on Online Learning

- Online Learning as a Strategic Asset, Volume II: The Paradox of Faculty Voices: Views and Experiences with Online Learning
- Online Learning as a Strategic Asset: A Survey of APLU Presidents and Chancellors
- Online Learning as a Strategic Asset: A Survey of NAFEO Presidents and Chancellors
- Online Learning as a Strategic Asset: A Survey of AIHEC Tribal College and University

Survey results from over 3,000 higher education faculty that are currently teaching courses show that most faculty remain unaware of open educational resources (OER), and it is not yet a driving force in educational material adoption decisions. The most important barriers remain the effort required to find and evaluate the educational materials. Faculty, however, are interested in the "open" concept of OER and are willing to give it a try.

- Almost all (90%) of teaching faculty selected new or revised educational materials for at least one course over the previous two years.
- The most important factor cited by faculty when selecting educational resources was the cost to the students. After cost, the next most important was the comprehensiveness of the resource, followed by how easy it was to find.
- There is a serious mismatch between how important faculty think a factor is in selecting educational resources and how satisfied they are with the current state of that factor.
- Virtually all courses (98%) require a textbook or other non-textbook material as part of their suite of required resources.
- Required textbooks are more likely to be in printed form (69%) than digital, with courses requiring digital textbooks in addition to a printed textbook more often than requiring only digital textbooks.
- Only 5% of courses are using an openly licensed (Creative Commons or public domain) required textbook. The rate of adoption of openly licensed OpenStax College textbooks for large enrollment introductory undergraduate courses is twice that (10%).
- There has been a small increase in the past year in the proportion of faculty who report that they are aware of copyright licensing of classroom content.
- Faculty awareness of OER has increased in the last year, but remains low. Only 6.6% of faculty reported that they were "Very aware" of open educational resources, with around three times that many (19%) saying that they were "Aware".
- The barriers to adopting OER most cited by faculty are that "there are not enough resources for my subject" (49%), it is "too hard to find what I need" (48%) and "there is no comprehensive catalog of resources" (45%).
- A majority of faculty members (70%) who are not current users of open educational resources reported that they will use OER, will consider using OER, or might consider using it in the next three years. Only 5.4% reported that they were not interested.

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