Introduction

- Open Educational Resources, known as OER are important materials that are offered to students for certain classes because they are more affordable, and many are free.\(^1\)
- The following OER explanatory materials are designed to aid in simplifying and understanding what OER resources are available and where they can best be located.
- There are 7 parts to the OER informational documents, each offering an additional level of detail,\(^2\) plus two supplementary documents with further details.

Description of Parts

**Part 1: OER at a Glance**
A quick explanatory overview of what OER is, and why it is important to use OER.

**Part 2: OER Resources: Usage Rights**
Explanation of the symbols found on various documents and media (sometimes referred to as objects) showing what kind of copyright usages are allowed by the author or publisher of the images, documents or materials.

**Part 3: Some OER Resources in Detail**
There are many sources available, but this explanatory page offers abstracts of some of the main websites noted and their offerings for locating appropriate materials for a course or for courses.

**Part 4: Additional OER Resources**
This listing covers more sources than are not noted in Part 3.\(^3\)

**Part 5: Chart of OER Resources\(^4\)**
OER Resources can be challenging to locate for certain subjects. The chart offers suggested sites. Whereas many materials are peer-reviewed, it is the responsibility of the instructor to verify materials and author credentials.

**Part 6: Contact Information for Certain Sources noted**

**Part 7: Notations on Supplementary Materials of Part 8 and 9.**

**Part 8: Achieve: Rubrics for Evaluating Open Education Resource (OER) Objects**


Notes

1 -- See Part 2, Usage Rights.
2 -- It should be noted that websites can change, be modified, added or deleted. Resources available at creation of documents, Fall 2019.
3 -- It should be noted that websites can change, be modified, added or deleted. Resources available at creation of documents, Fall 2019.
4 -- There are two main aspects to OER. The guides listed above are for users (ie students) and for faculty recommendations.
There are additional sources available for faculty to publish and those are not specifically covered in these documents.
OER Resources at a Glance

What is OER?
OER is the acronym for Open Educational Resources

What is the meaning of OER?
Basically, the OER movement brings together a variety of organizations committed to make freely available educational materials for students and instructors to use, adapt, share and reuse without legal ramifications. (more detailed explanations follow).

As to Rhode Island:

“On September 27, 2016, Governor Gina Raimondo announced a statewide Open Textbook Initiative during a press conference at Rhode Island College (RIC). The initiative challenged Rhode Island’s higher education institutions to reduce college costs by saving students $5 million over five years using open licensed textbooks.”
[From the Office of Innovation, State of Rhode Island, https://www.innovate.ri.gov/open-textbooks.]

Why OER?
“Exorbitant textbook prices have become a barrier to student success. Over the last decade college textbook prices have increased by 88%. In addition, traditional textbooks carry restrictive licenses that prevent innovation by faculty and schools. That is why we need openly licensed textbooks, which can be freely distributed online and updated and improved by faculty. Digital textbooks can also address accessibility requirements, such as text-to-speech and translation supports.”
[Quote is from and find more information on the Rhode Island initiative see Open Textbook Initiative at the Office of Innovation, State of Rhode Island, https://www.innovate.ri.gov/open-textbooks].

• Further description can be found in an article: Affordable Course Content by Kristi Jensen.
• For a very short video explanation, see youtube: Why Open Education Matters.

What are OER permissible usages?
“Many of the teaching, learning, and resource materials on eMedia reside in the public domain or have been released under an open license that permits no-cost access, use, and redistribution by others with no or limited restrictions. These privileges cannot be revoked as long as you follow the license terms.” (See Usage Rights, OER Commons Help Center, rev. 3 January 2019) Or in simple terminology – the 5 Rs of Dr. David Wiley of Lumen Learning:

Retain ♦ Reuse ♦ Revise ♦ Remix ♦ Redistribute

Where to find OER resources?
(Sampling of organizations, see OER Resources in Detail for more information)

♦ Creative Commons https://creativecommons.org/
♦ EDUCAUSE https://www.educause.edu/
♦ OER COMMONS https://www.oercommons.org/
♦ OpenStax https://openstax.org/
♦ Open Textbook Library https://open.umn.edu/opentextbooks/
♦ SPARC [Scholarly Publishing and Academic Resources Coalition] https://sparcopen.org/
OER Resources: Usage Rights

OER Commons  https://www.oercommons.org/

From the site:
Many of the teaching, learning, and resource materials on eMedia reside in the public domain or have been released under an open license that permits no-cost access, use, and redistribution by others with no or limited restrictions. These privileges cannot be revoked as long as you follow the license terms.

The information on this page is condensed directly from Creative Commons CC BY
If you need further details and explanations on the “License Deed” or “Legal Code” use this link: [https://help.oercommons.org/support/solutions/articles/42000046845-usage-rights]

Main Symbols

CC = Creative Commons
The material has a Creative Commons license.

BY = Attribution (author)
Others can change or distribute the material – even for commercial purposes, but must give credit to the author.

SA = ShareAlike
If you share the work, you must keep the original license.

ND = NoDerivs (No Derivatives)
This symbol means you can use the material but you cannot alter the content.

NC = NonCommercial
This symbol indicates that the material cannot be used for commercial purposes or profit.

Symbols with Explanations: Identifying a Creative Commons License
Resources have their own special condition of use/copyright label. The labels listed below show the variety of possible uses, and the labels help you quickly distinguish whether a resource can be changed or shared without further permission required. As noted, further details may be necessary and refer to: [https://help.oercommons.org/support/solutions/articles/42000046845-usage-rights]

■ No Strings Attached – free usage

CC -- No restrictions on your remixing, redistributing or making derivative works. Give credit to the author, as required.

CC BY = Attribution -- This license lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation. This is the most accommodating of licenses offered.
Remix and Share – 4 Choices

Remixing, redistributing, and/or making derivatives come with certain restrictions, including sharing.

Choice #1
CC BY-SA = Attribution-ShareAlike  This license lets others remix, tweak, and build upon your work even for commercial purposes, as long as they credit you and license their new creations under the identical terms.

Choice #2
CC BY-NC = Attribution-NonCommercial  -- This license lets others remix, tweak, and build upon your work non-commercially, and although their new works must also acknowledge you and be non-commercial, they don’t have to license their derivative works on the same terms.

Choice #3
CC BY-NC-SA = Attribution-NonCommercial-ShareAlike  -- This license lets others remix, tweak, and build upon your work non-commercially, as long as they credit you and license their new creations under the identical terms.

Choice #4
CC BY-NC-ND = Attribution-NonCommercial-NoDerivs  -- This license is the most restrictive of our six main licenses, only allowing others to download your works and share them with others as long as they credit you, but they can’t change them in any way or use them commercially.

Share Only
Redistributing comes with some restrictions. Do not remix or make derivative works.
CC BY-ND = Attribution-NoDerivs  -- This license allows for redistribution, commercial and non-commercial, as long as it is passed along unchanged and in whole, with credit to you.

Read the Fine Print...
...if something is not clearly tagged or marked, what to do...

Click the View Resource button and look for any disclaimer and policies on the copyright and usage of those materials. Copyright and usage may vary from resource to resource, so it is necessary to review the specific policies of a resource.

Additional information on license symbols and downloads
See Creative Commons > What we do > Downloads
Some OER Resources in Detail

Creative Commons: when we share, everyone wins

https://creativecommons.org/

Creative Commons is a global nonprofit organization that enables sharing and reuse of creativity and knowledge through the provision of free legal tools. The vision is to help others realize the full potential of the Internet. CC has affiliates all over the world. Although Creative Commons is best known for its licenses, the work extends beyond just providing copyright licenses. CC offers other legal and technical tools that also facilitate sharing and discovery of creative works. [Creative Commons offers an extensive Frequently Asked Questions page for more details.] From the site.

EDUCAUSE  https://www.educause.edu/

EDUCAUSE is a nonprofit association that helps higher education elevate the impact of IT and supports those who lead, manage, deploy, and use information technology to advance higher education. There are over 2,300 organizations involved comprising over 100,000 individuals at member organizations in 45 countries. EDUCAUSE members include IT leaders and professionals, teaching and learning professionals, academic leaders, and campus executives at U.S. and international institutions as well as industry influencers from corporations, associations, and organizations serving the higher education community.

EDUCAUSE offers quick reads on essential information for emerging technologies.

The EDUCAUSE Library is a clearinghouse and claims to have the world’s largest collection of information about higher ed technology. From the site.

OER Commons  https://www.oercommons.org/

OER Commons is a public digital library of open educational resources. One can explore, create and collaborate with educators around the world to improve curriculum and search, browse, and evaluate resources.

Open Educational Resources (OER) are teaching and learning materials that you may be able to freely use and reuse at no cost, and without needing to ask permission. In some cases, that means you can download a resource and share it with colleagues and students. In other cases, you may be able to download a resource, edit it in some way, and then re-post it as a remixed work.

Resource Builder offers the author an opportunity to create complex documents.

Module Builder (for Higher ed) offers the opportunity to create interactive modules. (From the site)
OpenStax is a **nonprofit educational initiative** based at Rice University, and it's mission is to give every student the tools they need to be successful in the classroom. OpenStax publishes **high-quality, peer-reviewed, openly licensed college textbooks** that are absolutely free online and low cost in print. Additionally, OpenStax has developed a low-cost, research-based courseware that gives students the tools they need to complete their course the first time around. Books are available for math, science, social sciences, humanities and business.

Browsable but not searchable at this time. Special resources for faculty. | Rice University *(From the site)*

Open textbooks are textbooks that have been funded, published, and licensed to be freely used, adapted, and distributed. These books have been reviewed by faculty from a variety of colleges and universities to assess their quality. These books can be downloaded for no cost or printed at low cost. All textbooks are either used at multiple higher education institutions; or affiliated with an institution, scholarly society, or professional organization. The library currently includes 643 textbooks, with more being added all the time.

Browsable but not searchable at this time.

**Center for Open Education | University of Minnesota** *(From the site)*

**SPARC** is a global coalition committed to making **Open** the default for research and education. **SPARC** empowers people to solve big problems and make new discoveries through the adoption of policies and practices that advance **Open Access**, **Open Data**, and **Open Education**.

**SPARC** focuses on collaborating with other stakeholders—including authors, publishers, libraries, students, funders, policymakers and the public — to build on the opportunities created by the Internet, promoting changes to both infrastructure and culture needed to make open the default for research and education.

**Open Access** is the free, immediate, online availability of research articles coupled with the rights to use these articles fully in the digital environment.

**Open Education** encompasses resources, tools and practices that are free of legal, financial and technical barriers and can be fully used, shared and adapted in the digital environment.

**Open Data** is research data that is freely available on the Internet permitting any user to download, copy, analyze, re-process, pass to software or use for any purpose without financial, legal or technical barriers other than those inseparable from gaining access to the Internet itself. *(From the site)*

**Library and Information Commons** NEIT One New England Tech Blvd. East Greenwich, RI 02818  401-739-5000 x3472
Additional OER Resources

◆ CCCOER  www.cccoer.org/
Community College Consortium for Open Educational Resources

CCCOER is a growing consortium of community and technical colleges committed to expanding access to education and increasing student success through adoption of open educational policy, practices, and resources. We provide a community and resources to learn about the evolving practice of open education.

- Searchable and Browsable
- Browse by subject is user friendly

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<td>Arts and Architecture</td>
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◆ Springer Open  https://www.springeropen.com/
- Journals: Alphabetical List of Journals
- Books: Over 800, Check topics on this page

◆ MERLOT  merlot.org
Multimedia EDUCATIONAL Resource for Learning and Online Teaching

The MERLOT system provides access to curated online learning and support materials and content creation tools, led by an international community of educators, learners and researchers.

MERLOT is a project of the California State University system, which started over 20 years ago. It is an international community of close to 160,000 members with more than 82,000 online learning materials in its repository, in nearly every discipline and material type. It is a comprehensive resource for faculty in all stages of their careers. MERLOT has a peer review process in 25 disciplines and is considered a universal gateway to online learning materials. At MERLOT instructors can use MERLOT Content Builder and create instructional materials.

MERLOT has more than 6,600 open textbooks catalogued in the repository. Users can search by ISBN to discover supplemental materials for a textbook. Users can find learning exercises, bookmarked collections and virtual guest experts. The collection of resources is easily searchable and also conveniently arranged by discipline community. With the MERLOT Smart Search, users can find materials not only in MERLOT, but in over a dozen other digital libraries and the web, all in one place. In addition, there is a search tool to help find colleagues.

Disciplines
- Academic Support Services (7,531)
- Arts (3,147)
- Business (7,842)
- Education (9,979)
- Humanities (9,507)
- Mathematics and Statistics (7,292)
- Science and Technology (44,209)
- Social Sciences (7,436)
- Workforce Development (2,342)
The Open Education Consortium (OEC) is a non-profit, global, members-based network of open education institutions and organizations. OEC represents its members and provides advocacy and leadership around advancement of open education globally. OEC works with its members to build capacity to find, reuse, create and share Open Educational Resources (OER), develop open policy, create sustainable open education models, and enable international collaboration and innovation.

OEC does not offer resources, but points to other organizations that do offer specific materials.

OASIS oasis.geneseo.edu
Openly Available Sources Integrated Search

Openly Available Sources Integrated Search (OASIS) is a search tool that aims to make the discovery of open content easier. OASIS currently searches open content from 91 different sources and contains 365,241 records.

OASIS is being developed at SUNY Geneseo’s Milne Library. OASIS collects and organizes information from a variety of sources such as openstax, Lumen Learning, etc. To get started, Search or Browse or OER by subject

Lumen Learning lumenlearning.com/

Lumen Learning’s mission is to enable unprecedented learning for all students. We do this by providing affordable course materials designed to strengthen learning using open educational resources (OER). Because learning is about student success as well as affordability and access, we apply learning science insights and learning data analysis to develop iterative improvements to our course materials and learning tools.

Arts ♦ Business ♦ English/ Communication ♦ Mathematics ♦ Natural Science ♦ Social Science ♦ Technology ♦ Transitional Studies

Lumen offers OER Course Materials: Candela is extremely affordable e-books with curated text, video, interactives and other learning materials; Waymaker is OER with personalized learning tools to improve faculty student connections; OHM is low cost online homework and customizable courses; OLI is data and research reports to improve courses.

Libretexts https://libretexts.org/

The LibreTexts mission is to unite students, faculty and scholars in a cooperative effort to develop an easy-to-use online platform for the construction, customization, and dissemination of open educational resources (OER) to reduce the burdens of unreasonable textbook costs to our students and society.

Collaborative Effort: Courses, Textbooks and other Materials listed by institution that is sharing. Searchable and browsable by subject.
- **CCCOER Division/ Open Education Consortium** | 60 Thoreau St, Suite 238 Concord, MA 01742 USA  
  info@cccoer.org

- **Creative Commons** | PO Box 1866, Mountain View, CA 94042  
  info@creativecommons.org  1-415-429-6753

- **Directory of Open Access Books (DOAB)** Division of OAPEN, based in the Netherlands  
  Postal address: OAPEN Foundation P.O. Box 90407 2509 JK The Hague  
  OAPEN Library: www.oapen.org  DOAB: www.doabooks.org

- **EDUCAUSE** | Monday–Friday, 7:30 a.m.–4:30 p.m. MT  
  282 Century Place, Suite 5000, Louisville, CO 80027  
  303-449-4430 (phone) 303-440-0461 (fax) info@educause.edu

  1150 18th Street, NW, Suite 900, Washington, DC 20036  
  202-872-4200 (phone) 202-872-4318 (fax) info@educause.edu

- **Geneseo SUNY 1 College Circle** | Geneseo, NY 14454 (585) 245-5000  
  web@geneseo.edu

- **ISKME** | 323 Harvard Avenue Half Moon Bay, CA 94019 (650) 728-3322  
  (650) 728-3344 (fax) info@iskme.org

- **LibreTexts** | UC Davis Library  
  100 NW Quad University of California, Davis, CA 95616  
  (530) 752-8792 info@libretexts.org

- **LUMEN LEARNING** | 812 SW Washington St. Suite 1200 Portland, OR 97205  
  Phone: +1.971.808.1637  
  Email: info@lumenlearning.com

- **MERLOT Multimedia Educational Resource for Learning and Online Teaching**  
  a program of California State University  
  Contact specific people through the website: http://info.merlot.org/

- **Open Education Consortium** | 60 Thoreau St, Suite 238 Concord, MA 01742 USA  
  feedback@oeconsortium.org

- **Springer Open BMC, Part of Springer Nature Group**  
  World-wide offices, for contact use the website form.  
  https://www.springeropen.com/about
Rubric Documentation for Evaluating OER

Achieve (achieve.org) was started in 1996 by a bipartisan group of governors and business leaders, Achieve is a nonprofit education organization that has spent two decades leading the effort to help states make college and career readiness a priority for all students.

“Since 1996, Achieve has been the leading voice for improving college and career readiness in the United States. By convening states and leaders, providing technical assistance to states, conducting research, and offering advocacy, communications, and outreach support, Achieve has transformed the concept of college and career readiness for all students from a radical concept to a national priority.”

Achieve has created guidelines for instructors to evaluate particular OER materials or the term objects is used. Objects can be images, lessons, documents, articles, apps and more.

There are 5 possible scores 3, 2, 1, 0 and N/A and 8 rubrics to be assessed

The following rubrics are included:
Rubric I. Degree of Alignment to Standards
Rubric II. Quality of Explanation of the Subject Matter
Rubric III. Utility of Materials Designed to Support Teaching
Rubric IV. Quality of Assessment
Rubric V. Quality of Technological Interactivity
Rubric VI. Quality of Instructional and Practice Exercises
Rubric VII. Opportunities for Deeper Learning
Rubric VIII. Assurance of Accessibility

For more details about these guidelines for assessing materials refer to:

“Rubrics for Evaluating Open Education Resources (OER) Objects” by Achieve.org.

[https://www.achieve.org ]
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http://creativecommons.org/licenses/by/3.0/ or send a letter to Creative Commons, 444 Castro Street, Suite 900, Mountain View,
California, 94041, USA
Rubrics for Evaluating Open Education Resource (OER) Objects

The following rubrics represent an evaluation system for objects found within Open Education Resources. An object could include images, applets, lessons, units, assessments and more. For the purpose of this evaluation, any component that can exist as a stand-alone qualifies as an object. The rubrics in this packet can be applied across content areas and object types.

In general, the rubrics should be applied to the smallest meaningful unit. In some cases, this may be a single lesson or instructional support material, while in others it might be a complete unit of study or set of support materials. If multiple lessons are included in an OER, the reviewer needs to determine if all lessons will be examined, if only those lessons that deal with essential aspects of the curriculum are to be considered, or if it would be best to evaluate random lessons, looking at, for example, every third or fifth lesson.

These rubrics are typically used to rate the potential, not actual, effectiveness of a particular object in a learning environment. Each rubric should be scored independently of the others using the following five scores that describe levels of potential quality, usefulness, or alignment to standards:

3: Superior
2: Strong
1: Limited
0: Very Weak / None
N/A: Rubric Not Applicable

The not applicable (N/A) rating should be used any time a particular rubric does not apply to the object being rated. This is not a pejorative score; it simply means it would be inappropriate to apply this rubric to this object. For example, Rubric IV: Quality of Assessment would not be applicable to an object that does not have an assessment component.

The following rubrics are included:

Rubric I. Degree of Alignment to Standards
Rubric II. Quality of Explanation of the Subject Matter
Rubric III. Utility of Materials Designed to Support Teaching
Rubric IV. Quality of Assessment
Rubric V. Quality of Technological Interactivity
Rubric VI. Quality of Instructional and Practice Exercises
Rubric VII. Opportunities for Deeper Learning
Rubric VIII. Assurance of Accessibility
Rubric I: Degree of Alignment to Standards

This rubric is applied to learning objects that have suggested alignments to standards. It is used to rate the degree to which an individual object actually aligns to each proposed standard. The rubric was designed specifically for the Common Core State Standards, but can be used with any set of standards. Before the rubric can be applied, the assumption is that a user has proposed an alignment between the object and the selected standard(s).

There are two major aspects of standards that are vital to a meaningful alignment review: content and performance expectations. It is important that the content addressed in the object matches the content addressed in each proposed standard. Evaluating the alignment of the performances required in both the object and the standard is equally essential and should be considered along with the content.

Rubric I Scoring Guide:

3: An object has superior alignment only if both of the following are true:
   • All of the content and performance expectations in the identified standard are completely addressed by the object.
   • The content and performance expectations of the identified standard are the focus of the object. While some objects may cover a range of standards that could potentially be aligned, for a superior alignment the content and performance expectations must not be a peripheral part of the object.

2: An object has strong alignment for either one of two reasons:
   • Minor elements of the standard are not addressed in the object.
   • The content and performance expectations of the standard align to a minor part of the object.

1: An object has limited alignment if a significant part of the content or performance expectations of the identified standard is not addressed in the object, as long as there is fidelity to the part it does cover. For example, an object that aligns to CCSS 2.NBT.2, “Count within 1000; skip-count by 5s, 10s, and 100s,” but only addresses counting numbers to 500, would be considered to have limited alignment. The object aligns very closely with a limited part of the standard.

0: An object has very weak alignment for either one of two reasons:
   • The object does not match the intended standards.
   • The object matches only to minimally important aspects of a standard. These objects will not typically be useful for instruction of core concepts and performances covered by the standard.

N/A: This rubric does not apply for an object that has no suggested standards for alignment. For example, the rubric might not be applicable to a set of raw data.
Rubric II: Quality of Explanation of the Subject Matter

This rubric is applied to objects designed to explain subject matter. It is used to rate how thoroughly the subject matter is explained or otherwise revealed in the object. Teachers might use this object with a whole class, a small group, or an individual student. Students might use the object to self-tutor. For objects that are primarily intended for teacher use, the rubric is applied to the explanation of the subject matter not to the planning instructions for the teacher.

Rubric II Scoring Guide:

3: An object is rated superior for explanation of subject matter only if all of the following are true:
   - The object provides comprehensive information so effectively that the target audience should be able to understand the subject matter.
   - The object connects important associated concepts within the subject matter. For example, a lesson on multi-digit addition makes connections with place value, rather than simply showing how to add multi-digit numbers. Or a lesson designed to analyze how an author develops ideas across extended text would make connections among the various developmental steps and the various purposes the author has for the text.
   - The object does not need to be augmented with additional explanation or materials.
   - The main ideas of the subject matter addressed in the object are clearly identified for the learner.

2: An object is rated strong for explanation of subject matter if it explains the subject matter in a way that makes skills, procedures, concepts, and/or information understandable. It falls short of superior in that it does not make connections among important associated concepts within the subject matter. For example, a lesson on multi-digit addition may focus on the procedure and fail to connect it with place value.

1: An object is rated limited for explanation of subject matter if it explains the subject matter correctly but in a limited way. This cursory treatment of the content is not sufficiently developed for a first-time learner of the content. The explanations are not thorough and would likely serve as a review for most learners.

0: An object is rated very weak or no value for explanation of subject matter if its explanations are confusing or contain errors. There is little likelihood that this object will contribute to understanding.

N/A: This rubric is not applicable (N/A) for an object that is not designed to explain subject matter, for example, a sheet of mathematical formulae or a map. It may be possible to apply the object in some way that aids a learner’s understanding, but that is beyond any obvious or described purpose of the object.
Rubric III: Utility of Materials Designed to Support Teaching

This rubric is applied to objects designed to support teachers in planning or presenting subject matter. The primary user would be a teacher. This rubric evaluates the potential utility of an object at the intended grade level for the majority of instructors.

Rubric III Scoring Guide:

3: An object is rated superior for the utility of materials designed to support teaching only if all of the following are true:

- The object provides materials that are comprehensive and easy to understand and use.
- The object includes suggestions for ways to use the materials with a variety of learners. These suggestions include materials such as “common error analysis tips” and “precursor skills and knowledge” that go beyond the basic lesson or unit elements.
- All objects and all components are provided and function as intended and described. For example, the time needed for lesson planning appears accurately estimated, materials lists are complete, and explanations make sense.
- For larger objects like units, materials facilitate the use of a mix of instructional approaches (direct instruction, group work, investigations, etc.).

2: An object is rated strong for the utility of materials designed to support teaching if it offers materials that are comprehensive and easy to understand and use but falls short of “superior” for either one of two reasons:

- The object does not include suggestions for ways to use the materials with a variety of learners (e.g., error analysis tips).
- Some core components (e.g., directions) are underdeveloped in the object.

1: An object is rated limited for the utility of materials designed to support teaching if it includes a useful approach or idea to teach an important topic but falls short of “strong” for either one of two reasons:

- The object is missing important elements (e.g. directions for some parts of a lesson are not included).
- Important elements do not function as they are intended to (e.g. directions are unclear or practice exercises are missing or inadequate). Teachers would need to supplement this object to use it effectively.

0: An object is rated very weak or no value for the utility of materials designed to support teaching if it is confusing, contains errors, is missing important elements, or is for some other reason simply not useful, in spite of an intention to be used as a support for teachers in planning or preparation.

N/A: This rubric is not applicable (N/A) for an object that is not designed to support teachers in planning and/or presenting subject matter. It may be possible that an educator could find an application for such an object during a lesson, but that would not be the intended use.
Rubric IV: Quality of Assessments

This rubric is applied to those objects designed to determine what a student knows before, during, or after a topic is taught. When many assessment items are included in one object, as is often the case, the rubric is applied to the entire set.

Rubric IV Scoring Guide:

3: An object is rated superior for the quality of its assessments only if all of the following are true:
   • All of the skills and knowledge assessed align clearly to the content and performance expectations intended, as stated or implied in the object.
   • Nothing is assessed that is not included in the scope of intended material unless it is differentiated as extension material.
   • The most important aspects of the expectations are targeted and are given appropriate weight/attention in the assessment.
   • The assessment modes used in the object, such as selected response, long and short constructed response, or group work require the student to demonstrate proficiency in the intended concept/skill.
   • The level of difficulty is a result of the complexity of the subject-area content and performance expectations and of the degree of cognitive demand, rather than a result of unrelated issues (e.g. overly complex vocabulary used in math word problems).

2: An object is rated strong for the quality of its assessments if it assesses all of the content and performance expectations intended, but the assessment modes used do not consistently offer the student opportunities to demonstrate proficiency in the intended concept/skill.

1: An object is rated limited for the quality of its assessments if it assesses some of the content or performance expectations intended, as stated or implicit in the object, but omits some important content or performance expectations and/or fails to offer the student opportunities to demonstrate proficiency in the intended content/skills.

0: An object is rated very weak or no value for the quality of its assessments if its assessments contain significant errors, do not assess important content/skills, are written in a way that is confusing to students, or are unsound for other reasons.

N/A: This rubric is not applicable (N/A) for an object that is not designed to have an assessment component. Even if one might imagine ways an object could be used for assessment purposes, if it is not the intended purpose, not applicable is the appropriate score.
Rubric V: Quality of Technological Interactivity

This rubric is applied to objects designed with a technology-based interactive component. It is used to rate the degree and quality of the interactivity of that component. “Interactivity” is used broadly to mean that the object responds to the user, in other words, it behaves differently based on what the user does. This is not a rating for technology in general, but for technological interactivity. The rubric does not apply to interaction between students, but rather to how the technology responds to the individual user.

Rubric V Scoring Guide:

3: An object, or interactive component of an object, is rated superior for the quality of its technological interactivity only if all of the following are true:
- The object is responsive to student input in a way that creates an individualized learning experience. This means the object adapts to the user based on what s/he does, or the object allows the user some flexibility or individual control during the learning experience.
- The interactive element is purposeful and directly related to learning.
- The object is well-designed and easy to use, encouraging learner use.
- The object appears to function flawlessly on the intended platform.

2: An object, or interactive component of an object, is rated strong for the quality of its technological interactivity if it has an interactive feature that is purposeful and directly related to learning, but does not provide an individualized learning experience. Similarly to the superior objects, strong interactive objects must be well designed, easy-to-use, and function flawlessly on the intended platform. Some technological elements may not be directly related to the content but for a strong rating they must not detract from the learning experience. These kinds of interactive elements, including earning points or achieving levels for correct answers, might be designed to increase student motivation and to build content understanding by rewarding or entertaining the learner, and may extend the time the user engages with the content.

1: An object, or interactive component of an object, is rated limited for the quality of its technological interactivity if its interactive element does not relate to the subject matter and may detract from the learning experience. These kinds of interactive elements may slightly increase motivation but do not provide strong support for understanding the subject matter addressed in the object. It is unlikely that this interactive feature will increase understanding or extend the time a user engages with the content.

0: An object, or interactive component of an object, is rated very weak or no value for the quality of its technological interactivity if it has interactive features that are poorly conceived and/or executed. The interactive features might fail to operate as intended, distract the user, or unnecessarily take up user time.
N/A: This rubric is *not applicable* (N/A) for an object that does not have an interactive technological element. *For example, the rubric does not apply if interaction with the object is limited to, for example, opening a user-selected PDF.*
Rubric VI: Quality of Instructional and Practice Exercises

This rubric is applied to objects that contain exercises designed to provide an opportunity to practice and strengthen specific skills and knowledge. The purpose of these exercises is to deepen understanding of subject matter and to routinize foundational skills and procedures. When concepts and skills are introduced, providing a sufficient number of exercises to support skill acquisition is critical. However when integrating skills in complex tasks, the number of exercise problems is less important than their richness. These types of practice opportunities may include as few as one or two instructional exercises designed to provide practice applying specific concepts and/or skills. Sets of practice exercises are treated as a single object, with the rubric applied to an entire group.

Rubric VI Scoring Guide:
3: An object is rated superior for the quality of its instructional and practice exercises only if all of the following are true:
   • The object offers more exercises than needed for the average student to facilitate mastery of the targeted skills, as stated or implied in the object. For complex tasks, one or two rich practice exercises may be considered more than enough.
   • The exercises are clearly written and supported by accurate answer keys or scoring guidelines as applicable.
   • There are a variety of exercise types and/or the exercises are available in a variety of formats, as appropriate to the targeted concepts and skills. For more complex practice exercises the formats used provide an opportunity for the learner to integrate a variety of skills.

2: An object is rated strong for the quality of its instructional and practice exercises if it offers only a sufficient number of well-written exercises to facilitate mastery of targeted skills, which are supported by accurate answer keys or scoring guidelines, but there is little variety of exercise types or formats.

1: An object is rated limited for the quality of its instructional and practice exercises if it has some, but too few exercises to facilitate mastery of the targeted skills, is without answer keys, and provides no variation in type or format.

0: An object is rated very weak or no value for the quality of its instructional and practice exercises if the exercises provided do not facilitate mastery of the targeted skills, contain errors, or are unsound for other reasons.

N/A: This rubric is not applicable (N/A) to an object that does not include opportunities to practice targeted skills.
Rubric VII: Opportunities for Deeper Learning

This rubric is applied to objects designed to engage learners in at least one of the following deeper learning skills, which can be applied across all content areas:

- Think critically and solve complex problems.
- Work collaboratively.
- Communicate effectively.
- Learn how to learn.
- Reason abstractly.
- Construct viable arguments and critique the reasoning of others.
- Apply discrete knowledge and skills to real-world situations.
- Construct, use, or analyze models.

Rubric VII Scoring Guide:

3: An object is rated superior for its opportunities for deeper learning only if all of the following are true:
   - At least three of the deeper learning skills from the list identified in this rubric are required in the object.
   - The object offers a range of cognitive demand that is appropriate and supportive of the material.
   - Appropriate scaffolding and direction are provided.

2: An object is rated strong for its opportunities for deeper learning if it includes one or two deeper learning skills identified in this rubric. For example, the object might involve a complex problem that requires abstract reasoning skills to reach a solution.

1: An object is rated limited for its opportunities for deeper learning if it includes one deeper learning skill identified in the rubric but is missing clear guidance on how to tap into the various aspects of deeper learning. For example, an object might include a provision for learners to collaborate, but the process and product are unclear.

0: An object is rated very weak for its opportunities for deeper learning if it appears to be designed to provide some of the deeper learning opportunities identified in this rubric, but it is not useful as it is presented. For example, the object might be based on poorly formulated problems and/or unclear directions, making it unlikely that this lesson or activity will lead to skills like critical thinking, abstract reasoning, constructing arguments, or modeling.

N/A: This rubric is not applicable (N/A) to an object that does not appear to be designed to provide the opportunity for deeper learning, even though one might imagine how it could be used to do so.
Rubric VIII: Assurance of Accessibility Standards

This rubric is used to assure materials are accessible to all students, including students identified as blind, visually impaired or print disabled, and those students who may qualify under the Chafee Amendment to the U.S. 1931 Act to Provide Books to the Adult Blind as Amended. It was developed to assess compliance with U.S. standards and requirements, but could be adapted to accommodate differences in other sets of requirements internationally.

Accessibility is critically important for all learners and should be considered in the design of all online materials. Identification of certain characteristics will assist in determining if materials will be fully accessible for all students. Assurance that materials are compliant with the standards, recommendations, and guidelines specified assists educators in the selection and use of accessible versions of materials that can be used with all students, including those with different kinds of challenges and assistive devices.

The Assurance of Accessibility Standards Rubric does not ask reviewers to make a judgment on the degree of object quality. Instead, it requests that a determination (yes/no) of characteristics be made that, together with assurance of specific Standards, may determine the degree to which the materials are accessible. Only those who feel qualified to make judgments about an object’s accessibility should use this rubric.

Rubric VIII Scoring Guide (see table next page):
Yes: The object displays the characteristic or complies with the standards, recommendations or guidelines.

No: The object does NOT display the characteristic or comply with the standards, recommendations or guidelines.

Comment: Comments on Rubric 8 Object determination may include notes that describe the reason materials do not comply with the standard, recommendations or guidelines or further description that may clarify the characteristics of the object.
<table>
<thead>
<tr>
<th>Available in Tagged PDF Format</th>
<th>YES/NO/NA</th>
<th>Comment or Explanation</th>
<th>Organization that Maintains the Standard</th>
</tr>
</thead>
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<tr>
<td>Available in ePUB Format</td>
<td></td>
<td></td>
<td>Adobe</td>
</tr>
<tr>
<td>Accessible Course within an Open Learning Management System (LMS)</td>
<td>YES/NO/NA</td>
<td></td>
<td>Moodle</td>
</tr>
<tr>
<td>Accessible Course within another Learning Management System (LMS)</td>
<td>YES/NO/NA</td>
<td></td>
<td>LMS Provider</td>
</tr>
<tr>
<td>Available in an accessible media format and includes alternate text or subtitles</td>
<td>YES/NO/NA</td>
<td></td>
<td>Provider or Publisher</td>
</tr>
<tr>
<td>Includes alternative text (image)</td>
<td>YES/NO/NA</td>
<td></td>
<td>Provider or Publisher</td>
</tr>
<tr>
<td>Includes captions and subtitles (video)</td>
<td>YES/NO/NA</td>
<td></td>
<td>Provider or Publisher</td>
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<tr>
<td>Includes flash accessibility functions (SWF)</td>
<td>YES/NO/NA</td>
<td></td>
<td>Adobe</td>
</tr>
<tr>
<td>Includes functionality that provide accessibility</td>
<td>YES/NO/NA</td>
<td></td>
<td>Provider or Publisher</td>
</tr>
<tr>
<td>Complies with WC3 WCAG2 Recommendations for web pages</td>
<td>YES/NO/NA</td>
<td></td>
<td>WC3 Recommendations</td>
</tr>
<tr>
<td>Compliant with Section 508 of the Rehabilitation Act</td>
<td>YES/NO/NA</td>
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<td>US Government</td>
</tr>
<tr>
<td>Is accessible as determined by Utah State WebAIM Web Accessibility Evaluation (WAVE) Tool</td>
<td>YES/NO/NA</td>
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</tr>
<tr>
<td>Available in National Accessible Instructional Materials Standard (NIMAS) Format – Accessible XML</td>
<td>YES/NO/NA</td>
<td></td>
<td>NIMAS Center at CAST</td>
</tr>
<tr>
<td>Complies with Audio/Video Cassette Production Standards</td>
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<td></td>
<td>ITA Standards</td>
</tr>
<tr>
<td>Complies with DVD/DVD-ROM Production Standards</td>
<td>YES/NO/NA</td>
<td></td>
<td>DVD Forum Specifications</td>
</tr>
<tr>
<td>Complies with Blue-ray Disk Production Standards</td>
<td>YES/NO/NA</td>
<td></td>
<td>UDF 2.5 – Blue-ray Disk Association</td>
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<tr>
<td>Complies with NCAM Guidelines for Movies, Web and Multimedia</td>
<td>YES/NO/NA</td>
<td></td>
<td>NCAM Guidelines</td>
</tr>
</tbody>
</table>

**Additional references for accessibility:**
Accessible Instructional Materials at the Center for Applied Special Technology
- [http://aim.cast.org/learn/e-resources/accessibility_resources](http://aim.cast.org/learn/e-resources/accessibility_resources)

National Center for Accessible Media
- [http://ncam.wgbh.org/about/accessibility-links](http://ncam.wgbh.org/about/accessibility-links)

Freeing the Textbook: 
Educational Resources in U.S. Higher Education, 2018

Julia E. Seaman, Ph.D.
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ACKNOWLEDGMENTS

We offer our thanks the William and Flora Hewlett Foundation for their support of the data collection, analysis, and report creation of this project. Their background and knowledge of open educational resources, and their contacts within the OER community, helped immensely in framing the project. We also thank the Global Healthy Living Foundation for their support in the administration of the Hewlett Foundation grant.

This report presents results derived from nationally representative samples of higher education faculty and department chairpersons. We wish to thank the thousands of individuals who took the time to provide us with these detailed and thoughtful responses. We know that you are very busy people, and appreciate your effort. This report would not be possible without you, and we hope that you find it useful.

In addition to providing responses to a wide range of questions, these academics also provided thousands of comments and observations on the state of teaching and learning. Each section of this report includes a selection of faculty and chairperson quotes relevant to that topic. The quotes have been kept as close to the original as possible; the only changes are correcting obvious typos and the removing any personally identifying information.

Research like this is a team effort. Thanks go to I. Elaine Allen for her editing and feedback, Nate Ralph for his extensive copy editing, and Mark Favazza, whose graphics skills are evident on the report covers.

Finally, we want to thank our readers. Several of the sections in this year’s report will be familiar to those who have read our prior efforts. This is thanks to reader feedback on what you wanted us to keep consistent, to better track changes over time. You also told us what was most and least interesting about the topics we cover, which helped to refine this year’s survey and report. Please continue to let us know how we can improve these reports.

Julia E. Seaman
Jeff Seaman
Babson Survey Research Group
2019
EXECUTIVE SUMMARY

The 2017-2018 survey on teaching materials in U.S. higher education shows a steady growth in awareness of open educational resources (OER). Responses from over 4,000 faculty and department chairpersons paint a picture of steady improvement, with almost 50% of faculty now reporting OER awareness.

The study also shows multiple factors are in place to support rapid future increases in awareness and use of OER:

- Faculty and department chairpersons believe that the high cost of course material has a negative impact on student access.
- The 5Rs that underpin OER (Retain, Reuse, Revise, Remix and Redistribute) are a perfect match to the extensive use of ‘revise’ and ‘remix’ that faculty are already practicing.
- Faculty members express considerable resentment towards commercial publishers over price and unnecessarily frequent updates, among other issues.
- Faculty report a growing acceptance (or even preference) for digital materials.
- The ‘open’ aspect of OER resonates with faculty; they see it as an excellent match to academic principles.

These results could signal a turning point for OER, with potentially faster levels of growth to come. However, the study results also show that many of the factors that have prevented rapid growth still remain. Overall awareness of OER is at about 46 percent, so while most faculty have real concerns about the cost of course materials and use textbooks in a manner that is best supported by OER, slightly more than half remain unaware of the OER alternative. Institutional level initiatives to educate faculty about OER are limited, and faculty have been left to find their own solutions to the high cost of materials.

Key findings from the report include:

- Faculty awareness of OER has increased every year, with 46 percent of faculty now aware of open educational resources, up from 34 percent three years ago.
- For the first time, more faculty express a preference for digital material over print in the classroom.
• 61 percent of all faculty, 71 percent of those teaching large enrollment introductory courses, and 73 percent of department chairpersons, "Strongly Agree" or "Agree" that "the cost of course materials is a serious problem for my students."

• Department chairpersons overwhelmingly believe that making textbooks less expensive for students would be the most important improvement to course materials.

• Less than one-in-five faculty members are aware of any departmental-, institution-, or system-level initiative to deal with the cost of course materials.

• Faculty are acting independently to control costs by supporting used textbooks and rental programs, placing copies on reserve, and selecting materials based on cost.

• Overall faculty satisfaction with required textbooks is high, with over 80 percent either "Extremely Satisfied" or "Moderately Satisfied." That said, faculty express considerable resentment about price, unnecessary frequent updates, and other issues with commercial textbooks.

• Faculty often make changes to their textbooks, presenting material in a different order (70 percent), skipping sections (68 percent), replacing content with their own (45 percent), replacing with content from others (41 percent), correcting errors (21 percent), or revising textbook material (20 percent).

The study results show that there is little question that OER awareness and use will continue to grow. Growth has been slow but steady for the past four years, held back by a lack of awareness of OER and a perceived lack of offerings. However, OER could provide an answer to faculty cost concerns, while also supporting the 'revise' and 'remix' approach to textbook content that they are already using. This, combined with a growing acceptance of digital media and the impact of potential institutional initiatives around the cost of textbooks, could accelerate future expansion of OER awareness and use.
DEFINITIONS

This study is one of a series using consistent definitions of key concepts to support analysis of changes over time. The studies are designed to explore the process by which faculty members select and use the educational materials that they employ in their courses. The most common of these is the required textbook: faculty members typically select one or more books that all students are required to use throughout the duration of the course. Faculty also employ a wide range of other materials: some optional, others required for all students. This study only deals with 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 the particular class of materials classified as open educational resources (OER). The William and Flora Hewlett Foundation defines OER as follows:

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.

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 the material, and does the faculty member have the right to modify, reuse, or redistribute said content? The legal mechanism that faculty are most familiar with is that of copyright. The U.S. Copyright office defines copyright as:

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.

1 http://www.hewlett.org/programs/education-program/open-educational-resources.
2 http://www.copyright.gov/help/faq/definitions.html
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.\(^3\)

Not all material is copyrighted. Some content may be ineligible for copyright, copyrights may have expired, or authors may have dedicated their content to the public domain (e.g., using Creative Commons public domain dedication\(^4\)).

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 traditional copyright, with all rights reserved, and public domain, where no rights are reserved, is provided by Creative Commons licenses. A Creative Commons license is not an alternative to copyright, but rather a modification of the traditional copyright license that grants some rights to the public.

The Creative Commons (CC) open licenses give everyone from individual authors to governments and institutions a simple, standardized way to grant copyright permissions to their creative work. CC licenses allow creators to retain copyright while allowing others to copy, distribute, and make some uses of their work per the terms of the license. CC licenses ensure authors get credit (attribution) for their work, work globally, and last as long as applicable copyright lasts. CC licenses do not affect freedoms (e.g., fair use rights) that the law grants to users of creative works otherwise protected by copyright.\(^6\)

The most common way to openly license copyrighted education materials — making them OER — is to add a Creative Commons license to the educational resource. CC licenses are standardized, free-to-use, open copyright licenses.\(^7\)

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\(^3\) http://legal-dictionary.thefreedictionary.com/copyright
\(^4\) https://creativecommons.org/publicdomain/zero/1.0/
\(^5\) http://whatis.techtarget.com/definition/public-domain
\(^6\) Personal communication from Cable Green, PhD, Director of Open Education, Creative Commons
\(^7\) State of the Commons report: https://stateof.creativecommons.org
STUDY RESULTS:

Awareness of Open Educational Resources

I have just recently become aware that students are now frequently searching for class sections based on whether those sections use OERs. Students are now more inclined to pick sections where they know that they can use OERs and not have to pay for a book. Class sections that offer/list OERs as the required text are filling faster than other sections. This is anecdotal information, but it has influenced me to consider switching fully to OERs by next semester. (Part-time Arts and Literature Faculty)

I am aware of open access, but haven’t taken the time to discover the options. (Full-time Law Faculty)

I am aware of OER but given the classes I teach are advanced graduate level courses in a narrow field, there’s been little useful to me. However, some of my students will soon be working in schools and I do mention OER to them, particularly when we discuss using technology within their teaching. (Full-time Medical Faculty)

There are two OER initiatives that I am aware of both affiliated with the American Associate of Physics Teachers. One is related to importing physics instruction for life-science students and the second is devoted to introducing computational physics techniques in all aspects of physics courses (PICUP). (Full-time Natural Sciences Faculty)

I will be checking into textbook cost initiatives noted in this survey. I was not aware of any initiatives. Continually increasing costs of student textbooks is a continual complaint by students, and has always been an issue for me. There is NO justification for the ridiculously excessive costs of textbooks after multiple editions. This ongoing racket takes advantage of students to simply boost publisher profits way beyond what is fair and reasonable. Has always left a very foul taste in my mouth. (Full-time Natural Sciences Faculty)

The William and Flora Hewlett Foundation provide this definition for 'open educational resources':

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.8

Many faculty members have heard and used all three words in the term, and often assume that they know what OER means, when they may only have a vague understanding of the details. Some confuse "open" with "free," and assume all free resources are OER. Others 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 questions regarding an awareness of OER is critical. Questions needs to provide enough of the dimensions of OER to avoid confusion,

8 http://www.hewlett.org/programs/education-program/open-educational-resources.
without being so detailed as to overeducate respondents, and cause them to claim to be "Aware" of OER.

This report uses a question tested in previous reports in this series. This version has proven to have the best balance in differentiating among the varying levels of awareness, without leading those with no previous knowledge of the concept. This specific wording has remained consistent, to support year-to-year comparisons.

When faculty members were asked to self-report their level of awareness of open educational resources, a majority (54%) reported 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 13% reported that they were very aware ("I am very aware of OER and know how they can be used in the classroom"), and a slightly greater number (18%) said that they were aware ("I am aware of OER and some of their use cases"). An additional 15% 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").

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9 Additional details are provided in the Methodology section of this report.
While less than one half of faculty report that they are aware of OER, the 2017-18 results reinforce a trend of increasing awareness observed over the previous three surveys. The number of faculty claiming to be "Very Aware" continues to grow each year, from 5% in 2014-15 to 13% in the most recent year. Similarly, those saying that they were "Aware" grew from 15% to 18%, and those "Somewhat Aware" from 14% to 15%. The proportion that reported no awareness dropped from nearly two-thirds (66%) in 2014-15 to just over 50% (54%) for 2017-18.

**Awareness of Open Educational Resources: 2014-15 to 2017-18**

<table>
<thead>
<tr>
<th>Year</th>
<th>Very Aware</th>
<th>Aware</th>
<th>Somewhat Aware</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-18</td>
<td>13%</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>2016-17</td>
<td>10%</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>2015-16</td>
<td>7%</td>
<td>19%</td>
<td>16%</td>
</tr>
<tr>
<td>2014-15</td>
<td>5%</td>
<td>15%</td>
<td>14%</td>
</tr>
</tbody>
</table>
Awareness of Licensing of Open Educational Resources

I use and create open resources, but I do not use tools like oercommons.org (though I know of them). (Full-time Computer and Information Science Faculty)

The widespread availability of quality materials available via Creative Commons licenses has made it possible for me to create high quality handouts custom tailored to my class and relegate textbooks as reference items instead of required reading. This is coming from a Media Arts perspective in which making and critique take priority over reading and testing. (Full-time Video Basics Faculty)

I am interested in learning more about Open Domain resources and digital subscriptions where students retain ownership. I am willing to test newly developed resources for Anatomy and Physiology courses and participate in additional surveys or training. (Full-time Natural Sciences Faculty)

We often create our own textbooks from public domain materials and lecture notes. Students can download a PDF and print or purchase a printed, spiral-bound copy at the local UPS store. (Part-time Arts and Literature Faculty)

Costs are way too high. I also use free textbooks (Creative Commons) in other courses. (Full-time Business Administration Faculty)

In this particular course, there are no good alternatives to print, and costs are completely at the mercy of copyright holders. In other courses public domain materials are occasionally available and useful. (Full-time Classical Culture Faculty)

I’ve used OER, Creative Commons, my own materials, Internet linked materials, etc. for several courses for several years. Sometimes because appropriate textbooks did not exist, and sometimes because I could not justify spending that much of my students’ money for a textbook, even a good textbook, when other resources were available. (Full-time Psychology Faculty)

The availability of electronic material that is in the public domain is so vast. I have created entire courses with all materials made available without cost to students. This will become more common over time. Publishers will have to add value with ancillaries such as study aids, homework managers, access to relevant online interactive exercises and videos, etc. (Full-time Business Administration Faculty)

Faculty awareness of the term "open educational resources" does not ensure that they fully understand the ideas of open licensing, and the ability to reuse and remix content, which are central to the concept of OER. Probing faculty to determine their level of understanding of these concepts is critical in determining their true awareness of OER on a conceptual basis.

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Most faculty report a high degree of awareness of copyright status of their classroom content (83% responding "Very Aware" or "Aware"), with 95% expressing some degree of awareness. Awareness of public domain for classroom content is also very high, with 89% of respondents reporting some degree of awareness. The level of awareness of Creative Common licensing, on the other hand, is lower. Less than one-half of faculty say that they are either "Very Aware" (21%) or "Aware" (23%), and only 68% report any level of awareness.

The levels of awareness for all three legal permissions have leveled off after several years of small but steady increases. The 83% reporting that they were "Very Aware" or "Aware" of copyright is similar to the 84% rate last year. Awareness of public domain decreased slightly, with "Very Aware" or "Aware" totals changing from 69% last year compared to 66% this year. As of last year, Creative Commons awareness levels had been increasing consistently over time. The number of faculty reporting that they were "Very Aware" or "Aware" was at 47% last year, up from 38% the previous year and 36% the year before that. This year's number, 45%, represents a minor decrease.
The level of Creative Commons awareness is particularly important in the context of this study. We know that faculty often have a fuzzy understanding and awareness of open educational resources. In order to get a more precise estimate of their true level of understanding of OER and the concepts underpinning it, we can examine their responses for both awareness of OER and of its legal permissions, specifically Creative Commons. 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 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 from any of the "Aware" categories of the measure of OER awareness, we create a much stricter index of OER awareness, one that includes only those who are aware of both the term and the licensing that goes along with it.

The level of OER awareness drops when we apply this stricter definition, but only somewhat. Those classified as "Very Aware" dips from 13% to 12%, "Aware" from 18% to 16%, and "Somewhat Aware" from 15% to 11%. The overall proportion classified into any of the "Aware" categories changes from 46% when awareness of Creative Commons is not required, to 39% when it is.
The level of combined awareness of OER and Creative Commons continues to grow each year. Faculty reporting that they were "Very Aware" more than doubled, from 5% in 2014-15 to 12% for 2017-18. Likewise, those reporting that they were "Aware" grew from 12% to 16% over the same period. The total percentage of faculty claiming some degree of awareness using this stricter definition stood at 26% in 2014-15, rose to 34% in 2015-16, 37% in 2016-17, and now stands at 39% for 2017-18.

The picture of OER awareness among teaching faculty remains mixed. A clear positive is the steady year-over-year growth, with increasing numbers of faculty reporting higher levels of awareness every year. The negative is that most faculty remain unaware of OER and we have just recently passed the point where a quarter of the teaching faculty claim to be either "Very Aware" or "Aware."
Selecting Educational Resources

I detest traditional textbooks. I really believe students should be pushed intellectually and most textbooks are just far too over-produced and try to do too much. From what I can see students fail to even crack them open because they are dull or too simplistic. Or, when they do open them it is only in courses where they are memorizing content and not really engaging in deep thought. I really would prefer my students go on an intellectual journey through their assigned readings. Plus, as a FT faculty member in a public state university, I feel it is my duty to engage the students in the life of the mind because they are so much more likely to encounter adjunct faculty relying on textbooks and mass-produced publisher lesson plans. What a waste of an opportunity for true intellectual development, critical thinking, etc., to be spoon fed content intended for a mass audience! I find that to be a major affront to the institution of higher education and I equate that to the massive grade inflation project underway as well. My students and my country cannot afford the anti-intellectual project underway by big publishing corporations and the dismantling of public higher education through state disinvestment. You can quote me, but I’m pretty certain you do not want to. (Full-time Social Sciences Faculty)

If it is a textbook where I can make an argument that it will be a useful future reference book, they are more likely to both purchase and read. (Full-time Social Sciences Faculty)

I use a custom text that only includes the chapters that I teach. Students also purchase online access to drill and practice activities that are automatically graded, and student feedback on these activities is very positive. (Full-time Medicine Faculty)

I need to be able to convey that an older text is just fine for some of my courses. The problem is that some might not get one if I don’t put it on the required list for my course through the bookstore. (Full-time Natural Sciences Faculty)

Creating customized books using publishers like Flat Knowledge supports the cost maintenance, and only having what you need. (Full-time Computer Science Faculty)

I have never heard a faculty member say that they couldn’t find a suitable textbook, but I have occasionally heard them comment on limitations of even the best textbook they could find. (Education Department Chairperson)

Content provided by the instructor through blackboard is often sufficient in the course, students rarely make use of other materials unless required for a specific assignment. (Full-time Engineering Faculty)

I count on the library to make the textbooks available to students that cannot afford them. By using the same books over time, I encourage a used textbook market. By selecting books that are cheaper to start with, I try to reduce student costs. (Full-time Linguistics / Language Faculty)

The ye olde textbook is really not that useful when it is so easy for me to author my own handouts and assign articles and videos, especially since we have access to Kanopy with an amazing selection of videos. (Full-time Video Basics Faculty)

I rely on photocopied handouts and on materials distributed to students by e-mail. No cost to students. (Part-time Arts and Literature Faculty)

Mostly I add materials that amplify and expand on topics in the text. Also, I look for materials that demonstrate application of information in practice and require further analysis and promote deeper thinking about topics. (Full-time Management Of Health Information Systems Faculty)
The primary focus of this report is to examine how faculty members select and use the various course materials that they employ when teaching. Faculty may recommend or require multiple materials for the students; this study focuses on those “listed in the course syllabus as required for all students, either acquired on their own or provided to all students through a materials fee.”

The most common of these required materials is one or more textbooks, with 69% of all faculty reporting that they have a required textbook. Other print materials (e.g., articles and case studies) are required by slightly less than half (47%) of faculty. The next most common faculty requirement is access to an online homework system (37%), followed by video and film (28%), and software (19%). About one in five faculty also require one or more of other types of materials (e.g., supplies, calculator, data sets, classroom clicker, etc.). A smaller proportion require students have an inclusive access subscription (described in more detail later in this report).

Most course material requirements remained relatively stable in 2017-18, as compared to 2016-17. Changes are present in the requirements for “articles and case studies” (down from 53% to 47%), and in “videos and film” (increasing from 22% to 28%).
Some faculty also include course materials which they recommend, but do not require students to purchase. Videos and films, recommended by 20% of faculty, are the most common recommended items. These are followed by articles and case studies (16%), other textbooks (15%), and software (11%). Only single digit percentages of faculty recommend any other type of materials, like supplies, data sets, and clickers.
Two items new for 2017-18, and not asked about in previous studies, are inclusive access subscriptions and online homework systems. Online homework systems are the more popular of the two by far, with 37% of all faculty making this a course requirement. This rises to nearly one-half (48%) among faculty teaching large enrollment introductory-level undergraduate courses. Inclusive access subscriptions, often used as an alternative to a textbook, are "all in one" systems where students have online access to all of the course materials. These might be bundled into tuition, or a separate purchase made by the student for the course. Inclusive access is also more popular for introductory level courses, with 12% of faculty teaching at this level making it a requirement (as opposed to 7% among all faculty).

Departmental chairs were asked who had responsibility for deciding on online homework systems for their department, with the clear result that is left up to the faculty, either as individuals (67%) or as part of a committee (28%). In some cases, a department (17%) or the institution (20%) makes the decision.
Cost to the Student

The high cost of textbooks is an ongoing problem for students. Most faculty now choose textbooks with cost as a primary factor. There are other options to explore, but I am unsure that a digital only solution is the right one. Students have indicated that they prefer print textbooks and the digital divide is still a factor when serving an economically diverse population. (Full-time Interpersonal Communication Faculty)

All the textbook/digital/print options by various publishing companies are similar in price, out of reach for about one third to one half of our students. This makes it hard to teach an effective class. (Full-time Linguistics / Language Faculty)

When I worked in industry, the "educated" voices I heard often decried the cost of course materials. However, having worked in education for a few years and interacting with curriculum, if students think of course materials as an investment (rather than simply an expense), I believe course materials are often well worth the sales price. (Full-time Engineering Faculty)

I believe that students say they can't afford their textbooks when in fact, they can. There is a new attitude among my students that textbooks aren't essential to their understanding of the course content. My students feel if I am not reading the textbook to them directly (via a lecture) what is the point of buying it. (Full-time Social Sciences Faculty)

In general, the price of textbooks is a major challenge to students at my institution. (Full-time Communication Skills Faculty)

The college textbook industry is a racket. After several editions of a textbook, typically with very few significant revisions, costs should start going DOWN, or at least NOT continue to increase. The publisher has long recovered the cost of initial template set up and printing costs. The often very minor revisions in subsequent editions do NOT justify continuous increases in textbook price - especially several editions down the road. (Full-time Natural Sciences Faculty)

Every one of my students (I have done a survey to confirm this) has and pays for a cell phone. The average cost of a cell phone per major semester is about $700.00. In my opinion, textbooks are affordable by comparison. Plus, textbooks are a necessity in order to do well in class, whereas cell phones are a discretionary expense. (Full-time Arts and Literature Faculty)

My students are at a community college in many cases because of cost so the price of textbooks is a burden. I encourage them to buy or rent them and I show them the website where they can get a digital version. (Part-time History / Government Faculty)

I believe the costs of textbooks are ridiculous. I also see the new "solution" of a subscription to digital materials as needlessly exploitive of students. The only thing worse than an expensive textbook is an expensive textbook that disappears every semester. (Part-time Arts and Literature Faculty)

The cost of textbook is outrageous. (Part-time General Chemistry I Faculty)

Textbooks are crucial parts of education, but the cost of the print textbook is prohibitive for some of my students. The school where I teach incorporates textbook rentals, so that students are not forced to purchase textbooks each semester. I am not advocating for the removal of textbooks from classrooms, but for alternative formats to print that are more cost-effective. (Full-time Natural Sciences Faculty)
Last year’s report found that nearly 90% of all faculty said that the cost to the student of their teaching materials was either "Important" or "Very important" in their selection process. This finding held up across faculty at all levels, all ages, and all types of institutions. Faculty also reported that the average cost for their students was near one hundred dollars, and that they were not very satisfied with the cost of textbooks. This year’s study builds on these results to examine cost issues in more depth.

Faculty were asked to estimate the proportion of their students that "have access to all the required textbook(s)." The question was general, and did not specify first day access, so access whenever required would be included. Only 60% of all teaching faculty believed that over 90% of their students met this criterion, a rate that was somewhat lower (57%) among faculty teaching large enrollment introductory-level courses. Faculty believe that cost is the primary reason that not all of their students have access to the required course materials. Additionally, a sizable portion (38%) believe that is because students don’t think that they need the materials, though this ranks below those who consider cost to be the primary factor (52%).
Cost is consistently reported as a major hurdle for student materials access across faculty types. A majority of all faculty members "Agree" or "Strongly Agree" with the statement that "the cost of course materials is a serious problem for my students." Nearly one-third of all teaching faculty "Strongly Agree" with this statement, with those teaching introductory level courses (42%) and department chair persons (41%) having even stronger levels of agreement. Over 80% of all groups express some level of agreement that cost of course materials is a serious problem.

Almost all department chair persons (89%) agree that cost of course materials is a serious problem. To better understand the seriousness of this issue, chairpersons were asked a follow-up question regarding the severity of the issue within their department. Over a quarter of chairpersons described cost as “a critical barrier preventing students from having the required materials” (8%), or stated “cost is often a barrier preventing students from having the required materials” (20%). The largest number of respondents believe "we have a few instances where cost has been a barrier preventing students from having the required materials" (41%). Only 9% of department chairpersons believed that the cost of course materials was not an issue for their department.
Are institutions taking steps to address the high degree of concern regarding material costs for students among both faculty and department chairpersons? Teaching faculty were asked if they were aware of any initiatives at the department, institution, or system level dealing with the cost of course materials. Only a minority of faculty were aware of any such initiatives. Faculty teaching introductory-level courses were more likely to be aware of an initiative, perhaps because these larger enrollment courses might be the primary target for initial cost savings approaches. Any such initiatives are slightly more likely to be at the institutional level, rather than the department or system level.
Faculty were much more likely to report that they had taken specific steps within their own course to address the issue of materials cost than to report an institutionally-sponsored effort. More than half of all teaching faculty report that they support students taking advantage of used textbooks as a cost control issue, even if this means using an older edition. Almost half say that there are copies placed in the library or department office for student use. Only 16% of faculty report that they have adopted free or open textbooks, with a somewhat higher percentage (23%) of those teaching introductory level courses saying that they had taken this route.

Both faculty and department chairpersons believe that the cost of required teaching material can be a serious issue for their students. However, it appears that institutions are leaving this up to their faculty to deal with, with only a small fraction of faculty aware of any institutional-level cost initiative. Faculty are acting independently, employing a variety of actions designed to help control costs for the student. The selection of course materials is not just driven by cost — multiple other factors remain important (scope, timeliness, level of presentation, etc.). Cost appears to be increasing in importance in this selection, perhaps due to a growing faculty awareness of the issue.
Digital versus Print

I feel frustrated about the big push for e-books, which I view as short-sighted. For introductory courses, I find them much worse than print. (Full-time Social Sciences Faculty)

I believe an all-digital platform is a win-win for students and publisher, but I think the costs are still too high. (Full-time History / Government Faculty)

I survey all my undergraduate students every semester on their preference for digital or printed textbooks. 90% or more consistently prefer printed textbooks. (Full-time Education Faculty)

I teach English as a Second Language. Books and paper are essential even though we use digital formats. They have to be able to interact with the text physically. (Part-time English Faculty)

I have found that students like to have the print copy of textbooks, but having free access to the online version has caused some students to just print the pages of the homework and not all of the textbook to save costs. (Full-time Mathematics Faculty)

Digital is directly related to the dumbing down of college classes. Students need to read carefully, take notes and do their work. You will not change the several thousand years of learning how to learn with digital books. Digital is hurting humanity and the future. Wake Up! (Full-time Economics Faculty)

I think it’s still very important that students have printed versions of texts required in my literature courses, since "close reading" is the central skill we practice at each meeting. Studies have been done that show students reading poorly online; this is true for me as well. (Full-time Arts and Literature Faculty)

Students buy the electronic copy but then borrow printed copies because it is easier to read. (Full-time Faculty)

Faculty opinions on the relative merits of print versus digital course materials is changing, with the proportion of faculty preferring digital materials increasing over the past year.

Faculty Preference for Print or Digital Materials

- Prefer Print Materials: 36%
- Neutral: 25%
- Prefer Digital Materials: 40%
The results for 2017-18 show 25% of faculty reporting that they prefer print materials, 40% expressing a preference for digital, and the remaining group (36%) being neutral.

In 2017-18, 40% of faculty preferred digital materials — that’s up from 29% the previous year. Similarly, the fraction preferring print has dropped from 32% to 25% over that same year. This marks the first time that there are more faculty with a stated preference for digital materials than for print.

Faculty members have commented over the years that, while they might prefer to use digital materials, they felt constrained in that their students still preferred print. To see if this was still the case, all teaching faculty were asked about their perceptions of their students’ digital/print preferences. Faculty believe that their students have a stronger preference for print than they do (32% for their students, versus only 25% of faculty). That said, overall more faculty report that their students prefer digital to print material.
As was evident in last year’s results, faculty who have been teaching the longest have the strongest preference for print over digital. While this pattern still holds true, faculty at every stage show an increased preference for digital materials in 2017-18.

Preference of digital materials over print remains a generational issue, as older faculty are still more likely to prefer print over digital while newer faculty lean in the other direction. However, the growing acceptance of digital materials among teaching faculty is being driven not by younger faculty replacing older ones, but by an increased acceptance of digital materials across all groups of faculty.
Textbook Use

Textbooks should be built and ordered by units by the instructor to cut blotting of useless chapters, thus cutting the cost of printing. (Part-time Linguistics / Language Faculty)

Please allow instructors to order textbooks by unit and organize them logically. It will reduce costs and make the books more useful. (Part-time Linguistics / Language Faculty)

The textbook I use has the advantage of focusing more or less on the same topics that I cover in my lecture, and being arranged in chronological, rather than thematic order, which suits my approach to the subject. (Full-time History Faculty)

I can pick and choose sections, but I wish I could do so at a finer granularity. Also, I wish I could add or edit the activities in the online textbook. Also, I wish there were more activities where students had to get the answer right in order to receive credit. (Full-time Computer and Information Science Faculty)

The order of units and grammar mistakes in a grammar book, ugh. (Part-time Linguistics / Language Faculty)

Faculty are, in general, very satisfied with their choice of textbook. Over three-quarters of all faculty report that they are either extremely satisfied (30%) or moderately satisfied (52%) with their choice of textbook. Given the high level of concern with the cost of required course materials, it may be surprising how satisfied teaching faculty are with the required textbook(s) that they are using.

**SATISFACTION WITH REQUIRED TEXTBOOK**

- Extremely Satisfied: 30%
- Moderately Satisfied: 52%
- Slightly Satisfied: 6%
- Neutral: 2%
- Dissatisfied: 11%
When faculty were probed about their level of satisfaction with different aspects of their selected textbook, items related to the accuracy, scope, and level of presentation came out on top. Over 80% of all faculty said that they were either "Satisfied" or "Very Satisfied" with the accuracy of content, the scope and coverage of content, and the level of presentation of their textbook. A slightly smaller group (albeit still over 70%) expressed satisfaction with their confidence in timely updates.

The lowest levels of satisfaction were reported for the included test banks (only 15% reporting that they were Very Satisfied) and cost to the student (20% reporting Very Satisfied). There appears to be far more satisfaction with the core content in the textbook (accuracy, scope and coverage, and level of presentation) than for non-core items, such as instructor material and text banks. Given the concerns with cost reported above, it is not surprising to see cost as one of the aspects of the textbook with the lowest level of satisfaction.
Department chairpersons were asked a similar question, but framed to encompass their entire department. They were asked to indicate what publishers could do to best improve the textbooks available for use by their department. The results are clear: no matter what the level of satisfaction is with all of the various aspects of the textbooks in use at the department, the overwhelming desire is for publishers to improve the cost to students. The 69% of departmental chairs who selected "less expensive" is a rate more than double any other aspect of the textbook. Most other improvements were selected by approximately one-quarter of the respondents, with the exceptions of teaching guides, correcting errors, and improved coverage, where the proportion selecting was even lower.

**How Improve Departmental Textbooks**

- Less Expensive for Students: 69%
- Improved Supplemental Instructor Material: 27%
- Having Materials More Current / Up-To-Date: 27%
- Better Integration with LMS: 27%
- Greater Flexibility to Edit and Reuse: 26%
- Ability of Student to Select Print or Digital: 23%
- Better Quiz and Test Banks: 21%
- Clearer Presentation of Core Topics: 19%
- Improved Scope and Coverage of Content: 14%
- Correction of Errors and Inaccuracies: 7%
- Improved Teaching Guides: 6%
Do faculty members "teach from the book," using the textbook to define the scope, order, and presentation of the material in their course, or do they use the textbook as a launching point and present the material in a different way, with the textbook used to support their approach? When it comes to the inclusion and order of material in the course, the vast majority of faculty say that they do not follow the textbook. Faculty often skip material in the textbook (68% of all faculty, and 72% of those teaching introductory level courses), and teach it in a different order than the textbook (70% of all faculty, and 65% of those teaching introductory level courses). A sizable fraction of faculty report that they replace material in the text with other material — either their own, or from other sources.

Given that the aspect of their textbook that faculty reported the highest level of satisfaction was the accuracy of the content (with over 90% reporting some level of satisfaction), it is surprising to see that over one in five faculty members report that they have had to correct some inaccuracies in their textbook. A similar proportion report that they have revised or edited textbook materials for their class.

Advocates for OER have often cited the 5Rs as a major benefit of adopting open resources. The open licensing of OER means that faculty are free to Retain, Reuse, Revise, Remix, and Redistribute their course materials. Faculty are clearly already making extensive use of Revise and Remix, even with the current copyrighted textbooks. The OER 5R approach appears to be a good match to how faculty are already using their textbooks.

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Textbook Licensing

Early surveys in this series found low levels of faculty awareness of the licensing of the course materials that they were adopting and using. Over time, faculty awareness of the different types of licensing has grown, with a reported awareness of copyright now nearly universal. Lower levels of awareness of Public Domain and of Creative Commons licenses may stem from either a lack of exposure to materials distributed in this manner, or to a general assumption that all materials are copyrighted.

Faculty overwhelmingly reported that they were using copyrighted printed textbooks (98%), with only small proportions stating that the text was licensed under Creative Commons (1%) or was in the public domain (3%). Only 1% reported that they did not know how the printed text was licensed. The numbers for the digital version of the textbook were also highly slanted towards copyrighted material, with a rate only slightly lower (93%) than for print versions. The rate that faculty reported that their digital textbooks were either creative Common Commons (4%) or public domain (5%) were higher than for printed textbooks.
The licensing results for 2017-18 are a close match to the results from 2016-17, with one exception. In 2016-17 a full 16% of faculty with a digital textbook reported that they did not know how it was licensed, a rate which has dropped by three-quarters to only 4% reporting "Don't Know" in 2017-18. This has been accompanied by a corresponding increase in the number reporting that their digital textbooks are copyrighted (moving from 78% in 2016-17 to 93% in 2017-18). The greater awareness of digital licensing may be a result of both more familiarity with digital options, and a growing acceptance of digital among teaching faculty.
We are moving to OpenStax textbooks where possible. They are good quality and combined with WebAssign, they are cost effective. (Full-time Mathematics Faculty)

We moved to an open textbook (OpenStax). After several years of using this because it is free, we are not happy with the quality of the resource or the images, and are considering a switch back to print (Campbell Biology). (Full-time Natural Sciences Faculty)

We switched to an OpenStax textbook for Anatomy & Physiology (probably the highest enrolled science class on our campus) because of the cost issue, and that the students were not purchasing or waiting to purchase an expensive Pearson textbook. We noticed that those students were putting themselves in disadvantage from day 1. By switching to OER, I do see that we have lost nice quality images in the textbook, and no digital homework programs like Mastering, but I still think overall it was worth it. It puts more work on the instructors to find resources to supplement what we do not have. We are looking for a way to reduce the textbook costs. (Full-time Natural Sciences Faculty)

Regrettably, the cost of commercial texts is outrageously high. For several years I’ve adopted the OpenStax Psychology text. I find the free OpenStax book is comparable to the overpriced commercial texts. (Full-time Psychology Faculty)

I think it’s best for students to keep required costs for a course as low as possible, especially given the access to open-source materials that currently exists today. (Full-time Economics Faculty)

I use open source. (Full-time Mathematics Faculty)

I will give the OER another trial next semester, but it seems that a cheap, physical textbook is better. I am interested in the College paying for a subscription to allow all students in a section access to the online textbook. (Full-time Natural Sciences Faculty)

I would prefer to teach all of my courses with only open access materials. (Full-time Independent Study Faculty)

I searched for public domain materials for this course but found none with sufficient quality and accuracy. (Full-time Arts and Literature Faculty)

IF there were to become OER resources available, I would COMPLETELY use them if they met the rigor and standard of the print materials I am currently using. (Full-time Medicine Faculty)

I use open educational resources in the courses for which I am the sole instructor so that the cost to my students is zero dollars if they choose digital access and $25 if they choose the print version of the textbook. Others at my institution are unwilling to consider converting the major’s biology courses to OER because of lack of availability of quality ancillary materials as well as fears about edition updates. (Full-time Natural Sciences Faculty)

I wish I had the time to investigate OER options that would allow me to use an online homework site and a good quality OER textbook. (Full-time Natural Sciences Faculty)

OER is not closing the achievement gap for underserved populations in math. A product like Pearson offers much more powerful resources, metrics, and both student and instructor use advantages compared to any OER courseware availability in math. (Full-time Mathematics Faculty)
After faculty were questioned about their awareness of open educational resources and about licensing, they were asked if they used OER materials in any of their courses. The scope of this question is purposefully wider than the previous questions about textbook selection and use, which all focused on a single course taught by the faculty member. Therefore, it is important to understand that if a faculty member believes that they use OER in ANY of their courses, they would answer in the affirmative to this question.

Nearly one-quarter of faculty that teach large enrollment introductory courses report that they are using OER in some fashion, with more of these faculty responding that use OER as supplemental rather than as required materials. The rates are lower across all faculty, with 13% reporting using OER as required course material in at least one of their courses.

These numbers represent a large increase over those in previous years, with the overall faculty rate of required OER use climbing from 5% two years ago to 6% in 2016-17, and then making a large jump to 13% this year. Given the sometimes vague understanding of the OER and its licensing, care must be taken in interpreting these results. Are faculty lumping any free resource into the OER category, even those that are not licensed as OER? Based on previous results we have to assume that there is some level of overreporting in these figures of OER use; we just don’t know how much of an impact this is having.
Future Use

I would like to move toward free or open textbooks in the future, but not sure my institution will support this. (Full-time Writing Faculty)

OER material still not adequate for my subject matter. Maybe this will change in the future, but not holding my breath... (Full-time Social Sciences Faculty)

Open textbooks in some form will likely dominate in future for my course offerings because of the high costs of materials both print, e-book, and subscription, as well as my need to customize content for courses. Many courses that I teach need only modules / units not entire textbooks. These units also rapidly change with respect to teaching technology / computing disciplines. (Full-time Computer and Information Science Faculty)

So far, I have not seen open materials that are both high quality and comprehensive. In physics, particularly in the large introductory classes, students want a consistent look and feel to the presentation. Mix and match resources are not desirable. (Science Department Chairperson)

I would like to transition to open textbooks. (Full-time Natural Sciences Faculty)

I am committed to increasing the use of OER's in my courses, thanks to the awareness initiatives of our institution's dean of libraries. As the availability of OERs grow beyond the introductory level courses, I will continue to include their use in my courses. (Full-time Education Faculty)

OER is the way to go! Being able to take ownership of the content, customize it as I see fit, and then teach based on desired student learning outcomes rather than what is printed in a single textbook is a game changer. Knowing that my students will have access to their textbook on DAY ONE is huge! (Technology Department Chairperson)

OER is improving and I foresee it becoming much more utilized in the future. (Full-time Nursing Care Ii - Lecture Faculty)

Online-only multi-media OER is the future. (Part-time Social Sciences Faculty)

I use a free open textbook but have deep concerns about the quality of the text and am considering moving back to a higher-cost textbook. When I have used a higher-cost in the past, more students had difficulty affording the book, but the class as a whole showed greater mastery of the material. (Full-time Social Sciences Faculty)

More and more of us are moving to OpenStax or another open textbook, however there are sometimes quality and update issues. (Full-time Psychology Faculty)

I am of course supportive of materials that are of lower cost but am wary of the standards and quality. (Full-time Humanities Faculty)

While my institution is pushing for Open Educational Resources (OER) that are free to the student (although the institution may pay a fee to a consolidator/provider), I find the quality and availability dates too variable to recommend them. (Full-time Computer and Information Science Faculty)

OER in business seem to be consistently outdated and in some cases inaccurate. Faculty have tried unsuccessfully to implement them into their courses. At times OER has significantly impacted the student experience. (Business Department Chairperson)
Each year, this survey asks faculty members who are not current users of open educational resources whether they expect to be using OER in the next three years. For 2017-18, a minority of respondents (26%) may not consider it; only 7% reported that they were not interested, while an additional 19% had not yet decided and were unable to offer an opinion. While three-quarters of faculty may consider OER resources, only a small number of faculty claim that they will use OER in the future (6%). Larger groups say that they will consider (32%) or might consider (35%) future OER use.

There is little difference between faculty teaching introductory courses and all other teaching faculty on this future OER orientation.
There have been minimal changes in the proportion of faculty who report that they will use OER in the next three years, dropping slightly from 7% in 2015-16 and 2016-17, to the 6% reported this year. The number who report that they "Will consider" OER grew from 31% in 2015-16 to 37% for 2016-17, before dropping to 32% for 2017-18.

These results support a conclusion that OER awareness and use will continue their current trend of slow but steady growth. While we see no diminishing among the proportion of teaching faculty who report that they will or are willing to consider OER that would indicate that the growth might end, we also do not see any increased enthusiasm among these same faculty that would indicate increases levels of growth.
METHODOLOGY

National samples of teaching faculty and of department chairpersons are used in this analysis, designed to be representative of the overall range of teaching faculty and department chairpersons in U.S. higher education. A multi-stage selection process was used for creating the stratified samples. The process began by obtaining data from a commercial source, Market Data Retrieval, which has over one and a half million faculty records and claims that its records represent 93% of all teaching faculty. All faculty who taught at least one course and all individuals who held the title of department chairperson were selected for this first stage. Individuals 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 and department chairpersons. This sample was then checked against opt-out lists, as well as for non-functioning email addresses.

A total of 3,288 faculty and 812 chairpersons 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 79% of the faculty respondents report that they are full-time faculty members. Over 35% teach at least one online course and 27% teach at least one blended course.

Institutional descriptive data come from the National Center for Educational Statistics’ IPEDS database. 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 2015 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 faculty (all teaching faculty) on such issues as their criteria for selecting educational resources, awareness of openly licensed resources and open textbooks, future plans, etc.

13 http://nces.ed.gov/ipeds/datacenter/
• 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 88% of all responding faculty qualified for these questions because they had created a new course, substantially modified an existing course, and/or selected new required course materials.

• A number of different questions were posed to departmental chairpersons, primarily focused on department and institutional policy issues.

As noted in our previous reports, the specific wording of questions is critical in measuring the level of OER awareness. The wording for this report (provided below) matches that used in previous reports in this series. It 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.

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

Because this question may still slightly overstate the level of OER awareness, we also ask a series of additional questions. Because licensing for remixing and reuse is central to the concept of OER, a question about the respondent's awareness of different legal permissions was asked of all respondents before any questions about OER awareness itself:

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

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<tr>
<th></th>
<th>Unaware</th>
<th>Somewhat Aware</th>
<th>Aware</th>
<th>Very Aware</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Domain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copyright</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creative Commons</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

By combining the responses from the OER awareness question with those of the licensing questions, a combined index of awareness is constructed. An identical process was used in previous reports in this series, to permit year-to-year comparisons and trend analysis.
## APPENDIX TABLES

### Awareness of Open Educational Resources

#### AWARENESS OF OPEN EDUCATIONAL RESOURCES: 2017-18

<table>
<thead>
<tr>
<th>Awareness Level</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Aware</td>
<td>12.5%</td>
</tr>
<tr>
<td>Aware</td>
<td>18.4%</td>
</tr>
<tr>
<td>Somewhat Aware</td>
<td>15.4%</td>
</tr>
<tr>
<td>Not Aware</td>
<td>53.6%</td>
</tr>
</tbody>
</table>

#### AWARENESS OF OPEN EDUCATIONAL RESOURCES: 2014-15 TO 2017-18

<table>
<thead>
<tr>
<th>Year</th>
<th>Very Aware</th>
<th>Aware</th>
<th>Somewhat Aware</th>
<th>Not Aware</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-15</td>
<td>5%</td>
<td>15%</td>
<td>14%</td>
<td>65.9%</td>
</tr>
<tr>
<td>2015-16</td>
<td>7%</td>
<td>19%</td>
<td>16%</td>
<td>58.4%</td>
</tr>
<tr>
<td>2016-17</td>
<td>9.6%</td>
<td>19.6%</td>
<td>15.3%</td>
<td>55.5%</td>
</tr>
<tr>
<td>2017-18</td>
<td>12.5%</td>
<td>18.4%</td>
<td>15.4%</td>
<td>53.6%</td>
</tr>
</tbody>
</table>

### Awareness of Licensing of Open Educational Resources

#### AWARENESS OF LEGAL PERMISSIONS: 2017-18

<table>
<thead>
<tr>
<th>Awareness Level</th>
<th>Creative Commons</th>
<th>Public Domain</th>
<th>Copyright</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Aware</td>
<td>21%</td>
<td>30%</td>
<td>44%</td>
</tr>
<tr>
<td>Aware</td>
<td>23%</td>
<td>35%</td>
<td>39%</td>
</tr>
<tr>
<td>Somewhat Aware</td>
<td>24%</td>
<td>23%</td>
<td>12%</td>
</tr>
<tr>
<td>Unaware</td>
<td>32%</td>
<td>11%</td>
<td>5%</td>
</tr>
</tbody>
</table>

#### AWARENESS OF CREATIVE COMMONS: 2014-15 TO 2017-18

<table>
<thead>
<tr>
<th>Year</th>
<th>Very Aware</th>
<th>Aware</th>
<th>Somewhat Aware</th>
<th>Unaware</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-15</td>
<td>14%</td>
<td>23%</td>
<td>28%</td>
<td>36%</td>
</tr>
<tr>
<td>2015-16</td>
<td>16%</td>
<td>22%</td>
<td>28%</td>
<td>34%</td>
</tr>
<tr>
<td>2016-17</td>
<td>19%</td>
<td>28%</td>
<td>24%</td>
<td>29%</td>
</tr>
<tr>
<td>2017-18</td>
<td>21%</td>
<td>23%</td>
<td>24%</td>
<td>32%</td>
</tr>
</tbody>
</table>

### AWARENESS OF OPEN EDUCATIONAL RESOURCES AND CREATIVE COMMONS: 2017-18

<table>
<thead>
<tr>
<th>Awareness Level</th>
<th>Very Aware</th>
<th>Aware</th>
<th>Somewhat Aware</th>
<th>Not Aware</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-18</td>
<td>11.9%</td>
<td>15.7%</td>
<td>11.3%</td>
<td>61.1%</td>
</tr>
</tbody>
</table>
AWARENESS OF OPEN EDUCATIONAL RESOURCES AND CREATIVE COMMONS: 2014-15 TO 2017-18

<table>
<thead>
<tr>
<th></th>
<th>2014-15</th>
<th>2015-16</th>
<th>2016-17</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Aware</td>
<td>5%</td>
<td>6%</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>Aware</td>
<td>12%</td>
<td>16%</td>
<td>17%</td>
<td>16%</td>
</tr>
<tr>
<td>Somewhat Aware</td>
<td>10%</td>
<td>12%</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>Not Aware</td>
<td>74%</td>
<td>66%</td>
<td>63%</td>
<td>61%</td>
</tr>
</tbody>
</table>

Selecting Educational Resources

PROPORTION OF FACULTY REQUIRING PARTICULAR MATERIAL FOR THEIR COURSE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Textbook(s) (Print or Digital)</td>
<td>68.5%</td>
<td>68.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Articles/Case Studies</td>
<td>47.4%</td>
<td>52.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Homework System</td>
<td>37.5%</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video/Film</td>
<td>28.4%</td>
<td>22.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software</td>
<td>19.3%</td>
<td>19.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>19.0%</td>
<td>20.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inclusive Access Subscription</td>
<td>7.0%</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PROPORTION OF FACULTY REQUIRING PARTICULAR MATERIAL FOR THEIR COURSE:
2016-17 AND 2017-18

<table>
<thead>
<tr>
<th>Material</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Textbook(s) (Print or Digital)</td>
<td>68.5%</td>
<td>68.2%</td>
</tr>
<tr>
<td>Articles/Case Studies</td>
<td>47.4%</td>
<td>52.7%</td>
</tr>
<tr>
<td>Online Homework System</td>
<td>37.5%</td>
<td>N/A</td>
</tr>
<tr>
<td>Video/Film</td>
<td>28.4%</td>
<td>22.4%</td>
</tr>
<tr>
<td>Software</td>
<td>19.3%</td>
<td>19.9%</td>
</tr>
<tr>
<td>Other</td>
<td>19.0%</td>
<td>20.2%</td>
</tr>
<tr>
<td>Inclusive Access Subscription</td>
<td>7.0%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

PROPORTION OF FACULTY REQUIRING PARTICULAR MATERIAL FOR THEIR COURSE

<table>
<thead>
<tr>
<th>Material</th>
<th>All Faculty</th>
<th>Teach Introductory Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclusive Access Subscription</td>
<td>7%</td>
<td>12%</td>
</tr>
<tr>
<td>Online Homework System</td>
<td>37%</td>
<td>48%</td>
</tr>
</tbody>
</table>
Cost to the Student

**OVER 90% OF MY STUDENTS HAVE ACCESS TO ALL THE REQUIRED TEXTBOOK(S)**

<table>
<thead>
<tr>
<th>Teach Introductory</th>
<th>All Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>57%</td>
<td>61%</td>
</tr>
</tbody>
</table>

**PRIMARY REASON STUDENTS DO NOT HAVE ACCESS TO TEXTBOOK**

<table>
<thead>
<tr>
<th>All Faculty</th>
<th>Teach Introductory Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>52%</td>
</tr>
<tr>
<td>Student’s Don’t Think They Need It</td>
<td>38%</td>
</tr>
<tr>
<td>Other</td>
<td>9%</td>
</tr>
</tbody>
</table>

**THE COST OF COURSE MATERIALS IS A SERIOUS PROBLEM FOR MY STUDENTS**

<table>
<thead>
<tr>
<th>Teach Introductory Course</th>
<th>All Faculty</th>
<th>Chair Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>42%</td>
<td>32%</td>
</tr>
<tr>
<td>Agree</td>
<td>29%</td>
<td>29%</td>
</tr>
<tr>
<td>Somewhat Agree</td>
<td>16%</td>
<td>19%</td>
</tr>
</tbody>
</table>

**IS THE COST TO THE STUDENT OF REQUIRED COURSE MATERIALS AN ISSUE FOR YOUR DEPARTMENT?**

- Yes, cost is a critical barrier preventing students from having the required materials: 7.9%
- Yes, cost is often a barrier preventing students from having the required materials: 19.8%
- Yes, we have a few instances where cost has been a barrier preventing students from having the required materials: 41.0%
- Perhaps, there may be instances where cost has been a barrier preventing students from having the required materials: 22.3%
- No, cost of required materials is not an issue in our department: 8.9%

**STUDENT TEXTBOOK COST INITIATIVES**

<table>
<thead>
<tr>
<th>Teach Introductory Course</th>
<th>All Faculty</th>
<th>Chair Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department-level initiative</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>System-wide initiative</td>
<td>9%</td>
<td>6%</td>
</tr>
<tr>
<td>Institutional-level initiative</td>
<td>20%</td>
<td>14%</td>
</tr>
</tbody>
</table>

**STEPS TAKEN TO REDUCE TEXTBOOK COST FOR STUDENTS**

<table>
<thead>
<tr>
<th>Teach Introductory Course</th>
<th>All Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support for Used Textbooks</td>
<td>56%</td>
</tr>
<tr>
<td>Placing Copies in Library or Department</td>
<td>47%</td>
</tr>
<tr>
<td>Provide Information on Rental Programs</td>
<td>41%</td>
</tr>
<tr>
<td>Selecting Required Books Based on Cost</td>
<td>37%</td>
</tr>
<tr>
<td>Making Fewer Books Required</td>
<td>27%</td>
</tr>
<tr>
<td>Adoption of Free or Open Textbooks</td>
<td>23%</td>
</tr>
<tr>
<td>Other</td>
<td>16%</td>
</tr>
<tr>
<td>Use of Inclusive Access</td>
<td>9%</td>
</tr>
</tbody>
</table>
# Digital versus Print

**Faculty Preference for Print or Digital Materials**

<table>
<thead>
<tr>
<th>Prefer Print Materials</th>
<th>24.8%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>35.5%</td>
</tr>
<tr>
<td>Prefer Digital Materials</td>
<td>39.6%</td>
</tr>
</tbody>
</table>

**Faculty Preference for Print or Digital Materials**

<table>
<thead>
<tr>
<th></th>
<th>2016-17</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefer Print Materials</td>
<td>31.7%</td>
<td>24.8%</td>
</tr>
<tr>
<td>Neutral</td>
<td>39.4%</td>
<td>35.5%</td>
</tr>
<tr>
<td>Prefer Digital Materials</td>
<td>28.9%</td>
<td>39.6%</td>
</tr>
</tbody>
</table>

**My Students Prefer Print Materials over Digital**

<table>
<thead>
<tr>
<th></th>
<th>3.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>12.3%</td>
</tr>
<tr>
<td>Somewhat Agree</td>
<td>16.9%</td>
</tr>
<tr>
<td>Neutral</td>
<td>30.5%</td>
</tr>
<tr>
<td>Somewhat Disagree</td>
<td>17.3%</td>
</tr>
<tr>
<td>Disagree</td>
<td>15.2%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>4.7%</td>
</tr>
</tbody>
</table>

**Faculty Preference for Digital Materials by Years Teaching: 2016-17 and 2017-18**

<table>
<thead>
<tr>
<th>Years Teaching</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 5</td>
<td>42%</td>
<td>39%</td>
</tr>
<tr>
<td>6 to 10</td>
<td>42%</td>
<td>38%</td>
</tr>
<tr>
<td>11 to 15</td>
<td>41%</td>
<td>40%</td>
</tr>
<tr>
<td>16 to 20</td>
<td>34%</td>
<td>32%</td>
</tr>
<tr>
<td>21 plus</td>
<td>30%</td>
<td>29%</td>
</tr>
</tbody>
</table>
## Textbook Use

### How Satisfied Are You with the Required Textbook(s)

<table>
<thead>
<tr>
<th>Satisfaction Level</th>
<th>Teach Introductory Course</th>
<th>All Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely satisfied</td>
<td>29.7%</td>
<td>28.6%</td>
</tr>
<tr>
<td>Moderately satisfied</td>
<td>51.7%</td>
<td>52.7%</td>
</tr>
<tr>
<td>Slightly satisfied</td>
<td>10.9%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Neutral</td>
<td>1.9%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>5.9%</td>
<td>7.4%</td>
</tr>
</tbody>
</table>

### Satisfaction with Textbook

<table>
<thead>
<tr>
<th>Feature</th>
<th>Very satisfied</th>
<th>Satisfied</th>
<th>Somewhat satisfied</th>
<th>Not satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included Test Banks</td>
<td>15.2%</td>
<td>27.8%</td>
<td>24.7%</td>
<td>32.3%</td>
</tr>
<tr>
<td>Cost to the Student</td>
<td>19.6%</td>
<td>28.2%</td>
<td>31.1%</td>
<td>21.1%</td>
</tr>
<tr>
<td>Supplemental Instructor Material</td>
<td>19.3%</td>
<td>31.4%</td>
<td>24.4%</td>
<td>24.9%</td>
</tr>
<tr>
<td>Integration with LMS</td>
<td>16.9%</td>
<td>35.3%</td>
<td>23.5%</td>
<td>24.3%</td>
</tr>
<tr>
<td>Adaptable/Editable</td>
<td>17.8%</td>
<td>38.9%</td>
<td>21.2%</td>
<td>22.1%</td>
</tr>
<tr>
<td>Confidence in Timely Updates</td>
<td>34.1%</td>
<td>39.3%</td>
<td>18.8%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Level of Presentation</td>
<td>31.7%</td>
<td>48.8%</td>
<td>15.3%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Scope and Coverage of Content</td>
<td>39.1%</td>
<td>43.8%</td>
<td>14.6%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Accuracy of Content</td>
<td>43.2%</td>
<td>46.6%</td>
<td>9.4%</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

### Use of Textbooks

<table>
<thead>
<tr>
<th>Modification</th>
<th>Teach Introductory Course</th>
<th>All Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>9.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Revised/Edited Material in the Textbook</td>
<td>20.1%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Corrected Inaccuracies in the Textbook</td>
<td>22.2%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Replaced Content with Material from Other Sources</td>
<td>37.5%</td>
<td>41.4%</td>
</tr>
<tr>
<td>Replaced Content with My Own Material</td>
<td>43.0%</td>
<td>44.5%</td>
</tr>
<tr>
<td>Taught Topics in a Different Order than Textbook</td>
<td>65.2%</td>
<td>69.8%</td>
</tr>
<tr>
<td>Skipped Sections of the Textbook</td>
<td>71.7%</td>
<td>68.0%</td>
</tr>
</tbody>
</table>

### How Best Improve Departmental Textbooks

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Teach Introductory Course</th>
<th>All Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved Teaching Guides</td>
<td>6.4%</td>
<td></td>
</tr>
<tr>
<td>Correction of Errors and Inaccuracies</td>
<td>7.2%</td>
<td></td>
</tr>
<tr>
<td>Improved Scope and Coverage of Content</td>
<td>13.5%</td>
<td></td>
</tr>
<tr>
<td>Clearer Presentation of Core Topics</td>
<td>18.6%</td>
<td></td>
</tr>
<tr>
<td>Better Quiz and Test Banks</td>
<td>20.9%</td>
<td></td>
</tr>
<tr>
<td>Ability of Student to Select Print or Digital</td>
<td>23.2%</td>
<td></td>
</tr>
<tr>
<td>Greater Flexibility to Edit and Reuse</td>
<td>25.6%</td>
<td></td>
</tr>
<tr>
<td>Better Integration with LMS</td>
<td>26.6%</td>
<td></td>
</tr>
<tr>
<td>Having Materials More Current / Up-To-Date</td>
<td>26.7%</td>
<td></td>
</tr>
<tr>
<td>Improved Supplemental Instructor Material</td>
<td>26.7%</td>
<td></td>
</tr>
<tr>
<td>Less Expensive for Students</td>
<td>68.7%</td>
<td></td>
</tr>
</tbody>
</table>
# Textbook Licensing

## Licensing of Required Textbooks

<table>
<thead>
<tr>
<th></th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Textbook(s)</td>
<td>92.6%</td>
<td>77.6%</td>
</tr>
<tr>
<td>Copyrighted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creative Commons</td>
<td>4.2%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Public Domain</td>
<td>4.7%</td>
<td>7.0%</td>
</tr>
<tr>
<td>NA/Don't Know</td>
<td>3.7%</td>
<td>15.7%</td>
</tr>
<tr>
<td>Printed Textbook(s)</td>
<td>98.0%</td>
<td>95.6%</td>
</tr>
<tr>
<td>Copyrighted</td>
<td>1.4%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Creative Commons</td>
<td>3.2%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Public Domain</td>
<td>1.1%</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

## OER Use

### Used Open Educational Resources in Any Course 2017-18

<table>
<thead>
<tr>
<th></th>
<th>All Faculty</th>
<th>Teach Introductory Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Course Material</td>
<td>12.8%</td>
<td>21.9%</td>
</tr>
<tr>
<td>Supplemental Course Material</td>
<td>18.4%</td>
<td>24.4%</td>
</tr>
</tbody>
</table>

### Used Open Educational Resources in Any Course as Required Material: 2015-16 to 2017-18

<table>
<thead>
<tr>
<th></th>
<th>2017-18</th>
<th>2016-17</th>
<th>2015-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Faculty</td>
<td>12.8%</td>
<td>6.5%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Teach Introductory Course</td>
<td>21.9%</td>
<td>14.8%</td>
<td>7.6%</td>
</tr>
</tbody>
</table>

## Future Use

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

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Will Consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teach Introductory Level Course</td>
<td>6.1%</td>
<td>32.9%</td>
</tr>
<tr>
<td>All Faculty</td>
<td>5.7%</td>
<td>32.4%</td>
</tr>
</tbody>
</table>

### Will You Use Open Educational Resources in the Next Three Years: 2015-16 and 2017-18

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Will Consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015-16</td>
<td>6.9%</td>
<td>31.3%</td>
</tr>
<tr>
<td>2016-17</td>
<td>7.4%</td>
<td>36.9%</td>
</tr>
<tr>
<td>2017-18</td>
<td>5.7%</td>
<td>32.4%</td>
</tr>
</tbody>
</table>
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 Textbook: Open Education Resources in U.S. Higher Education, 2016-17
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- Online Report Card: Tracking Online Education in the United States
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- Changing Course: Ten Years of Tracking Online Education in the United States
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- Staying the Course: Online Education in the United States, 2008
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- Class Connections: High School Reform and the Role of Online Learning
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- Online Learning as a Strategic Asset, Volume II: The Paradox of Faculty Voices
- 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
The 2017-2018 survey on teaching materials in U.S. higher education shows a steady growth in awareness of open educational resources (OER). Responses from over 4,000 faculty and department chairpersons paint a picture of steady improvement, with almost 50% of faculty now reporting OER awareness.

The study also shows multiple factors are in place to support rapid future increases in awareness and use of OER:

• Faculty and department chairpersons believe that the high cost of course material has a negative impact on student access.

• The 5Rs that underpin OER (Retain, Reuse, Revise, Remix and Redistribute) are a perfect match to the extensive use of 'revise' and 'remix' that faculty are already practicing.

• Faculty members express considerable resentment towards commercial publishers over price and unnecessary frequent updates, among other issues.

• Faculty report a growing acceptance (or even preference) for digital materials.

• The 'open' aspect of OER resonates with faculty; they see it as an excellent match to academic principles.

These results could signal a turning point for OER, with potentially faster levels of growth to come. However, the study results also show that many of the factors that have prevented rapid growth still remain. Overall awareness of OER is at about 46 percent, so while most faculty have real concerns about the cost of course materials and use textbooks in a manner that is best supported by OER, slightly more than half remain unaware of the OER alternative. Institutional level initiatives to educate faculty about OER are limited, and faculty have been left to find their own solutions to the high cost of materials.

Key findings from the report include:

• Faculty awareness of OER has increased every year, with 46 percent of faculty now aware of open educational resources, up from 34 percent three years ago.

• For the first time, more faculty express a preference for digital material over print in the classroom.

• 61 percent of all faculty, 71 percent of those teaching large enrollment introductory courses, and 73 percent of department chairpersons, “Strongly Agree” or “Agree” that “the cost of course materials is a serious problem for my students.”

• Department chairpersons overwhelmingly believe that making textbooks less expensive for students would be the most important improvement to course materials.

• Less than one-in-five faculty members are aware of any departmental-, institution-, or system-level initiative to deal with the cost of course materials.

• Faculty are acting independently to control costs by supporting used textbooks and rental programs, placing copies on reserve, and selecting materials based on cost.

• Overall faculty satisfaction with required textbooks is high, with over 80 percent either “Extremely Satisfied” or “Moderately Satisfied.” That said, faculty express considerable resentment about price, unnecessary frequent updates, and other issues with commercial textbooks.

• Faculty often make changes to their textbooks, presenting material in a different order (70 percent), skipping sections (68 percent), replacing content with their own (45 percent), replacing with content from others (41 percent), correcting errors (21 percent), or revising textbook material (20 percent).