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

I. Elaine Allen and Jeff Seaman



THE WILLIAM AND FLORA HEWLETT FOUNDATION
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The report presents results derived from four different national-representative samples of higher education faculty and administrators. This is only possible because the sponsors of each of those the data collection efforts generously allowed us to include OER-related questions as part of their project. We sincerely thank them for their support and willingness to be part of this larger effort.

Results on chief academic officers are taken from the data collected for the 2011 Babson Survey Research Group's online learning report. This effort was supported by Kaplan University, Pearson, and the Sloan Consortium. Chief academic officer data collection for 2009 and 2010 was supported by a grant from the Alfred P. Sloan Foundation. One faulty survey and the survey of academic technology administrators was conducted as a joint project by the Babson Survey Research Group with *Inside Higher Ed*. Four companies – CourseSmart, Deltak, Pearson and Sonic Foundry – provided the support to help make that research effort possible. Pearson also supported a second faculty survey. Pearson further provided the specific resources to allow the construction of both nationally representative faculty samples, as well as support for the overall production and distribution of this report.

Finally we want to thank the thousands of faculty members and academic administrators who took the time to provide us with their detailed and thoughtful responses. We understand that you are very busy people, so we very much appreciate your effort. This report would not be possible without you, and we hope that you find it useful.





Co-Directors
Babson Survey Research Group

EXECUTIVE SUMMARY

Open educational resources (OER) have been defined by the Hewlett Foundation 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. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge.[1]

Formal initiatives in OER can be traced to the late 20th Century through developments in distance (and now online) learning. The term 'open educational resources' was first adopted at UNESCO's 2002 Forum on the Impact of Open Courseware for Higher Education in Developing Countries.[2]

As part of the ongoing Babson Survey Research Group's online learning reports, we have asked institutional academic leaders questions on their knowledge, use and opinion of OER as part of the 2009 - 2011 surveys. In addition, we have conducted surveys asking faculty in higher education and academic technology administrators their opinions of these resources[3]. Finally, our survey of faculty on their use of social media also asked for faculty opinions on OER[4]. This report contains the results from all these data collection efforts[5].

- Most academic leaders are at least somewhat aware of open education resources (OER) and slightly over half list themselves as 'Aware' or 'Very aware.'
- Only one-half of all chief academic officers report that any of the courses at their institution currently use OER materials.
- In 2011, most surveyed academic leaders report that open education resources will have value for their campus; 57 percent agree that they have value and less than five percent disagree.
- Nearly two-thirds of all chief academic officers agree that open education resources have the potential to reduce costs for their institution.
- There is wide agreement among academic leaders that open education resources will save time in the development of new courses.

[1] http://www.hewlett.org/programs/education-program/open-educational-resources.
[2] Johnstone, Sally M. (2005). "Open Educational Resources Serve the World". *Educause Quarterly* **28** (3). Retrieved 2012-8-13.
[3] Allen, I Elaine, Jeff Seaman, with Doug Lederman, Scott Jaschik, *Digital Faculty: Professor, Teaching and Technology, 2012*, Babson Survey Research Group.
[4] Moran, Mike, Jeff Seaman, Hester Tinti-Kane, *Blogs, Wikis, Podcasts and Facebook: How Today's Higher Education Faculty Use Social Media*, Pearson learning Solutions and Babson Survey Research Group.
[5] All reports are available at http://www.quahogresearch.com

- Chief academic officers at over a majority of institutions reported that individual faculty developing courses, faculty committees, programs or divisions, and the administration all have a role in a decision to adopt open education resources.

- Only two groups, individual faculty members and the administration, are seen as having the primary decision responsibility on the adoption of open education resources.

- Over one-half of academic leaders agree or strongly agree that open education resources would be more useful if there was a single clearinghouse.

- Among faculty, cost (88% reporting as important or very important) and ease of use (86%) are most important for selecting online resources.

- The time and effort to find and evaluate are consistently listed as the most important barriers by faculty to the adoption of open education resources.

- Older faculty have a greater level of concern with all potential barriers to open education resource adoption than do younger faculty.

- Female faculty members report higher levels of concern for all potential open education resource adoption barriers examined.

STUDY RESULTS:

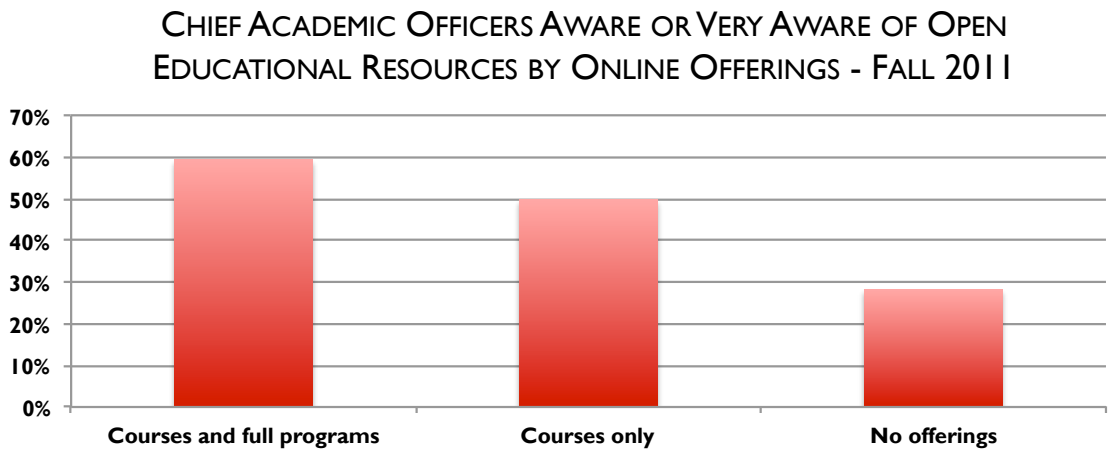
Awareness of Open Educational Resources

Most academic leaders are at least somewhat aware of open education resources (OER) and slightly over half list themselves as 'Aware' or 'Very aware.' An additional third report that they are only 'Somewhat aware.' Examining the open-ended responses from the academic leaders shows that, for many, while they may claim to be 'Aware' or 'Very aware,' there is wide variability in exactly what they consider to be open education resources. Those claiming some level of awareness provided a wide range of descriptions including those who spoke of content versus those who focused on software and services (e.g. Moodle). Others seamed to equate 'open' with 'free' and grouped all free resources as OER. Still others mentioned open-source computer code as their example of OER. One concept very important to many in the OER field was rarely mentioned at all – licensing terms such as creative commons that permit free use or re-purposing by others.

CHIEF ACADEMIC OFFICER AWARENESS OF OPEN EDUCATIONAL RESOURCES - FALL 2011

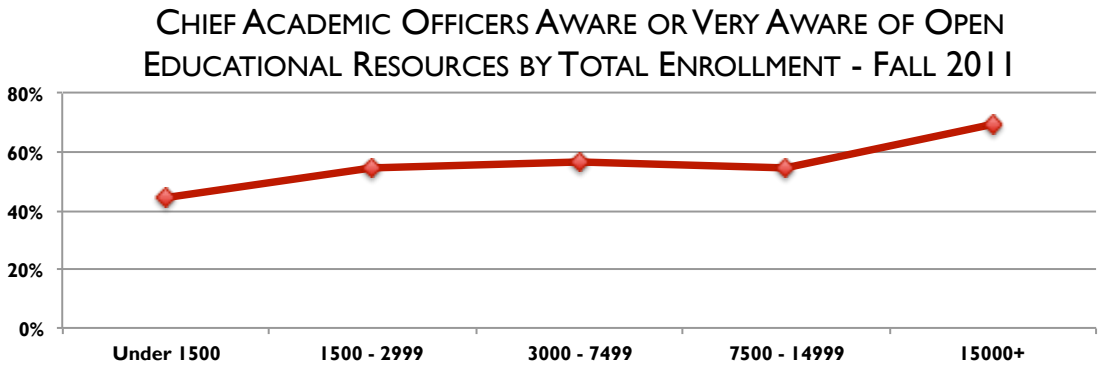


The professed level of chief academic officer awareness differs less by type and size of institution than by whether the institution offers online courses and full programs. At schools with no online offerings, only 28 percent of chief academic officers were 'Aware' or 'Very aware' of OER compared to 59 percent of institutions with online courses and full programs.



One hypothesis is that those most engaged in online learning may have a higher level of awareness of OER because online courses at an institution have often been developed more recently than the corresponding face-to-face courses, reflecting the recent and rapid growth in this sector of higher education. This, coupled with a presumed greater awareness of technology options in general, may provide academic leaders that are heavily engaged in online learning with the opportunity to have greater exposure to open education resources and other newer course creation options. The results do seem to confirm this hypothesis with a declining percent of academic leaders aware of OER as you move from schools with online programs and courses, to those with online courses only, and to schools with no online presence (60% to 50% to 28%, respectively).

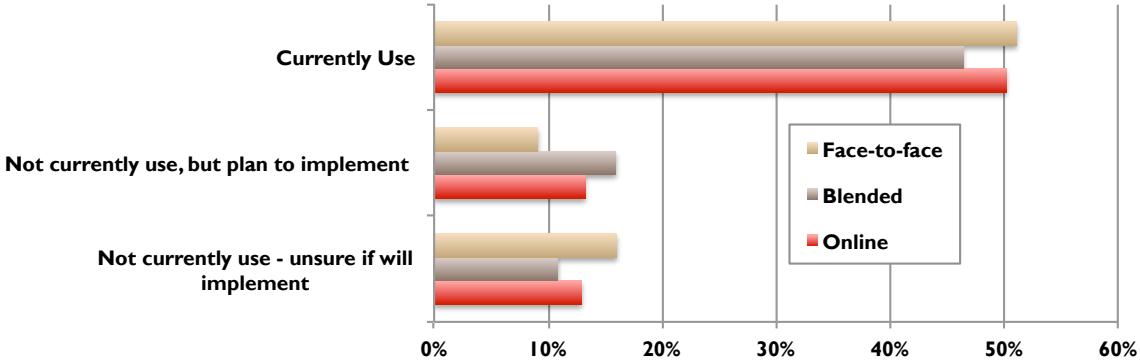
The proportion of chief academic officers who are aware of OER increases somewhat with the size of the institution, with 44 percent 'Aware' or 'Very aware' at institutions with under 1500 students, rising to 69 percent at the largest (over 15,000 students) schools.



Use of OER

The level of reported use of open education resources by academic leaders is not very high. Only one-half of all chief academic officers report that any of the courses at their institution currently make use of OER materials. This is a very low threshold, since it requires use of OER in only a single course at the institution to provide an affirmative response. This low reported use may reflect a less-than-perfect understanding of the nature of OER, or that those on campus using OER have not communicated such use to the academic leaders.

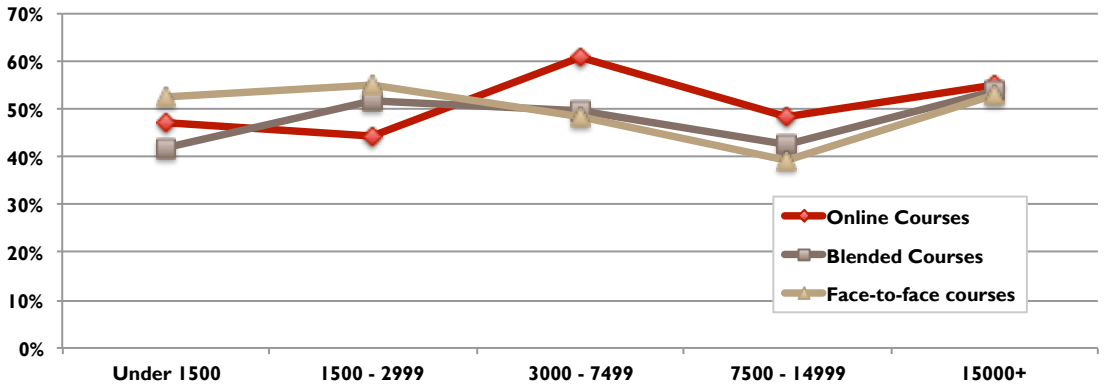
USE OF OPEN EDUCATIONAL RESOURCES BY TYPE OF COURSE - FALL 2011



The pattern of reported use is very similar for courses of all types of delivery methods – online, blended, and face-to-face. Academic leaders at roughly one-half of all institutions report that their courses make use of OER materials, with approximately ten percent saying they do not currently use OER, but they are planning to in the future. An additional ten percent report that they are uncertain if they will use open education resources in the future. The remaining fraction, around 30 percent, say they do not use OER materials and have no plans to use them in the future.

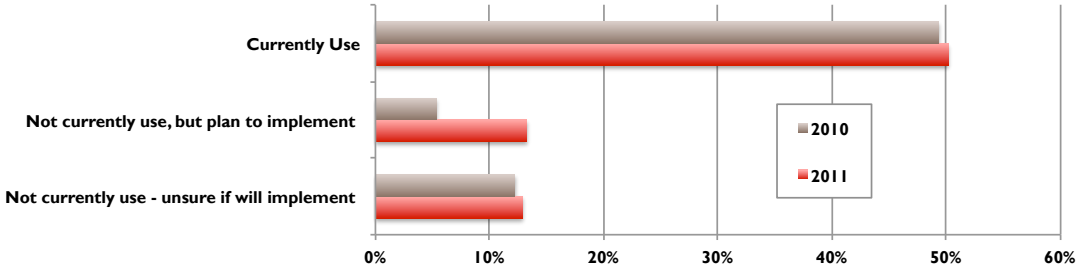
Current use of open education resources is very consistent across institutions of all sizes. Approximately one-half of institutions of all sizes, ranging from the very smallest (under 1500 total enrollments) to the very largest (with over 15,000 total enrollments) report that they currently use OER materials in their courses. This pattern of use by institutional size is consistent for all course delivery types – online, blended, and face-to-face.

USE OF OPEN EDUCATIONAL RESOURCES BY TOTAL ENROLLMENT AND TYPE OF COURSE - FALL 2011



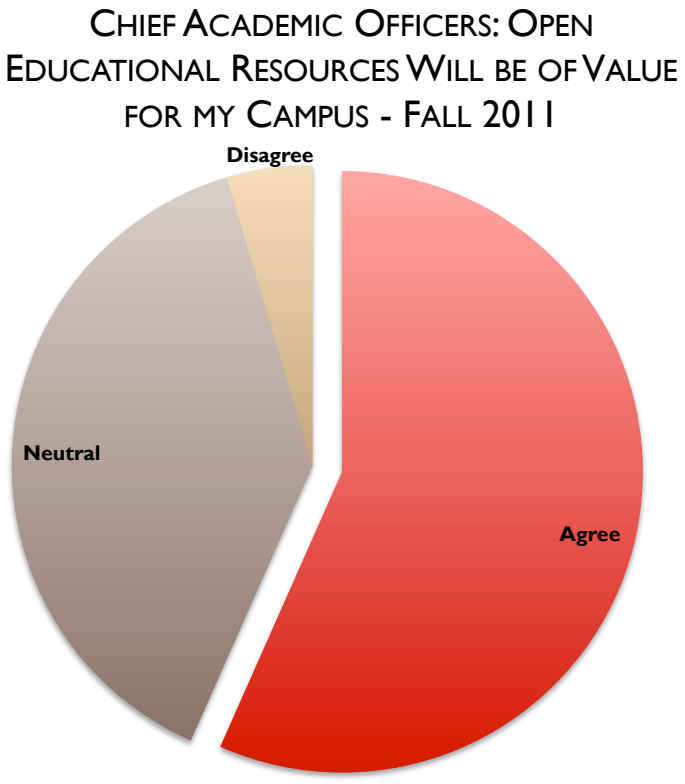
Academic leaders are not reporting any significant change in the use of OER materials at their institutions. In 2010 almost half (49%) of all schools reported that they currently used some OER in their online courses. This is not markedly changed for 2011 where 50 percent of academic leaders report using OER for these courses. The one area of change is among those planning on future adoption of OER – this proportion has grown from 5 percent of reporting institutions in 2010 to 13 percent in 2011.

USE OF OPEN EDUCATIONAL RESOURCES IN ONLINE COURSES- FALL 2010 AND 2011



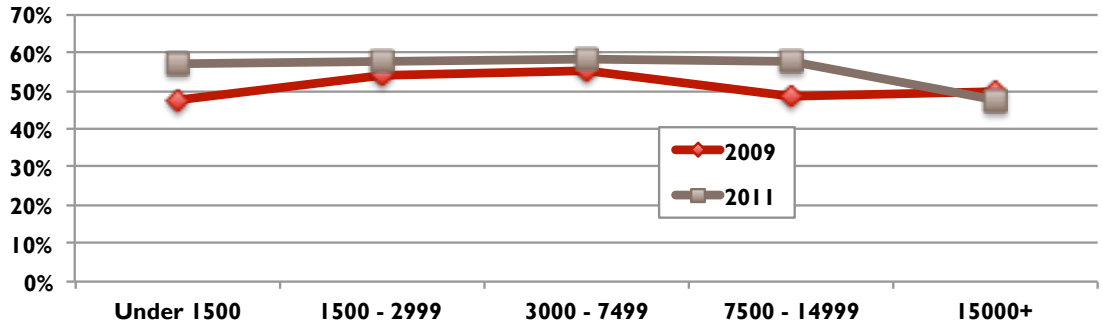
Perceived Value of OER

The perceived value of OER among chief academic officers has increased between 2009 and 2011. In 2011, most surveyed academic leaders report that open education resources will have value for their campus; 57 percent agree that they have value and less than five percent disagree. These results are similar to those for the same question when asked two years ago, with one notable difference. The proportion of for-profit institutions agreeing with this statement has shown a large increase over the two-year period (moving from 50% in 2009 to 72% in 2011). Both private nonprofit institutions and public institutions display smaller increases over this time period.



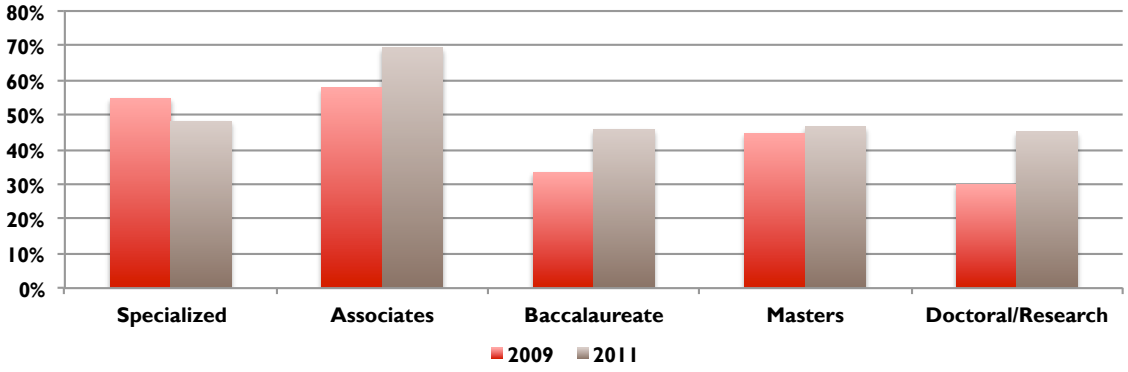
Unlike the differences seen by type of institution, there are only small differences in opinion among academic leaders at different sized institutions. Likewise there has been little change in these levels between 2009 and 2011. Comparing the 2009 results to those for 2011 by the size of the institution, most show only a very small increases in the proportion agreeing that OER has value for their campus – with the very largest institutions showing no gains at all. The 2011 results are now virtually the same for all sizes of institutions, with 57 or 58 percent of all but the very largest institutions agreeing (which have an agreement level ten points lower at 48%).

Chief Academic Officers: Open Educational Resources Will be of Value for my Campus by Overall Enrollment - Fall 2009 and Fall 2011

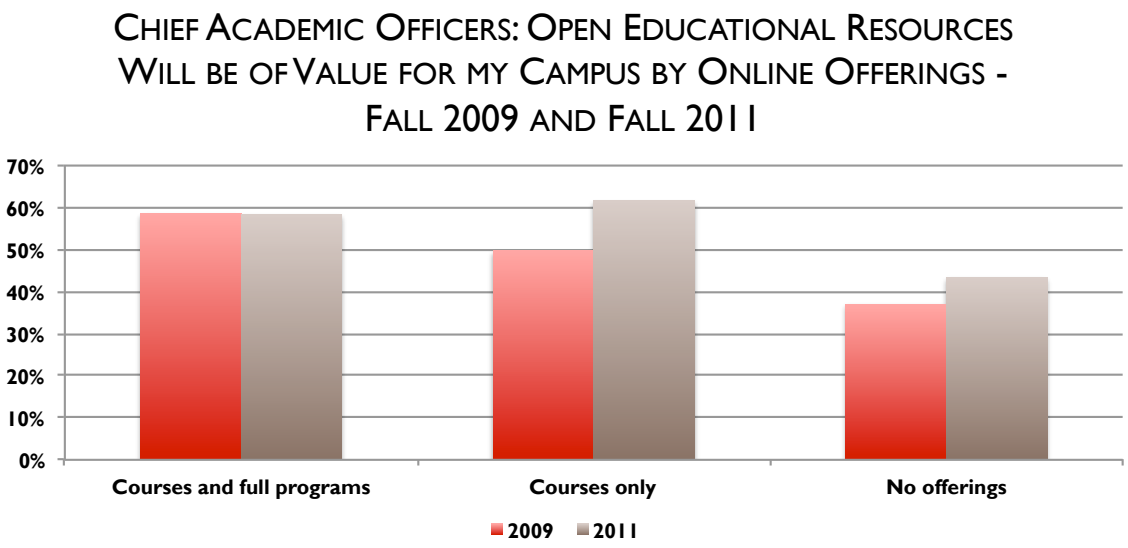


Examined by type of institution shows wide differences in the perceived value proposition of open education resources with Associates schools being the highest in agreeing in the value of OER for both 2009 and 2011. While there were differences between Baccalaureate, Masters, and Doctoral/Research institutions in 2009 (34%, 45%, and 30% respectively), they are almost equal in 2011 (46%, 47%, and 45% respectively agreeing that OER will be of value to their campus).

Chief Academic Officers: Open Educational Resources Will be of Value for my Campus by Carnegie Classification - Fall 2009 and Fall 2011



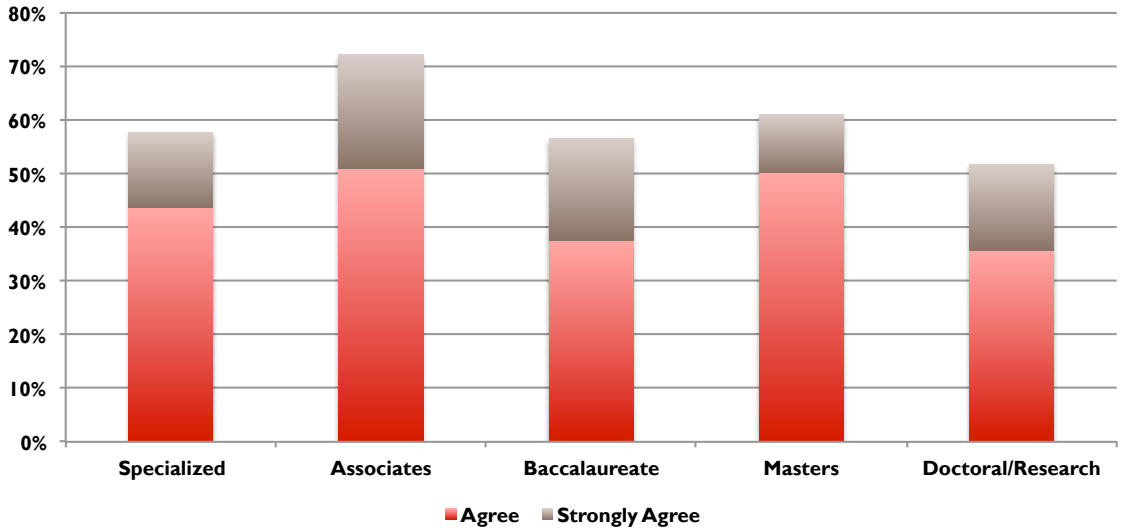
Interestingly, the value of OER does not track with the offering of online courses and programs, as the awareness of OER did. The percent finding value for their institution in open education resources has not changed from 2009 to 2011 in schools with online courses and programs (59% and 58%, respectively) but it has increased for institutions with online courses only (50% to 62%, respectively) and those with no online presence (37% and 43%, respectively).



Saving Time and Money

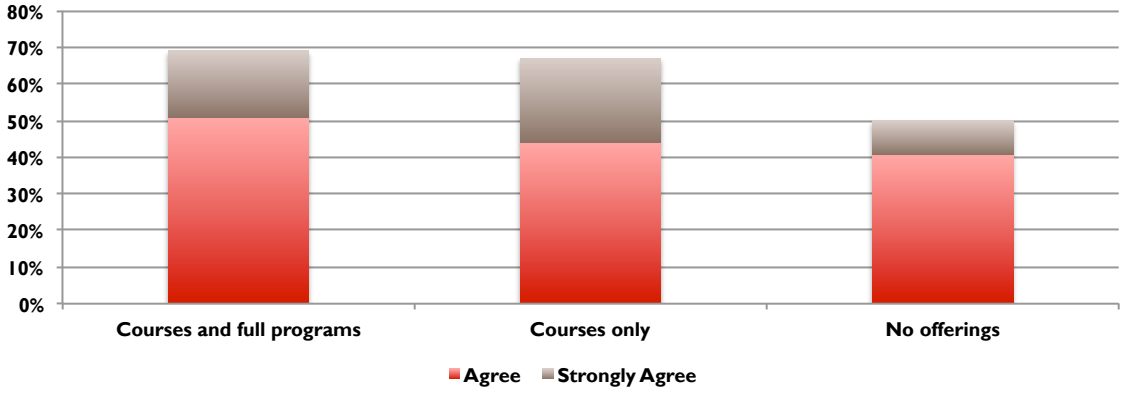
Open education resources are seen as having the potential to reduce costs – nearly two-thirds of all surveyed chief academic officers agree with this statement. With an agreement rate of slightly over half (51%), the Doctoral/ Research institutions have the lowest percent of chief academic officers agreeing with this statement followed by Baccalaureate institutions (57%).

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES HAVE THE POTENTIAL TO SAVE MY INSTITUTION MONEY BY CARNEGIE CLASSIFICATION - FALL 2011



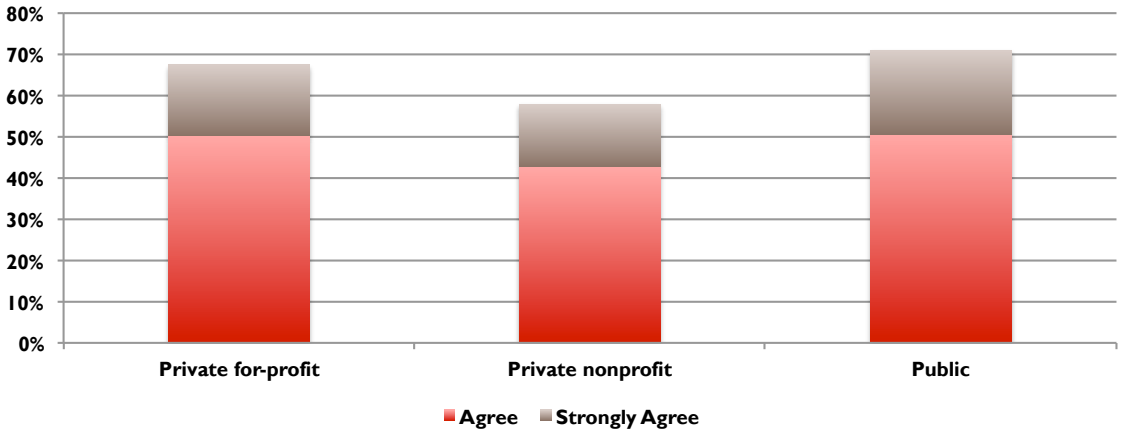
Not surprisingly, chief academic officers at schools offering online courses and programs agree or strongly agree that OER has the potential to save them money. The percent agreement drops off sharply for schools that have no online presence (from 69% to 50%) with institutions offering only online courses closer to institutions with online programs (67%).

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES HAVE THE POTENTIAL TO SAVE MY INSTITUTION MONEY BY TYPE OF ONLINE OFFERINGS - FALL 2011



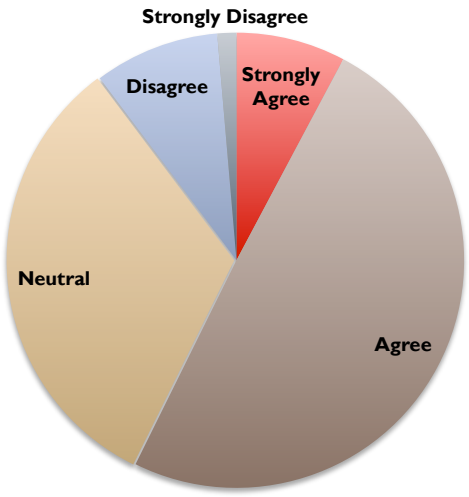
When examined by type school (private for-profit, private nonprofit, or public), a majority of all chief academic officers agreed that open education resources could save their institution money (67%, 58%, and 70% respectively). In addition, when the size of the institution is delineated, all showed at least 60% agreeing or strongly agreeing that OER will save them money. It appears that the Carnegie class of school and whether it offers any courses online are the major factors in determining if there is agreement or strong agreement by the chief academic officers.

Chief Academic Officers: Open Educational Resources Have the Potential to Save my Institution Money by Institutional Control - Fall 2011



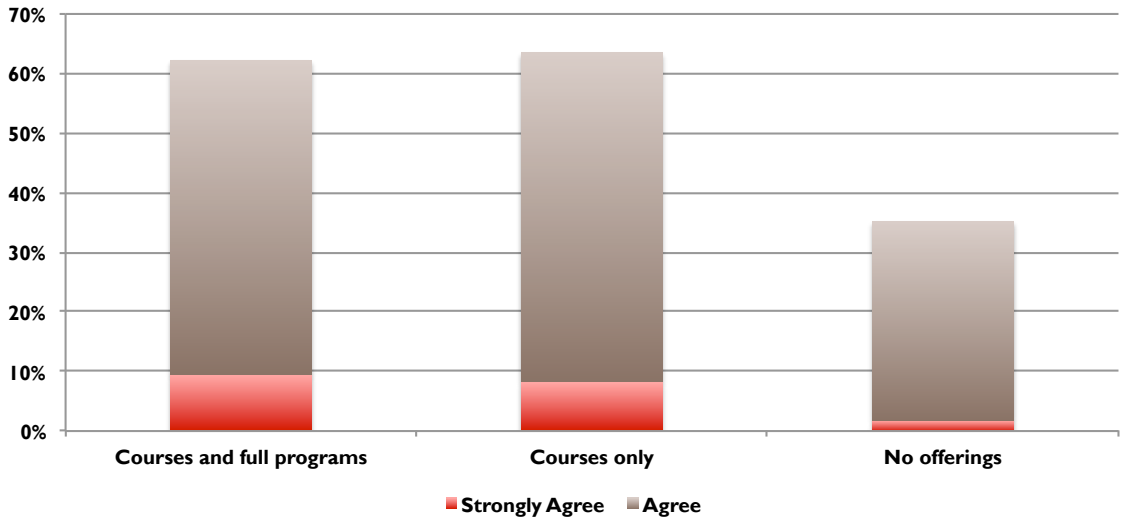
Why do academic leaders believe that use of OER can save their institution money? One possibility is that by adopting these free resources they will not need to develop their own resources on campus, saving time. Overall, there is wide agreement that open education resources will save time in the development of new courses.

Chief Academic Officers: Open Educational Resources Can Save Time in Developing New Courses - Fall 2011



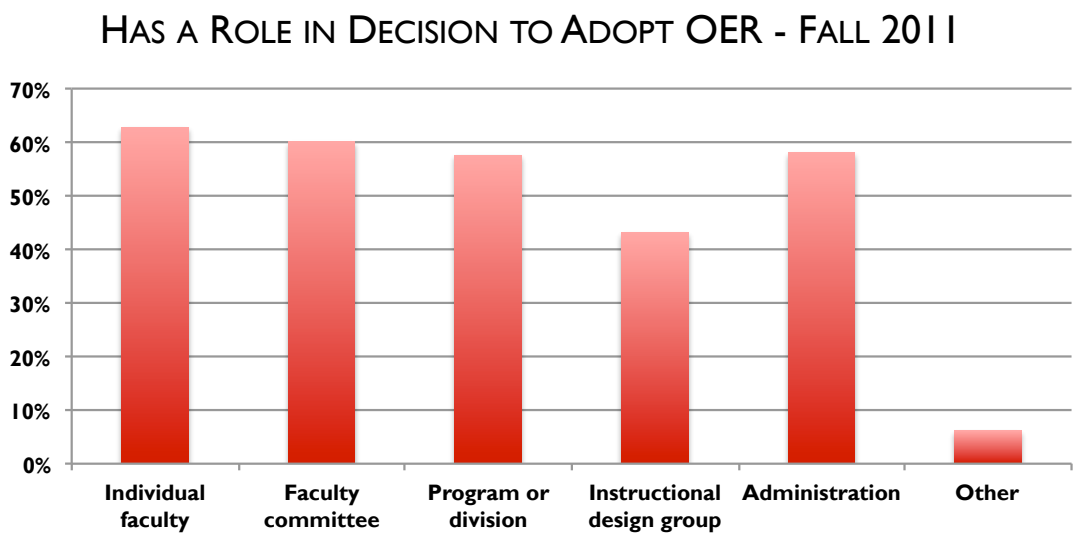
While a sizable proportion of academic leaders agree that the use of OER can save time in developing new courses, the level of this agreement is not that strong; only a few percent say that they 'strongly agree' that this is the case. This agreement is driven by institutions that offer online courses or online courses and full programs online, with both showing percent agreement above 60 percent while less that 35 percent of respondents from schools with no online offerings agreed.

Chief Academic Officers: Open Educational Resources Can Save Time in Developing New Courses by Type of Online Offerings - Fall 2011



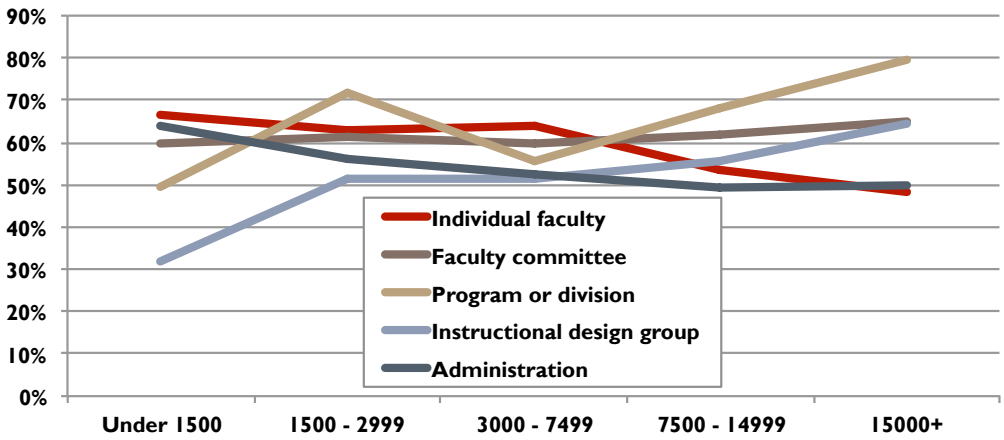
The Gatekeepers

Who in a large complex organization such as higher education institutions decides to adopt a new technique or technology? What roles within the institution serve this gatekeeper function? The survey probed academic leaders on which persons within their own organization would play a role in a decision to adopt open education resources. As might be expected from institutions that often strive for consensus in decision-making, the number of different players potentially involved in a decision is rather large. Chief academic officers at over a majority of institutions reported that individual faculty developing courses, faculty committees, programs or divisions, and the administration all had a role in the decision-making. Slight less (43%) said that the instructional design group had a role. The lower rate of instructional design group involvement may stem from a lack of such organizations among the smaller institutions.



Except for the lower rate of instructional design group representation among the smallest institutions (those with less than 1,500 total students), the pattern of which groups are involved in OER adoption decisions is similar across all sized higher education institutions. The one other exception is that program or division are more likely to have this role in the very largest of schools.

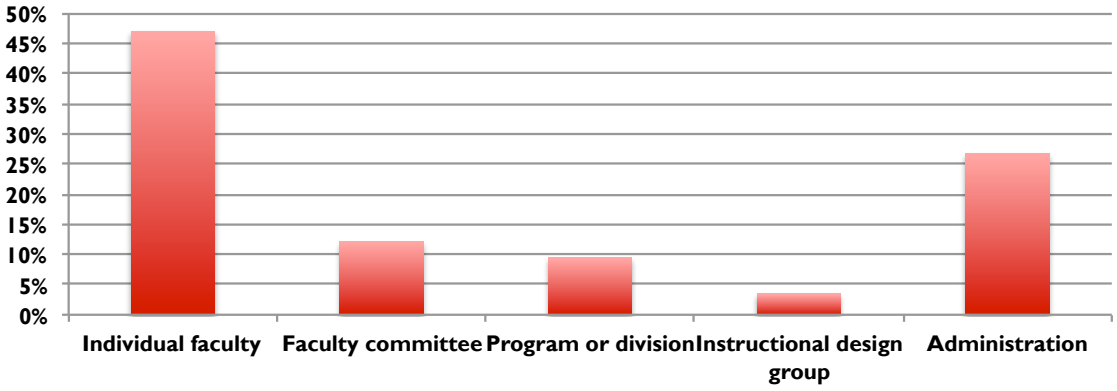
Has a Role in Decision to Adopt OER - Fall 2011



The large cast of players could aid the adoption of open education resources if each group was able to independently bring potential resources to the attention of others and into the classroom. The potentially large number of persons involved in the decision-making could also make the process unwieldy. This might be especially true at institutions that strive for consensus for major decisions.

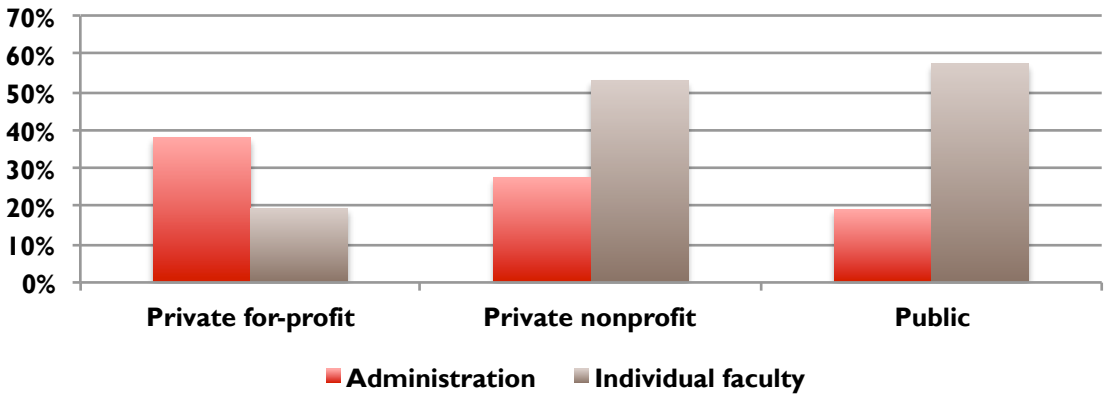
It might be expected that not everyone that is part of the decision plays an equal role. One reason for the large group of decision makers may be that many of them serve in an advisory capacity, with the final decisions being made by a much smaller group. Academic leaders were also asked which groups on their campus had the *primary* role in a decision to adopt open education resources. The picture of the primary decision maker is very different from that of those who have any role – only two groups, individual faculty members and the administration, are seen as having primary decision responsibility.

Primary Role in Decision to Adopt OER - Fall 2011



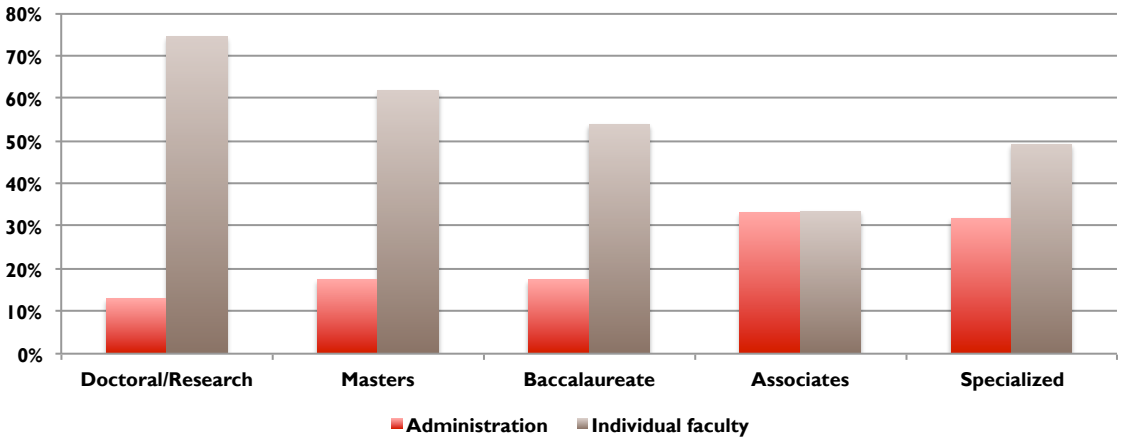
The relative role of these two groups is very different in different types of institutions. When examined by the type of control of the institution, the administration has the lead among for-profit institutions, where central decision-making is more of a tradition. Faculty are in the lead among the private nonprofit and the public institutions.

PRIMARY ROLE IN DECISION TO ADOPT OER - FALL 2011



The importance of faculty among the Doctoral/Research institutions is clear, where they are over six times as likely to have the primary role in an OER adoption decision than is the administration. Associates institutions display an even balance in reporting who has the primary role – with equal numbers reporting faculty and the administration. This is the only type of institution where the role of the administration approaches that of the faculty.

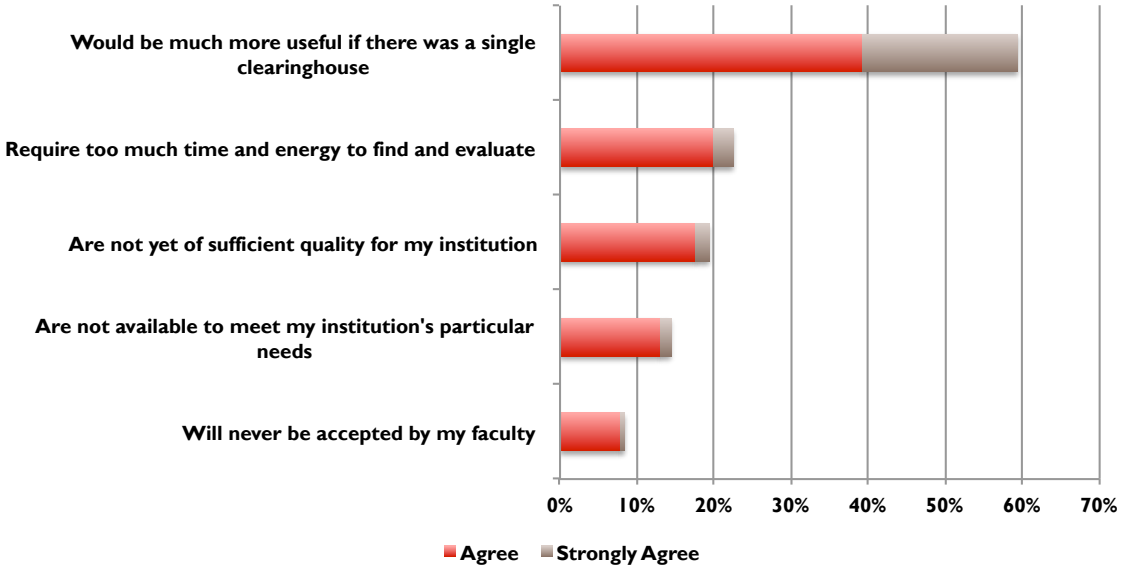
PRIMARY ROLE IN DECISION TO ADOPT OER - FALL 2011



Potential Barriers

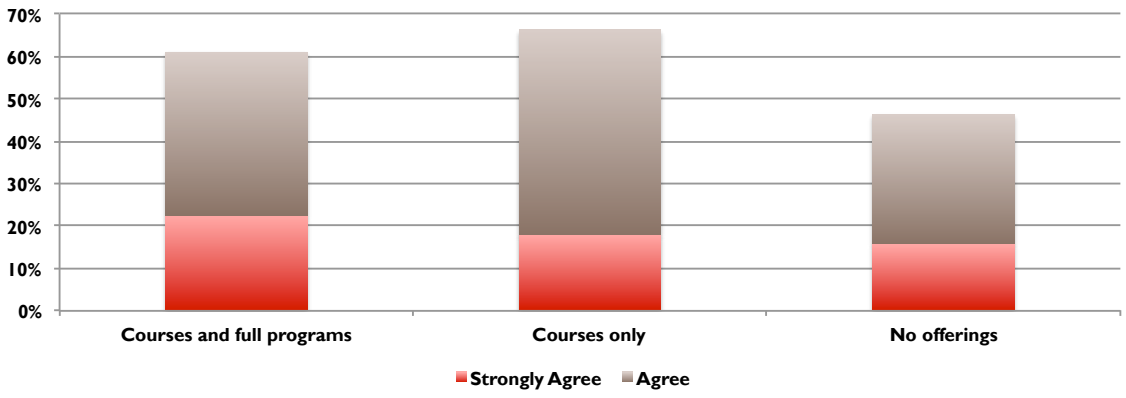
While academic leaders are clear that they see potential benefit for open education resources for their institutions, they are not without concerns. The level of concern among these leaders, however, is rather low. Over one-half of the respondents agree or strongly agree that open education resources would be more useful if there was a single clearinghouse. This does not mean that these leaders require a clearinghouse in order to adopt OER, only that having one would make the process easier.

CHIEF ACADEMIC OFFICERS: OPINIONS ABOUT OPEN EDUCATIONAL RESOURCES - FALL 2011



Academic leaders at institutions with online offerings express the greatest interest in a single clearinghouse. These are the same leaders who had the highest level of awareness and the saw the greatest potential value and potential time savings from OER.

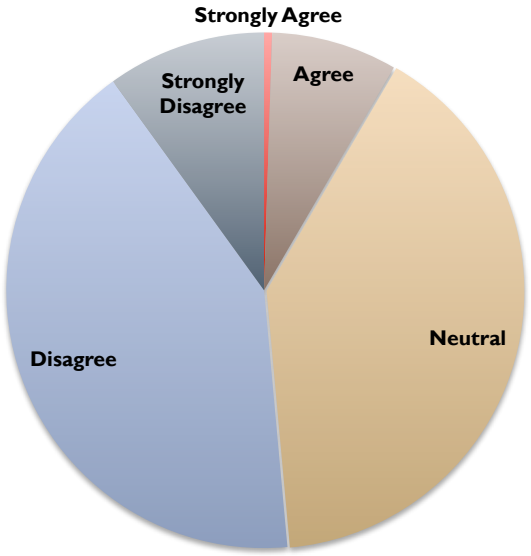
CHIEF ACADEMIC OFFICERS: OPEN EDUCATION RESOURCES WOULD BE MORE USEFUL IF THERE WAS A SINGLE CLEARINGHOUSE - FALL 2011



Other, more serious, concerns were raised by much smaller numbers of respondents. About one in five leaders thinks that it takes too much time and energy to find and evaluate OER or that OER materials are not yet of sufficient quality for their institution. The level of concern is not exceedingly high among these chief academic officers, as virtually all report that they 'agree' that this is a concern, but very few go as far as to say that they 'strongly agree.'

Open education resources do not suffer from the same level of distrust among faculty that has been evident in the growth of online learning. Academic leaders do not believe that their faculty will not accept open education resources, as only 8 percent report that their faculty will not accept OER. This is very different than the pattern we have seen for faculty acceptance of online education, where even after over a decade of growth in online education, only 32 percent of these same leaders say that their faculty now accept the value and legitimacy of online education.

Chief Academic Officers: Open Educational Resources Will Never By Accepted by My Faculty - Fall 2011

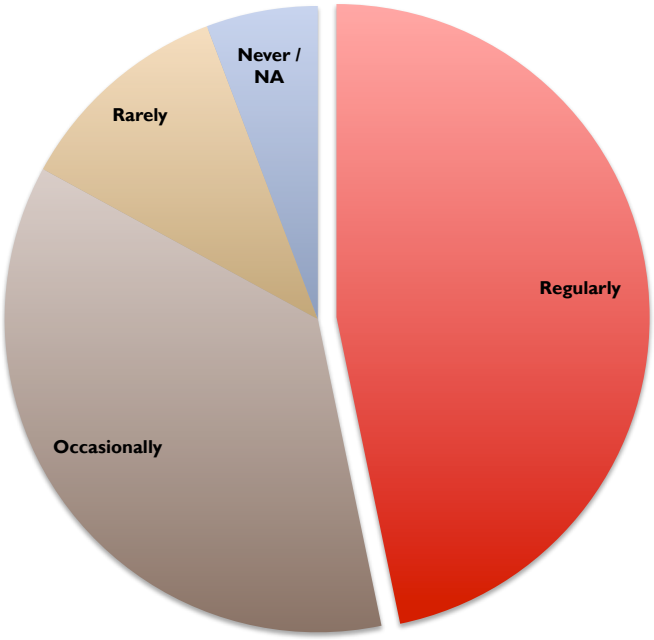


The Faculty View

Academic leaders may believe that open education resources have potential value for their institutions, but what about the faculty members, who are either strongly involved in the decision making or will be driving any decision to adopt OER materials. The first question to address is whether faculty use these types of materials in general – regardless of their "open" status? Since the overwhelming majority of open education recourse materials are digital, one such measure of potential adoption can be seen in the proportion of faculty that are making use of such digital materials in their classes.

The answer is affirmative – large numbers of faculty are already making use of digital resources as a part of their teaching. Fully 83 percent report that they include digital materials such as simulations or videos in the their course presentations. Another 11 percent say they do so, but only rarely. Less than six percent of faculty say that they never use such materials.

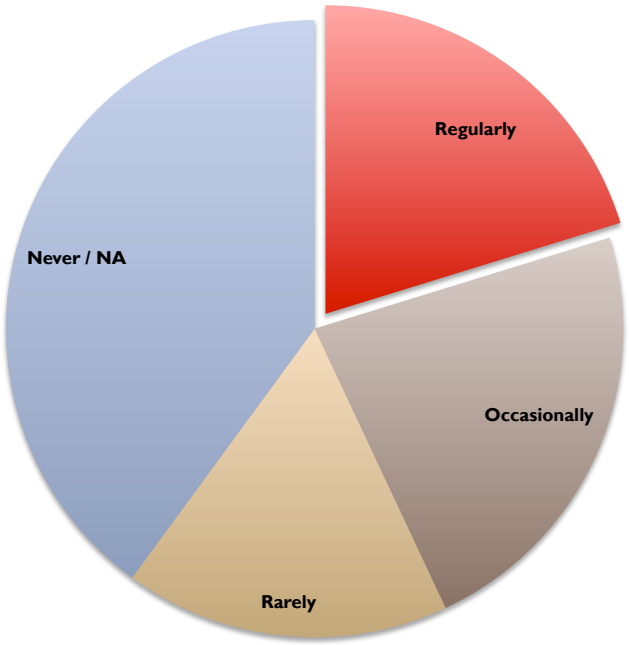
FACULTY: USED DIGITAL MATERIALS SUCH AS SIMULATIONS AND VIDEOS IN COURSE PRESENTATIONS



The current report is concerned with the consumption, not the creation of open education resources. However, examining the experiences of faculty in producing such materials is another good indicator of their potential reception of OER materials. A majority of faculty report that have produced digital teaching materials, open education resources, or lecture captures as part of their teaching. Only one in five say that they do this "Regularly", with a similar number saying it is "Occasionally."

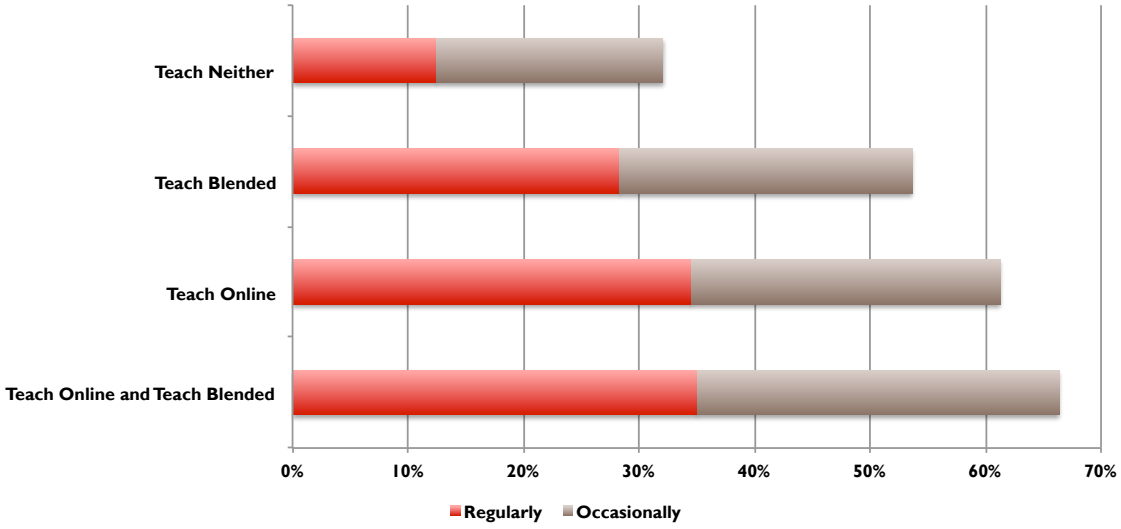
The question is not specific to only OER materials, but broader in scope, since faculty may be producing any form of digital teaching materials to respond affirmatively. The result does, however, provide a further indication that faculty are both familiar with and receptive to digital teaching materials.

FACULTY: CREATED DIGITAL TEACHING MATERIALS/ OPEN EDUCATIONAL RESOURCES OR CAPTURED LECTURES



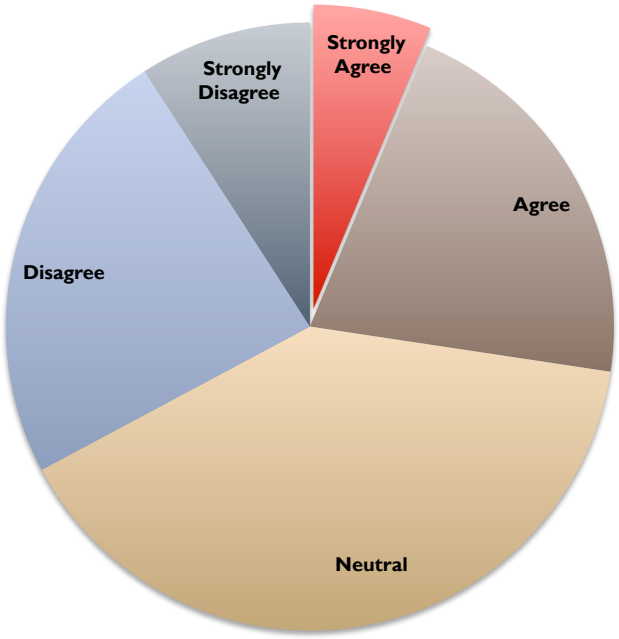
While it remains a minority of faculty that say that they regularly or occasionally produce such digital materials, the picture changes considerably when those faculty with blended or online teaching experience are examined. A majority of all faculty who are teaching an online and/or blended course report that they have produced digital teaching materials. Among those who are teaching both online and blended courses the percentage rises to 66 percent. Faculty teaching either fully online or partly online (as in a blended course) will have more exposure and experience with digital delivery – and probably more experience in using the digital tools provided by their institution. We might, therefore, expect faculty with online and blended teaching responsibilities to be among the most receptive to OER adoption.

FACULTY: CREATED DIGITAL TEACHING MATERIALS/OPEN EDUCATIONAL RESOURCES OR CAPTURED LECTURES BY ONLINE AND BLENDED TEACHING STATUS



Given that faculty are large consumers of digital materials as part of their teaching, and that a substantial minority say that they regularly or occasionally produce such digital materials, does this mean that they believe that their institutions have embraced the production of digital resources? Faculty were asked if they believed that their institution has "a fair system of rewarding contributions made to digital pedagogy." Faculty are evenly divided on this – with only slightly more faculty disagreeing with this statement than those reporting that they agree. By far the largest proportion of faculty (40%) are neutral. The implication for OER in this result it that, for most faculty, there are no strong institutional dis-incentives to their potential creation of their own OER materials.

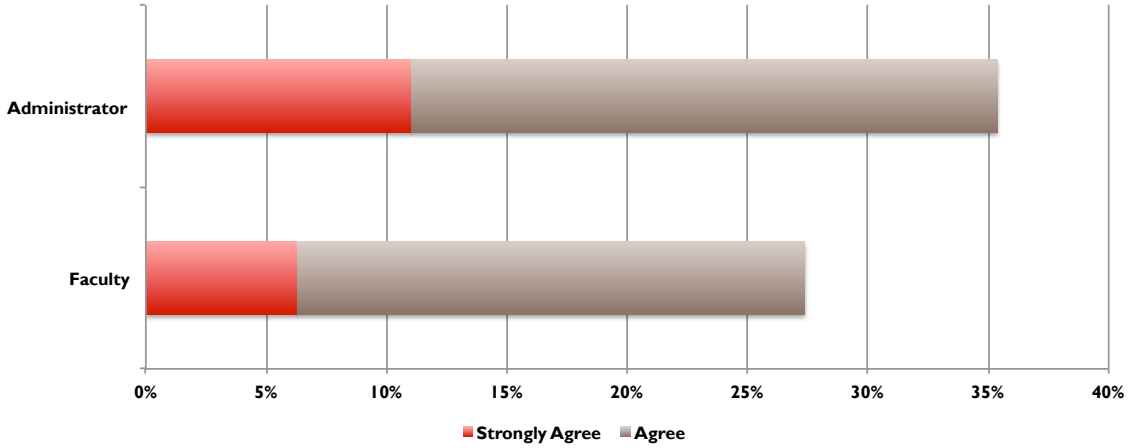
Faculty: My Institution has a Fair System of Rewarding Contributions Made to Digital Pedagogy



Comparisons of the attitudes of faculty members with those of the academic technology administrators on their campus has consistently shown that faculty are more pessimistic than are the administrators. This pattern is also evident here – a larger proportion of academic technology administrators believe that the institution has a fair system of rewards in place than do the faculty members. Among administrators, 35 percent agree or strongly agree that there is a fair reward system in place, while the corresponding number of faculty is only 27 percent. The difference, however, is far less than that observed for many other aspects of teaching with technology (for example on the question of having good tools in place to assess the quality of online education, over 50% of administrators report that they do compared to only 20% of faculty).[6]

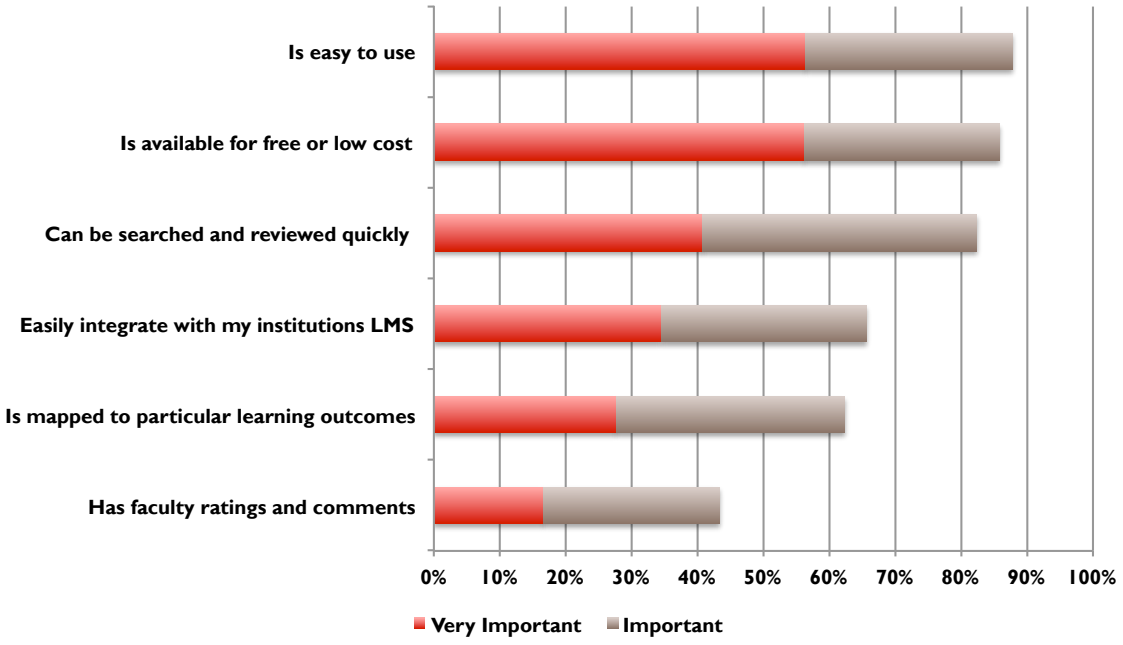
[6] Allen, I Elaine, Jeff Seaman, with Doug Lederman, Scott Jaschik, *Conflicted, Faculty and Online Education, 2012*, Babson Survey Research Group.

Faculty and Administrators: My Institution has a Fair System of Rewarding Contributions Made to Digital Pedagogy

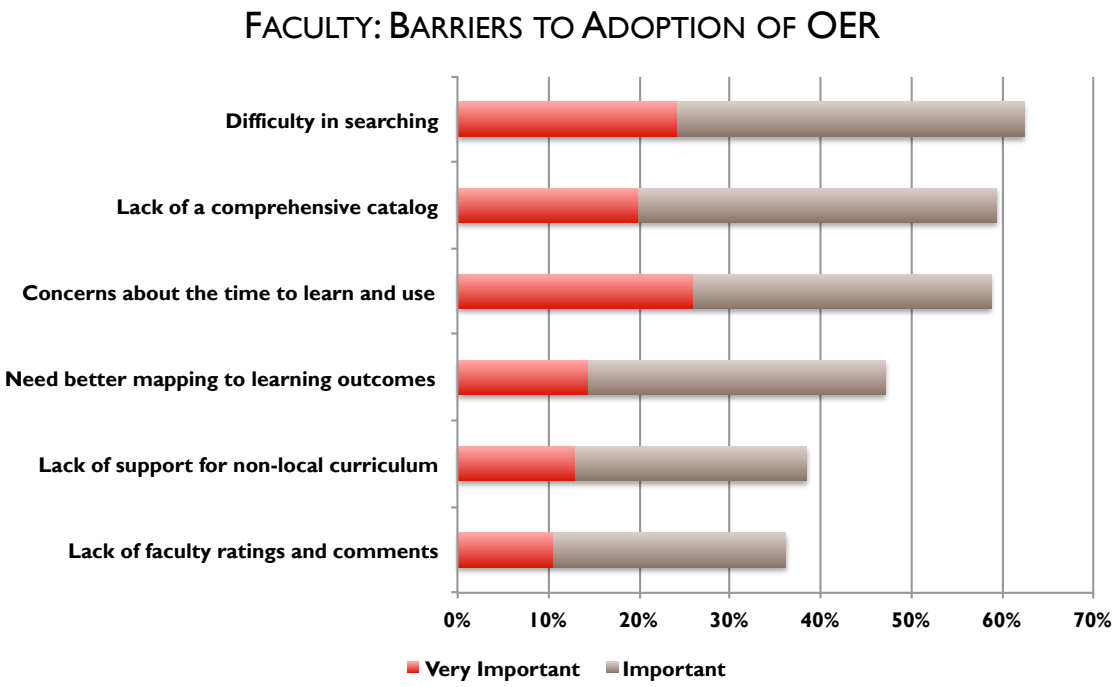


What criteria do faculty use in selecting their digital resources? Cost (88% reporting as important or very important) and ease of use (86%) top all other dimensions. The ability to quickly search and review the material is also critical, mentioned by 82 percent of faculty. Integration with the institutional learning manage systems (LMS) is also important for most faculty. This is most critical for faculty who are teaching online, where the entire course delivery may require the LMS. Having the resources mapped to particular learning outcomes is mentioned by 62 percent of faculty. Slightly fewer than one-half of all faculty report that faculty rating and comments are important to their selection process.

Faculty: Criteria for Selecting Online Resources



Faculty are large consumers of digital materials for teaching. What prevents even wider use of these materials? To address this question faculty were specifically asked to rate how important of a number of potential barriers would be to their adoption of open education resources. The time and effort to find and evaluate these resources are consistently listed as the most important barriers. A majority of faculty report that difficultly in searching and the lack of a comprehensive catalog on OER materials are 'Important' or 'Very important' barriers to their use of OER. These concerns are well aligned with the opinions of the chief academic officers, where a similar proportion noted that the lack of single clearinghouse as a barrier.



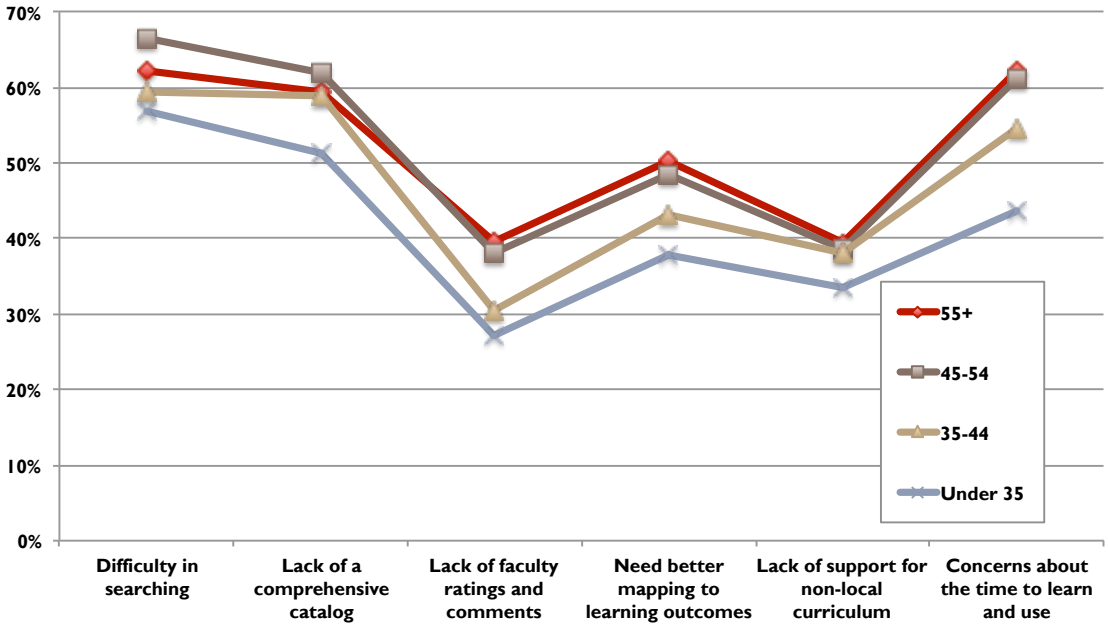
Faculty are more likely to have a level of concern with the time to learn and use open education resources than do their academic leaders. Only 23 percent of chief academic officers listed concerns about time and energy as a potential barrier. This compares with the 59 percent of faculty who do so.

Smaller numbers of faculty report concerns in mapping to specific learning outcomes and the lack of support at their institutions for non-local curriculum. The lowest ranked barrier, a lack of faculty rating and comments on OER resources is still rated as important or very important by over one-third of all faculty.

It is sometimes hypothesized that younger faculty members have a more positive attitude towards new technologies. There is some evidence to suggest that this might be the case. For example, younger faculty are much greater users of social media, both for personal and professions purposes, than are older faculty[7]. Is there a similar age effect in attitudes towards of open education resources?

It does appear that older faculty have a greater level of concern with all of the potential barriers than do younger faculty. Faculty under the age of 35 report the lowest level of concern for every potential barrier, while those age 45 to 55 and over 55 have the highest level of concern. The greatest age difference is around the issue the amount of time it will take to learn and use the materials – there is a ten point difference between the youngest (under 35) group and the next oldest (44% compared with 55% for those aged 35 to 44). Older faculty have an even higher levels of concern (61% for those aged 45 to 55 and 62% for those over 55).

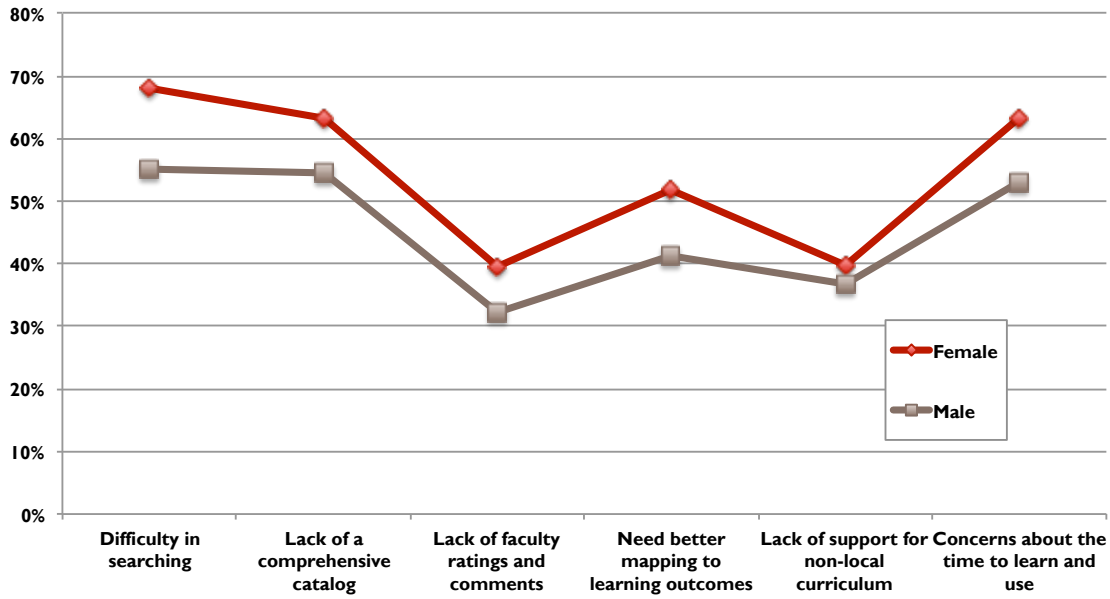
FACULTY: BARRIERS TO ADOPTION OF OER BY AGE



[7] Moran, Mike, Jeff Seaman, Hester Tinti-Kane, *Blogs, Wikis, Podcasts and Facebook: How Today's Higher Education Faculty Use Social Media*, Pearson learning Solutions and Babson Survey Research Group.

In addition to an age effect on faculty adoption of open education resources, there also appears to be gender differences. Female faculty members report higher levels of concern for every barrier examined. In two of these cases, difficulty in searching and the need for better mapping to learning outcomes, the difference exceeds ten percentage points. Are female faculty members just more critical consumers, or is there something else going on here? Is it possible that, other things being equal, women faculty perceive higher barriers to promotion and tenure and believe that using outside sources in their classes may hinder their path forward?

FACULTY: BARRIERS TO ADOPTION OF OER BY GENDER



SURVEY METHODOLOGY

This study reports the results of four surveys of key participants in U.S. Higher Education. Each survey was designed to reach a representative cross-section of the relevant higher education population. The target respondents were chief academic officers (the highest-ranking official at the institution with direct responsibility for the academic program), academic technology administrators, and teaching faculty.

The chief academic officer survey was directed to all active, degree-granting institutions of higher education in the United States. All sample schools were sent an invitation email and reminders, inviting their participation and assuring them that no individual responses would be released. The sample universe contains 4,523 institutions; a total of 2,512 responses were included in the analysis, representing 56 percent of the sample universe. Because non-responding institutions are predominately those with the smallest enrollments, the institutions included in the analysis represents 80 percent of higher education enrollments. There were 2,590 responses in 2009 and 2,583 in 2010.

A second outreach effort focused on academic administrators – in particular those responsible for academic technology at their institutions. There are a wide variety of titles among those invited to participate – the most common being "Director of Academic Computing" and "Director of Instructional Technology." A total of 591 administrators provided a sufficient number of responses to be included in the study. The respondents include slightly more men than women, with about one-quarter having been in their current position for 20 years or more.

There are two nationally representative faculty samples used in this analysis – both were collected using identical techniques designed to be representative of the overall range of faculty teaching in U.S. higher education. A multiple-stage selection process was used for selecting a stratified sample of all teaching faculty. The process began by obtaining data from a commercial source, Market Data Retrieval[8], which claims that its records represent 93 percent of all teaching faculty. A total of 1,506,627 teaching faculty (defined as having at least one course code associated with their records) were included at that stage. Via information from the Carnegie Classification for each institution, faculty were then randomly selected from the master list in proportion to the number contained in each Carnegie Classification to produce two non-overlapping second-stage selections of 75,000 teaching faculty members each. These samples were then checked against opt-out lists, as well as for non-functioning email addresses. Approximately twelve percent of all emails were removed at this stage. The number of email addresses that were still receiving mail, but no longer actively being used by the individual being addressed (e.g., moved or retired) is unknown. Spam filters at both the institution and the individual level also captured an unknown proportion of these emails.

[8] http://www.schooldata.com/

A total of 3,875 faculty members in the first sample provided a sufficient number of responses to be included in the study. Three-quarters of the respondents report that they are full-time faculty members. Just under one-quarter teach online, slightly over one-half are female, and over one-third have been teaching for 20 years or more.

A total of 4,564 faculty responded to the second survey, 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). Three-quarters of the respondents report that they are full-time faculty members. Just over one-quarter teach online, they are evenly split between male and female, and over one-third have been teaching for 20 years or more.

Institutional descriptive data used in all the surveys come from the College Board Annual Survey of Colleges and from the National Center for Educational Statistics' IPEDS database. After the data were compiled and merged with the College Board Annual College Survey[9] and IPEDS database, responders and nonresponders were compared to create weights, if necessary, 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 2005 Carnegie Classification of Institutions of Higher Education. These weights provide a small adjustment to the results allowing for inferences to be made about the entire population of active, degree-granting institutions of higher education in the United States.

[9] Portions of the data used for this report were collected by The College Board as part of the Annual Survey of Colleges and is Copyright © 2010-2011 The College Board.

APPENDIX TABLES

Awareness of Open Educational Resources (OER)

CHIEF ACADEMIC OFFICER AWARENESS OF OPEN EDUCATIONAL RESOURCES - FALL 2011

Very aware	13.5%
Aware	37.7%
Somewhat aware	35.5%
Not aware	13.3%

CHIEF ACADEMIC OFFICERS AWARE OR VERY AWARE OF OPEN EDUCATIONAL RESOURCES BY INSTITUTIONAL CONTROL - FALL 2011

	Private for-profit	*Private nonprofit*	*Public*
Aware or very aware	53.5%	42.0%	59.2%

CHIEF ACADEMIC OFFICERS AWARE OR VERY AWARE OF OPEN EDUCATIONAL RESOURCES BY CARNEGIE CLASSIFICATION - FALL 2011

	Specialized	*Associates*	*Baccalaureate*	*Masters*	*Doctoral/Research*
Aware or very aware	36.6%	56.9%	48.3%	46.6%	60.7%

Chief Academic Officers Aware or Very Aware of Open Educational Resources by Online Offerings - Fall 2011

	Courses and full programs	*Courses only*	*No offerings*
Aware or very aware	59.4%	49.8%	28.3%

CHIEF ACADEMIC OFFICERS AWARE OR VERY AWARE OF OPEN EDUCATIONAL RESOURCES BY TOTAL ENROLLMENT - FALL 2011

	Under 1500	*1500 - 2999*	*3000 - 7499*	*7500 - 14999*	*15000+*
Aware or very aware	44.1%	54.5%	56.8%	54.7%	69.2%

Use of OER

USE OF OPEN EDUCATIONAL RESOURCES BY TYPE OF COURSE - FALL 2011

	Online	*Blended*	*Face-to-face*
Not currently use - unsure if will implement	12.9%	10.8%	16.0%
Not currently use, but plan to implement	13.2%	15.9%	9.1%
Currently Use	50.2%	46.4%	51.0%
Do Not Use	23.7%	26.9%	23.9%

USE OF OPEN EDUCATIONAL RESOURCES BY TOTAL ENROLLMENT AND TYPE OF COURSE - FALL 2011

	Under 1500	*1500 - 2999*	*3000 - 7499*	*7500 - 14999*	*15000+*
Online Courses	47.0%	44.3%	60.8%	48.4%	54.8%
Blended Courses	41.9%	51.7%	49.8%	42.4%	53.7%
Face-to-face courses	52.6%	55.0%	48.3%	39.1%	52.7%

USE OF OPEN EDUCATIONAL RESOURCES IN ONLINE COURSES - FALL 2010 AND 2011

	2011	2010
Not currently use - unsure if will implement	12.9%	12.2%
Not currently use, but plan to implement	13.2%	5.3%
Currently Use	50.2%	49.3%

Perceived Value of OER

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES WILL BE OF VALUE FOR MY CAMPUS - FALL 2011

Agree	56.6%
Neutral	38.7%
Disagree	4.6%

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES WILL BE OF VALUE FOR MY CAMPUS BY INSTITUTIONAL CONTROL - FALL 2009 AND FALL 2011

	Private for-profit	*Private nonprofit*	*Public*
2009	49.8%	44.6%	56.5%
2011	72.4%	45.5%	60.9%

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES WILL BE OF VALUE FOR MY CAMPUS BY OVERALL ENROLLMENT - FALL 2009 AND FALL 2011

	Under 1500	1500 - 2999	3000 - 7499	7500 - 14999	15000+
2009	47.5%	54.1%	55.4%	48.4%	49.5%
2011	56.7%	57.6%	58.0%	57.7%	47.5%

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES WILL BE OF VALUE FOR MY CAMPUS BY CARNEGIE CLASSIFICATION - FALL 2009 AND FALL 2011

	Specialized	*Associates*	*Baccalaureate*	*Masters*	*Doctoral/Research*
2009	54.8%	57.9%	33.5%	44.8%	30.0%
2011	48.1%	69.5%	45.8%	46.6%	45.1%

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES WILL BE OF VALUE FOR MY CAMPUS BY ONLINE OFFERINGS - FALL 2009 AND FALL 2011

	Courses and full programs	*Courses only*	*No offerings*
2009	58.6%	49.8%	37.0%
2011	58.4%	61.6%	43.3%

Saving Time and Money

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES HAVE THE POTENTIAL TO SAVE MY INSTITUTION MONEY - FALL 2011

Strongly Agree	17.7%
Agree	47.5%
Neutral	28.8%
Disagree	5.0%
Strongly Disagree	1.1%

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES HAVE THE POTENTIAL TO SAVE MY INSTITUTION MONEY BY CARNEGIE CLASSIFICATION - FALL 2011

	Specialized	*Associates*	*Baccalaureate*	*Masters*	*Doctoral/Research*
Strongly Agree	14.1%	21.1%	18.9%	10.8%	16.1%
Agree	43.6%	51.0%	37.6%	50.2%	35.7%
Neutral	30.6%	25.3%	34.0%	32.0%	39.7%
Disagree	10.9%	1.8%	6.4%	6.4%	8.5%
Strongly Disagree	.8%	.9%	3.1%	.5%	.0%

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES HAVE THE POTENTIAL TO SAVE MY INSTITUTION MONEY BY TYPE OF ONLINE OFFERINGS - FALL 2011

	Courses and full programs	*Courses only*	*No offerings*
Strongly Agree	18.2%	23.0%	9.2%
Agree	50.8%	44.1%	40.8%
Neutral	25.3%	28.3%	39.6%
Disagree	4.7%	3.9%	8.2%
Strongly Disagree	.9%	.7%	2.2%

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES HAVE THE POTENTIAL TO SAVE MY INSTITUTION BY INSTITUTIONAL CONTROL - FALL 2011

	Private for-profit	*Private nonprofit*	*Public*
Strongly Agree	17.1%	15.2%	20.3%
Agree	50.2%	42.6%	50.5%
Neutral	29.1%	34.5%	23.1%
Disagree	3.5%	5.9%	5.0%
Strongly Disagree	.0%	1.8%	1.0%

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES CAN SAVE TIME IN DEVELOPING NEW COURSES - FALL 2011

Strongly Agree	7.8%
Agree	49.5%
Neutral	32.4%
Disagree	8.9%
Strongly Disagree	1.4%

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES CAN SAVE TIME IN DEVELOPING NEW COURSES BY TYPE OF ONLINE OFFERINGS - FALL 2011

	Courses and full programs	*Courses only*	*No offerings*
Strongly Agree	9.5%	8.3%	1.9%
Agree	52.5%	55.1%	33.3%
Neutral	28.3%	26.9%	50.8%
Disagree	8.5%	9.7%	9.8%
Strongly Disagree	1.1%	.0%	4.3%

The Gatekeepers

HAS A ROLE IN DECISION TO ADOPT OER - FALL 2011

Individual faculty	62.8%
Faculty committee	60.1%
Program or division	57.7%
Instructional design group	43.2%
Administration	58.2%
Other	6.2%

Note: Respondents can give multiple answers

HAS A ROLE IN DECISION TO ADOPT OER - FALL 2011

	Under 1500	*1500 - 2999*	*3000 - 7499*	*7500 - 14999*	*15000+*
Individual faculty	66.7%	62.8%	63.8%	53.3%	48.1%
Faculty committee	59.6%	61.6%	59.7%	62.0%	64.9%
Program or division	49.5%	71.9%	55.7%	68.0%	79.4%
Instructional design group	31.9%	51.4%	51.3%	55.6%	64.3%
Administration	64.1%	55.9%	52.3%	49.3%	50.0%
Other	5.9%	4.6%	7.2%	8.6%	5.8%

Note: Respondents can give multiple answers

PRIMARY ROLE IN DECISION TO ADOPT OER - FALL 2011

Individual faculty	47.0%
Faculty committee	12.1%
Program or division	9.5%
Instructional design group	3.5%
Administration	26.8%

PRIMARY ROLE IN DECISION TO ADOPT OER - FALL 2011

	Private for-profit	*Private nonprofit*	*Public*
Administration	38.0%	27.5%	19.3%
Individual faculty	19.4%	53.0%	57.4%

PRIMARY ROLE IN DECISION TO ADOPT OER - FALL 2011

	Doctoral/Research	*Masters*	*Baccalaureate*	*Associates*	*Specialized*
Administration	12.9%	17.4%	17.3%	33.1%	31.8%
Individual faculty	74.5%	61.7%	53.8%	33.5%	49.2%

Potential Barriers

CHIEF ACADEMIC OFFICERS: OPINIONS ABOUT OPEN EDUCATIONAL RESOURCES - FALL 2011

	Agree	*Strongly Agree*
Will never be accepted by my faculty	7.9%	.5%
Are not available to meet my institution's particular needs	13.0%	1.4%
Are not yet of sufficient quality for my institution	17.6%	1.8%
Require too much time and energy to find and evaluate	19.9%	2.6%
Would be much more useful if there was a single clearinghouse	39.3%	20.0%

CHIEF ACADEMIC OFFICERS: OPEN EDUCATION RESOURCES WOULD BE MORE USEFUL IF THERE WAS A SINGLE CLEARINGHOUSE - FALL 2011

	Courses and full programs	*Courses only*	*No offerings*
Strongly Agree	22.5%	18.1%	15.8%
Agree	38.5%	48.2%	30.6%
Neutral	30.8%	24.1%	42.8%
Disagree	5.6%	6.5%	7.9%
Strongly Disagree	2.6%	3.1%	2.9%

CHIEF ACADEMIC OFFICERS: OPEN EDUCATION RESOURCES WOULD BE MORE USEFUL IF THERE WAS A SINGLE CLEARINGHOUSE - FALL 2011

	Private for-profit	*Private nonprofit*	*Public*
Strongly Agree	12.1%	18.1%	26.4%
Agree	37.0%	36.9%	42.8%
Neutral	38.3%	36.2%	23.2%
Disagree	7.0%	6.5%	5.7%
Strongly Disagree	5.6%	2.2%	1.9%

CHIEF ACADEMIC OFFICERS: OPEN EDUCATIONAL RESOURCES WILL NEVER BY ACCEPTED BY MY FACULTY - FALL 2011

Strongly Agree	0.5%
Agree	7.9%
Neutral	40.2%
Disagree	41.5%
Strongly Disagree	10.0%

The Faculty View

Faculty: Used Digital Materials Such as Simulations and Videos in Course Presentations

Regularly	*Occasionally*	*Rarely*	*Never / NA*
46.7%	36.2%	11.3%	5.8%

Faculty: Created Digital Teaching Materials/Open Educational Resources or Captured Lectures

Regularly	*Occasionally*	*Rarely*	*Never / NA*
20.2%	22.8%	17.0%	39.9%

Faculty: Created Digital Teaching Materials/Open Educational Resources or Captured Lectures by Online and Blended Teaching Status

Online and Blended Teaching Status	*Regularly*	*Occasionally*	*Rarely*	*Never / NA*
Teach Online and Teach Blended	35.0%	31.4%	14.0%	19.6%
Teach Online	34.6%	26.7%	13.2%	25.5%
Teach Blended	28.3%	25.3%	16.9%	29.5%
Teach Neither	12.4%	19.6%	18.6%	49.3%

Faculty: My Institution has a Fair System of Rewarding Contributions Made to Digital Pedagogy

Strongly Agree	*Agree*	*Neutral*	*Disagree*	*Strongly Disagree*
6.3%	21.1%	39.8%	23.7%	9.1%

Faculty and Administrators: My Institution has a Fair System of Rewarding Contributions Made to Digital Pedagogy

	Strongly Agree	*Agree*
Faculty	6.3%	21.1%
Administrator	11.0%	24.3%

Faculty: Criteria for Selecting Online Resources

	Very Important	*Important*	*Somewhat Important*	*Not Important*
Has faculty ratings and comments	16.6%	26.8%	31.8%	24.9%
Is mapped to particular learning outcomes	27.6%	34.7%	22.7%	15.0%
Easily integrate with my institutions LMS	34.5%	31.2%	17.4%	16.9%
Can be searched and reviewed quickly	40.8%	41.5%	12.2%	5.5%
Is available for free or low cost	56.2%	29.7%	9.9%	4.3%
Is easy to use	56.4%	31.4%	8.8%	3.5%

FACULTY: BARRIERS TO ADOPTION OF OER

	Very Important	*Important*	*Somewhat Important*	*Not Important*
Lack of faculty ratings and comments	10.6%	25.6%	37.8%	26.0%
Lack of support for non-local curriculum	13.0%	25.5%	28.9%	32.7%
Need better mapping to learning outcomes	14.4%	32.8%	32.2%	20.7%
Concerns about the time to learn and use	26.0%	32.8%	26.2%	15.1%
Lack of a comprehensive catalog	20.0%	39.4%	26.9%	13.7%
Difficulty in searching	24.2%	38.2%	24.8%	12.8%

FACULTY: BARRIERS TO ADOPTION OF OER BY AGE

	Under 35	*35-44*	*45-54*	*55+*
Difficulty in searching	57.0%	59.4%	66.6%	62.1%
Lack of a comprehensive catalog	51.4%	59.0%	61.9%	59.4%
Lack of faculty ratings and comments	27.1%	30.5%	38.1%	39.5%
Need better mapping to learning outcomes	37.7%	43.1%	48.6%	50.2%
Lack of support for non-local curriculum	33.6%	38.0%	38.7%	39.5%
Concerns about the time to learn and use	43.8%	54.6%	61.3%	62.1%

FACULTY: BARRIERS TO ADOPTION OF OER BY GENDER

	Female	*Male*
Difficulty in searching	68.2%	55.3%
Lack of a comprehensive catalog	63.2%	54.6%
Lack of faculty ratings and comments	39.6%	32.1%
Need better mapping to learning outcomes	51.9%	41.3%
Lack of support for non-local curriculum	39.8%	36.7%
Concerns about the time to learn and use	63.4%	52.9%

Babson Survey Research Group

The study design, survey administration, analysis and report production for this report is the responsibility of the Babson Survey Research Group.

The Babson Survey Research Group in the Arthur M. Blank Center for Entrepreneurial Research at Babson College conducts regional, national, and international research projects, including survey design, sampling methodology, data integrity, statistical analyses and reporting.

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