



Charting the Course

Case Studies in OER Sustainability

Ioana Hulbert
Deirdre Harkins
Mark McBride

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ITHAKA S+R

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Executive Summary

How can open educational resource (OER) programs achieve sustainability? Through a study funded by the William and Flora Hewlett Foundation, we assessed the impact and implementation of OER programs at public institutions of higher education in the United States. To this end, we focused on four broad research questions:

- To what extent are postsecondary institutions concerned with sustaining OER initiatives?
- What attributes do successful OER initiatives share?
- How can institutions move from pilot to wider OER adoption?
- What factors contribute to or inhibit the sustainability of new initiatives in postsecondary institutions?

As a first step, we undertook a review of the existing literature on the implementation and sustainability of OER programs and initiatives, with the goal of developing a holistic framework to assess their impact and understand the challenges they face. Following the landscape review, Ithaka S+R conducted 12 interviews with OER leaders in four states, representing both state agencies of higher education or system offices, as well as individual campuses. Below we report some key findings from this study, conducted in summer 2024.¹

Key Findings

- **There is no one-size-fits-all model for how OER initiatives are sustained.** However, most initiatives rely heavily—and sometimes exclusively—on state funding. Similarly, in some instances state agencies of higher education or system offices act as coordinating bodies that bring together local grassroots programs, while in other cases state systems act as funding and reporting entities.

¹ One of the authors of this paper, Mark McBride, was the co-founder of the Open Education Research Lab at the University of Buffalo and was influential in the administration of OER services for the SUNY system.

- **OER initiatives flourish when they align with institutional priorities and are framed as a tool that can address several goals beyond affordability, such as advancing equity, access, or instructional innovation.** In those instances, OERs are framed as both cost-savings tools and also as a means to advance student success and equity.
- **Academic libraries are central nodes in OER champion networks.** Librarians often are the driving force behind founding local OER initiatives, are heavily represented on campus- and state-wide OER committees, or provide capacity through dedicated OER positions and full-time equivalents. This is particularly noteworthy given most OER initiatives rely on existing capacity at institutions and some libraries have begun to professionalize this role.
- **Awareness of and enthusiasm for OERs are increasing in our case study states, but the devil is in the details.** Students and faculty report overall positive experiences with OERs, but there are several areas in need of improvement:
 - Clarifying whether OERs should be low cost or no cost and ensuring that students and faculty understand the model on their campus
 - Identifying classes using OERs through course markings
 - Providing consistency in how OERs are organized and accessed
 - Finding quality OERs in certain disciplines
 - Incentivizing faculty to share OERs they have created
- **Ensuring that OERs reflect the diversity of student populations is crucial in fostering student engagement and academic success.** In creating and adapting course materials that resonate with student identities and experiences, faculty can help promote a sense of belonging while encouraging active engagement with the course work amongst students.

Introduction

Over the past several years, there has been an expansion in the use and awareness of open educational resources in postsecondary institutions in the United States. Some states have invested funds to expand the use of OERs across their campuses as an alternative or supplement to traditional course materials that students typically pay for out of their own pocket, but also as materials that can be updated expediently to keep up with new technologies. Some of these initiatives have been driven by state agencies of higher education and system offices, while others have taken a grassroots approach, usually developed at individual campuses. Faculty members who have adopted OERs have had a front row seat to the significant cost savings for students. Some research indicates that instructors who teach with OERs tend to adopt new approaches to their pedagogy.² If OERs save students money, while also acting as catalysts for faculty to make improvements to their teaching, it is no wonder that colleges and universities are trying to expand them on their campuses.

To gain a better understanding of the sustainability of OER initiatives, we began by conducting a review of the literature. First, we found that for OER programs, sustainability is almost exclusively defined in financial terms, with other quantifiable measures, such as time-savings for faculty, as a secondary consideration. The existing literature overwhelmingly defines sustainability as securing ongoing funding for initiatives, and most financial models described in the literature come from the corporate world, putting the need to maximize revenue in tension with higher education's mission-based goals that are harder to quantify.³

Some of the literature points toward the need for a more holistic understanding of sustainability, expanding the financial dimension to include others such as institutional mission alignment, public good considerations, student success, or equity goals. However, from here two challenges emerge, both related to an assessment needs-gap. On the one

² Ahmed Tlili et al., "Are Open Educational Resources (OER) and Practices (OEP) Effective in Improving Learning Achievement? A Meta-Analysis and Research Synthesis," *International Journal of Educational Technology in Higher Education* 20, no. 1 (October 13, 2023): 54, <https://doi.org/10.1186/s41239-023-00424-3>.

³ We are grateful to Madeline Greenberg, who helped conduct research for our initial literature review in 2023.

hand, despite calls from OER advocates calling for more research focused on OER efficacy, quality, and sustainability, the majority of existing OER research is not empirical, making it difficult to generalize. On the other hand, the efficacy of OERs themselves remains understudied. Institutions most commonly cite affordability for students as their primary motive for pursuing OERs, but more research is needed in order to assess the quality and impact of OERs on learning outcomes, faculty pedagogy, and other student success metrics.

Finally, the literature points to growing interest in the equity and accessibility of OERs. OER stakeholders argue the field is not diverse nor inclusive enough, and the COVID-19 pandemic highlights how OERs can exacerbate the digital divide. The relationship between OERs and equity is an understudied topic within the literature. OER leaders participating in an edBridge Partners formative evaluation indicated that alongside sustainability, access and equity is a gap in the field, particularly when it comes to serving minority-serving institutions, BIPOC, and rural students, as well as those with disabilities. Participants also noted that the field is neither diverse nor inclusive enough.⁴

Challenges to OER scaling persist—while faculty awareness is increasing, traditional publishing models, low institutional prioritization, and lack of capacity create a perfect storm of barriers. Further, because OERs, open pedagogy, and a culture of openness in general are sometimes operationalized differently, it can be hard to pinpoint exactly when OER adoption or implementation starts.

For OER initiatives to thrive in the long term, investing in them is crucial. However, given the myriad competing priorities on academic campuses, OER initiatives often risk being perceived as just another task on a long institutional to-do list. Higher education institutions are always seeking new programs and ideas to promote student success, and OERs align well with initiatives aimed at reducing educational costs and shortening time to degree completion.⁵ At the same time, OER programs struggle to gain

⁴ “Formative Evaluation of Open Education Networks - Final Report,” *Elbridge Partners, LLC on behalf of the William and Flora Hewlett Foundation*, July 2021, <https://hewlett.org/wp-content/uploads/2021/10/EdBridge-Open-Education-Networks-Evaluation.pdf>.

⁵ Ching-Hui Lin, Jyun-Hong Chen, and Victor M. H. Borden, “Making Graduation Matter: Initial Evidence and Implications for Policy and Research,” *Studies in Higher Education* 46 no. 9, (January 2020): 1850–1865, <https://doi.org/10.1080/03075079.2019.1711040>.

momentum in such a competitive environment, making the need to understand the practices that can help to sustain these types of programs even more important.

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In order to further investigate the ongoing ability of OER initiatives to meet their goals at public higher education institutions within the US, Ithaka S+R employed a case study methodology focusing on four postsecondary state agencies or systems and a selection of their institutions, conducting three interviews per state, for a total of 12 interviews.⁶ The state agencies of higher education or system offices and respective campuses were selected in consultation with the Hewlett Foundation and informed by previously conducted desk research into existing OER initiatives and sustainability research. Each case study involved gathering information from institutional websites and conducting semi-structured interviews with OER leaders. Researchers at Ithaka S+R then analyzed the data using thematic analysis coding methods, categorizing shared themes and variations in the issues and experiences highlighted by our research participants. This approach ensured a comprehensive and holistic look at the sustainability of OER initiatives across different contexts.

The postsecondary institutions participating in the case studies had the chance to review a draft of their case study before this report was published. The detailed findings in this report alongside insights drawn from the literature review conducted in the first phase of this project highlight the complex nature of these programs and the important role they play in higher education.

⁶ David Wiley, "On the Sustainability of Open Educational Resource Initiatives in Higher Education," *OECD's Center for Educational Research and Innovation*, 5, <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=c72a72b4b53513a32d866e15c5f8b7d29272bb81>.

Methodology

This project was conducted in two phases. In the first phase, beginning in the fall of 2022, the research team conducted an extensive literature review on the implementation and sustainability of OER programs and initiatives. Doing so helped in establishing an understanding of the field and served as a foundation for phase two of the project. Topics focused on in the literature review included: how to define OERs, understanding their sustainability models, looking at their impact on learning—with special attention on faculty perspectives and student perspectives—and the relation of OERs to equity and especially digital equity.

The data for phase two of this research project was collected through semi-structured interviews in the spring and summer of 2024, with key stakeholders involved in OER initiatives across four state agencies of higher education in the United States.

To select the four states for this project, Ithaka S+R researchers focused on regional diversity (Northeast, Midwestern, Western, and Southern), as well as selecting states whose OER initiatives are at different maturity levels, are legislated differently, and have variation in their overall governance structures. The interview protocols were developed by Ithaka S+R researchers with thematic input from the Hewlett Foundation and reviewed and finalized based on feedback from an advisory board of five leaders in the OER space. We are grateful to these following individuals for their time and thoughtful revisions:

- **TJ Bliss:** Chief Academic Officer for the Idaho State Board of Education
- **James Glapa-Grossklag:** Dean, Educational Technology, Learning Resources, and Distance Learning at College of the Canyons; Technical Assistance Provider for the California Community College Zero Textbook Degree Grant Program
- **Lilliana Diaz Solodukhin:** Senior Director of Student Success and P20 Alignment for the Colorado Department of Higher Education
- **Amy Hofer:** Statewide Open Education Program Director, Open Oregon Educational Resources

- **Lisa Young:** Faculty Administrator of Open Education and Innovation, Maricopa Community Colleges; Founding member of the Maricopa Millions OER project

Using a snowball sampling methodology, we conducted three interviews per case study state—one individual representing the state agency or system level, and two individuals from distinct campuses within the respective state. The stakeholders included faculty members, librarians, administrators, and state-level coordinators who have direct experience with OER initiatives. Ithaka S+R researchers conducted the one-hour interviews virtually over summer 2024, recording the interviews for transcription purposes, with the interviewees' consent.

Subsequently, a member of the research team cleaned interview transcripts automatically generated by the web meeting software using the session recordings. Two research team members then worked collaboratively to analyze the interview transcripts, undertaking a comprehensive open-coding process to create a thematic codebook consisting of six major themes, and 29 sub-themes. The six main themes are *role information* (focused on the OER leader's specific job responsibilities and role duration), *background information* (describing the leader's relevant previous experience and background), *initiative characteristics* (covering sub-themes such as funding streams, external partners, organizational structure and the initiative's focus), *institutional alignment* (focused on missions, culture, framing and strategic goals). Further, the *challenges* theme focuses on various risks related to faculty, students, resources, and capacity, while the *assessment* theme highlights methods for evaluating student and faculty outcomes and perceptions, return on investment, and quality. For more details on the codebook, see Appendix A. Subsequently, the research team conducted a thematic analysis of the interview transcripts. Below, we report our findings across the case studies by theme.

Job Responsibilities

In order to capture a broad range of perspectives, researchers conducted interviews with four individuals from each state department of higher education or system office, as well as nine individuals at a variety of

campuses in those states. Each interview participant was selected based on their state, institution, background, and their role in the relevant OER initiative. Variation in roles and experiences allowed researchers to learn more about how each OER effort has been shaped thus far. The individuals interviewed ranged in job roles and backgrounds, from executive roles in state agencies or commissions, to provosts and vice provosts, OER committee chairs, librarians, and instructional designers.

Each interviewee's involvement with their respective OER initiatives varied in duration. Some have worked in the field since the early 2010s, while others have become involved as recently as a year and half ago. This difference in tenure allowed for insights from seasoned experts who were present for the early stages of OER initiatives, to insights from new contributors who bring new perspectives and fresh approaches.

Interviewees' professional backgrounds were also. Many individuals had library experience, highlighting the academic library's role in cultivating, curating, and managing OERs. In fact, in nearly all states in our study, academic libraries are often at the forefront of these efforts, leading the charge to expand the use of OERs in the classroom. Libraries, with their mission of increasing access to knowledge, have aligned naturally with OER goals, helping institutions not only save on costs but also advance broader strategic initiatives related to student success and equity.⁷ Other interviewees held more administrative positions, in campus programs or state education departments. Some faculty interviewees also indicated they took on the responsibility of leading or working on their institutions' OER initiatives on top of their full-time teaching role.

All the individuals interviewed shared a consistent passion for student success, equity, and improvements to advance OERs. The interviewees described the many logistical challenges relating to OER implementation, detailed in a subsequent section, but also emphasized the value and potential of OERs for both students and educators alike, reflecting a shared vision and commitment to enhancing the field.

⁷ Mitchell Scott and Rachel E. Scott, "A Comprehensive Study of Library-Led Textbook Affordability Initiatives in the United States," *portal: Libraries and the Academy* (July 2024), <https://ir.library.illinoisstate.edu/fpml/234>.

OER Initiative Characteristics

The research team asked participants about the characteristics of their respective OER initiatives. These characteristics include funding streams, external partners, organizational structures, as well as the focus of each initiative, who oversees it, and whether there are any full-time staff.

Funding streams for each OER initiative varied by state, demonstrating different approaches to obtaining and using the financial resources available. However, most initiatives have been funded through federal and/or state grants. In one case, OER initiatives and leadership are primarily funded through state legislation. Other states receive designated state funding for particular programs, like early childhood education degrees, which drives discipline-specific OER development. One interviewee explained that seed funding for OER initiatives is the real catalyst for the movement, with the institutions figuring out their ongoing maintenance and growth as an afterthought. In another state, multiple grants have helped fund over 20 projects across several campuses, with a focus on data-evidence course design, building an OER playbook, creating a professional development model for faculty, and developing a framework for assessing the use of OERs. Additionally, collaboration with external partners—to provide additional resources, support, and expertise—is a key component to the success of OER initiatives. Some common collaborators across the states include the Scholarly Publishing and Academic Resources Coalition (SPARC), the Open Education Network (OEN), the Institute for the Study of Knowledge Management in Education (ISKME), Driving OER Sustainability for Student Success (DOERS3), the American Association of Colleges and Universities (AAC&U), as well as state-specific organizations.

The organizational structure of the OER initiatives also varied, highlighting different approaches to governance. Interviewees from two states indicated that their OER structures include an OER council of over 10 individual faculty members, librarians, administrators, and students from public institutions. Another state has an OER network of over 100 members including faculty members, deans, vice presidents, librarians, and a specific point person from each participating institution to help in coordination. This interviewee noted that a coordinator facilitates communication and collaboration across the system, ensuring a

continuous approach to OER adaptation, adoption, and creation. In some cases, OER initiatives are professionalized and institutionalized in one or more full-time staff positions, reflecting various levels of institutional commitments and financial resources.

Some of the case study subjects have designated OER librarians and coordinators, indicating a strong dedication to ensuring the success of OERs on campuses statewide. In comparison, other interviewees need to balance their full-time faculty position with their OER role, emphasizing the capacity restraints of the initiative.

The interviews also highlighted differences in what each OER initiative prioritizes. One interviewee explained that their initiative primarily focuses on professional development, marketing, education, and repository creation, with recent funding focused more on the adaptation and creation of OERs. Another interviewee shared that their initiative's goal is to deepen faculty awareness of the role OERs can play in creative and innovative course design, rather than the hands-on creation of materials. Across the board, interviewees expressed a strong interest in ensuring that faculty and staff are well prepared to implement and use OERs effectively to benefit students in the classroom.

Early on in these interviews, it became apparent that while initiatives share some commonalities, particularly in terms of funding streams, their governance structures differ at the state agency or system level as well as at the campus level. The focus of the initiatives—on creation, adoption, adaptation, or all three—also differed initiative to initiative. Given the differences in the structures of initiatives as well as the relationship between the state agency or system office and the individual campuses, there is clearly no one size fits all model for the OER initiatives that we can point to in our study. However, certain common themes that strengthened the value proposition of the initiatives, as well as common challenges emerged, and those are detailed below.

Mission Alignment

The most cited impetus for adoption and use of OERs has and continues to be related to affordability and lowering costs for students. This is

particularly highlighted when looking at the United States, where the costs of course materials—in conjunction with rising tuition costs—can result in lower rates of student retention and successful completion.⁸ However, OERs do not have to be framed as simply cost-savings tools. In fact, we found that aligning and broadening OER initiatives' goals with larger state or institutional missions strengthens their value proposition. OER initiatives flourish when they benefit from multiple-framings, such as advancing equity goals, instructional design innovation, or student success outcomes, in addition to cost-savings benefits.

In one case, OERs are embedded within the undergraduate student vision document as a foundational strategy for academic success and are also a key tool in the state's 10-year strategic plan for racial equity. This two-pronged focus on student success and equity underscores the importance of OERs in promoting both access and affordability and highlights that the state conceptualizes the two as intrinsically related. Political support also helps, particularly at the state level, which can help OER leaders align OER initiatives with the state's strategic goals for higher education. Another state aligns its OER efforts explicitly with state-level strategic priorities such as innovation, transformation, and collaboration, focusing on student-centered goals like affordability and access for economically disadvantaged students. Conversely, in the absence of a formal strategic plan or goals, another state system finds it difficult to assess its OER initiative or determine measurable outcomes: "I will say the system's commitment to affordability and opportunities is real. That's part of the mission, that's something that the chancellor talks about all the time and the [administration and board] also talk about affordability. I don't want to say we don't have any vision or don't have the values, we do." Despite the lack of a formal vision or strategic plan document guiding the agency's work, key actors within that state understand OERs as working at the intersection of financial wellbeing and other initiatives, such as, in that case, student excellence.

Alignment with institutional goals at the campus level also exists on a spectrum. At the campus level, OER programs reflect a commitment to affordability, access, and student success. One campus focuses on integrating its OER efforts within its broader work on digital learning and

⁸ Linda Bol, Monica Christina Esqueda, Diane Ryan, and Sue C. Kimmel, "A Comparison of Academic Outcomes in Courses Taught with Open Educational Resources and Publisher Content," *Educational Researcher* 51, no. 1 (2022): 17-26, <https://eric.ed.gov/?id=EJ1328025>.

accessibility. Elsewhere, campuses conceptualize their OER programs as part of a broader culture of openness, open pedagogy, and collaboration. Other campuses focus on innovation and transformation, particularly in the case of instructional design, with one campus explicitly incorporating OERs within its culture of advancing instructional practices. The community colleges within our study are particularly driven by the equity-lens of their work, focused on ensuring that materials they adopt, adapt, and create are representative of their diverse and often non-traditional student populations, as well as a dedication to their campuses' stewardship of place in their local communities. To this end, one campus holds hackathon-type events where faculty focus on developing such representative materials. Another campus explicitly links OER efforts to antiracist work on campus, whereas another campus focuses on OERs as a mechanism for leveling the playing field for all its students.

A common refrain in our interviews is that, at the state level in particular, the affordability message is still the most effective one to communicate to legislators. Not only is college affordability an issue that enjoys bipartisan support, but it is also the topic that most easily lends itself to tracking and reporting outcome metrics in the form of cost-savings for students. However, interviewees at both the state level and particularly at the campus level noted that they see OER touching upon other goals—advancing equity, addressing accessibility needs, and improving student retention and completion rates. This not only strengthens the value proposition, but also helps to expand the collaborative network of stakeholders engaging in or responsible for OERs.

Challenges

Our research participants noted that the challenges and risks their OER initiatives face fall into several sub-categories, related to roles, resources, capacity, and engagement issues, as well as to student or faculty use and adoption. As we highlight below, we did see differences in challenges at the system level as compared to those at the campus level. However, without fail, every interviewee noted that the primary challenge is financial in nature and that securing ongoing funding is top of mind. Almost all these OER initiatives rely on funding from their state, either through direct allocation or through an OER grant program. This type of funding often

requires renewal or is one time only, so is not guaranteed on an ongoing basis. Apart from financial constraints, several other risks emerged in the interviews.

At the state level, balancing competing priorities and responsibilities within the state system or agency is a primary challenge. For most of our interviewees, OER work is just one part of a broader portfolio that might include an assessment, academic innovation, library, or instructional design role. Most pressing, however, is that no state agency or system in our sample has a succession plan. This poses a significant risk, as the departure of key stakeholders could disrupt ongoing efforts and threaten the continuity of OER initiatives. OER leaders on campus have to balance multiple responsibilities, and in the majority of cases OERs are not formally part of their job description. The informality and volunteer nature of OER work across campuses, coupled with a lack of succession planning, presents the same risks to OER continuity at the campus level as it does at the system level. In fact, several interviewees noted that OER programs may come to a halt if they or other key personnel were to leave their role or institution. While a lack of succession planning is not a challenge unique to OER initiatives, because OER responsibilities tend to not be institutionalized, backfilling these unofficial job duties is all the more challenging.

The interviewees also described broader capacity challenges. Staff burnout, reliance on volunteer work, and personnel turnover are key issues state-level staff have to grapple with and mitigate. Many individual campuses also reported that they do not have sufficient staff—whether volunteer-based or FTE— to properly manage OER efforts at their institutions.

The interviewees also surfaced described engagement as a key challenge, specifically in terms of raising awareness about OERs with students and faculty. Despite their potential students and faculty often do not understand what OERs are. The staff we interviewed dedicate quite a bit of their capacity to raising awareness of OERs, as well as combating misconceptions about them. One campus, for instance, sends out monthly newsletters that provide information and updates on OER programs. Other interviewees noted the uneven awareness of OERs across their institutions—faculty in one department may be far more aware and engaged than faculty in other departments, for example. Interviewees did

report, however, that they do see a growing awareness among faculty.⁹ Meanwhile, every campus-level interviewee noted that the primary challenge when it comes to students is their level of awareness about the availability of OERs, as well as understanding how they can address some of their affordability concerns.

Faculty resistance to OER adoption is a pervasive and well-documented issue in the literature and holds true in our study as well. Concerns about the time and effort to adopt or create OERs and the quality of materials persist, despite evidence that OERs perform as well, if not better than commercial materials.¹⁰ It's unclear if faculty are unaware of this evidence or are unconvinced by it. Interviewees in our study also noted some faculty are wary of the impact OERs could have on academic freedom—given faculty's desires for autonomy over their curriculum and textbook choices. Faculty also struggle with inconsistent labeling (low-cost versus no-cost) of their courses. Finally, finding suitable materials in certain fields can be difficult, and faculty want evidence that OERs perform as well as traditional course materials before they commit to the transition.

On the other hand, according to our on-the-ground interviewees at the campus-level, students' main concern remains affordability. While OER initiatives aim to alleviate some financial burdens for students, students still face financial barriers. It is thus difficult to gauge the extent to which they perceive that courses that use OERs are helping. Students are also often not aware that certain courses assign OERs rather than traditional textbooks. This is compounded by the lack of widespread of course-markings across institutions which could make it possible for students to identify courses that use OER for course content.

⁹ Sage Love and Melissa Blankstein, "US Instructor Survey 2024: Findings from a National Survey," *Ithaka S+R*, 22 August 2024, <https://doi.org/10.18665/sr.321165>.

¹⁰ John Hilton III, "Open Educational Resources, Student Efficacy, and User Perceptions: A Synthesis of Research Published Between 2015 and 2018," *Education Tech Research Dev* 68, (2020): 853–876, <https://doi.org/10.1007/s11423-019-09700-4>.

Successes

Interviewees were enthusiastic about the successes of their OER initiatives in relation to cost savings, equity, and learning outcomes. When asked about the success of these OER initiatives, all the interviewees first emphasized affordability and the general cost savings for students. One interviewee explained that at their institution students saved over \$3 million over a few short years, and another said students had saved more than half a million dollars since the OER initiatives were implemented. Many interviewees noted that many of their students come from economically disadvantaged backgrounds, and as more classes use OERs, their financial burden for course materials has significantly decreased. This has allowed students to use that money on other essential needs. One interviewee recounted that:

The fact that we have saved our students more than half a million dollars now with our products gives me great joy, because we are at an institution where our population, a lot of our students, have very little means. Most of our students are under some sort of financial help. So many of them are first generation, so many of them have jobs and families.

Another participant explained how excited they were to learn that “If our students aren’t spending all this money [on textbooks], they want to reinvest it in their education.” The financial benefits from OER use also extend to the institutions themselves: lower costs for course materials can eventually lead to higher enrollment and retention rates. Many interviewees share the goal of making departments exclusively use OERs. At some institutions—in math, astronomy, and education departments—this goal has been realized.

The interviewees also signaled the importance of designing OERs through an equity lens and making them accessible. Additionally, one interviewee recounted how their institution primarily adapts existing OER material to make the resources more representative of the student population. The interviewee explained that their institution worked to make the materials available in multiple languages to validate the students’ linguistic regional variations and experiences.

Interviewees see OERs as an accessibility success, with one noting that they lend themselves to meeting students' needs both from an accessibility and technological literacy standpoint. Another interviewee explained that their institution is also trying to make the experience of creating OERs more equitable for faculty. Because so many faculty members are nervous about using OER, their institution offers courses with the goal to further educate the staff:

We pay them just for taking the course. There [are] no strings attached. They just have to finish the course. From that course, many faculty learn that using OER and finding OER is much easier than they had initially thought. So that has helped a lot, and then the people that finished that talk with their colleagues, right? And they get them excited. So they're able to all work together towards this common goal at a departmental level or at a course level and say, hey, let's get this course switched over.

The use of OERs has also helped improve student engagement and success. As one interviewee explained, when they talk about OERs to faculty,

I talk about affordability, but I don't lead with affordability because I lead more with student success. I point to the research that OER will provide engagement. It is good if not better in certain cases than the traditional offerings, because they [faculty] really tailor their course according to their needs.

This interviewee has found that students are often frustrated with using traditional textbooks, sometimes purchasing textbooks that they never end up using in the classroom. This interviewee's response is, "If they're going to use a textbook as a reference, why not have it as an OER?" One person, reflecting on the increased number of OERs across their institution, noted that when students have access to materials from the first day, fewer students drop the class. By using OERs, faculty members can help to create a more enriching and engaging learning experience, positively contributing to the students' experience and academic success.

Assessment

Assessment is a crucial aspect of how OER leaders understand and promote the value proposition of their initiatives. When present, assessment efforts strengthen OER leaders' ability to make data-driven decisions and arguments to other stakeholders. While state systems, and their campuses by extension, have some reporting requirements tied to state funding, those are mostly related to cost-savings. Broader and systematic assessment efforts prove challenging. In several instances assessment initiatives were derailed by the onset of the COVID-19 pandemic. In other cases, leaders lack the capacity and resources to collect original data, or they struggle to get other units—like bookstores—to help collect or report data.

Despite these challenges, the state systems in our study are making concerted efforts to collect more robust data. One system is working on introducing student perception surveys and linking that data to relevant demographic information such as race, gender, and Pell eligibility. One state agency also strongly leans into return on investment analyses, as well as a comparative analysis of OERs and traditional textbooks. Interestingly, libraries within one state system are keeping OER assessments in mind—particularly in terms of their utilization and impact on academic performance—as they explore and negotiate transformative agreements with publishers. Others not only track cost-savings data to highlight the financial benefits to students, but they also incorporate student and faculty feedback on the quality and effectiveness of OERs as part of a continuous improvement model. One state system uses the Open Education Group's Cost, Outcomes, Utilization and Perceptions (COUP) framework for their assessment efforts,¹¹ which allows the system to use key performance indicators to track goals, as well as a wide range of metrics, from cost-savings to perception of effectiveness as well.

The assessment of OERs through a combination of qualitative and quantitative metrics, predominantly on cost-savings but also on student success, perceptions of OER, and to a lesser extent quality, carries through

¹¹ Sara Davidson Squibb, Elizabeth Salmon, Yueqi Yan, "Measuring the Impact of an Open Educational Resource and Library e-Resource Adoption Program Using the COUP Framework," *International Review of Research in Open and Distributed Learning* 24, no. 4 (2023): 80-101, <https://www.irrodl.org/index.php/irrodl/article/view/7420>.

from the state level to individual. All campuses in our sample have some form of ROI tracking, reporting financial savings for their students. Not only do these numbers serve as requirements for state grant reporting, but stakeholders also use them to justify continued investment.

On some campuses, OER funding is also tied to reporting their impact on student success metrics, such as retention, DFW and pass/fail rates, or other academic performance measures. One campus is working to stratify the analysis by student demographics in order to study any differential impacts. Another campus found that students using OERs perform equally well or better than students in courses that use traditional materials. Where present, surveys or other mechanisms for collecting student feedback indicate positive perceptions and experiences when it comes to OERs in the classroom.

Faculty perception plays a critical role in the success of OER initiatives. The majority of campuses in our study have some mechanism for collecting formal feedback from faculty, most commonly through surveys, followed by focus groups. In one instance however, existing collective bargaining mechanisms add another layer of complexity to being able to survey faculty on the topic. Additionally, informal data collection permeates all campuses, with OER leaders leveraging their networks to engage faculty in conversations that serve the dual-purpose of collecting feedback as well as raising awareness or correcting misperceptions about OERs. When it comes to the assessment of materials and their quality, the process is less institutionalized at the campus level. Only two campuses we spoke to had formalized peer-review processes that made use of faculty groups or even student peer review. One interviewee explained,

Our goal is to involve every college in the peer review system, even if they didn't write. And then we usually have national reviewers as well, people from other institutions or other states that might be interested in adopting the content...we do involve students [that have taken the course] in those peer review processes as well.

With student assessments, the focus centers on the relation of OERs to equity and inclusion, with questions like, "Did it [OER] make a difference?" and "Are you engaged more?" On two other campuses, OER are reviewed by a staff member who provides general guidance on copyright and whose job also includes an assessment or instructional design.

Assessment is thus a crucial aspect of how OER advocates understand and promote the value proposition of their initiatives. While state and federal funds are tied to some reporting requirements, broader assessment efforts prove challenging due to lack of capacity and resources. Given that our interviewees noted that OER initiatives advance multiple strategic goals, systematic assessment efforts investigating the impact of OERs on some of these equity or student success outcomes would help strengthen their case, as well as help advocates further institutionalize OERs and develop targeted policies at their institutions or at the state agency or system level.

Conclusion

Over the past several years, OERs have gained significant traction across higher education, driven by a combination of grassroots campus efforts and state agencies of higher education or system-wide initiatives. The rationale behind these efforts has been clear: to alleviate the financial burden on students by reducing the cost of course materials. But other advantages of teaching with OERs have emerged, including that they can help create a more inclusive learning environment. Some research also indicates that faculty who adopt OERs not only contribute to cost savings for students but also experience shifts in their pedagogical approaches, with some reporting improved learning outcomes.¹² This growing body of evidence—as well as the preponderance of OER policy throughout the country—suggests that OERs are not merely a passing trend, but a lasting innovation that can address key affordability, equity, and instructional challenges.

However, the question of sustainability looms large over OER initiatives, particularly as they are increasingly viewed as integral to institutional strategic goals. While their alignment with student affordability and success resonates with university leadership in the four cases in our study, it is less clear how state agencies of higher education or system

¹² Eric Werth and Katherine Williams, “Learning To Be Open: Instructor Growth Through Open Pedagogy,” *Open Learning: The Journal of Open, Distance and e-Learning* 38, no. 4 (August 2021): 301-314,

<https://www.tandfonline.com/doi/full/10.1080/02680513.2021.1970520>.

offices and individual institutions can consistently fund and support these programs for the long term. The challenge is compounded by the fact that OER initiatives often compete with numerous other initiatives aimed at improving student outcomes. To sustain OER efforts, institutions must prioritize not only the financial resources necessary but also the structural support to keep these programs viable.

Ultimately, the future of OERs depends on a deeper understanding of what makes these initiatives critical to their institutions. While the cost-saving benefits are clear to decision makers at the institution, they are only part of the equation. Broader assessment efforts of the impact of OERs on teaching, learning, and student success would strengthen their value proposition. This will require greater coordination between state agencies of higher education or system offices and campuses, robust assessment mechanisms, and a commitment to addressing challenges such as faculty resistance and resource limitations. As higher education continues to evolve, OERs stand out as a promising strategy, but their future success will depend on long-term institutional commitment and the ability to navigate the complexities of sustainability in an increasingly competitive environment.

Recommendations

- While there is no one size fits all model for running and growing OER initiatives, certain elements of institutionalization could prove beneficial. For instance, a succession plan would ensure that when an OER leader leaves their role, whether on campus or at the state level, the initiative could continue. OER efforts also require the professionalization of roles that manage content development, dissemination, and support. Alternatively, responsibilities for OER implementation could be dispersed across multiple individuals or coordinated through a centralized office, possibly at the state level, to ensure long-term success and accessibility.
- While affordability remains a prominent metric that decision-makers at institutional and state levels respond positively to, OER advocates could strengthen the value proposition of their initiatives by highlighting how OERs align with other goals, such as student success initiatives. Better data collection mechanisms could provide evidence of the role OERs play in advancing equity, access,

instructional innovation, increased retention and completion, and other high priority initiatives.

- Libraries have provided a model for how to operationalize OER programs within their overall structure and, in many cases, have taken responsibility for driving the messaging around OERs. However, the most successful initiatives draw on expertise across the institution or system, and units need to work together to break down silos.
- Our interviewees identified several ongoing challenges, related to operational definitions of low-vs-zero cost, outreach and awareness efforts, discipline-specific material challenges, and infrastructure-related barriers such as those related to the lack of a central OER hub or consistent course markings. Standardizing some of the definitions and metrics used would help individual campuses—as well offices at the state level—to develop assessment plans as well as specific OER implementation policies. Another way to focus efforts is to work incrementally and by adjacency—for example, focusing efforts on disciplines where OERs are readily available instead of trying to create OER for multiple disciplines where they are scarce.
- A number of our interviewees noted the importance of ensuring that OERs reflect their institution’s student bodies, as well as being embedded in local contexts. Given this, student voices, perspectives, and agency should be more prominently featured in OER decision making.

Appendix A – Codebook

Theme	Sub Themes
Demographic/Job Information (ROLE)	Responsibility
	Role Duration
	Background Info
Initiative Characteristics (INITIATIVE)	Funding streams
	External partners
	Organizational structure
	Initiative focus
	Oversight
	FTE dedication
Mission Alignment (ALIGN)	Institutional/System Mission
	Institutional/System Culture
	Multiple-Framings
	Champions Network
	Legislative/Policy Impact
Challenges (CHALLENGE)	Role Challenges
	Student Challenges
	Resource Challenges
	Capacity Challenges
	Engagement Challenges
	Faculty Challenges
	Succession planning
Successes (VICTORY)	Cost-savings
	Equity
	Learning
Assessment (ASSESS)	Student Assessment
	Faculty Assessment
	ROI assessments
	Materials/Quality