Assessing the Use of Open Educational Resources by University System of Georgia Faculty

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Abstract

The current study surveyed 175 full-time USG faculty across 13 different USG institutions regarding the impact of the pandemic on Open Educational Resources (OER) use, differences in OER awareness and use among different demographics, faculty incentives for OER adoption, as well as barriers to OER adoption. The surveyed results include faculty from all four institutional groups within the University System of Georgia (USG). There was a significant increase in OER use among surveyed USG faculty during the COVID pandemic. There were differences in OER awareness, years of OER adoption, and perceived impact of OER across different demographic groups. Among demographic groups, age appeared to be the most significant factor regarding faculty OER adoption incentives. Significant incentives mentioned included increased student access, narrowed student attainment gaps, improved student performance, enhanced faculty innovation, positive perceptions of OER, and administrative encouragement. Regarding faculty barriers to OER adoption, instructional modality was the most significant demographic impacted. The face-to-face instructors noted barriers such as increased course preparation time, negative perceptions of OER, and a lack of technical support. Overall, the current study raises awareness of OER use amongst USG faculty, the impact of the pandemic, and what incentives and barriers faculty might experience. Suggestions for OER practices, increasing incentives for faculty to adopt OER, and lowering barriers to its adoption are provided. A more comprehensive USG faculty survey, including qualitative methods and an expanded sample size, is recommended for future research.

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Chapter I

Introduction

The use of Open Educational Resources (OER) began in the mid-1990s and has grown significantly in both higher education and K-12 settings over the past two decades (EDUCAUSE, 2020). The term OER was first coined by Albright (2005) and has become a growing source of education worldwide. OER are educational learning materials in any medium that are in the public domain and/or are released under an open license with free access and ability to revise, reuse, and redistribute the materials (Hewlett Foundation, 2019). The use of OER helps increase student success while lowering barriers to learning, including accessibility and financial costs. There are some barriers to switching to OER adoption experienced by instructors and students, such as a lack of ancillary resources, a lack of OER at higher-level undergraduate courses (3000+), and faculty time needed to switch course instruction (Correia, 2020; McBride, 2019; Murphy & Shelley, 2020; Rhodes, 2021; Wang & Wang, 2017). The COVID-19 pandemic forced instructors across the globe and, more specifically, the University Systems of Georgia (USG) to transfer all instruction to a fully online format during that time. This change in modality could have posed challenges for instructors tasked with selecting suitable course materials for online instruction. The pandemic also caused financial hardship for prospective students seeking a more fiscally responsible higher education experience. For these reasons, I am interested in investigating the rate of OER use among faculty within USG institutions and whether the pandemic affected OER use.

Specifically, the pandemic impacted education systems (Dennis, 2022; Farooq et al., 2020; Mansoor, 2020; Mićunović et al., 2023; Niemczyk, 2021; Rhodes, 2021). According to EDUCAUSE (2020), schools worldwide lost two-thirds of the school year to COVID-19-related closures, affecting 1.6 billion learners. As the pandemic hit the United States, the USG paused all educational instruction on March 13th, 2020, for two weeks. During this two-week break, all faculty instructors, including face-to-face, hybrid, and online instructors, were instructed to transition their courses to fully online instruction for the Spring and following summer semesters. Due to this change, numerous important questions have emerged that warrant further exploration, particularly regarding their connection to OER use. For example, did the shift to online instruction encourage faculty to adopt more OER for their course materials, as noted by Rhodes (2021)? In addition, Gallant and Lasseter (2018) predicted in their OER Survey Report that the rate of OER use within USG institutions would continue to increase. If there was growth in OER within the USG, was it due to the pandemic or simply the growth predicted by Gallant and Lasseter (2018)?

There are many reasons faculty may be motivated to adopt OER in their courses. Mukherjee and Hasan (2020) and Rimmer (2020) suggested incorporating OER into course materials as one of several methods of maintaining best teaching practices. OER has been shown to potentially increase student performance outcomes (Coleman-Prisco, 2017; Colvard et al., 2018; Hilton, 2016). Adding OER materials can reduce student barriers to completion (Correia, 2020), such as financial savings on textbook purchases (Murphy & Shelley, 2020). According to Affordable Learning Georgia (2024), the textbook transformation grant program is estimated to have saved students more than

$173 million in textbook costs since its inception in 2014. Faculty may also be financially motivated to transform their courses (Chaudhuri, 2024; Nagashima & Hrach, 2021). Faculty perceptions of OER also play a factor in their adoption and use in coursework (Herbert et al., 2023). Faculty who adopt OER and are supported by their administration, whether with additional preparation time, financial support, or other forms of support, have improved job satisfaction and performance (Ceciliano, 2024).

Despite the potential benefits of OER for students, there are still barriers to its adoption. One barrier to switching to an OER source is the considerable amount of faculty time to implement the switch in course instruction (Wang & Wang, 2017). Given that the switch to OER requires considerable time, and USG faculty were given a mere two weeks in the Spring to transition to online, could this have posed a potential barrier for faculty? In addition, did administrators support faculty in transitioning to OER, considering that such support can serve as either an incentive or a barrier (Parks, 2024)? Other barriers associated with OER adoption include a lack of ancillary materials or poor quality of OER compared with more traditional textbook counterparts (Nagashima & Hrach, 2021).

Furthermore, could there be differences in OER adoption rates among institutions within the University System of Georgia (USG)? The 26 institutions that make up the USG are categorized into research universities, comprehensive universities, state universities, and smaller state colleges (USG, 2024). Tuition rates vary across institutions: state colleges charge as low as $95 per credit hour, while research universities may charge a flat rate of $3,048 (approximately $508 per credit hour) for six credit hours (USG, 2025a). Methods of acceptance also vary across institutions, from

minimum standardized exam scores and GPA to completely open access. These variations in access could potentially impact marginalized populations. Some institutions place greater emphasis on entry-level (1000-2000) courses, which have more OER resources available than upper-level (3000+) courses (Gallant & Lasseter, 2018). According to Dennis (2022), post-pandemic, students may be reevaluating their priorities as they consider the costs and benefits of pursuing higher education. This assertion prompts a question in my mind. In a post-pandemic era, are students enrolling more in institutions with lower tuition costs, as Dennis (2022) suggested? Thus, within these institutions, I would like to assess the differences in the rate of OER use across institutions and whether the COVID-19 pandemic impacted the adoption rate.

Statement of the Problem

As the pandemic progressed from 2020 to 2021, student enrollment in public 2-year institutions and public Primarily Associate-Degree Granting Bachelorette Institutions (PAB) dropped by 9.9% and 7.2%, respectively (National Student Clearinghouse, 2024). This drop in enrollment reflects possible changing priorities of college students, as discussed in Dennis (2022). According to the survey discussed in Dennis's (2022) study, students focus more on the return on investment (ROI) and the value of higher education for future employment. In higher education, ROI assesses whether the time and financial resources spent earning a degree yield sufficient benefits, such as increased income, expanded career prospects, or personal development. Dennis's findings make me wonder if lowering costs helps with financial barriers, increases student access, and therefore increases student success in higher education, as suggested in the SCOPE framework (Clinton-Lisell et al., 2023).

In addition to OER lowering student costs, what other incentives are needed to encourage faculty adoption of OER? Nagashima and Hrach (2021) noted that USG faculty are motivated financially by grant funding and recognition, but also by the desire to improve student learning, frustration with traditional course materials, a need for change in course instruction, and positive perceptions of OER. Marshall (2023) even suggested that faculty course development and redesign using OER should be a part of the faculty evaluation process to encourage more adoption.

While it is important to understand the incentives for OER adoption, faculty may still face challenges that prevent them from using it. I would like to investigate this aspect as well. Are USG experiencing any barriers to adoption as mentioned by Wang and Wang (2017)? One of the biggest barriers to transforming a course to OER is that it is heavily time-intensive. This time investment is most effectively supported through administrative backing, such as a course release for preparation time and/or financial support, potentially through grant funding or a dedicated budget line. The administration must also support faculty pursuing OER transformation against other stakeholders whose interests run counter to OER, such as traditional textbook publishers or self-publishing faculty (Parks, 2024). A lack of administrative support could be a barrier to OER adoption. Another potential barrier to OER is the lack of OER resources for higher-level courses, such as 3000+ and graduate-level courses (Gallant & Lasseter, 2018). Traditional textbooks often come with ancillary materials. Ancillary materials such as chapter outlines, study guides, and question banks are valuable resources that may become a barrier to adoption if not also available in OER, as they are time-intensive to create (Nagashima & Hrach, 2021).

Purpose of the Study

The purpose of the current study is to determine whether the pandemic impacted OER adoption at USG institutions by surveying faculty across the USG. As shown in numerous studies, OER adoption increased nationwide and across Europe as a result of the COVID-19 pandemic (Farooq et al., 2020; Gallant & Lasseter, 2018; Mićunović et al., 2023; Rhodes, 2021; Rimmer, 2020; Van Allen & Katz, 2020). Did this similar trend play out within the USG? For this reason, the current study seeks to determine if the pandemic potentially accelerated the growth of OER use among USG faculty.

Additionally, what motivates USG faculty to adopt OER in their classrooms? Pounds and Bostick (2019) suggested that the OER creation may stem from altruistic intentions and/or be supported by other means within higher education. As discussed above, the use of OER can increase student access to materials, increase student success, decrease student costs, serve as financial incentives, and is intertwined with an institution's administration (Burtis et al., 2024; Coleman-Prisco, 2017; Herbert et al., 2023; Marshall, 2023; Stafford, 2020). Are USG faculty actively creating OER materials, and what serves as their greatest motivation (EDUCAUSE, 2020)?

Despite the potential benefits of adopting OER, barriers remain, including constraints identified by Wang and Wang (2017) and a lack of ancillary materials. Creating or revitalizing a course takes many hours of preparation. When switching to OER resources, one needs ancillary materials such as chapter outlines, study guides, question banks, practice quizzes, and tests that supplement the new OER textbook and are relevant to it. These materials and the time invested in their creation are valuable hours of an instructor's time and will need support from the administration. Gallant and

Lasseter (2018) mentioned a lack of OER materials at higher levels in higher education, as well as in certain subjects. So, are these the barriers for USG faculty, or are there other challenges they are facing?

In addition, will there be differences in OER adoption among USG institutions? As discussed earlier, student costs are a barrier to learning. Tuition rates vary greatly across USG institutions. Is there a correlation between the use of OER and the institution's tuition costs (Lantrip & Ray, 2021)? Are there any differences among different USG institutions, such as research universities, comprehensive universities, state universities, and state colleges, in enrollment rates and OER use (USG, 2024)? Some institutions rely more heavily on introductory courses (1000-2000) than other USG institutions. OER appears to be used more often in introductory courses (Gallant & Lasseter, 2018). Will we see this play out across institutions, or will certain institutions favor OERs more than others?

In addition to differences across initiatives, variations may also occur across academic fields. Leung and Bentley (2017) suggested that there might be differences in OER use across academic fields. Brandle's (2022) pre-pandemic survey results indicated that OER has yet to be embraced in the Political Science field, while Burtis et al. (2024) found no dominant subject area within OER. Gallant and Lasseter (2018) suggested that some faculty and staff within the USG have difficulty finding OER teaching materials for upper-level courses and more niche content. Thus, is OER use biased towards particular academic fields, such as STEM, or is OER used across all disciplines equally?

Research Questions

The following research questions were addressed:

1. To what extent does the USG faculty's use of differ before and after the COVID-19 pandemic?

2. To what extent does the USG faculty's use of OER differ across demographic groups?

3. To what extent does the USG faculty's perception of incentives for switching to OER differ across demographic groups?

4. To what extent does the USG faculty's perception of barriers to OER use differ across demographic groups?

Theoretical Frameworks of the Study

The SCOPE framework was recently developed by the authors of the Open Education Group (2023) and is an expanded version of the COUP framework (Bliss et al., 2013). The Open Education Group is an American-based organization run by a team of primary researchers and funded by donors passionate about education. SCOPE stands for Social Justice, Cost, Outcomes, Perceptions, and Engagement (Clinton-Lisell et al., 2023).

Social justice is defined as "a corrective and liberatory practice that acknowledges the history of systems of oppression along with its modern-day legacies" (Clinton-Lisell et al., 2023, p. 3). It seeks the "equitable distribution of resources, opportunities, and attainment of full social, political, economic, and human rights for all" (Clinton-Lisell et al., 2023, p. 4). This survey assesses whether faculty chose to adopt OER to increase student access to course materials and to close attainment gaps.

Costs refer to "losses assumed to be either due to or avoided by open education" (Clinton-Lisell et al., 2023, p. 4). The OER group aims to reduce factors that can lead to poor student performance through the use of OER, such as financial costs, time, and mental load. This survey assesses whether reducing student costs is one reason a faculty member has chosen OER. The survey also assesses whether faculty members were financially incentivized to adopt OER. These financial incentives could be supported through grant work or from the administration. The administration may also offer a course release or other support to incentivize faculty to switch to OER. It also assesses if the cost in faculty time is a barrier to OER adoption, as suggested by Wang and Wang (2017). If faculty require time to convert their course content to OER materials, are they supported in their needs by their administration? The survey compares institutions with different per-credit-hour tuition costs for faculty work, which Dennis (2022) may be concerned about in the post-pandemic period.

Outcomes are "presumed effects due to open education" (Clinton-Lisell et al., 2023, p. 4). Outcomes that may be achieved include increased student performance, student retention, faculty retention, and faculty innovation in teaching. All of these outcomes would be beneficial for both students and faculty. This faculty survey assesses whether improving student performance is one reason a faculty member chose OER for their course materials.

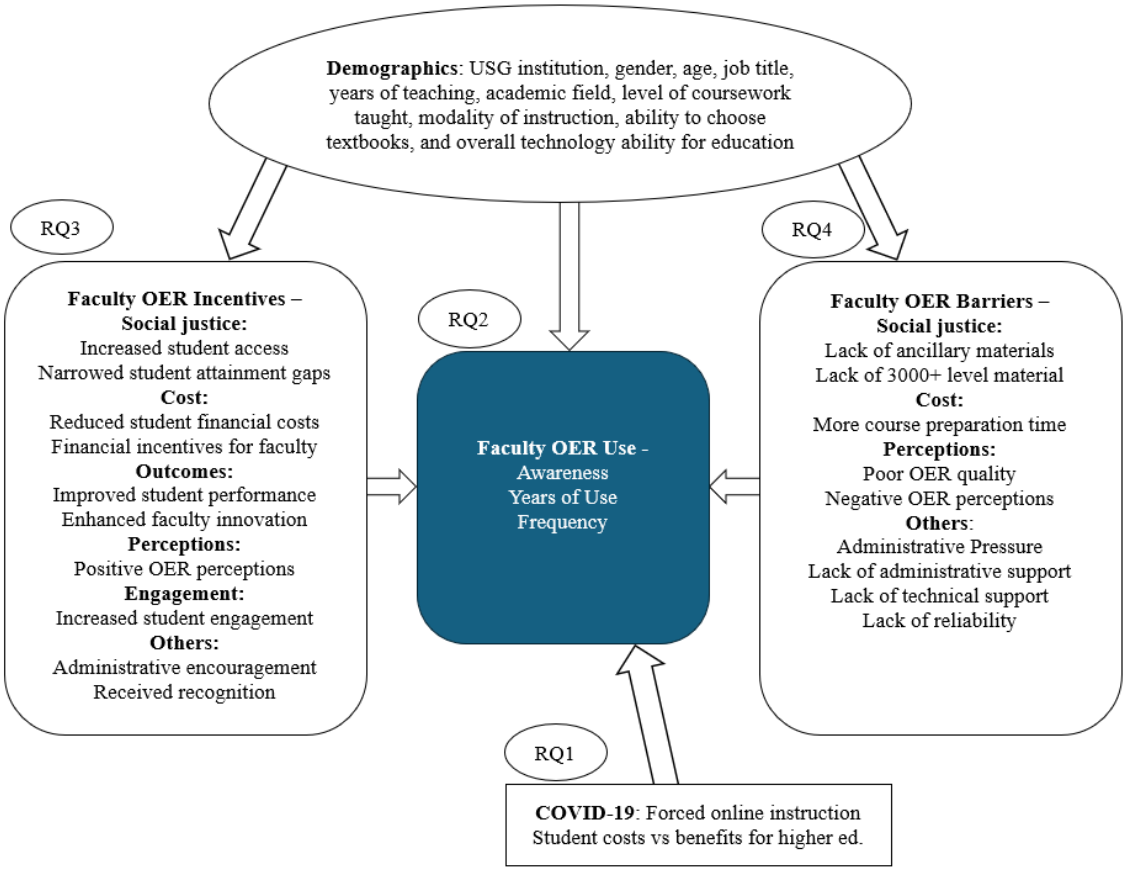
Perceptions are the "impressions and opinions of open education" (Clinton-Lisell et al., 2023, p. 4). Faculty concerns about the quality of OER materials contribute to negative perceptions of their use. Faculty may have positive perceptions of OER and be more likely to adopt it in their classrooms. The current study surveys faculty to determine

whether a negative perception of OER is a barrier to adoption or whether a positive perception serves as an incentive for adoption.

Engagement is the last goal of the framework for studying OER. It ensures that students are "fully participating and being actively involved in open education" (Clinton-Lisell et al., 2023, p. 4). The survey asks whether faculty feel their students are actively engaged with the OER materials used in their courses. By using the SCOPE framework in the current study, I hope to assess various aspects of faculty use of OER in their courses. Figure 1 presents the variables included in the current study.

Figure 1

Concept Map of the Current Study



Methodology

The current study used a 37-item self-developed survey to investigate faculty OER use at selected USG institutions (see Appendix A). Creswell (2009) explained that survey research "provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population" (p. 145). The survey contains five sections. In the first section, the faculty were asked for demographic information, including their USG institution, gender, age, job title, years of teaching, academic field, level of coursework taught, modality of instruction, ability to choose textbooks, and overall technology proficiency. The second section includes questions on their awareness of OER, years of OER use, frequency of OER use before and after COVID-19, and their perception of COVID-19's impact on OER use. The third section includes questions about faculty perceptions of the incentives to switch to OER. The fourth section includes questions asking about the faculty's perception of barriers to OER use. Two open-ended questions were included in section 5 to gather more detailed information about faculty experiences with incentives and barriers related to OER use.

The survey data were used to answer four research questions. A paired *t*-test was used to compare the frequency of OER use before and after COVID-19 for RQ1. ANOVAs were chosen to analyze data for OER use across demographic groups for RQ2. The same statistical method, ANOVA, was used to analyze the faculty's perception of incentives for switching to OER use across demographic groups for RQ3. RQ4 was answered using ANOVAs to examine the faculty's perception of barriers to OER use. Content analysis was used to code and identify patterns in responses to the final two open-ended questions.

Significance of the Study

The current study was conducted with firsthand knowledge of faculty adoption of OER at USG institutions. The current study is important as it provides insight into faculty use of OER and their perception of incentives or barriers to OER use and possible differences across demographic groups based on USG institution, gender, age, job title, years of teaching, academic field, level of coursework taught, modality of instruction, ability to choose textbooks, and overall technology ability for education. It would help determine if any potential increase in OER adoption rates coincides with the pandemic (Dennis, 2022).

This survey would also determine what factors might have served as incentives to OER adoption for USG faculty, similar to those mentioned in previous studies, such as social justice, costs, outcomes, perceptions, and engagement (Burtis et al., 2024; Coleman-Prisco, 2017; Herbert et al., 2023; Marshall, 2023). Adoption of OER also faces barriers, such as the time required to revise a course, research the textbook and ancillary materials, and adjust and/or reformat assessments to accommodate the new material (Correia, 2020; Wang & Wang, 2017). Nagashimi and Hrach (2021) specifically looked into USG faculty incentives and barriers pre-pandemic. It would be interesting to see if the pandemic has altered faculty incentives or barriers. This survey may help reinforce the need for faculty support in creating OER materials through grant programs (Affordable Learning Georgia, 2024), administrative support, and stakeholder support. A survey assessing OER faculty adoption incentives and faculty adoption barriers related to the pandemic within the USG has not been conducted at this time using the SCOPE

framework. The current study should contribute to the body of work on OER using the SCOPE framework.

Assumptions, Delimitations, and Limitations

Assumptions

There were several assumptions for the current study. First, I am currently an instructor at an open-access college within the USG and may introduce bias or prevent participants from being sincere. A quantitative study should be ideal for investigating this topic, as it allows for the collection of objective data to support the findings. Thus, my dissertation committee and I created a faculty survey. Collecting quantitative survey data helps reduce bias by using standardized questions, numerical measurements, and statistical analysis, thereby limiting the researcher's influence and making the results more objective and consistent. Second, I assumed that the study participants were the target population, had knowledge of OER, understood the questions, and would answer them honestly and accurately. Third, I assumed faculty from at least one of the four USG designations were targeted. Fourth, the self-created survey was assumed to be both reliable and valid. A pilot test was conducted to gather feedback to refine unclear or confusing items before formal data collection. The dissertation committee members also evaluated the survey items to determine whether they appear to measure the intended concepts related to faculty OER use.

Delimitations

Delimitations are choices made by the researcher to set the boundaries for the study (Creswell, 2009). The current study included only full-time faculty members at USG institutions and excluded staff, administrative-only respondents, and part-time

faculty members. The data collection period spanned May 2025 for the pilot test and October 2025 for the final survey. The data collected is quantitative, with limited qualitative data from two open-ended questions.

Limitations

This research includes only a portion of faculty within the USG, which limits its generalizability to populations outside the USG. In addition, this survey relies on self-reported data. Recall bias may interfere with data collection (Puklin, 2024). Faculty may have difficulty accurately recalling how frequently they used OER materials in their courses, particularly when asked about experiences from several years ago. In addition, faculty who strongly advocate for OER may lack objectivity, potentially introducing bias into their responses.

The current study was limited to USG faculty whose email addresses I could obtain directly from the institution's public website, their institutional ALG grant representatives, or listservs I had personal access to. The faculty surveyed represented all groups of institutions within the USG, but the percentages of faculty representation by group did not align with the percentages of faculty respondents. For example, compared with the total number of faculty, research universities accounted for 48% of faculty but represented only approximately 3% of responses. State colleges account for 9% of the total faculty but represent almost 27% of responses. This shift in demographics could potentially bias the results of the current study.

Definitions

The following is a list of definitions used to define terms in the context of the current study.

Barrier – "Something that prevents something else from happening or makes it more difficult" (Cambridge University Press & Assessment, n.d.-a, para. 4). Barriers in the current study include lack of ancillary materials, lack of 3000+ level materials, more course preparation time, poor OER quality, negative OER perceptions, administrative pressure, lack of administrative support, and lack of technical support.

Demographics – Demographics refer to statistical data about the characteristics of a population. In the current study, demographics include the participating faculty's USG institution, gender, age, job title, years of teaching experience, academic field, level of coursework taught, modality of instruction, ability to choose textbooks, and overall technology ability for education.

Incentive – "A thing that motivates or encourages one to do something" (Cambridge University Press & Assessment, n.d.-b, para. 2). Incentives in the current study include increased student access, narrowed student attainment gaps, reduced student financial costs, financial incentives for faculty, improved student performance, enhanced faculty innovation, positive OER perceptions, increased student engagement, administrative encouragement, and recognition.

Open Educational Resources (OER) – "The open provision of educational resources, enabled by information and communication technologies, for consultation, use, and adaptation by a community of users for non-commercial purposes" (UNESCO, 2002, p. 24).

Chapter Summary

The current study seeks to determine whether the pandemic impacted OER adoption at USG institutions by surveying faculty across the USG. It is also investigating

possible incentives or barriers to OER adoption experienced by USG faculty. Based on the survey data, I would also like to investigate whether there are any differences in OER adoption across faculty demographics.

Outline of the Study

The current study begins Chapter I with an introduction that presents the research problem, purpose, and significance. It is followed by Chapter II, a review of the literature, which situates the study within existing research and identifies gaps the study aims to address. The methodology chapter, Chapter III, outlines the research design, participants, data collection, and analysis procedures. Next, Chapter IV presents the findings of the study, followed by Chapter V, which includes a summary of key findings, a discussion interpreting the results in relation to the research questions and existing literature, implications for OER practices, and recommendations for future research.

Chapter II

Review of the Literature

This chapter presents a thorough literature review that supports the major components of the current study. It begins by switching teaching modalities from face-to-face to online, discussing the impacts of the pandemic, and describing OER and why instructors would choose to adopt it. This chapter discusses the use of OER in secondary and higher education. I wanted to investigate the incentives for and barriers to the adoption of OER. This chapter describes faculty incentives and the roles librarians and the government can play in OER adoption.

Transition from Face-to-Face to Online Learning Environments

As higher education courses initially moved online during the early 2000s, instructors continued to research which online practices are best. Topper (2005) compared his experience as an instructor of four online courses with face-to-face instruction and the current literature at the time. He stated that online asynchronous instruction yielded performance scores comparable to those of face-to-face courses. Topper (2005) mentioned that when instructors interact more frequently with their students, it leads to higher levels of student engagement and improved academic performance. Online discussion boards helped to increase student interaction. It was suggested that online discussion boards may help certain students more than face-to-face class discussion. Those types of students are less inhibited in an online classroom when speaking their thoughts. Although Topper's (2005) study was based on a small sample size, the overall results have been echoed repeatedly in present-day online instruction.

Yusnilita (2020) sought to compare students' perspectives on face-to-face and online learning. They surveyed 20 students at the University of Baturaja regarding their perspectives on online learning. Of the students surveyed, 80% said they found online learning interesting. When comparing face-to-face and online courses, 65% of students reported finding online courses easier. Nearly all students, 90% felt online learning was more practical, and 75% said it was cheaper without the costs of meals, transportation, and other items. In addition, 68% of students participated in online discussions, and 75% reported feeling more confident in an online course than in a face-to-face course. Although the current study is a small sample size from a country outside the United States, the students' views reflected are similar to those in the US.

McQuirter (2020) described her experiences and observations of her peers as an instructor in K-12 and higher education when faculty switched from face-to-face instruction to online instruction, both pre- and post-pandemic. She stated some barriers that teachers face when undergoing change, such as a lack of agency over the material, ever-changing technology, insufficient training, and insufficient technical support. Institutions can help foster instructors' agency over their curriculum through their support. Institutions that provided professional development for faculty on online instruction and the necessary technology, such as virtual meeting software, empowered the faculty. Conducting meetings where faculty can share best practices helps foster support and form a learning community. The problems faculty experience in the face of change and moving online were magnified by the pandemic and experienced by all educators at the same time. Collectively, she witnessed faculty and institutions working

together to create best practices to enhance online instruction in both the present and the future.

COVID-19 Pandemic Impacts

Mansoor (2020) conducted a case study with dental hygiene students in the United Kingdom (UK) at the University of Manchester Dental School during the pandemic. Mansoor (2020) described how their students were unable to gain hands-on experience because most dental practices shut down during the pandemic. Many offices were open only to emergency cases, so dental students were unable to obtain the practice and skills they needed. Students at the University of Manchester were able to continue their education via Zoom video conferences. Mansoor (2020) found that Videoconferencing was the best option for their situation because it was free and offered screen sharing by both hosts and guests, chat, calendar integration, and session recording. According to the participating students, the biggest downside of Zoom is the 40-minute time limit on free accounts.

The country of Georgia also suspended in-person education in March 2020 and moved to fully online instruction (Basilaia & Kvavadze, 2020). Basilaia and Kvavadze (2020) assessed the population for Internet coverage and computer access in both urban and rural areas. They also compared methodologies for adapting to the pandemic between public and private schools. A variety of methods were used to reach students, such as video lectures, television broadcasts, online libraries, and online meeting platforms. The government broadcast educational lessons on "Teleskota" using the Georgia Public Broadcaster's First Channel. The government also utilized Microsoft Teams access for all public schools. Both public and private schools used various platforms, such as Microsoft

Teams, Zoom, and G Suite. Basilaia and Kvavadze (2020) concluded that the transition to online learning during the pandemic was successful and could serve as a model for future circumstances.

Farooq et al. (2020) reviewed the literature from December of 2019 through May of 2020 to identify various communication methods and educational platforms for medical student instruction during the pandemic. They mentioned that instructors were making fuller use of their learning management systems. They streamed lectures via a variety of services, including Zoom and Microsoft Teams. Institutions that previously had online programs were better equipped to handle the change in instructional styles post-pandemic. According to Farooq et al. (2020), medical schools are sharing OERs. They also looked at medical schools embracing Artificial Intelligence in Medical Education (AIEd) and Extended Reality (XR) to aid instruction. Their review showed a transformation in education post-pandemic and an increase in the use of technologies such as Zoom and materials such as OERs.

Rimmer's (2020) work with Teachers of English to Speakers of Other Languages (TESOL), in which he found OER to be a fairly new concept in relation to TESOL instruction during the education switch during the pandemic. Rimmer (2020) used three case studies to prove the validity of OER use in TESOL. He concluded that the pandemic provided the impetus for experimenting with OER in TESOL. The pandemic forced many educators outside their comfort zones to explore new instructional methods, including those in TESOL.

Williams and Kollar's (2020) study on accounting at Duquesne University in Pittsburgh examined differences in students' pre- and post-pandemic instruction and their

course-end performance in accounting. They used synchronous Zoom sessions at the previously held class times. They also recorded their sessions so that students could watch them asynchronously. Their student performance was assessed at the end of each semester using a section of the Surgent CPA Exam. The students in the Spring of 2020 outperformed the previous year's face-to-face courses. Course delivery was the major difference compared to past face-to-face courses. Both instructors noted that the transition from face-to-face to online required approximately 60% more time. This extra work included creating online exams, grading, troubleshooting technical issues, meeting with students outside office hours, and accessing an online tutor.

Lemay et al. (2021) set out to determine how the transition to fully online learning during the pandemic impacted students' perception of online learning. Previous studies have found that some students perform differently depending on the modality of instruction. In the past, students voluntarily enrolled in online courses, but the pandemic forced all students to take online courses. Lemay et al. (2021) surveyed 149 students through Winter 2020. Overall, the student academic outcomes were positive, but they also reported increased stress, anxiety, difficulty concentrating, and struggles with self-discipline. Students reported both advantages and disadvantages of online courses. Students looked forward to interacting with their peers on campus and in class once the lockdown was lifted.

Stoian et al. (2022) began surveying which aspects of pandemic online learning students preferred to improve and what best practices to adopt moving forward. They reviewed the literature regarding online learning during the pandemic. Some aspects students noted negatively about online learning were technological problems, a lack of

peer interaction, and a poor home study environment. Other negative aspects of online instruction during the pandemic included its quality, information overload, and the inability to adapt face-to-face courses to online instruction. The main advantages noted for online learning were information accessibility, self-paced learning, and cost-effectiveness.

Armed with this knowledge, Stoian et al. (2022) surveyed 387 Romanian students at Politehnica University of Timisoara from May to June 2022. The students' average age was 23, and the gender breakdown was 60% males and 40% females. They were asked 9 questions regarding what online teaching activities they liked best and would like to see in face-to-face courses. The highest answer, at 38%, stated there was nothing to borrow from online environments. The second-highest response, at 18.5%, was to introduce more online lectures and practical activities. Other aspects students suggested to bring from online courses were more time for learning (8%), better assessments (4.4%), accessibility (4.4%), and better interaction (3.1%). When specifically asked about the aspects they most wanted, 15.1% of students requested that the digital course materials be integrated into their face-to-face courses. The mention of improved accessibility and digital course materials highlights OER's potential as the best teaching practice.

Mićunović et al. (2023) documented the development, adoption, and implementation of OER in the field of Library and Information Science (LIS) during the pandemic and afterwards. They conducted a literature review from February to March of 2021. They also surveyed 56 LIS schools/departments that are members of European Higher Education Institutions (HEIs), yielding data on 305 study programs, 1,839 instructors, and 25,978 students. The questionnaire contained 38 questions on 3 topics:

(1) implementation of digital education (DE) during the pandemic, (2) implementation and modes of use of OERs during the pandemic, and (3) institutional support of both DE and OER during the pandemic. Findings indicated that the COVID-19 pandemic was the impetus for OER adoption, particularly in distance education and remote learning. Did USG institutions experience a similar increase in OER use before and after the pandemic?

As the pandemic progressed, student enrollment in higher education dropped by 1.3 million students across the United States (Dennis, 2022). Dennis (2022) stated that this drop in enrollment from 2020 to 2022 may have reflected a change in college students' priorities nationwide. Fewer traditional and international students enrolled in higher education during this time. Students were worried about financial costs as well as the time invested in higher education. The findings of student surveys indicated that students were worried that investing in college did not guarantee a job upon graduation. Polling of international students also highlighted financial worries and safety concerns in the US. During this time, some students opted to go to other countries instead. As the pandemic pushed students to consider financial investments in higher education, would this potentially direct them to schools that use OER in their course offerings to lower student costs, or to enroll in USG schools with lower tuition costs?

Banfield (2021) also reinforced the notion that the pandemic caused students to reassess the value of their education. During the pandemic, many college graduates were underemployed and, as a result, the value of their education was called into question. As enrollment dropped during the pandemic, institutional budgets were also cut. Some institutions cut costs by using part-time faculty to teach introductory courses using OER

materials. Developing OER courses takes faculty time, and some OER course materials may lack the same ancillary materials as traditional textbooks. Banfield (2021) debated the pros and cons of traditional textbooks versus OER materials. She offered a model similar to *teachers pay teachers*. His model allowed instructors to sell the course material they had created for a small profit. As discussed, are students more likely to spend their dollars at institutions that use traditional textbooks, OER, or other alternatives as we move beyond the pandemic?

Why OER

Open Educational Resources, or OER, are a growing body of materials in higher education. It benefits learners with certain socioeconomic backgrounds (Cregger, 2024; Murphy & Shelley, 2020; Wang & Wang, 2017). It is needed to investigate how the use of OER was influential during the pandemic. One relevant source for the problem outlined above is Mukherjee and Hasan's (2020) study on pandemic challenges, in which they reviewed the literature to promote best practices in the new educational climate known as "education 4.0." They stated how COVID-19 changed the educational climate going forward and that the current moment presents an opportunity to overhaul the system for the better. They mentioned the competencies and skills that online instructors should possess, as well as best practices for educational institutions. Integrating OER into the curriculum is just one of the recommended good practices. Mukherjee and Hasan's (2020) work inspired the readers to see the potential of this crisis. Part of their revitalization of the education 4.0 plan is to revamp the curriculum to integrate OER.

Van Allen and Katz (2020) reviewed OER available to educators and suggested that it is useful for the pandemic and beyond. The recent shift towards addressing equity

in education is more prominent than ever, as the pandemic highlighted the gaps in education. Van Allen and Katz (2020) used their article to showcase the benefits of OERs and promote their adoption in both the present and the long term. They showed the data on students in need and the lack of equity among them. Van Allen and Katz (2020) stated that OER increases students' access to course materials and, at times, the variety of OER is even greater than that of a single traditional printed textbook. OER's very nature allows it to be customized to the individual instructor's needs, which can change over time. OER sources and repositories include OpenStax, Open Textbook Library, EdTech Books, OER Commons, Curriki, and Khan Academy. Van Allen and Katz (2020) also found that OER use increased during the pandemic.

Hilton's (2016) work reviewed 16 different OER studies. To be included in the review, the study must have contained at least 50 students and be published in a peer-reviewed source or as part of a dissertation or thesis. Hilton (2016) found that students using OER resources performed as well as, if not better than, their peers using traditional resources. Both faculty and student perceptions in this review seemed favorable towards OER. Hilton's review reaffirmed the growing shift regarding positive perceptions of OER and its impact on student performance.

Seaman and Seaman (2017) surveyed 2,700 faculty members to assess the role of OER in higher education. Approximately 30% of faculty surveyed were "aware" or "very aware" of OER at the time, and 19% were aware of Creative Commons licensing. Common barriers to OER adoption included the time needed to transform the course, insufficient materials in my subject area, and difficulty finding materials. Instructors were also concerned about the long-term viability and maintenance of OER materials. OER

adoption rates in 2015 were 5% and increased to 9% the following year. Many faculty members mentioned that cost was “very important” in their choice of course materials. Traditional required textbooks averaged $97 from those surveyed, but only 22% say they are “very satisfied” with that cost. OER is more commonly found in large-enrollment introductory-level courses. Among faculty members teaching large-enrollment introductory courses, OpenStax (2024) appears to be leading the pack with a 16.5% adoption rate, comparable to traditional textbooks. The satisfaction rate of OpenStax was comparable to that of traditional textbooks. OpenStax also provides hard-copy versions of textbooks for purchase, as well as free digital copies. The faculty survey stated that 68% were the sole decision-makers for textbook purchases, and another 22% made group decisions. Traits of faculty adopting OER included a willingness to embrace change, to work outside the box, and to be comfortable with digital materials. Seaman and Seaman’s (2017) findings regarding OER adoption barriers, faculty incentives, as well as knowledge of OER are similar to those found in other studies throughout this document.

Colvard et al. (2018) set out to determine the impact of OER on different indicators of student success at the University of Georgia (UGA), which is a part of the USG. They first discussed the attainment gaps among certain groups, as defined by the Association of American Colleges and Universities (AAC&U). The AAC&U found, based on 2016 census data, that among Americans aged 24 and older, 42.9.% of White Americans, 22.7% of African Americans, and 18.7% of Hispanic Americans held a bachelor's degree or higher (National Center for Education Statistics, 2016). Based on this information, the AAC&U recommended that higher education institutions investigate ways to reduce the attainment gaps between these groups.

Colvard et al. (2018) also stated that low-income individuals and their families face greater hardships than other socioeconomic groups in affording rising tuition and textbook costs. High-quality OER can lead to financial benefits and reduce student debt. Some studies have shown that students and faculty alike perceive OER to be as good as, if not better than, traditional textbooks in terms of quality. Following this logic, faculty use of OER would improve students' academic performance and save students money.

Colvard et al. (2018) built upon this and theorized that students receiving financial aid would benefit from OER and that success rates would be higher in classes that adopt OER than in those that use traditional textbooks. They used drop, fail, withdraw, or DFW rates, as well as A, B, and C rates, as measures of success in classes using OER and traditional textbooks. Colvard et al. (2018) also compared success rates for OER versus traditional courses among sample students receiving Federal Pell grants. The study examined over 21,000 students, with roughly half enrolled in courses that used OER and the other half in courses that used traditional textbooks. Approximately 25% of the students who studied received federal grant funding. The student demographics of the study replicated those of the school as a whole, with a self-reported gender breakdown of 65% female, 35% male, and an ethnic breakdown of 68% White, 12% Asian, and 19% non-White. Most of the students were freshmen and sophomores, but junior- and senior-level students were also included in the study. The study results showed that students performed better in courses that utilized OER and had lower DFW rates. In courses that used OER, students receiving Pell grants had higher A and B+ grades and lower B and DFW rates. The non-white student population DFW rate dropped from 15% in courses with traditional textbooks to 10% in courses with OER. Colvard et al. (2018) also

compared student status, part-time versus full-time. They determined that the average course grade for part-time students increased by 53%, with DFW rates dropping by 29% in courses that used OER. Their study showed that OER is more than just saving students money; it's increasing student success and helping to level the playing field between different student groups.

After a discussion of OER use in other states and countries, it is necessary to investigate how OER has been used within the USG (Gallant & Lasseter, 2018). Affordable Learning Georgia (ALG) (2024) set out to determine some baseline data from faculty and staff within the USG. The following questions were explored using the baseline data. For example, are faculty members using OER, and/or are they even aware of it? Which types of courses use OER the most? What are the barriers to OER adoption, and how do they see the future of OER? Based on their findings, about 60% of USG faculty and staff were aware of OER. The majority of courses utilizing OER were introductory courses, since they impact a larger student population. Lack of OER materials in higher-level courses, lack of high-quality materials, and lack of OER in certain subjects were among the barriers discussed in the study. ALG (2024) predicted that OER will increase over the next three years, following its 2018 survey. The current study aims to determine whether OER use increased and, if so, whether the pandemic accelerated its use.

OER in Secondary Education

Ye et al.'s (2015) work in secondary education compared student performance of students taught by teachers using OER with that of those taught by teachers using traditional course materials. They found that 9th-grade instructors who frequently logged

in using the OER were more aware of other teachers' practices and seemed to use the system more often. Students who had the greatest gains were taught by more active instructors. Students with the most gains came from lower socioeconomic backgrounds. Ye et al.'s (2015) study reiterated Topper's (2005) conclusion on student engagement.

Kuo et al. (2024) surveyed 23 instructors at Rowan University in New Jersey to assess their perceptions of OER and its usefulness in K-12 settings. Participants were primarily female, aged 20-40, and a majority had been teaching for 1-5 years, while the remainder had taught for more than 5 years. They found that perceptions of OER use were primarily positive. The instructors found OERs easy to use and useful, and were willing to use them in their classrooms. Kuo et al. (2024) found that instructors with higher self-efficacy in technology were more likely to adopt OER. The perceived usefulness of OER was a high indicator for adoption among participants. Consistent with findings from other authors, they identified factors that influenced instructors to adopt OER, including cost, open access, ease of use, shareability, and time savings. Challenge factors that might limit OER adoption by instructors included a lack of education about OER, low self-efficacy with technology, unknown quality of OERs, technical support, and alignment of OER to curriculum standards.

Switching to OER

According to Pate (2021), in 2019, the University of Northern Alabama (UNA) launched an initiative to increase OER adoption as part of its strategic plan. This plan was in conjunction with the Alabama Commission on Higher Education (ACHE), which used ALG as a model. UNA created a work group that planned to incorporate OER into half of its programs. UNA also created a Textbook Affordability Initiative (TIA) within the

library that aimed to establish textbook course reserves and purchase e-resources, such as Visible Body, to help reduce health science lab costs. They surveyed their faculty on OER awareness and its use at the institution. May 2020: UNA launched a Provost Stipend Program, which is similar to ALG's grant initiatives in Georgia. Participating faculty had to complete a course on OER and then submit a proposal on how they would modify or create their course using OER, the cost savings per student per semester, and the impact within their discipline. Once the proposal is accepted, the faculty member receives funding according to benchmarks set in the proposal. Within three months, the program had 11 proposals in process by July 2020. UNA continues to assess its program and hopes to expand more OER at its institution in the future.

Pounds and Bostick (2019) surveyed the use of OER in higher education related to the field of aquaculture. They concluded that increasing OER use and content, such as building the Aquacase 3.0 repository website and its content, requires supportive investment from higher education institutions, content expert creators, and support staff to maintain the repositories. Depending on the institution or repository, creating and supporting OER materials could require hundreds of hours of work and cost anywhere from tens of thousands to millions of dollars, depending on the budget. Oftentimes, a way to reduce costs is to rely heavily on volunteers, utilize pre-existing free tools, as well as the Creative Commons (CC) license for editing the OER.

Pounds and Bostick (2019) set out to determine how best to establish and maintain OER for aquaculture in higher education. They created a questionnaire via Google Forms and sent it out via email and social media to educators and students. The survey was open for 6 weeks and collected both qualitative and quantitative data via web-

based survey questions. Their survey results indicated that nearly 100% of respondents use online materials, while approximately 30-56% of students and 0-33% of instructors upload materials to share. Motivation for uploading materials fell into the following categories: “altruism,” “recognition,” “encouragement,” “mandatory,” “paid,” and “do not want to share.” “Encouragement” was the highest motivator for instructors, while “altruism” was the highest for students. Instructors disagreed on the license use of their content. Pounds and Bostick (2019) concluded that the Aquacase 3.0 repository could reduce costs by emphasizing and encouraging content creation.

Ceciliano (2024) interviewed nine Oregon college and university instructors about their experiences transitioning to OER in their courses. She mentioned that OER helped not just financially but also with access, success, and retention. Adopting OER was a challenging process, with instructors stating that it was very time-consuming and required institutional support, though not necessarily formal OER training. Institutional support improved instructor satisfaction, performance, and retention. Instructors felt that institutional support and compensation for faculty in the program directly correlated with how much the institution values OER work. Instructors using OER felt students were more engaged in their learning. Instructors were able to incorporate diverse perspectives on a topic through the use of OER. Instructors developed more empathy and taught more inclusively. Overall, transitioning to OER affected not only students but also instructors, fostering an enthusiastic and optimistic learning environment for the future.

Faculty Incentives to Switch to OER

An incentive is defined as “a thing that motivates or encourages one to do something” (Cambridge University Press & Assessment, n.d.-b, para 2). It can be

financial, professional, or intrinsic, encouraging individuals to adopt certain behaviors or make particular choices (Deci & Ryan, 1985). Coleman-Prisco (2017) set out to determine why faculty might take on the task of innovating and adopting OER in higher education in the United States. She asked the faculty what they believed made OER valuable and sustainable, what factors contributed to adoption or non-adoption, and what supported the innovation and adoption of OER. A survey was sent to 96 faculty members who participated in a grant, and 16 completed it during the summer. Of the 16 faculty surveyed, five agreed to be interviewed. The survey results indicated that the faculty believes a valuable and sustainable OER must be cost-effective and contribute to the success of student learning. Another important factor for OER adoption or non-adoption was the ability to be customizable and shareable. Faculty time and effort are needed to create and adopt OER. Therefore, the conclusion from Coleman-Prisco (2017) also reinforced the idea that supportive institutional administration and/or grant funding are strong incentives for OER adoption.

Marshall (2023) focused on OERs in higher education. Marshall chose this topic because OER could help to alleviate student barriers, such as financial and time investment. Marshall stated that more knowledge of OER use is needed among faculty and that OER should be used as a professional development tool. She chose to examine why faculty select their course materials, whether faculty have implemented OERs, and whether OER use/development can be considered professional development. Her survey of 33 selected participants indicated that textbook cost was a factor for both students and faculty in choosing course materials. Her survey results concluded that the use of OER by faculty was seen in a positive perception. Marshall (2023) suggested that faculty

switching to OER should be utilized as a form of professional development in annual faculty evaluations.

Herbert et al. (2023) also examined the motivations for faculty to adopt OERs in higher education. They intended to test the theory of faculty motivation to adopt OER using self-determination theory. This theory is supported when the psychological needs of autonomy, competence, and relatedness are achieved. Since one of the primary elements of OER is the 5 Rs: Retain, Reuse, Revise, Remix, and Redistribute, this theory offers an interesting direction for future research. Herbert et al. (2023) surveyed 469 instructors from public institutions in the Midwest during the Spring of 2021. The survey results indicated that institutions should increase awareness of OER materials and support faculty's intrinsic motivation to select and use OER in their courses.

Puklin (2024) set out to document the institutional training of faculty to use OER and its effects on disposition and future participation. This dissertation documented the professional development of English and Reading faculty at Xavier Community College (XCC) in preparation for adopting OER materials. The participating faculty appreciated the training but were not interested in it. The faculty felt less forced to undergo institutional training and more inclined to pursue do-it-yourself, self-motivated, and team-based training on OER. In the end, the faculty created sustainable OER First-Year Composition and Successful College Reading courses with their own sense of community, DIY training, and motivation for student success.

In addition to institutional training, could institutional administrators be the key to a successful OER program? Parks (2024) interviewed nine administrators involved in transitioning to OER at their institutions. Interview questions were inspired by

stakeholder theory, and all respondents agreed that students are the highest-priority stakeholders on their campuses. They believed OER was a way to meet students' needs and were willing to advocate for its use despite objections from other stakeholder groups. Administrators stated that conflicts with other groups included stopping OER as it conflicted with bookstore profits, subscription services, and diminished royalties for those who had published their own textbooks. Some of them stated that legislatures were openly hostile to diversity, equity, and inclusion, which some might say include OER. Participants still openly fought for and supported OER at their institutions against the other stakeholders, as they believed it was in the best interest of their students.

Administrators were concerned with the sustainability of their OER programs. Some of them stated that their program might dissolve if just two positions at their institution changed. Efforts to support a program's sustainability included state involvement, particularly state statutes or bills that address reducing student costs or materials. They also suggested appointing a member of the institution's staff with "OER" in their title, adding the OER program as a budgetary line item, and including OER in the institution's policy and strategic plans. The administration also stated that OER programs cannot be mandated for faculty, as found in Puklin's (2024) account of faculty pushback at XCC. OER programs must engage a broad range of stakeholders, including administrators, faculty, and students themselves.

Chaudhuri (2024) created the Scholarly Communication Open Resources eLearning (SCORE) program at California State University, Los Angeles (Cal State LA) to financially incentivize faculty to create OER courses to reduce student costs. Cal State LA is a Hispanic-serving and Minority-Serving institution in a state with a high cost of

living. Across California, 35% of college students reported insufficient funds for textbooks and other supplies, which inhibits their success (Chaudhuri, 2024). Chaudhuri (2024) created the SCORE program in partnership with the Affordable Learning Solutions program within the California State University system. The pilot began in the Fall of 2001, offering a $500 stipend to participating faculty. To receive the stipend, faculty had to complete three self-paced online courses on the SCORE program. Then, they needed to create or convert a course using no-cost course materials, embed the Canvas reading list in their Canvas course page, and share the syllabus with the SCORE program. The program was so successful that Chaudhuri had to ask the chancellor for more money to continue. The faculty stipends were increased to $750 per instructor/semester in the Fall of 2023. Faculty participants included adjuncts, tenured faculty, and tenured-track faculty, with the adjuncts leading the group. Faculty were from various schools, and participation reflected the breakdown of schools and departments within the institution. The largest school, the School of Natural and Social Sciences, had the most participating faculty, but other areas of the college were also represented. Barriers experienced by the faculty to creating and transforming their courses to OER included time and the limited availability of OER in certain subject areas. The faculty used OER from Merlot, MIT OpenCourseWare, ebooks, and other electronic resources from the library. The average savings per course were calculated by totaling student enrollment per class and textbook costs per student. The SCORE program transformed both undergraduate and graduate courses with an average enrollment of 34 students. After comparing the cost savings, Chaudhuri (2024) concluded that the greatest impact

would come from increasing enrollment in general education courses to save the most students' money.

After a discussion of OER use in other states and countries, it is necessary to investigate what factors specifically motivate the University Systems of Georgia (USG) faculty to use OER in their classrooms. That question was the focus of Nagashima and Hrach (2021), who investigated it by surveying 77 former Affordable Learning Georgia (ALG) grant recipients. The respondents were from all 4 USG sectors: State Universities (40.8%), State Colleges (18.3%), Comprehensive Universities (23.9%), and Research Universities (16.9%). Respondents were split evenly across rankings from lecturer to full professor, as well as between male and female. The 35-44 age range seemed to be the dominant among recipients, with ages 45-54 taking a close second. When surveyed about motivation related to ALG, the biggest motivating factor (73.2%) was the monetary award, followed by collaboration with colleagues (33.8%) and the availability of support and resources (29.6%). Other motivating factors unrelated to ALG included dissatisfaction with availability or expense of current materials (73.2%), improve student learning (70.4%), dissatisfaction with content of current materials (39.4%), change to course design or delivery also taking place (26.8%), familiarity with Creative Commons and open licensing (19.7%), and familiarity with colleagues' experiences with OER (11.3%). Nagashima and Hrach (2021) summarized the perceived benefits of OER from their respondents as including pedagogical improvements, increased collaboration with colleagues, greater discoverability of OER materials, and increased student access, which in turn increased student engagement. Challenges regarding OER from respondents included discoverability and content quality, lack of time for transformation, difficulty

collaborating among larger transformation groups, and unfamiliarity with the necessary technology and copyright issues. These incentives, benefits, and challenges provide additional insight into the ever-growing field of OER.

Librarians Role in OER

Librarians may support OER adoption by helping faculty discover, evaluate, and curate high-quality open resources. Thus, could librarians be a key component in breaking down faculty barriers and increasing OER use? Smith et al. (2023) conducted a case study at an Alabama community college to determine how the faculty and librarians could work together to increase OER use. Smith et al. (2023) identified methods they used, such as overcoming faculty hesitancy, advocating for student benefits, improving administrative communication, and fostering librarian collaboration, which can help increase OER use. Smith et al. (2023) theorized that this could be used across institutions to increase OER use.

Gong's (2024) dissertation work illuminated the counter-stories of seven librarians and their experiences as women of color (WOC) working in academia and the field of OER. OER is acclaimed as a method of leveling the playing field and a form of social justice for marginalized students. Gong (2024) stated that librarians are often proclaimed as heroes in their work championing OER at academic institutions. Gong (2024) claimed that WOC librarians' stories presented a different perspective, which she would like to discuss regarding this historically marginalized group. Based on her interviews, she stated that WOC librarians experienced microaggressions in academic libraries. Often, they experienced loneliness, isolation, and tokenization. While working with OER, these women would feel both valued and devalued. Other challenges these

librarians experienced include feeling overloaded, uncertainty about their roles, and a lack of support from their institutions and infrastructure. These experiences impacted their ability to coordinate and manage OER programs at their institutions. Gong (2024) highlighted the experiences of WOC in the academic realm of OER to promote greater inclusivity and equity.

Burtis et al. (2024) set out to determine which incentives are needed to persuade faculty to switch to OER. They reviewed the literature on establishing an OER program and created a comprehensive review for other librarians to use as a reference when starting their own programs. Burtis et al. (2024) determined that 80% of faculty incentives were financial. Faculty also mentioned time constraints, lack of administrative support, perceptions of OER quality, technical difficulties, and knowledge of copyright as barriers to adoption. The financial incentives are intended to ensure a return on the faculty member's investment. Other faculty incentives included awards, recognition, and course release time. The faculty were often full-time teaching faculty at their institutions. Most of the 25 institutions reviewed implementing OER were public 4-year institutions found in the US and abroad. No specific subject or area of focus was preferred, as the courses included Social Science, STEM, and Humanities. The total savings for the students in this comprehensive review were $33,905,818.33. This review reiterated the potential barriers that faculty must overcome to switch to OER and the incentives that motivate them.

The Government's Role in OER

The government may help promote the adoption and development of OER through funding, policy, and infrastructure. Thus, it is necessary to explore whether states

within the US enact policies that affect OER use in higher education. This policy could lead to increased college affordability, a more educated and stronger society, and a stronger economy. McCoy-Simmons (2022) searched the Scholarly Publishing and Academic Resources Coalition (SPARC) database for legislation on OER use in the US. She found 33 potential state policies, but upon further investigation, narrowed them down to 8 active state policies in Colorado, Connecticut, Minnesota, New Jersey, Oregon, Texas, and Washington (McCoy-Simmons, 2022). Each policy was introduced with the notion of "cost savings." Those "costs" are high textbook costs, financial access to materials, and increasing college tuition. She stated the costs have been compounded by the financial impact of the pandemic. McCoy-Simmons (2022) also suggested that more studies are needed to demonstrate how OERs increase equity for marginalized populations, and that these findings should be included in the discourse alongside cost savings.

Barriers to Learning

Correia's (2020) assessment of the emergency switch to digital education during the pandemic discusses the shortcomings and barriers encountered. Correia (2020) offered some suggestions to bridge the gap for certain learners. She mentioned the limitations faced by learners from different backgrounds, such as a lack of high-speed internet, office equipment, and other constraints, which left some learners feeling like second-class citizens. These factors might prevent some children from receiving the same educational experience as their peers. She suggested low-bandwidth alternatives, such as email, phone calls, and video messages, to keep tabs on students. Correia (2020) recommended using free resources for learners. Another suggestion was to use

asynchronous recordings and discussion boards to support the teaching material, allowing students to learn at a time that is convenient for them. She suggested using YouTube videos and OER from OER Commons. This source was helpful because it highlighted the limitations faced by certain learners who switched to online learning and suggested using OER resources as one of many low-bandwidth alternatives.

One potential barrier during the pandemic was access to campus resources, such as the campus bookstore. Could students access and purchase traditional textbook materials for their courses, or did faculty need to switch to more open-sourced course material? Wang and Wang's (2017) work determined the effort needed to switch from traditional textbooks to OER sources. They determined that many OER sources lacked ancillary materials and, therefore, increased faculty workload during the transformation of their course. This is an interesting viewpoint, as they noted that the increased faculty workload associated with switching to OER was also evident among faculty transitioning to online instruction during the pandemic.

Werth and Williams (2023) began a pioneering program at the University of Pikeville. They set out to study the faculty as they converted instruction for a mandatory first-year course from traditional textbooks to OER materials, a change repeated in the fall of 2019 and again in the fall of 2020. They stated that faculty could be resistant to change. Barriers mentioned included insufficient training or time, hesitation concerning the value of the new method, loss of control, fear of failure, administrative pressure to maintain the status quo, and resistance to change. Faculty members willing to try new things found that OER can improve their teaching. This sparked research questions for Werth and Williams (2023). For example, would attitudes toward teaching new OER

materials change between the first and second years, and would these instructors be more likely to use OER in the future? In the first semester of creating and teaching with OER, the instructors did not see the value of the lessons and felt they were learning alongside the students. In the second semester of 2020, the instructors felt more connected and had more agency with the new methodology. After completing the OER project for two semesters, instructors felt confident using it in other courses. The instructors encountered technical difficulties sharing their students' work and stated that institutional support is needed. Werth and Williams (2023) suggested that professional development to educate instructors on the value of OER and how to mentor students was necessary.

Financial Barriers

In addition to the barriers outlined above, was affordability a barrier to instruction? Many people were financially affected by the pandemic. Did switching to OER help lower course-related expenses and potentially save students money? This benefit of OER is described in EDUCAUSE's (2020) report on teaching and learning and the rise in OER's popularity across the globe. Many institutions are embracing the movement, incentivizing faculty to switch to OER sources and/or design their own OER resources in incubator camps. EDUCAUSE drives home the cost savings to learners once again, with average traditional textbook costs up to $100. The report indicated that "up to seventy-five percent of students have delayed purchasing textbooks; sixty-five percent elect not to purchase the textbooks; fifty percent choose majors based on the textbook prices; and thirteen percent have considered dropping their courses due to textbook prices" (EDUCAUSE, 2020, p. 27). EDUCAUSE reiterated that OER not only saves learners money but also increases inclusivity with accessibility. UNESCO established

standards in 2019 to aid the worldwide sharing of materials. OER isn't just textbooks. It's also mobile applications and other online utilities. The growing movement towards OER, which is colliding with the need for online education in a pandemic world, absolutely needs further investigation.

Along with the same vein as financial barriers for college students, Skinner and Howes (2013) examined the use of OER compared to traditional textbooks, focusing on their use and impact on student outcomes. Skinner and Howes (2013) found that increased student use of the course textbook was in the same vein as financial barriers for college students. Skinner and Howes (2013) examined the use of OER compared to traditional textbooks, noting that OER is typically associated with higher student performance. Despite this, they determined that up to two-thirds of the class weren't purchasing the required textbook. Traditional textbooks cost significantly more than OER textbooks and, therefore, aren't always purchased despite reading material being required. According to Skinner and Howes (2013), cost was a top reason students chose not to purchase a textbook. Their article highlighted the barriers that exist in higher education, especially for students from lower socioeconomic backgrounds. This reinforces efforts to promote OER adoption, particularly at 2-year institutions and 4-year colleges.

Most higher education institutions in the United States require an introductory level course in political science for students to graduate. However, according to Brandle (2022), this particular subject often does not utilize OER. Brandle (2022) discussed the many ways high textbook costs affect students, both financially and in their success at public and private institutions. She mentioned alternative options to traditional textbooks,

such as *free to student options* and *fee to student options*. Free options include freely accessible online materials, YouTube videos, campus library holdings, subscriptions, and OER. Fee to student options include textbook rental companies such as Chegg (2026).

Brandle (2022) summarized the benefits of OER, including reduced costs, increased access, lower withdrawal rates, and improved student perceptions of courses that use OER. She stated that OER appears dominant in STEM fields but less common in political science, based on her journal searches. This finding sparked her survey. She surveyed 70 political science instructors teaching at 4-year public and private institutions across the United States, with representation skewed towards New York. The survey results among the 70 political science faculty indicated that one-third regularly used OER, while another third were unaware of OER. Employment status (full/part-time/tenured) or institution status (private/public) had no impact on the use of OER. Brandle's (2022) survey found that instructors who had taught the longest were least likely to have heard of OER. Those instructors who learned about OER stated that social media, colleagues, or online searches were their primary sources. Brandle (2022) stated that this survey was conducted before the pandemic and suggested the shift to mandatory online instruction during the pandemic might have exposed more faculty to OER resources. Since the survey, political science instructors now have OER resources, such as the American Political Science Association (APSA) online library, APSA Educate (2026), which was built in 2019.

Perceptions of OER

Beyond financial barriers, was the perception of OER a barrier to learning? Carpenter-Horning (2018) surveyed students in community colleges across the southeast

US. Over 5,600 first-year community college students were surveyed from 9 different community colleges. The students were enrolled in both face-to-face and online environments using both traditional textbooks and OER. Respondents' perceptions of OER were measured using the Cognitive, Affective, and Psychomotor (CAP) Perceived Learning Scale. Carpenter-Horning (2018) found a statistically significant difference in perceptions of learning between OER and traditional textbooks, but no significant difference in active learning scores between the two groups. The study results reinforced prior research indicating that OER materials are the same or superior to traditional textbooks.

Short et al. (2024) sought to assess perceptions among instructors who implemented OER or Open Pedagogy (OP) and how these might influence their future use. They surveyed 28 instructors from 3 different colleges in the United States. Most instructors surveyed had been around 3-10 years, and for many, it was their first time using OP. Many instructors viewed OP positively as a means of providing equity for students and opening their classrooms to the rest of the world. Instructors felt that using OP gave students ownership of their learning, increasing collaboration, communication, cooperation, critical thinking, and creativity. The instructors' obstacles mentioned included the need for more time for planning and implementation, the required technical knowledge, other instructors' perceptions of OP, and the potential to improve upon previous OP. Despite the negative aspects, the instructors stated they would continue using the OP in their courses and expand its use to other courses.

Angelopoulou et al. (2022) set out to determine which factors, beyond cost alone, may influence students' perspectives on their educational choices at a USG institution.

They surveyed 61 students at Columbus State University enrolled in 3 sections of the Data Structures course during Fall 2019, Fall 2020, and Spring 2021. The factors analyzed in relation to student backgrounds included income, seniority, prior academic achievements, sentiment toward the online format, and motivation to learn. They found no significant differences across gender, seniority, prior academic achievement, or income in OER perception and frequency of use. Angelopoulou et al. (2022) found a correlation between frequency of use and sentiment toward the online format. Frequent users of the OER textbook were more likely to express less positive attitudes toward its online format. They speculated about several reasons, such as a general dislike of the online reading format compared with a more traditional paper textbook. Compared to less motivated students, those with higher learning motivation viewed OER more favorably than traditional textbooks. Students stated that the OER textbook saved them an average of $100-200 per semester.

OER and the Community College

Are different institutions within the USG embracing OER more than other institutions? Would the impact of OER at access colleges be more beneficial to students than other types of institutions? When viewed through a social justice lens, students attending open-access institutions, such as community colleges, may be more affected by student debt than other student populations.

Lantrip and Ray (2021) sought to determine the faculty's perception and use of OER at Oregon's community colleges. In 2015, the state of Oregon began an initiative to increase OER adoption and use among community colleges. OER adoption from 2015 – 2017 dropped student textbook costs in their degree pathways by 15-16%. Lantrip and

Ray (2021) aimed to assess faculty experiences. When surveyed about their motivation to switch to OER, 95% stated to reduce student costs, 64% wanted increased access, 59% wanted increased innovation, 26% were not happy with current offerings, 23% heard success stories from their peers, and only 3% stated their current publisher dropped their existing textbook. A majority of faculty felt the OER fit the material for their course.

Faculty members varied in how they modified the OER for their courses, from making no modifications to editing, deleting, or creating their own. When asked about barriers to switching, the faculty stated that time was the greatest challenge, followed by OER quality and then the availability of ancillary materials. Some students needed print materials, which was a challenge. Most faculty perceived their OER materials to be at least as good as, if not better than, traditional materials. Faculty were asked to assess their students' preparedness following the change to OER, with 61% reporting no change and 38% indicating that their students were more prepared. Students were more engaged in class, according to 56% of the faculty sampled. When asking faculty what they felt was most important in supporting their switch to OER, 62% felt that administrative support was the most important, followed by increased OER adoption at 56%, the ability to receive OER data from their institutional researcher 46%, creating a zero-cost degree 44%, and collaboration across campus at 33%. Nearly half of the faculty stated that sustained funding or release time was necessary to adopt, modify, update, and create OER for their courses. Lantrip and Ray (2021) suggested future OER research into its effects on diversity, equity, and inclusion, increasing enrollment and retention, and student success.

Cregger's (2024) dissertation explored community college faculty's perceptions of OER, the barriers to its use, and the steps needed to overcome them. She interviewed six faculty members in the health professions about their perceptions of OER. The faculty indicated they would use OER if it were easily accessible. The use of OER would provide positive social changes for students in the healthcare field. Faculty described barriers, including a lack of high-quality resources, institutional support, funding, time, and access. The faculty recommended a readily accessible toolkit that identifies best-practice guidelines for OER in the healthcare field. Forehand (2024) studied the role of OER and the support needed for equitable access to OER, focusing on community colleges. OER can lower students' costs and increase student success, but access to and proficiency with technology might still remain barriers for students from certain social groups. Forehand (2024) reiterated that the need for OER that accommodates diverse proficiency levels is key to reducing the digital divide experienced by certain marginalized and intersectionally identified students. She identified the trials and technological needs of the faculty and staff responsible for OER at their institutions. Survey results determined that students need access to technology now more than ever. The best technology support for students came from institutional programs such as library loaner programs. This was the most equitable way to ensure all students can embrace and succeed with OER.

Chapter Summary

This chapter presents a literature review that supports the investigative reasoning behind the current study. The literature covers the effects of the pandemic on education systems worldwide. It covers incentives and motivating factors that faculty experience with OER adoption. It also covers barriers that faculty experience prevent OER adoption,

as well as potential barriers to student success. OER adoption is found across different levels of education, from K-12 to higher education, with varied experiences and uses. It also covers other factors that influence OER adoption, such as librarians, institutional administration, and government influence.

Chapter III

Methodology

This chapter defines and explains in detail the research design, methodology, and data collection and analysis methods that will be used throughout the study. Nine sections are covered in this chapter, including: (1) purpose of the study, (2) research questions and hypotheses, (3) research design, (4) population and sample, (5) variables, (6) survey instrument, (7) validity and reliability, (8) data collection, and (9) data analysis.

The purpose of the current study was to determine whether the pandemic affected OER use at USG institutions by surveying USG faculty. In addition, it investigated differences in faculty's OER use, their perceptions of incentives, and barriers to OER use across demographic groups. The demographics included in the current study were the participating faculty's USG institution, gender, age, job title, years of teaching experience, academic field, level of coursework taught, modality of instruction, ability to choose textbooks, and overall technology ability for education. These demographic variables were believed to influence faculty use of OER based on previous research or have been commonly included as demographic factors in past OER studies, as discussed in Chapter II: years of teaching experience, modality of instruction, ability to choose textbooks, and overall technology ability for education.

Research Questions and Hypotheses

Research Questions

The following research questions and hypotheses were addressed:

1. To what extent does the USG faculty's use of differ before and after the COVID-19 pandemic?

2. To what extent does the USG faculty's use of OER differ across demographic groups?

3. To what extent does the USG faculty's perception of incentives for switching to OER differ across demographic groups?

4. To what extent does the USG faculty's perception of barriers to OER use differ across demographic groups?

Hypotheses

- Hypothesis (H_1) for RQ1: There is a statistically significant difference in the frequency of OER use by USG faculty before and after the COVID-19 pandemic.
- Null Hypothesis (H_0) for RQ1: There is no statistically significant difference in the frequency of OER use by USG faculty before and after the COVID-19 pandemic.
- Hypothesis (H_1) for RQ2: There is a statistically significant difference in the use of OER among USG faculty across different demographic groups.
- Null Hypothesis (H_0) for RQ2: There is no statistically significant difference in the use of OER among USG faculty across different demographic groups.
- Hypothesis (H_1) for RQ3: There is a statistically significant difference in USG faculty's perception of incentives for switching to OER across different demographic groups.

- Null Hypothesis (H_0) for RQ3: There is no statistically significant difference in USG faculty's perception of incentives for switching to OER across different demographic groups.
- Hypothesis (H_1) for RQ4: There is a statistically significant difference in USG faculty's perception of barriers to OER use across different demographic groups.
- Null Hypothesis (H_0) for RQ4: There is no statistically significant difference in USG faculty's perception of barriers to OER use across different demographic groups.

Research Design

This research used a 37-item self-developed survey to investigate faculty OER use at selected USG institutions. Creswell (2009) explained that survey research "provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population" (p. 145). Conducting this survey research allows me to understand (1) how COVID-19 impacts USG faculty's use of OER, (2) how the USG faculty's use of OER differs across demographic groups, (3) how the USG faculty's perception of incentives for switching to OER differs across demographic groups, and (4) how the USG faculty's perception of barriers to OER use differs across demographic groups.

Population and Sample

The population in the current study consisted of full-time faculty at institutions within the University System of Georgia (USG). The USG includes 26 institutions categorized into four types: research universities, regional comprehensive universities,

state universities, and state colleges. As of 2023, the USG is the sixth-largest university system in the United States by total student enrollment, serving 344,392 students across its 26 public institutions (USG, 2025b).

The estimated sample size was calculated using G*Power 3.1.9.7 (Buchner et al., 2020), based on the requirements for analyzing six levels in a one-way ANOVA, considering the largest group size among the demographic categories, such as age and title. Assuming a small effect size ($f = 0.25$), an alpha level of 0.05, and a statistical power of 0.80, a minimum sample size for the current study would be 216. Considering that the average response rate for online surveys is 44.1% (Wu et al., 2022) and can often be lower depending on the target groups or the timing of implementation, at least 490 faculty members should be invited to participate in the survey. For the final survey, over 2,000 USG faculty members were contacted across 13 of the 26 USG institutions.

The most recent USG statistics, dated in the Fall of 2023, document that the total number of full-time instructional faculty is 11,560. The sub-total for research universities, which includes four institutions, is 5,591 (48%); the subtotal for comprehensive universities, comprising another four institutions, is 2,838 (25%); the subtotal for state universities, which includes nine institutions, is 2,094 (18%); and the subtotal for state colleges, also consisting of nine institutions, is 1,037 (9%) (see Table 1). Based on the proportion or distribution of faculty across USG designation groups, the estimated number of invited participants from research universities is 237, followed by 120 from comprehensive universities, 80 from state universities, and 44 from state colleges.

Table 1

Fall 2023 USG Instructional Faculty by Designation

USG Designation	*N*	Percentage	Estimated *N.* for Formal Study	Estimated *N.* for Pilot Test
Research Universities	5591	48%	237	33
Comprehensive Universities	2838	25%	120	17
State Universities	2094	18%	80	12
State Colleges	1037	9%	44	6

Note. Adapted from *Employee Reports - Faculty Demographic Characteristics*, by USG, 2023, https://www.usg.edu/research/employee_reports

Variables

Dependent Variables

For research question one, two dependent variables were used to compare the USG faculty's perception of COVID-19's impact on OER use. Those are participants' responses to survey question #14 related to the frequency of OER use BEFORE the COVID-19 pandemic and responses to question #15, the frequency of OER use AFTER the COVID-19 pandemic. For research question two, the dependent variable would be the average of participants' responses to questions 12-16 in Section 2, which pertains to their OER awareness, years of OER adoption, perceived COVID-19 impact on their OER use for course instruction, and OER use before and after COVID-19. For research question 3, the dependent variable would be the average of participants' responses to questions 17-26 in Section 3, which pertains to their perceptions of incentives to switch to OER. For research question 4, the dependent variable would be the average of participants' responses to questions 27-35 in Section 4, which pertains to their perceptions of barriers to OER use.

Independent Variables

RQ1. This question compares faculty's OER use before and after COVID-19. The "implied" independent variable for RQ1 is the impact of COVID-19.

RQ2. The independent variable for RQ2 would be each demographic variable, including USG institution, gender, age, job title, years of teaching experience, academic field, level of coursework taught, modality of instruction, ability to choose textbooks, and overall technology ability for education.

RQ3. The independent variable for RQ3 would be each demographic variable, including USG institution, gender, age, job title, years of teaching experience, academic field, level of coursework taught, modality of instruction, ability to choose textbooks, and overall technology ability for education.

RQ4. The independent variable for RQ4 would be each demographic variable, including USG institution, gender, age, job title, years of teaching experience, academic field, level of coursework taught, modality of instruction, ability to choose textbooks, and overall technology ability for education.

Survey Instrument

The current study used a 37-item self-developed survey to investigate faculty OER use at selected USG institutions (see Appendix A). Creswell (2009) explained that survey research "provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population" (p. 145). The survey contains five sections. In the first section, the faculty were asked for demographic information, including their USG institution, gender, age, job title, years of teaching experience, academic field, level of coursework taught, modality of instruction, ability to

choose textbooks, and overall technology ability for education. These demographic variables were believed to influence faculty use of OER based on previous research or were commonly included as demographic factors in past OER studies, as discussed in Chapter II. Eleven questions were included in the "Demographic Information" section.

The second section includes 5-point Likert scale questions related to their awareness of OER, years of OER adoption, frequency of OER use before and after COVID-19, and perception of COVID-19's impact on OER use for course instruction. This section mainly investigates changes in OER use before and after COVID-19, its impact, and faculty's overall OER awareness and experience. Five questions are included in the "OER Use and COVID-19 Impact" section.

The third section includes questions about faculty perceptions of the incentives to switch to OER. An incentive can be financial, professional, or intrinsic, motivating individuals to take specific actions or make certain choices (Cambridge University Press & Assessment, n.d.-b; Deci & Ryan, 1985). Section 3, "Incentives to Switch to OER," contains 10 5-point Likert scale questions about whether specific incentives motivate them to transition to OER use, such as increased student access, narrowed student attainment gaps, reduced student financial costs, improved student performance, enhanced faculty innovation, increased student engagement, positive OER perceptions, administrative encouragement, financial incentives for faculty, and received recognition.

The fourth section included questions asking about the faculty's perceptions of barriers to OER use. Barriers are factors that hinder individuals from acting or make it more difficult to do so (Cambridge University Press & Assessment, n.d.-a). Section 4, "Barriers to OER use," contains nine 5-point Likert scale questions about whether

specific barriers prevent them from using OER, such as lack of ancillary materials, lack of 3000+ level materials, more course preparation time, poor OER quality, negative OER perceptions, administrative pressure, lack of administrative support, lack of technical support, and lack of reliability.

Two open-ended questions were included in Section 5. Open-ended questions allow faculty to provide personalized insights that may not be captured through Likert-scale items, helping to gain a deeper understanding of their perceptions regarding incentives and barriers to OER use. In this section, faculty can provide more detailed responses to share their perceptions.

Reliability and Validity

Reliability

Since the study employed a self-developed survey, a pilot test was needed to assess internal consistency reliability. The purpose of the pilot test was to determine whether the questions in each section measure the same underlying concepts (such as OER use, perceived incentives, or perceived barriers). The ideal sample size for the pilot is typically at least 30 (Bujang et al., 2024). For the pilot test, a singular USG institution was chosen using the faculty in State College A. The college has 150 faculty members and serves as a prime pilot test institution.

Once responses from the pilot study were collected, internal consistency was calculated in SPSS using Cronbach's alpha. An alpha value of 0.70 or higher is generally considered acceptable. If the value of each subscale is below this threshold, it indicates the need for revision. Using pilot study data, I examined whether specific items that undermine overall consistency should be revised or removed to strengthen the survey

instrument. Based on the proportion of faculty across USG designation groups and the average response rate for online surveys (Wu et al., 2022), the estimated number of invited participants for the pilot test was 68. Based on its public website, state college A has approximately 150 faculty members and is a strong candidate for pilot study.

Validity

The validity of the current study would be achieved through content or face validity, which refers to the extent to which a survey adequately covers all relevant aspects it aims to measure (Cambridge University Press & Assessment, n.d.-c). Establishing content validity typically involves expert review. Experts may offer feedback through rating scales, matching tasks, or written comments on each survey item to ensure that each item measures the concept of interest and to reduce individual bias (Nickerson, 2023). The items were carefully reviewed by three members serving on the dissertation committee to ensure the study's validity.

Data Collection Procedure

Before conducting the formal study, I submitted an IRB application to VSU to obtain approval for implementation. Once IRB approval was granted (see Appendix B), I contacted the USG Academic Affairs Office to determine how to access faculty email addresses and distribute the online survey (see Appendix C). Most institutions provide faculty directories that include names and email addresses. Since these schools are public institutions, faculty email addresses listed on official websites should be accessible. However, if additional permissions are required from the USG or individual institutions, I obtained permission letters or e-mails prior to survey distribution. Copies of these permission letters or e-mails were also submitted to the VSU IRB for documentation. The

sampling plan for both the formal study and the pilot testing was outlined in the Population and Sample section. After obtaining the email addresses, an email invitation containing the survey link was sent to faculty members, followed by weekly reminder emails over the subsequent two weeks (see Appendix D).

Data Analysis

Quantitative data from the survey were imported from Qualtrics and processed in SPSS. A paired *t*-test was used to compare the frequency of OER use before and after COVID-19 for RQ1. ANOVAs were used to analyze data for OER usage across demographic groups for RQ2. The same statistical method, ANOVA, was used to analyze the faculty's perception of incentives for switching to OER use across demographic groups for RQ3. RQ4 was answered using ANOVAs to examine the faculty's perception of barriers to OER use. Content analysis was used to code and identify patterns in responses to the final two open-ended questions.

Chapter Summary

Chapter III presents the survey design used to investigate faculty use of OER within the USG. A 37-item self-created survey was conducted to collect data from full-time faculty across the selected USG institutions. The survey included both Likert-scale questions and open-ended questions to assess faculty awareness and years of experience using OER, perceptions of incentives and barriers, and to detect differences across demographic groups. In addition, it also helps explore COVID-19's impact on faculty's use of OER. The content and face validity of the self-created survey were established through expert review, and internal consistency reliability was evaluated through a pilot test before the formal study implementation. G*Power was used to determine the

estimated sample size, and data were analyzed using descriptive statistics, a paired *t*-test, and ANOVAs. The chapter also describes the procedures for participant recruitment and data collection.

Chapter IV

Findings

This chapter presents the results and findings of the University System of Georgia (USG) faculty survey on the Open Education Resources pilot test and the formal survey. It describes the demographics of the sampled USG faculty and institutions. It also describes the survey instrumentation and detailed results of the analysis of each research question.

Pilot Test

A pilot test involving USG faculty at a single institution was conducted to assess survey performance and reliability. The faculty email addresses were obtained from the state college's public website. On July 1, 2025, the faculty were contacted via email to participate in the survey. Of the 150 faculty contacted, 21 responded to the survey. The survey question results were analyzed for reliability. Based on Cronbach's alpha scores of 0.827 for Section 3 and 0.746 for Section 4, both above 0.7, the survey was considered consistent. Items that showed a negative correlation or whose deletion increased reliability were adjusted, including Q24, Q25, Q26, and Q28. After the adjustments, Cronbach's alpha of Section 3 increased to 0.863, and Section 4 increased to 0.791. The adjusted final survey is available in Appendix A.

Demographic Data

After the pilot test was successful, the revised survey was ready to be sent to the remaining faculty at the USG institution. Attempts were made to contact all faculty at the

remaining 25 USG institutions for the final survey. Faculty emails were obtained from their institutions' public websites, listservs, or from their ALG grant champion representatives. During October 2025, faculty at 13 of the 25 institutions were successfully contacted directly via their faculty email addresses. One institution contacted its faculty via its daily email newsletter. Over 2,000 USG faculty members were emailed, yielding 175 full-time faculty responses after missing values were removed. The faculty institutions were categorized into four USG groups: Research Universities, Comprehensive Universities, State Universities, and State Colleges. Among the respondents, 5 (2.9%) were from Research Universities, 57 (32.6%) from Comprehensive Universities, 66 (37.7%) from State Universities, and 47 (26.9%) from State Colleges. The bulk of respondents are from comprehensive as well as state colleges and universities. The demographics of the surveyed faculty are shown in Table 2.

Table 2

Demographic Data of USG Faculty Surveyed

Demographic Variable	**Category**	**Freq. (*N*)**	**Pct. (%)**
Q2. USG Institution	Research Universities	5	2.9%
	Comprehensive Universities	57	32.6%
	State Universities	66	37.7%
	State Colleges	47	26.9%
Q3. Gender	Female	111	63.4%
	Male	62	35.4%
	Missing	2	1.1%
Q4. Age	Under 25 years old	0	0%
	25–34 years old	14	8%
	35–44 years old	40	22.9%
	45–54 years old	62	35.4%
	55–64 years old	42	24%
	65+ years old	16	9.1%
	Missing	1	0.6%

Table 2 (continued).

Q5. Job Title	Assistant Professor	39	22.3%
	Associate Professor	33	18.9%
	Professor	69	39.4%
	Instructor	7	4.0%
	Lecturer	26	14.9%
	Other	1	0.6%
Q6. Years of Teaching Experience	0–6 years	53	30.3%
	7–12 years	41	23.4%
	13–19 years	40	22.9%
	20+ years	41	23.4%
Q7. Academic Field	Business	15	8.6%
	Humanities	35	20%
	Education	20	11.4%
	Social Sciences	32	18.3%
	STEM	49	28%
	Other	6	3.4%
	Health Sciences	17	9.7%
	Missing	1	0.6%
Q.9 Modality of Instruction	Online	63	36%
	Hybrid	20	11.4%
	Face-to-Face	91	52%
	Missing	1	0.6%
Q10. Ability to Choose Textbook	Strongly Disagree	5	2.9%
	Disagree	5	2.9%
	Neutral	13	7.4%
	Agree	48	27.4%
	Strongly Agree	104	59.4%
Q11. Overall Technology Ability for Education	Not proficient at all	0	0%
	Basic knowledge	2	1.1%
	Moderate proficiency	29	16.6%
	Proficient	85	48.6%
	Highly proficient	59	33.7%

Note. Any missing data fields were accommodated for in the percentage

Over 60% of the faculty respondents are female, and most are aged 35 to 64 years. Faculty respondents were distributed across age groups as follows: Under 25 years old (n = 0, 0%), 25–34 years (n = 14, 8%), 35–44 years (n = 40, 22.9%), 45–54 years old

(*n* = 62, 35.4%), 55–64 years old (*n* = 42, 24%) and 65+ years old (*n* = 16, 9.1%). Most faculty were aged 35–64, with the 35–44 years (22.9%), 45–54 years old (35.4%), and 55–64 years old (24%) groups representing the largest proportions of respondents. The largest group of respondents was professors (*n* = 69, 39.4%), followed by assistant professors (*n* = 39, 22.3%), associate professors (*n* = 33, 18.9%), lecturers (*n* = 26, 14.9%), and instructors (*n* = 7, 4.0%). Professors represented the largest proportion of respondents (39.4%), while instructors comprised the smallest group (4.0%).

Faculty respondents' years of teaching experience were relatively evenly distributed. The 0–6 years group represented the largest proportion (*n* = 53, 30.3%), followed by 7–12 years (*n* = 41, 23.4%), 20+ years (*n* = 41, 23.4%), and 13–19 years (*n* = 40, 22.9%). The sample included faculty from diverse academic fields. The largest proportion taught in STEM disciplines (*n* = 49, 28%), followed by Humanities (*n* = 35, 20%), Social Sciences (*n* = 32, 18.3%), Education (*n* = 20, 11.4%), Health Sciences (*n* = 17, 9.7%), Business (*n* = 15, 8.6%) and other fields (*n* = 6, 3.4%). The majority of these faculty members' courses were taught in the face-to-face format (*n* = 91, 52%), followed by online (*n* = 63, 36%) and hybrid (*n* = 20, 11.4%). formats. Most respondents strongly agreed (*n* = 104, 59.4%) or agreed (*n* = 48, 27.4%) that they have the ability to select textbooks for the courses they teach. Most faculty rated their overall technology ability for education as either Proficient (*n* = 85, 48.6%) or Highly proficient (*n* = 59, 33.7%).

Question 8 was a multiple-selection question asking about the coursework they typically taught; thus, the data were presented in a separate table (see Table 3). Nine out of 175 faculty members (5%) reported having experience teaching college preparatory courses (0000 - 0999). One hundred and eight of them (61.71%) taught lower-level

undergraduate courses (1000 - 2000); 96 of them (54.86%) taught upper-level undergraduate courses (3000 – 4000). Forty-nine of them (28%) had experience teaching graduate-level courses (6000+). Most faculty reported experience teaching undergraduate courses at the lower or upper level.

Table 3

Demographic Data of USG Faculty Surveyed Regarding Coursework Taught

		Frequency (*N*)	
Demographic Variable	**Category**	No	Yes
Q8. Coursework Taught	College preparatory (0000 – 0999)	166	9
	Lower-level undergraduate (1000 – 2000)	67	108
	Upper-level undergraduate (3000 – 4000)	79	96
	Graduate level (6000+)	126	49

Overall Descriptive Data Analysis

First, the data were analyzed using descriptive statistics, including means and standard deviations, to provide an overview and identify notable patterns before conducting inferential analyses for each research question. According to Table 4, Q12. OER awareness received the highest rating among the items in Section 2, "OER Use and COVID-19 Impact," with a mean of 4.40 and a standard deviation of 0.88. It means that faculty tend to "agree" that they are aware of OER. Regarding years of OER adoption (Q13), the rating was below 2.5 (M = 2.47, SD = 1.12), indicating that, on average, faculty are "emerging users" with 2-3 years of experience using OER in courses. Before the COVID-19 pandemic, faculty on average "rarely" used OER in their courses (e.g., in 1 course) or used it on an experimental basis (M = 2.42, SD = 1.29). However, after the COVID-19 pandemic, the frequency of OER use increased in some courses (M = 3.22, SD = 1.31). On average, faculty "disagreed" that their use of OER for course instruction was affected during the COVID-19 pandemic (M = 2.46, SD = 1.13).

Section 3 contains 10 items related to incentives for faculty to adopt OER. Overall, faculty tend to stay "neutral" regarding these incentives to switch to OER use (M = 3.31, SD = .68). Some items were rated higher, while others showed the opposite pattern. The highest rating was found for Q19. Reduced student financial costs (M = 4.40, SD = .78), while the lowest rating was found for Q26. Received recognition (M = 2.39, SD = 1.01).

In Section 3, two items with a mean above 3.5 are Q19. Reduced student financial costs (M = 4.40, SD = .78) and Q17. Increased student access (M = 4.03, SD = 1.02), suggesting that teachers generally "agreed" that these incentives influenced their OER adoption. An item with a mean between 1.5 and 2.5 is Q26. Received recognition (M = 2.39, SD = 1.01), suggesting that teachers generally "disagreed" that this incentive influenced their OER adoption. Seven items have a mean between 2.5 and 3.5, indicating that faculty remained "neutral" about the impact of these incentives, including Q18. Narrowed student attainment gaps (M = 3.49, SD = 1.01), Q20. Improved student performance (M = 2.98, SD = .94), Q21. Enhanced faculty innovation (M = 3.21, SD = .99), Q22. Increased student engagement (M = 3.01, SD = .91), Q23. Positive OER perceptions (M = 3.14, SD = 1.10), Q24. Administrative encouragement (M = 3.19, SD = 1.04), and Q25. Financial incentives for faculty (M = 3.29, SD = 1.26).

Section 4 contains nine items related to barriers to stop faculty from using OER. Overall, faculty tend to remain "neutral" regarding these barriers to OER use (M = 2.61, SD = .68). Some items were rated higher, while others were rated lower. The highest rating was found for Q30. Poor OER quality (M = 3.34, SD = 1.20), while the lowest rating was found for Q32. Administrative pressure (M = 1.82, SD = .87).

In Section 4, none of the items have a mean above 3.5. Four items with a mean between 1.5 and 2.5 are Q31. Negative OER perceptions (M = 2.26, SD = 1.11), Q32. Administrative pressure (M = 1.82, SD = .87), Q33. Lack of administrative support (M = 2.07, SD = 1.00), and Q34. Lack of technical support (M = 2.36, SD = 1.14), suggesting that teachers generally "disagreed" that these barriers influenced their OER adoption. Five items have a mean between 2.5 and 3.5, indicating that faculty remained "neutral" about the impact of these barriers on their OER adoption, including Q27. Lack of ancillary materials (M = 2.88, SD = 1.20), Q28. Lack of 3000+ level materials (M = 3.25, SD = 1.15), Q29. More course preparation time (M = 2.77, SD = 1.12), Q30. Poor OER quality (M = 3.34, SD = 1.20) and Q35. Lack of reliability (M = 2.75, SD = 1.11).

Since there are 10 demographic variables in the survey, the descriptive data were also presented by demographic variable. Additionally, all descriptive statistics for each demographic variable were compiled into large tables; therefore, these tables (Tables E1 to E10) are presented in Appendix E to avoid disrupting the flow of the main text.

Table 4

Overall Descriptive Data

Question	***M***	***SD***
Section 2: OER Use and COVID-19 Impact:		
Q12. OER Awareness	4.40	.88
Q13. Years of OER Adoption	2.47	1.12
Q14. OER_Use_Before_COVID	2.42	1.29
Q15. OER_Use_After_COVID	3.22	1.31
Q16. Perceived_COVID_Impact	2.46	1.13
Section 3: Incentives to Switch to OER:		
Overall - Incentives	3.31	.68
Q17. Increased student access	4.03	1.02
Q18. Narrowed student attainment gaps	3.49	1.01
Q19. Reduced student financial costs	4.40	.78
Q20. Improved student performance	2.98	.94
Q21. Enhanced faculty innovation	3.21	.99

Table 4 (continued).

Q22. Increased student engagement	3.01	.91
Q23. Positive OER perceptions	3.14	1.10
Q24. Administrative encouragement	3.19	1.04
Q25. Financial incentives for faculty	3.29	1.26
Q26. Received recognition	2.39	1.01
Section 4: Barriers to OER Use:		
Overall - Barriers	2.61	.68
Q27. Lack of ancillary materials	2.88	1.20
Q28. Lack of 3000+ level material	3.25	1.15
Q29. More course preparation time	2.77	1.12
Q30. Poor OER quality	3.34	1.20
Q31. Negative OER perceptions	2.26	1.11
Q32. Administrative pressure	1.82	.87
Q33. Lack of administrative support	2.07	1.00
Q34. Lack of technical support	2.36	1.14
Q35. Lack of reliability	2.75	1.11

RQ1. To what extent does the USG faculty's use of differ before and after the COVID-19 pandemic?

- Hypothesis (H_1) for RQ1: There is a statistically significant difference in the frequency of OER use by USG faculty before and after the COVID-19 pandemic.
- Null Hypothesis (H_0) for RQ1: There is no statistically significant difference in the frequency of OER use by USG faculty before and after the COVID-19 pandemic.

For research question one, two dependent variables were used to compare the USG faculty's perception of COVID-19's impact on OER use. Those are participants' responses to Q14, the frequency of OER use BEFORE the COVID-19 pandemic, and responses to Q15, the frequency of OER use AFTER the COVID-19 pandemic. As discussed in the literature, COVID-19 forced rapid shifts to online teaching. Comparing OER use before and after the pandemic helps determine whether the pandemic

accelerated OER adoption. A paired *t*-test was used to compare OER use before and after COVID-19, with 175 of the contacted faculty respondents. The results showed that faculty OER use increased significantly after COVID-19. Faculty reported higher OER use after the pandemic ($M = 3.22$, $SD = 1.31$) than before the pandemic ($M = 2.42$, $SD = 1.29$), $t(174) = 10.314$, $p < .001$, $d = 0.780$. The *t*-test results are displayed in Table 5.

Table 5

T-Test Results of OER Use before and after the COVID-19

						95% Confidence Interval for *MD*			
OER use	*Mean*	*SD*	*t*	*df*	*p*	MDD	Lower	Upper	Cohen's *d*
Before	2.42	1.29	10.314*	174	< .001	.794	.642	.946	.780
After	3.22	1.31							

Note. * denotes statistical significance at the $p < .05$ level.

RQ2. To what extent does the USG faculty's use of OER differ across demographic groups?

- Hypothesis (H_1) for RQ2: There is a statistically significant difference in the use of OER among USG faculty across different demographic groups.
- Null Hypothesis (H_0) for RQ2: There is no statistically significant difference in the use of OER among USG faculty across different demographic groups.

For research question two, the dependent variable is the mean of participants' responses to Q12 (OER Awareness), Q13 (Years of OER Adoption), Q14 (OER Use Before COVID-19), Q15 (OER Use After COVID-19), and Q16 (Perceived Impact of COVID-19 on OER Use for Course Instruction) in Section 2, which pertains to their OER Use and COVID-19 Impact. The independent variable for RQ2 is each demographic variable, including USG institution, gender, age, job title, years of teaching experience, academic field, level of coursework taught, modality of instruction, ability to choose

textbooks, and overall technology ability for education. ANOVAs were used to analyze the data for OER use across demographic groups for RQ2. Since Question 8 regarding coursework taught allowed multiple responses, it was treated differently in the analysis. Each response option was recorded as a dichotomous (dummy) variable, with 0 indicating the option was not selected and 1 indicating it was selected. Independent samples *t*-tests were conducted for each dummy variable to determine whether statistically significant differences existed between groups. All descriptive statistics for each demographic variable in Section 2 are provided in Appendix E (Tables E1 to E10).

USG Institution

When comparing demographics, we can start with the USG institution and its comparison against the questions in Section 2. The ANOVA results for USG institution groups in Section 2 are presented in Table 6. Descriptive statistics for USG institution groups in Section 2 are provided in Appendix E (Table E1). As mentioned in the previous section, USG was divided into four categories: Research Universities, Comprehensive Universities, State Universities, and State Colleges. According to Table E1 (see Appendix E Table 1), State Colleges had the highest ratings on all items in Section 2 compared to the other categories, pertaining to their OER awareness (M = 4.57, SD = .65), years of OER adoption (M = 2.62, SD = 1.15), and perceived COVID-19 impact on their OER use for course instruction (M = 2.53, SD = 1.04), as well as OER use before (M = 2.66, SD = 1.32) and after (M = 3.34, SD = 1.27) COVID-19. In contrast, Research Universities had the lowest ratings on all items in Section 2.

First, regarding Q12. OER awareness, State Colleges (M = 4.57, SD = .65) rated the highest, followed closely by State Universities (M = 4.38, SD = 1.00) and

Comprehensive Universities (M = 4.37, SD = .82), with Research Universities (M = 3.40, SD = 1.14) with the lowest of the groups. A one-way ANOVA was conducted to examine differences in OER awareness across USG institution groups. Results indicated a significant effect, $F(3, 171) = 2.914$, $p = .036$, $\eta^2 = .049$. The Tukey post hoc test indicated that State Colleges (M = 4.57, SD = .65) rated significantly higher on OER awareness than Research Universities (M = 3.40, SD = 1.14) ($p = .022$). As discussed in the literature, OER is found more commonly in introductory-level courses. State colleges predominantly teach those lower-level undergraduate courses and thus might be more aware of their use. State colleges might also be more aware of the potential benefits of OER adoption, such as reducing students' financial burdens and expanding access.

When evaluating differences across USG institution groups against Q13. Years of OER adoption, State Colleges (M = 2.62, SD = 1.15) rated the highest, followed closely by State Universities (M = 2.55, SD = 1.13), then Comprehensive Universities (M = 2.32, SD = 1.07), and Research Universities (M = 1.8, SD = 1.3). There were no statistically significant differences among USG institution groups on years of OER adoption, $F(3, 171) = 1.326$, $p = .268$, $\eta^2 = .023$.

In comparing the different USG institution groups regarding Q14. OER use before COVID-19, State Colleges (M = 2.66, SD = 1.32) rated the highest, followed closely by Comprehensive Universities (M = 2.40, SD = 1.39), then State Universities (M = 2.30, SD = 1.18), and then Research Universities (M = 2.00, SD = 1.22). There were no statistically significant differences among USG institution groups on OER use before COVID-19, $F(3, 171) = .902$, $p = .442$, $\eta^2 = .016$.

In assessing the differences between USG institution groups against Q15. OER use after COVID-19, State Colleges (M = 3.34, SD = 1.27) rated the highest, followed closely by State Universities (M = 3.32, SD = 1.23), then Comprehensive Universities (M = 3.05, SD = 1.43), and Research Universities (M = 2.60, SD = 1.14). There were no statistically significant differences among USG institution groups on OER use after COVID-19, $F(3, 171) = .941$, $p = .422$, $\eta^2 = .016$.

When comparing the different USG institution groups against Q16. perceived impact of COVID-19 on OER use for course instruction, State Colleges (M = 2.53, SD = 1.04) rated the highest, followed closely by State Universities (M = 2.52, SD = 1.08), then Comprehensive Universities (M = 2.37, SD = 1.28) and Research Universities with (M = 2.20, SD = .84). A one-way ANOVA revealed no statistically significant differences among the USG institution groups on faculty perceived impact of COVID-19 on OER use for course instruction, $F(3, 171) = .326$, $p = .807$, $\eta^2 = .006$.

Table 6

ANOVA Results for USG Institution Groups in Section 2

ANOVA	Post Hoc Comparison
Q12. OER Awareness:	
$F(3, 171) = 2.914$*, $p = .036$, $\eta^2 = .049$	$M_{SC} > M_{RU}$ ($p = .022$)
Q13. Years of OER Adoption:	
$F(3, 171) = 1.326$, $p = .268$, $\eta^2 = .023$	-
Q14. OER_Use_Before_COVID:	
$F(3, 171) = .902$, $p = .442$, $\eta^2 = .016$	-
Q15. OER_Use_After_COVID:	
$F(3, 171) = .941$, $p = .422$, $\eta^2 = .016$	-
Q16. Perceived_COVID_Impact:	
$F(3, 171) = .326$, $p = .807$, $\eta^2 = .006$	-

Note. * denotes statistical significance at the $p < .05$ level.

Gender

When comparing demographics, the next to examine is faculty gender, compared against questions in Section 2. The ANOVA results for gender groups in Section 2 are presented in Table 7. Descriptive statistics for gender groups in Section 2 are provided in Appendix E (Table E2).

When comparing the different gender groups against Q12. OER awareness, female faculty rated their OER awareness (M = 4.41, SD = .89) similar to male faculty did (M = 4.40, SD = .86). There were no statistically significant differences between male and female faculty on OER awareness, $F(2, 172) = .208$, $p = .812$, $\eta^2 = .002$. When evaluating differences across gender groups against Q13. Years of OER adoption, the male group (M = 2.66, SD = 1.09) rated their year of OER adoption slightly higher than the female group (M = 2.36, SD = 1.39). There was not a statistically significant effect of gender on years of OER adoption, $F(2, 172) = 1.435$, $p = .241$, $\eta^2 = .016$. When comparing gender groups on Q14. OER use before COVID-19, male faculty (M = 2.48, SD = 1.08) used OER more frequently in their courses than female faculty (M = 2.40, SD = 1.40). However, there were no statistically significant differences between male and female faculty on their OER use before COVID-19, $F(2, 2.70) = .161$, $p = .859$, $\eta^2 = .002$. In assessing differences between gender groups on Q15. OER use after COVID-19, male faculty (M = 3.31, SD = 1.11) used OER more frequently in their courses than female faculty (M = 3.18, SD = 1.40). However, there were no statistically significant differences between male and female faculty on their OER use after COVID-19, $F(2, 2.67) = .267$, $p = .784$, $\eta^2 = .006$. When comparing the different genders against Q16. Perceived impact of COVID-19 on OER use for course instruction, female faculty (M = 2.47, SD = 1.14)

rated slightly higher than male faculty (M = 2.44, SD = 1.07). Both gender groups, on average, tended to "disagree" with the influence of COVID-19 on OER use for course instruction. There was no statistically significant effect of gender on the perceived impact of COVID-19 on OER use for course instruction, $F(2, 172) = .244$, $p = .784$, $\eta^2 = .003$. USG faculty's use of OER and their perceived COVID-19 impact on OER use do not appear to differ by gender.

Table 7

ANOVA Results for Gender Groups in Section 2

ANOVA	Post Hoc Comparison
Q12. OER Awareness:	
$F(2, 172) = .208$, $p = .812$, $\eta^2 = .002$	-
Q13. Years of OER Adoption:	
$F(2, 172) = 1.435$, $p = .241$, $\eta^2 = .016$	-
^Q14. OER_Use_Before_COVID:	
$F(2, 2.70) = .161$, $p = .859$, $\eta^2 = .002$	-
^Q15. OER_Use_After_COVID:	
$F(2, 2.67) = .267$, $p = .784$, $\eta^2 = .006$	-
Q16. Perceived_COVID_Impact:	
$F(2, 172) = .244$, $p = .784$, $\eta^2 = .003$	-

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test.

Age

When comparing demographics, the next to examine is faculty age, compared against questions in Section 2. The ANOVA results for age groups in Section 2 are presented in Table 8. Descriptive statistics for age groups in Section 2 are provided in Appendix E (Table E3). There were no respondents under the age of 25.

When comparing the different age groups against Q12. OER awareness, ages 25–34 (M = 4.71, SD = .61) rated the highest, followed closely by ages 45–54 (M = 4.60, SD = .64), ages 55–64 (M = 4.33, SD = .90), ages 35–44 (M = 4.18, SD = 1.03), and the last age group 65+ (M = 4.13, SD = 1.20). There was no statistically significant effect of age on OER awareness, $F(4, 50.13) = 2.418$, $p = .061$, $\eta^2 = .054$. When evaluating differences across age groups against Q13. Years of OER adoption. The older faculty were more likely to identify as "established users," while the younger faculty identified more closely with "emerging users." Ages 65+ (M = 2.69, SD = 1.14) lead the pack followed by ages 55–64 (M = 2.57, SD = 1.15), ages 45–54 (M = 2.48, SD = 1.20), ages 35–44 (M = 2.35, SD = 1.10), and the last age group 25–34 (M = 2.14, SD = .77). There were no statistically significant differences among age groups in their years of OER adoption, $F(4, 54.21) = .900$, $p = .470$, $\eta^2 = .015$.

In comparing the different age groups regarding Q14. OER use before COVID-19, ages 65+ (M = 2.75, SD = 1.44) rated the highest, followed closely by ages 55–64 (M = 2.62, SD = 1.32), ages 45–54 (M = 2.40, SD = 1.31), ages 35–44 (M = 2.23, SD = 1.23), and the last age group 25–34 (M = 2.07, SD = 1.07). There were no statistically significant differences among age groups on OER use before COVID-19, $F(4, 169) = .997$, $p = .411$, $\eta^2 = .023$. In assessing the differences between age groups against Q15. OER use after COVID-19, ages 25–34 (M = 3.79, SD = .97) rated the highest, followed closely by ages 65+ (M = 3.38, SD = 1.41), ages 55–64 (M = 3.26, SD = 1.21), ages 45–54 (M = 3.13, SD = 1.36), and the last age group 35–44 (M = 3.00, SD = 1.36). There were no statistically significant differences among age groups on OER use after COVID-19, $F(4, 169) = 1.082$, $p = .367$, $\eta^2 = .025$.

When comparing age groups on Q16. Perceived impact of COVID-19 on OER use for course instruction appears to be indirectly related to age. The older faculty were more likely to "disagree" with the claim that COVID-19 influenced OER adoption, whereas the younger faculty were more "neutral." Ages 25–34 (M = 2.86, SD = 1.10) rated the highest followed by a near tie with ages 35–44 (M = 2.53, SD = 1.18), and ages 45–54 (M = 2.53, SD = 1.2), then ages 55–64 (M = 2.43, SD = .97), and the last age group 65+ (M = 1.75, SD = 1.0). There was no statistically significant effect of age groups on the perceived impact of COVID-19 on OER use for course instruction, $F(4, 169) = 2.170$, $p = .074$, $\eta^2 = .049$. USG faculty's use of OER and their perceived COVID-19 impact on OER use do not appear to differ across age groups.

Table 8

ANOVA Results for Age Groups in Section 2

ANOVA	Post Hoc Comparison
^Q12. OER Awareness:	
$F(4, 50.13) = 2.418$, $p = .061$, $\eta^2 = .054$	-
^Q13. Years of OER Adoption:	
$F(4, 54.21) = .900$, $p = .470$, $\eta^2 = .015$	-
Q14. OER_Use_Before_COVID:	
$F(4, 169) = .997$, $p = .411$, $\eta^2 = .023$	-
Q15. OER_Use_After_COVID:	
$F(4, 169) = 1.082$, $p = .367$, $\eta^2 = .025$	-
Q16. Perceived_COVID_Impact:	
$F(4, 169) = 2.170$, $p = .074$, $\eta^2 = .049$	-

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test.

Job Title

When comparing demographics, the next to compare is job title, with comparisons against questions in Section 2. The ANOVA results for job titles in Section 2 are presented in Table 9. Descriptive statistics for job titles in Section 2 are provided in Appendix E (Table E4).

When comparing the different job titles against Q12. OER awareness, Instructors rated highest ($M = 4.71$, $SD = .49$) to "strongly agree," followed closely by Professors ($M = 4.54$, $SD = .78$) and Associate Professors ($M = 4.42$, $SD = .61$), Assistant Professors ($M = 4.36$, $SD = .9$), and Lecturers ($M = 4.0$, $SD = 1.3$) with the closest of the groups to "agree." There was no statistically significant effect of job titles on OER awareness, $F(4, 38.04) = 1.528$, $p = .213$, $\eta^2 = .046$.

When evaluating differences across job titles against Q13. Years of OER adoption, Professors lead the pack closest to "established user" with ($M = 2.87$, $SD = 1.07$) rating higher than Instructors ($M = 2.71$, $SD = 1.25$), then Associate Professors ($M = 2.24$, $SD = 1.06$), Lecturer ($M = 2.19$, $SD = 1.20$), and Assistant Professor ($M = 2.13$, $SD = 1.00$). A one-way ANOVA revealed statistically significant differences among the job titles on years of OER adoption, $F(4, 169) = 4.209$, $p = .003$, $\eta^2 = .091$. The Tukey post hoc test indicated that Professors ($M = 2.87$, $SD = 1.07$) reported significantly more years of OER use for course instruction than Assistant Professors ($M = 2.13$, $SD = 1.00$) ($p = .007$).

When evaluating differences across job titles regarding Q14. OER use before COVID-19, Professors lead the pack ($M = 2.88$, $SD = 1.22$) rating higher than Instructors ($M = 2.57$, $SD = 1.62$), then Associate Professors ($M = 2.39$, $SD = 1.17$), Lecturer ($M =$

2.15, *SD* = 1.32), and Assistant Professor (*M* = 1.82, *SD* = 1.17). A one-way ANOVA revealed statistically significant differences among the job titles in OER use before COVID-19, $F(4, 169) = 5.100$, $p < .001$, $\eta^2 = .108$. The Tukey post hoc tests indicated that Professors (*M* = 2.88, *SD* = 1.22) reported significantly more OER use for course instruction than Assistant Professors (*M* = 1.82, *SD* = 1.17) ($p < .001$) before COVID-19.

In assessing the differences between job titles against Q15. OER use after COVID-19, Instructors lead the pack (*M* = 3.71, *SD* = 1.50) rating higher than Professors (*M* = 3.51, *SD* = 1.16), then Assistant Professor (*M* = 3.05, *SD* = 1.28), Associate Professors (*M* = 2.94, *SD* = 1.43), and Lecturer (*M* = 2.88, *SD* = 1.42). There was no statistically significant effect of job titles on OER use after COVID-19, $F(4, 169) = 2.093$, $p = .084$, $\eta^2 = .047$.

When comparing the different job titles against Q16. Perceived impact of COVID-19 on OER use for course instruction, Instructors rated highest with (*M* = 3.14, *SD* = 1.35), to remain "neutral" on the influence of COVID-19 on OER use. This is followed by Lecturers (*M* = 2.69, *SD* = 1.12) and Assistant Professors (*M* = 2.44, *SD* = 1.07), Associate Professors (*M* = 2.39, *SD* = 1.35), and Professors (*M* = 2.38, *SD* = 1.07), with the closest of the groups to "disagree" with the influence of COVID-19 on OER use. There was not a statistically significant effect of job titles on the perceived impact of COVID-19 on OER use for course instruction, $F(4, 169) = 1.044$, $p = .386$, $\eta^2 = .024$. USG faculty's perceived impact of the COVID-19 pandemic on OER use for course instruction does not appear to differ by job title.

Table 9

ANOVA Results for Job Titles in Section 2

ANOVA	Post Hoc Comparison
^Q12. OER Awareness:	
$F(4, 38.04) = 1.528$, $p = .213$, $\eta^2 = .046$	-
Q13. Years of OER Adoption:	
$F(4, 169) = 4.209$*, $p = .003$, $\eta^2 = .091$	$M_{\text{Prof}} > M_{\text{Asst. Prof}}$ ($p = .007$)
Q14. OER_Use_Before_COVID:	
$F(4, 169) = 5.100$*, $p < .001$, $\eta^2 = .108$	$M_{\text{Prof}} > M_{\text{Asst. Prof}}$ ($p < .001$)
Q15. OER_Use_After_COVID:	
$F(4, 169) = 2.093$, $p = .084$, $\eta^2 = .047$	-
Q16. Perceived_COVID_Impact:	
$F(4, 169) = 1.044$, $p = .386$, $\eta^2 = .024$	-

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test; * denotes statistical significance at the $p < .05$ level.

Years of Teaching Experience

When comparing demographics, the next to examine is faculty teaching experience, compared against the questions in Section 2. The ANOVA results for faculty teaching experience groups in Section 2 are presented in Table 10. Descriptive statistics for years of teaching experience in Section 2 are provided in Appendix E (Table E5).

When comparing faculty teaching experience groups against Q12. OER awareness, faculty with 13–19 years of teaching experience rated highest ($M = 4.53$, $SD = .88$) to "strongly agree," followed closely by 20+ year of teaching experience ($M = 4.49$, $SD = .64$) and then those with 7–12 years ($M = 4.32$, $SD = .96$), and faculty with 0–6 years ($M = 4.30$, $SD = .97$) with the closest of the groups to "agree" that they are aware of OER. There was no statistically significant effect of faculty teaching experience on OER awareness, $F(3, 171) = .747$, $p = .526$, $\eta^2 = .013$.

When evaluating differences across faculty teaching experience groups against Q13. Years of OER adoption, Faculty with 20+ years of teaching experience lead the pack with (M = 2.90, SD = 1.00) rating higher than those with 7–12 years (M = 2.49, SD = 1.14), followed closely by those with 13–19 years at (M = 2.45, SD = 1.24), and the newer faculty with 0–6 years trail at (M = 2.13, SD = 1.02). When comparing faculty teaching experience to Q13, the assumption of homogeneity of variance was violated, as indicated by Levene's test. However, Welch's ANOVA was conducted. There was a statistically significant effect of faculty teaching experience on years of OER adoption, $F(3, 91.60) = 4.462$, $p = .006$, $\eta^2 = .063$. The Games–Howell post hoc test was used in place of Tukey's test for pairwise comparisons. The Games–Howell post hoc test indicated that faculty with 20+ years of teaching experience (M = 2.90, SD = 1.00) reported significantly more OER use in course instruction than those with 0–6 years of teaching experience (M = 2.13, SD = 1.02) ($p = .002$).

In comparing the different faculty teaching experience groups regarding Q14. OER use before COVID-19, faculty with 20+ years of experience lead the pack with (M = 2.76, SD = 1.24) rating slightly higher than those with 7–12 years (M = 2.73, SD = 1.23), followed closely by those with 13–19 years at (M = 2.60, SD = 1.37), and the newer faculty with 0–6 years trail at (M = 1.79, SD = 1.10). A one-way ANOVA revealed statistically significant differences among faculty teaching experience groups on OER use before COVID-19, $F(3, 171) = 6.803$, $p < .001$, $\eta^2 = .107$. The Tukey post hoc test indicated that faculty with 7–12 years of teaching experience (M = 2.73, SD = 1.23) reported significantly more OER use in their course than those with 0–6 years of teaching experience (M = 1.79, SD = 1.10) before COVID-19 ($p = .002$). Faculty with 13–19 years

of teaching experience (M = 2.60, SD = 1.37) also reported significantly more OER use in their course than those with 0–6 years of teaching experience (M = 1.79, SD = 1.10) before COVID-19 (p = .011). In addition, Faculty with 20+ years of teaching experience (M = 2.76, SD = 1.24) also reported significantly more OER use in their course than those with 0–6 years of teaching experience (M = 1.79, SD = 1.10) before COVID-19 (p = .001).

In assessing the differences between faculty teaching experience groups against Q15. OER use after COVID-19, faculty with 20+ years of experience lead the pack with (M = 3.66, SD = 1.09) rating slightly higher than those with 7–12 years (M = 3.29, SD = 1.31), followed closely by those with 0–6 years at (M = 3.08, SD = 1.25), and the faculty with 13–19 years trail at (M = 2.88, SD = 1.49). A one-way ANOVA revealed statistically significant differences among faculty teaching experience groups on OER use after COVID-19, $F(3, 171) = 2.806$, p = .041, η^2 = .047. The Tukey post hoc tests indicated that faculty with 20+ years of teaching experience (M = 3.66, SD = 1.09) reported significantly more OER use in their course than those with 13–19 years of teaching experience (M = 2.88, SD = 1.49) after COVID-19 (p = .034).

When comparing the different faculty teaching experience groups against Q16. Perceived impact of COVID-19 on OER use for course instruction, faculty with 20+ years of experience rated highest (M = 2.68, SD = 1.08), followed by faculty with 0–6 years (M = 2.55, SD = 1.23), to remain “neutral” that COVID-19 impacted their OER adoption. This is followed by faculty with 7–12 years (M = 2.49, SD = 1.08), and those with 13–19 years of teaching experience (M = 2.10, SD = 1.03), with the closest of the groups to “disagree” with the influence of COVID-19 on OER use for course instruction.

There was no statistically significant effect of faculty teaching experience on the perceived impact of COVID-19 on OER use for course instruction, $F(3, 171) = 2.040$, $p = .110$, $\eta^2 = .035$. USG faculty's perceived impact of COVID-19 on OER use in course instruction does not appear to differ across faculty groups by teaching experience.

Table 10

ANOVA Results for Years of Teaching Experience in Section 2

ANOVA	Post Hoc Comparison
Q12. OER Awareness:	
$F(3, 171) = .747$, $p = .526$, $\eta^2 = .013$	-
^Q13. Years of OER Adoption:	
$F(3, 91.60) = 4.462$*, $p = .006$, $\eta^2 = .063$	$M_{20+} > M_{0–6}$ ($p = .002$)
Q14. OER_Use_Before_COVID:	
$F(3, 171) = 6.803$*, $p = < .001$, $\eta^2 = .107$	$M_{7–12} > M_{0–6}$ ($p = .002$) $M_{13–19} > M_{0–6}$ ($p = .011$) $M_{20+} > M_{0–6}$ ($p = .001$)
Q15. OER_Use_After_COVID:	
$F(3, 171) = 2.806$*, $p = .041$, $\eta^2 = .047$	$M_{20+} > M_{13–19}$ ($p = .034$)
Q16. Perceived_COVID_Impact:	
$F(3, 171) = 2.040$, $p = .110$, $\eta^2 = .035$	-

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test; * denotes statistical significance at the $p < .05$ level.

Academic Field

When comparing demographics, the variety of academic fields faculty teach in, and their comparison against the questions in Section 2. The ANOVA results for academic fields in Section 2 are presented in Table 11. Descriptive statistics for academic fields in Section 2 are provided in Appendix E (Table E6).

When comparing the different faculty academic fields against Q12. OER awareness, Social Science rated highest ($M = 4.59$, $SD = .61$) to "strongly agree,"

followed closely by Humanities ($M = 4.57$, $SD = .61$), Education ($M = 4.50$, $SD = .76$), Business ($M = 4.33$, $SD = .82$), STEM ($M = 4.29$, $SD = 1.06$), Health Science ($M = 4.18$, $SD = .88$), and other fields ($M = 3.67$, $SD = 1.75$) with the closest of the groups to "agree." There was no statistically significant effect of academic fields on OER awareness, $F(6, 40.01) = 1.128$, $p = .364$, $\eta^2 = .054$.

When evaluating differences across academic field groups against Q13. Years of OER adoption, Humanities lead the pack closest to "established user" with ($M = 2.77$, $SD = 1.03$); Social Sciences ($M = 2.72$, $SD = .99$) and STEM ($M = 2.71$, $SD = 1.08$) follow closely behind, with Business ($M = 2.33$, $SD = 1.23$), then Education ($M = 2.15$, $SD = 1.09$), other fields ($M = 1.67$, $SD = 1.03$), and Health Science ($M = 1.35$, $SD = .79$). There was a statistically significant effect of academic fields on years of OER adoption, $F(6, 167) = 5.434$, $p < .001$, $\eta^2 = .163$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that the Humanities, Social Science, and STEM groups all reported significantly more years of OER adoption than the Health Science group, $M_{\text{Hum.}} > M_{\text{HLSC}}$ ($p < .001$), $M_{\text{Soc. Sci.}} > M_{\text{HLSC}}$ ($p < .001$), and $M_{\text{STEM}} > M_{\text{HLSC}}$ ($p < .001$).

When evaluating differences across academic field groups against Q14. OER use before COVID-19, STEM lead the pack closest to "established users" with ($M = 2.76$, $SD = 1.30$); Social Sciences ($M = 2.66$, $SD = 1.26$) and Humanities ($M = 2.66$, $SD = 1.33$) follow closely behind, with Business ($M = 2.33$, $SD = 1.11$), then Education ($M = 1.95$, $SD = 1.19$), Health Science ($M = 1.47$, $SD = .87$), and other fields ($M = 1.33$, $SD = .82$). There was a statistically significant effect of academic fields on OER use before COVID-19, $F(6, 167) = 4.029$, $p < .001$, $\eta^2 = .126$. The Tukey post hoc test was used to test for

pairwise comparisons. The Tukey post hoc test indicated that the Humanities, Social Science, and STEM groups all reported significantly more OER use before COVID-19 than the Health Science group, $M_{\text{Hum.}} > M_{\text{HLSC}}$ ($p = .021$), $M_{\text{Soc. Sci.}} > M_{\text{HLSC}}$ ($p = .025$), and $M_{\text{STEM}} > M_{\text{HLSC}}$ ($p = .005$).

When evaluating differences across academic field groups regarding Q15. OER use after COVID-19, Humanities lead the pack closest to "experienced users" with ($M = 3.63$, $SD = 1.17$); Social Sciences ($M = 3.41$, $SD = 1.24$) and STEM ($M = 3.41$, $SD = 1.26$) follow closely behind, with Business ($M = 3.27$, $SD = 1.39$), then Education ($M = 2.95$, $SD = 1.32$), Other fields ($M = 2.17$, $SD = 1.33$), and Health Science ($M = 2.06$, $SD = 1.09$). There was a statistically significant effect of academic fields on OER use after COVID-19, $F(6, 167) = 4.298$, $p < .001$, $\eta^2 = .134$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that the Humanities, Social Science, and STEM groups all reported significantly more OER use after COVID-19 than the Health Science group, $M_{\text{Hum.}} > M_{\text{HLSC}}$ ($p < .001$), $M_{\text{Soc. Sci.}} > M_{\text{HLSC}}$ ($p = .007$), and $M_{\text{STEM}} > M_{\text{HLSC}}$ ($p = .003$).

When comparing the different academic field groups against Q16. Perceived impact of COVID-19 on OER use for course instruction, Business rated highest with ($M = 2.8$, $SD = 1.01$), indicating that they remained "neutral" that COVID-19 impacted their OER use for course instruction. This is followed by Humanities ($M = 2.63$, $SD = 1.11$), STEM ($M = 2.61$, $SD = 1.13$), Health Science ($M = 2.53$, $SD = 1.01$), other fields ($M = 2.33$, $SD = .82$), Education ($M = 2.10$, $SD = 1.37$), and Social Sciences ($M = 2.09$, $SD = 1.09$) with the closest of the groups to "disagree" with the influence of COVID-19 on OER use for course instruction. There was no statistically significant effect of academic

fields on the perceived impact of COVID-19 on OER use for course instruction, $F(6, 167) = 1.446$, $p = .200$, $\eta^2 = .049$. USG faculty's perceived impact of the COVID-19 pandemic on OER use for course instruction does not appear to differ across academic fields.

Table 11

ANOVA Results for Academic Fields in Section 2

ANOVA	Post Hoc Comparison
^Q12. OER Awareness:	
$F(6, 40.01) = 1.128$, $p = .364$, $\eta^2 = .054$	-
Q13. Years of OER Adoption:	
$F(6, 167) = 5.434$*, $p < .001$, $\eta^2 = .163$	$M_{\text{Hum.}} > M_{\text{HLSC}}$ ($p < .001$) $M_{\text{Soc. Sci.}} > M_{\text{HLSC}}$ ($p < .001$) $M_{\text{STEM}} > M_{\text{HLSC}}$ ($p < .001$)
Q14. OER_Use_Before_COVID:	
$F(6, 167) = 4.029$*, $p < .001$, $\eta^2 = .126$	$M_{\text{Hum.}} > M_{\text{HLSC}}$ ($p = .021$) $M_{\text{Soc. Sci.}} > M_{\text{HLSC}}$ ($p = .025$) $M_{\text{STEM}} > M_{\text{HLSC}}$ ($p = .005$)
Q15. OER_Use_After_COVID:	
$F(6, 167) = 4.298$*, $p < .001$, $\eta^2 = .134$	$M_{\text{Hum.}} > M_{\text{HLSC}}$ ($p < .001$) $M_{\text{Soc. Sci.}} > M_{\text{HLSC}}$ ($p = .007$) $M_{\text{STEM}} > M_{\text{HLSC}}$ ($p = .003$)
Q16. Perceived_COVID_Impact:	
$F(6, 167) = 1.446$, $p = .200$, $\eta^2 = .049$	-

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test; * denotes statistical significance at the $p < .05$ level.

Level of Coursework Taught

When comparing demographics, the level of coursework taught, and their comparison against the questions in Section 2. The *t*-test results for the level of coursework taught in Section 2 are presented in Table 12. Descriptive statistics for the level of coursework taught in Section 2 are provided in Appendix E (Table E7).

When comparing the different levels of coursework taught against Q12. OER awareness, faculty who did not teach the college preparatory course (M = 4.42, SD = .85) had a slightly higher mean than those who did (M = 4.00, SD = 1.32). Faculty who taught lower-level undergraduate courses (M = 4.42, SD = .82) had a slightly higher mean than those who didn't (M = 4.37, SD = .97). Faculty who did not teach upper-level undergraduate courses (M = 4.43, SD = .89) had a slightly higher mean than those who did (M = 4.38, SD = .87). Faculty who did not teach at the graduate level (M = 4.41, SD = .89) had a slightly higher mean than those who did (M = 4.37, SD = .86). An independent samples t-test was conducted to examine whether OER awareness differed by level of coursework taught. The results indicated no statistically significant difference in OER awareness between faculty who taught and those who did not, across different levels of coursework.

When comparing the different levels of coursework taught against Q13. Years of OER adoption, faculty who did not teach the college preparatory course (M = 2.48, SD = 1.13) had a slightly higher mean than those who did (M = 2.22, SD = 1.09). Faculty who taught lower-level undergraduate courses (M = 2.60, SD = 1.14) had a slightly higher mean than those who didn't (M = 2.25, SD = 1.08). Faculty who did not teach upper-level undergraduate courses (M = 2.47, SD = 1.13) had a mean similar to that of those who did (M = 2.47, SD = 1.12). Faculty who taught at the graduate level (M = 2.49, SD = 1.06) had a slightly higher mean than those who didn't (M = 2.46, SD = 1.15). An independent samples t-test was conducted to examine whether years of OER adoption differed by the level of coursework taught. The results indicated a significant difference in years of OER adoption between faculty who taught and those who did not teach lower-level

undergraduate courses ($t(173) = .751$, $p = .046$, $d = -.313$). Faculty who taught lower-level undergraduate courses ($M = 2.60$, $SD = 1.14$) reported significantly more years of OER adoption than faculty who did not ($M = 2.25$, $SD = 1.08$) ($p = .046$).

When comparing the different levels of coursework taught against Q14. OER use before COVID-19, faculty who did not teach the college preparatory course ($M = 2.45$, $SD = 1.29$) had a slightly higher mean than those who did ($M = 2.00$, $SD = 1.32$). Faculty who taught lower-level undergraduate courses ($M = 2.56$, $SD = 1.27$) had a slightly higher mean than those who didn't ($M = 2.19$, $SD = 1.29$). Faculty who taught upper-level undergraduate courses ($M = 2.44$, $SD = 1.28$) had a slightly higher mean than those who did not ($M = 2.41$, $SD = 1.31$). Faculty who taught at the graduate level ($M = 2.47$, $SD = 1.32$) had a slightly higher mean than those who did not ($M = 2.40$, $SD = 1.28$). An independent samples *t*-test was conducted to examine whether OER use before COVID-19 differed by the level of coursework taught. The results indicated no statistically significant difference in OER use before COVID-19 between faculty who taught and those who did not, across different levels of coursework.

When comparing the different levels of coursework taught against Q15. OER use after COVID-19, faculty who did not teach the college preparatory course ($M = 3.23$, $SD = 1.29$) had a slightly higher mean than those who did ($M = 3.00$, $SD = 1.66$). Faculty who taught lower-level undergraduate courses ($M = 3.34$, $SD = 1.31$) had a slightly higher mean than those who didn't ($M = 3.01$, SD = 1.30). Faculty who did not teach upper-level undergraduate courses ($M = 3.27$, $SD = 1.43$) had a slightly higher mean than those who did ($M = 3.18$, $SD = 1.21$). Faculty who taught at the graduate level ($M = 3.27$, $SD = 1.24$) had a slightly higher mean than those who did not ($M = 3.20$, $SD = 1.34$). An

independent samples *t*-test was conducted to examine whether OER use after COVID-19 differed by the level of coursework taught. The results indicated no statistically significant difference in OER use after COVID-19 between faculty who taught and those who did not across different levels of coursework.

When comparing the different levels of coursework taught against Q16. Perceived impact of COVID-19 on OER use for course instruction, faculty who did not teach the college preparatory course ($M = 2.48$, $SD = 1.15$) had a slightly higher mean than those who did ($M = 2.22$, $SD = .67$). Faculty who taught lower-level undergraduate courses ($M = 2.56$, $SD = 1.09$) had a slightly higher mean than those who didn't ($M = 2.31$, $SD = 1.18$). Faculty who did not teach upper-level undergraduate courses ($M = 2.53$, $SD = 1.20$) had a slightly higher mean than those who did ($M = 2.41$, $SD = 1.07$). Faculty who did not teach at the graduate level ($M = 2.60$, $SD = 1.09$) had a slightly higher mean than those who did ($M = 2.10$, $SD = 1.16$). An independent samples *t*-test was conducted to examine whether the perceived impact of COVID-19 on OER use for course instruction differed by the level of coursework taught. An independent samples *t*-test indicated a statistically significant difference in the perceived impact of COVID-19 on OER use for course instruction between faculty who taught and those who did not teach graduate-level courses ($t(173) = 2.685$, $p = .008$, $d = .452$). Faculty who did not teach graduate courses rated significantly higher ($M = 2.60$, $SD = 1.09$) on the agreement of perceived impact of COVID-19 on OER use for course instruction than faculty who did ($M = 2.10$, $SD = 1.16$) ($p = .008$).

Table 12

T-Test Results for Q8. Coursework Taught in Section 2

T-Test	Comparison
College preparatory courses (0000 – 0999)	
Q12. OER Awareness:	
$t(173) = 1.408$, $p = .161$, $d = .482$	-
Q13. Years of OER Adoption:	
$t(173) = .674$, $p = .501$, $d = .231$	-
Q14. OER_Use_Before_COVID:	
$t(173) = 1.011$, $p = .313$, $d = .346$	-
Q15. OER_Use_After_COVID:	
$t(173) = .510$, $p = .611$, $d = .175$	-
^Q16. Perceived_COVID_Impact:	
$t(10.76) = 1.060$, $p = .313$, $d = .224$	-
Lower-level undergraduate courses (1000 – 2000)	
Q12. OER Awareness:	
$t(173) = -.318$, $p = .751$, $d = -.049$	-
Q13. Years of OER Adoption:	
$t(173) = .751$*, $p = .046$, $d = -.313$	$M_{CLU\_Y} > M_{CLU\_N}$ ($p = .046$)
Q14. OER_Use_Before_COVID:	
$t(173) = -1.864$, $p = .064$, $d = -.290$	-
Q15. OER_Use_After_COVID:	
$t(173) = -1.618$, $p = .107$, $d = -.252$	-
Q16. Perceived_COVID_Impact:	
$t(173) = -1.384$, $p = .168$, $d = -.215$	-
Upper-level undergraduate courses (3000 – 4000)	
Q12. OER Awareness:	
$t(173) = .414$, $p = .679$, $d = .063$	-
Q13. Years of OER Adoption:	
$t(173) = -.002$, $p = .998$, $d = .000$	-
Q14. OER_Use_Before_COVID:	
$t(173) = -.165$, $p = .869$, $d = -.025$	-
^Q15. OER_Use_After_COVID:	
$t(152.96) = .438$, $p = .662$, $d = .068$	-
Q16. Perceived_COVID_Impact:	
$t(173) = .731$, $p = .466$, $d = .111$	-
Graduate level coursework (6000+)	
Q12. OER Awareness:	
$t(173) = .306$, $p = .760$, $d = .052$	-
Q13. Years of OER Adoption:	
$t(173) = -.155$, $p = .877$, $d = -.026$	-
Q14. OER_Use_Before_COVID:	
$t(173) = -.297$, $p = .767$, $d = -.050$	-

Table 12 (continued).

Q15. OER_Use_After_COVID: $t(173) = -.303$, $p = .762$, $d = -.051$	-
Q16. Perceived_COVID_Impact: $t(173) = 2.685$*, $p = .008$, $d = .452$	$M_{CG\ N} > M_{CG\ Y}$ ($p = .008$)

Note. ^ The assumption of homogeneity of variance was violated, as indicated by Levene's test.

Modality of Instruction

When comparing demographics, the next to examine is the modality of instruction and its alignment with the questions in Section 2. The ANOVA results for modality of instruction in Section 2 are presented in Table 13. Descriptive statistics for the modality of instruction in Section 2 are provided in Appendix E (Table E8).

When comparing the modality of instruction against Q12. OER awareness, faculty teaching online rated slightly higher ($M = 4.59$, $SD = .80$) than those teaching face-to-face ($M = 4.30$, $SD = .85$), or hybrid ($M = 4.25$, $SD = 1.16$). There was no statistically significant effect of instructional modality on OER awareness, $F(2, 171) = 2.387$, $p = .095$, $\eta^2 = .027$. When evaluating differences across different instructional modes against Q13. Years of OER adoption, faculty teaching online ($M = 2.68$, $SD = 1.09$), and faculty teaching hybrid ($M = 2.60$, $SD = 1.14$) rated slightly higher than faculty teaching face-to-face ($M = 2.29$, $SD = 1.13$). Online instructors might be more likely to embrace OER than their peers teaching face-to-face. However, there was not a statistically significant effect of instructional modality on years of OER adoption, $F(2, 171) = 2.517$, $p = .084$, $\eta^2 = .029$.

When comparing instructional modes regarding Q14. OER use before COVID-19, faculty teaching online ($M = 2.73$, $SD = 1.38$) and faculty teaching hybrid ($M = 2.65$, $SD = 1.18$) rated slightly higher than faculty teaching face-to-face ($M = 2.15$, $SD = 1.20$).

There was a statistically significant effect of instructional modality on OER use before COVID-19, $F(2, 171) = 4.220$, $p = .016$, $\eta^2 = .047$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty teaching online ($M = 2.73$, $SD = 1.38$) reported significantly more OER use before COVID-19 than faculty teaching face-to-face ($M = 2.15$, $SD = 1.20$) ($p = .017$).

When comparing instructional modes regarding Q15. OER use after COVID-19, faculty teaching online ($M = 3.52$, $SD = 1.24$) and faculty teaching hybrid ($M = 3.30$, $SD = 1.49$) rated slightly higher than faculty teaching face-to-face ($M = 2.97$, $SD = 1.27$). There was a statistically significant effect of instructional modality on OER use after COVID-19, $F(2, 171) = 3.548$, $p = .031$, $\eta^2 = .040$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty teaching online ($M = 3.52$, $SD = 1.24$) reported significantly more OER use after COVID-19 than faculty teaching face-to-face ($M = 2.97$, $SD = 1.27$) ($p = .024$).

In assessing the differences between instructional modes against Q16. Perceived impact of COVID-19 on OER use for course instruction, faculty teaching face-to-face ($M = 2.65$, $SD = .99$) rated slightly higher than faculty teaching hybrid ($M = 2.60$, $SD = 1.27$) as well as faculty teaching online ($M = 2.16$, $SD = 1.22$). Face-to-face faculty were more likely to remain "neutral" regarding the influence of COVID-19 on OER use for course instruction than faculty teaching online, who rated closer to "disagreeing" with the COVID-19's influence on OER use. There was a statistically significant effect of instructional modality on perceived impact of the COVID-19 on OER use for course instruction, $F(2, 171) = 3.765$, $p = .025$, $\eta^2 = .042$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated a significant difference

between faculty teaching online and those teaching face-to-face in their perceived impact of COVID-19 on OER use for course instruction. Faculty teaching face-to-face instructors had a significantly greater probability of remaining "neutral" on the COVID-19 pandemic's impact on OER use for course instruction ($M = 2.65$, $SD = .99$) versus the faculty teaching online who leaned more toward "disagreeing" with its impact ($M = 2.16$, $SD = 1.22$) ($p = .022$).

Table 13

ANOVA Results for Modality of Instruction in Section 2

ANOVA	Post Hoc Comparison
Q12. OER Awareness:	
$F(2, 171) = 2.387$, $p = .095$, $\eta^2 = .027$	-
Q13. Years of OER Adoption:	
$F(2, 171) = 2.517$, $p = .084$, $\eta^2 = .029$	-
Q14. OER_Use_Before_COVID:	
$F(2, 171) = 4.220$*, $p = .016$, $\eta^2 = .047$	$M_{Online} > M_{f2f}$ ($p = .017$)
Q15. OER_Use_After_COVID:	
$F(2, 171) = 3.548$*, $p = .031$, $\eta^2 = .040$	$M_{Online} > M_{f2f}$ ($p = .024$)
Q16. Perceived_COVID_Impact:	
$F(2, 171) = 3.765$*, $p = .025$, $\eta^2 = .042$	$M_{f2f} > M_{Online}$ ($p = .022$)

Note. * denotes statistical significance at the $p < .05$ level.

Ability to Choose Textbook

When comparing demographics, the next to examine is the faculty's ability to choose their course textbook and how it compares with the questions in Section 2. The ANOVA results for the ability to choose textbooks in Section 2 are presented in Table 14. Descriptive statistics for USG institutions in Section 2 are provided in Appendix E (Table E9).

Of the faculty surveyed regarding their ability to choose their own textbook, 104 "strongly agreed" they have the ability to choose their textbook, 48 "agreed", 13

remained “neutral”, 5 “disagreed”, and 5 faculty “strongly disagreed.” A one-way ANOVA revealed there was no statistically significant effect of the ability to choose a textbook on OER awareness, $F(4, 170) = .192$, $p = .942$, $\eta^2 = .004$. Also, a one-way ANOVA revealed no statistically significant differences among the groups in their ability to choose textbooks across years of OER adoption, $F(4, 170) = .253$, $p = .907$, $\eta^2 = .006$.

In addition, no significant difference was found in OER use before or after COVID-19 among faculty with different abilities to choose textbooks, $F(4, 170) = .863$, $p = .488$, $\eta^2 = .020$; $F(4, 170) = .533$, $p = .712$, $\eta^2 = .012$. Regarding the perceived impact of COVID-19 on OER use for course instruction, no significant difference was found among faculty with different abilities to choose textbooks, $F(4, 170) = .712$, $p = .585$, $\eta^2 = .016$. USG faculty’s use of OER and their perceptions of the COVID-19 pandemic’s impact do not appear to differ with respect to the ability to choose the textbook.

Table 14

ANOVA Results for Ability to Choose Textbook in Section 2

ANOVA	Post Hoc Comparison
Q12. OER Awareness:	
$F(4, 170) = .192$, $p = .942$, $\eta^2 = .004$	-
Q13. Years of OER Adoption:	
$F(4, 170) = .253$, $p = .907$, $\eta^2 = .006$	-
Q14. OER_Use_Before_COVID:	
$F(4, 170) = .863$, $p = .488$, $\eta^2 = .020$	-
Q15. OER_Use_After_COVID:	
$F(4, 170) = .533$, $p = .712$, $\eta^2 = .012$	-
Q16. Perceived_COVID_Impact:	
$F(4, 170) = .712$, $p = .585$, $\eta^2 = .016$	-

Overall Technology Ability for Education

When comparing demographics, the final aspect to consider is the faculty’s overall technology ability for education and its comparison with the questions in Section

2. The ANOVA results for the overall technology ability for education in Section 2 are presented in Table 15. Descriptive statistics for overall technology ability for education in Section 2 are provided in Appendix E (Table E10).

None of the faculty surveyed described themselves as having no technology ability for education. When comparing the faculty technology ability for education against Q12. OER awareness, faculty identifying as highly proficient rated highest (M = 4.71, SD = .72) compared to those identifying as proficient (M = 4.35, SD = .83), moderate (M = 3.97, SD = 1.09), or basic (M = 3.5, SD = .71). There was a statistically significant effect of technology ability for education on OER awareness, $F(3, 171) = 6.135$, $p < .001$, $\eta^2 = .097$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty who consider themselves highly proficient in technology ability for education rated OER awareness (M = 4.71, SD = .72) significantly higher than those who consider themselves moderate (M = 3.97, SD = 1.09) ($p < .001$). This difference in OER use among faculty with varying levels of technology ability is supported by the literature (Kuo et al., 2024). Those more skilled in technology might be more aware of OER.

In comparing the faculty's overall technology ability for education against Q13. Years of OER adoption, faculty identifying as basic level rated highest (M = 4.0, SD = .00) compared to those identifying as highly proficient (M = 2.73, SD = 1.13), proficient (M = 2.35, SD = 1.09), or moderate (M = 2.17, SD = 1.10). There was a statistically significant effect of technology ability for education on years of OER adoption, $F(3, 171) = 3.402$, $p = .019$, $\eta^2 = .056$. There were no significant pairwise differences. Although the overall ANOVA indicated a statistically significant difference among group means, the

post hoc comparisons did not reveal any statistically significant pairwise differences. This discrepancy may be attributed to the conservative nature of the post hoc test, which adjusts for multiple comparisons and reduces statistical power, thereby limiting the ability to detect specific group differences.

When comparing the overall technology ability for education against Q14. OER use before COVID-19, faculty identifying as basic rated highest (M = 4.50, SD = .71) compared to those identifying as highly proficient (M = 2.56, SD = 1.39), proficient (M = 2.38, SD = 1.21), or moderate (M = 2.14, SD = 1.19). There was no statistically significant effect of technology ability for education on OER use before COVID-19, $F(3, 171) = 2.529$, $p = .059$, $\eta^2 = .042$. In assessing differences in overall technology ability for education relative to Q15. OER use after COVID-19, faculty identifying as basic rated highest (M = 4.50, SD = .71), compared to those identifying as highly proficient (M = 3.41, SD = 1.35), proficient (M = 3.22, SD = 1.29), or moderate (M = 2.72, SD = 1.19). There was no statistically significant effect of technology ability for education on OER use after COVID-19, $F(3, 171) = 2.491$, $p = .062$, $\eta^2 = .042$.

When comparing the overall technology ability for education of faculty against Q16. Perceived impact of COVID-19 on OER use for course instruction, faculty identifying as basic rated highest (M = 3.00, SD = .00) compared to those identifying as proficient (M = 2.60, SD = 1.09), moderate (M = 2.55, SD = 1.12), or highly proficient (M = 2.20, SD = 1.17). There was no statistically significant effect of faculty technology ability for education on perceived impact of the COVID-19 on OER use for course instruction, $F(3, 171) = 1.690$, $p = .171$, $\eta^2 = .029$. USG faculty's perceived impact of the

COVID-19 pandemic on OER use in course instruction does not appear to vary with faculty members' overall technology abilities for education.

Table 15

ANOVA Results for Overall Technology Ability in Section 2

ANOVA	Post Hoc Comparison
Q12. OER Awareness:	
$F(3, 171) = 6.135^*$, $p < .001$, $\eta^2 = .097$	$M_{\text{Highly Prof.}} > M_{\text{Moderate}}$ ($p < .001$)
Q13. Years of OER Adoption:	
$F(3, 171) = 3.402^*$, $p = .019$, $\eta^2 = .056$	!!No significant pairwise differences
Q14. OER_Use_Before_COVID:	
$F(3, 171) = 2.529$, $p = .059$, $\eta^2 = .042$	-
Q15. OER_Use_After_COVID:	
$F(3, 171) = 2.491$, $p = .062$, $\eta^2 = .042$	-
Q16. Perceived_COVID_Impact:	
$F(3, 171) = 1.690$, $p = .171$, $\eta^2 = .029$	-

Note. * denotes statistical significance at the $p < .05$ level; !! Although the overall ANOVA was significant, the post hoc tests found no significant pairwise differences, possibly because the conservative adjustment for multiple comparisons reduced statistical power.

RQ3. To what extent does the USG faculty's perception of incentives for switching to OER differ across demographic groups?

- Hypothesis (H_1) for RQ3: There is a statistically significant difference in USG faculty's perception of incentives for switching to OER across different demographic groups.
- Null Hypothesis (H_0) for RQ3: There is no statistically significant difference in USG faculty's perception of incentives for switching to OER across different demographic groups.

For research question three, the dependent variable is the average of participants' responses to Questions 17 (Increased Student Access) through Question 26 (Received Recognition) in Section 3, which pertains to their incentives to switch to OER adoption. The independent variable for RQ3 is each demographic variable, including USG institution, gender, age, job title, years of teaching experience, academic field, level of coursework taught, modality of instruction, ability to choose textbooks, and overall technology ability for education. ANOVAs were used to analyze data for incentives to switch to OER adoption across demographic groups for RQ3. Since Question 8 regarding coursework taught allowed multiple responses, it was treated differently in the analysis. Each response option was recorded as a dichotomous (dummy) variable, with 0 indicating the option was not selected and 1 indicating it was selected. Independent samples *t*-tests were conducted for each dummy variable to determine whether statistically significant differences existed between groups. All descriptive statistics for each demographic variable in Section 3 are provided in Appendix E (Tables E1 to E10).

USG Institution

For RQ3, we can review each incentive question (Q.17-Q.26) against each demographic variable. The ANOVA results for USG institution groups in Section 3 are presented in Table 16. Descriptive statistics for USG institutions in Section 3 are provided in Appendix E (Table E1).

For Section 3 on "Incentives to Switch to OER," the questions asked faculty to rate their level of agreement or disagreement regarding the incentives to switch to OER materials. The patterns in the descriptive data in Section 3 varied across USG Institutions. Research Universities had the highest overall mean rating ($M = 3.50$, $SD = .64$) across all

items in Section 3, indicating that this USG group remained "neutral" regarding the influence of these incentives on OER adoption. This USG group, Research Universities, rated the highest on five out of 10 items, including Q17. Increased student access (M = 4.60, SD = .55), Q18. Narrowed student attainment gaps (M = 3.80, SD = 1.30), Q19. Reduced student financial costs (M = 4.80, SD = .45), Q23. Positive OER perceptions (M = 3.40, SD = 1.14), and Q25. Financial incentives for faculty (M = 4.00, SD = 1.22).

For Section 3, the lowest overall mean rating was found for Comprehensive Universities (M = 3.27, SD = .72) and State Colleges (M = 3.27, SD = .69). These two USG groups also remained "neutral" regarding the influence of these incentives on OER adoption. Faculty at Comprehensive Universities rated the lowest on five out of 10 items, including Q17. Increased student access (M = 3.88, SD = 1.13), Q18. Narrowed student attainment gaps (M = 3.46, SD = 1.02), Q19. Reduced student financial costs (M = 4.32, SD = .83), Q23. Positive OER perceptions (M = 3.09, SD = 1.24), and Q25. Financial incentives for faculty (M = 3.11, SD = 1.29), and conversely, had the highest score on Q26. Received recognition (M = 2.51, SD = 1.02). Faculty at State Colleges rated the lowest on four out of 10 items, including Q20. Improved student performance (M = 2.79, SD = .88), Q21. Enhanced faculty innovation (M = 3.09, SD = .95), Q22. Increased student engagement (M = 2.91, SD = .86) and Q26. Received recognition (M = 2.11, SD = 1.03), and conversely, had the highest rating on Q24. Administrative encouragement (M = 3.51, SD = 1.02). Lastly, faculty at State Universities rated the highest on three out of 10 items, including Q20. Improved student performance (M = 3.14, SD = .99), Q21. Enhanced faculty innovation (M = 3.29, SD = 1.02), and Q22. Increased student

engagement (M = 3.09, SD = .96), and conversely, had the lowest rating on Q24. Administrative encouragement (M = 3.03, SD = .99).

When comparing the USG Institution against the overall mean across all incentive questions, Research Universities (M = 3.50, SD = .64) had the highest overall mean, followed by State Universities (M = 3.37, SD = .65), Comprehensive Universities (M = 3.27, SD = .72), and State Colleges (M = 3.27, SD = .69), respectively. A one-way ANOVA was conducted to examine differences in the overall mean across all incentive questions among USG Institution groups. Results indicated no statistically significant effect of USG institution on the overall mean across all incentive questions, $F(3, 171) = .408$, $p = .747$, $\eta^2 = .007$. In addition, no significant differences were found across USG institution groups for any individual incentive.

Table 16

ANOVA Results for USG Institution Groups in Section 3

ANOVA	Post Hoc Comparison
Overall – Incentives:	
$F(3, 171) = .408$, $p = .747$, $\eta^2 = .007$	-
Q17. Increased student access:	
$F(3, 171) = 1.127$, $p = .340$, $\eta^2 = .019$	-
Q18. Narrowed student attainment gaps:	
$F(3, 171) = .184$, $p = .907$, $\eta^2 = .003$	-
Q19. Reduced student financial costs:	
$F(3, 171) = .771$, $p = .512$, $\eta^2 = .013$	-
Q20. Improved student performance:	
$F(3, 171) = 1.325$, $p = .268$, $\eta^2 = .023$	-
Q21. Enhanced faculty innovation:	
$F(3, 171) = .391$, $p = .760$, $\eta^2 = .007$	-
Q22. Increased student engagement:	
$F(3, 171) = .355$, $p = .786$, $\eta^2 = .006$	-
Q23. Positive OER perceptions:	
$F(3, 171) = .206$, $p = .892$, $\eta^2 = .004$	-
Q24. Administrative encouragement:	
$F(3, 171) = 2.136$, $p = .097$, $\eta^2 = .036$	-

Table 16 (continued).

Q25. Financial incentives for faculty:	
$F(3, 171) = 1.044$, $p = .374$, $\eta^2 = .018$	-
Q26. Received recognition:	
$F(3, 171) = 1.844$, $p = .141$, $\eta^2 = .031$	-

Gender

For RQ3, we can review each incentive question (Q.17-Q.26) against each demographic variable. The ANOVA results for gender groups in Section 3 are presented in Table 17. Descriptive statistics for gender groups in Section 3 are provided in Appendix E (Table E2).

For Section 3 on "Incentives to Switch to OER," the questions asked faculty to rate their level of agreement or disagreement regarding the incentives to switch to OER materials. Overall, both gender groups remained "neutral" on the influence of these incentives on OER adoption across all items in Section 3, with females' overall mean (M = 3.34, SD = .74) slightly higher than males' (M = 3.27, SD = .57). In Section 3, the female group rated slightly higher than the male group on six out of 10 items, including Q17. Increased student access (M = 4.13, SD = 1.03), Q18. Narrowed student attainment gaps (M = 3.59, SD = 1.06), Q19. Reduced student financial costs (M = 4.45, SD = .76), Q20. Improved student performance (M = 3.06, SD = 1.02), Q21. Enhanced faculty innovation (M = 3.22, SD = 1.07), and Q25. Financial incentives for faculty (M = 3.32, SD = 1.29). The male group rated slightly higher than the female group on four out of 10 items, including Q22. Increased student engagement (M = 3.02, SD = .78), Q23. Positive OER perceptions (M = 3.24, SD = .99), Q24. Administrative encouragement (M = 3.24, SD = .94) and Q26. Received recognition (M = 2.50, SD = .95).

When comparing the gender groups against the overall mean across all incentive questions, female faculty (M = 3.34, SD = .74) had a slightly higher overall mean across

all incentive questions than male faculty ($M = 3.27$, $SD = .57$). A one-way ANOVA was conducted to examine differences in the overall mean across all incentive questions among gender groups. Results indicated no statistically significant effect of gender on the overall mean across all incentive questions, $F(2, 172) = .187$, $p = .829$, $\eta^2 = .002$. In addition, no significant differences were found between male and female faculty for any individual incentive.

Table 17

ANOVA Results for Gender Groups in Section 3

ANOVA	Post Hoc Comparison
Overall – Incentives:	
$F(2, 172) = .187$, $p = .829$, $\eta^2 = .002$	-
Q17. Increased student access:	
$F(2, 172) = 1.416$, $p = .246$, $\eta^2 = .016$	-
Q18. Narrowed student attainment gaps:	
$F(2, 172) = 1.820$, $p = .165$, $\eta^2 = .021$	-
Q19. Reduced student financial costs:	
$F(2, 172) = .798$, $p = .452$, $\eta^2 = .009$	-
Q20. Improved student performance:	
$F(2, 172) = 1.126$, $p = .327$, $\eta^2 = .013$	-
Q21. Enhanced faculty innovation:	
$F(2, 172) = .096$, $p = .908$, $\eta^2 = .001$	-
Q22. Increased student engagement:	
$F(2, 172) = .006$, $p = .994$, $\eta^2 = .000$	-
Q23. Positive OER perceptions:	
$F(2, 172) = .392$, $p = .677$, $\eta^2 = .005$	-
Q24. Administrative encouragement:	
$F(2, 172) = .127$, $p = .881$, $\eta^2 = .001$	-
^^Q25. Financial incentives for faculty:	
$F(2, 172) = .139$, $p = .870$, $\eta^2 = .002$	-
Q26. Received recognition:	
$F(2, 172) = .689$, $p = .504$, $\eta^2 = .008$	-

Note. ^^ Levene's test indicated unequal variances, but Welch's ANOVA could not be conducted because at least one group had zero variance.

Age

For RQ3, we can review each incentive question (Q.17-Q.26) and the overall results for each faculty age group. The ANOVA results for age groups in Section 3 are presented in Table 18. Descriptive statistics for age groups in Section 3 are provided in Appendix E (Table E3).

The overall mean across incentives age groups that rated closest to "agree" was faculty ages 25–34 (M = 3.90, SD = .53), followed by ages 35–44 (M = 3.36, SD = .59), ages 55–64 (M = 3.32, SD = .55), ages 45–54 (M = 3.21, SD = .76), with the lowest scoring age group of 65+ (M = 3.04, SD = .76) scoring closer to "neutral." There was a statistically significant effect of age on the overall mean across all incentive questions, $F(4, 169) = 3.848$, $p = .005$, $\eta^2 = .083$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that overall, faculty in the age range of 25–34 (M = 3.90, SD = .53) rated significantly higher than faculty 45–54 years of age (M = 3.32, SD = .55) (p = .005), 55–64 years of age (M = 3.32, SD = .55) (p = .042), and faculty 65+ (M = 3.04, SD = .76) (p = .004). According to the data, USG faculty ages 25–34 are statistically more likely to "agree" with incentives for OER adoption than those over 45, who tended to lean more toward "neutral."

In addition to the overall mean across incentive questions, age had a statistically significant effect on Q17. Increased student access, $F(4, 169) = 2.889$, $p = .024$, $\eta^2 = .064$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty ages 25–34 (M = 4.71, SD = .47) rated Q17. Increased student access significantly higher than faculty 55–64 (M = 3.86, SD = .84) (p = .047) and faculty 65+ (M = 3.56, SD = 1.21) (p = .016). Another statistically significant effect

of age was found on Q18. Narrowed student attainment gaps, $F(4, 169) = 3.644$, $p = .007$, $\eta^2 = .079$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty ages 25–34 ($M = 4.36$, $SD = .74$) rated Q18. Narrowed student attainment gaps significantly higher than faculty 45–54 ($M = 3.4$, $SD = 1.06$) ($p = .010$), faculty 55–64 ($M = 3.29$, $SD = .89$) ($p = .004$), and faculty 65+ ($M = 3.25$, $SD = 1.24$) ($p = .019$).

Moreover, age had a statistically significant effect on Q20. Improved student performance, $F(4, 169) = 3.343$, $p = .012$, $\eta^2 = .073$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty ages 25–34 ($M = 3.71$, $SD = .91$) rated Q20. Improved student performance significantly higher than faculty 45–54 ($M = 2.84$, $SD = .98$) ($p = .014$), and faculty 65+ ($M = 2.63$, $SD = .89$) ($p = .013$). There was also a statistically significant effect of age on Q21. Enhanced faculty innovation, $F(4, 169) = 2.647$, $p = .035$, $\eta^2 = .059$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty ages 25–34 ($M = 3.79$, $SD = .80$) rated Q21. Enhanced faculty innovation significantly higher than that of faculty 65+ ($M = 2.69$, $SD = 1.01$) ($p = .019$). Lastly, age had a statistically significant effect on Q23. Positive OER perceptions, $F(4, 169) = 2.650$, $p = .035$, $\eta^2 = .059$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty ages 25–34 ($M = 3.86$, $SD = 1.10$) rated Q23. Positive OER perceptions significantly higher than those of faculty 65+ ($M = 2.63$, $SD = 1.02$) ($p = .018$).

Table 18

ANOVA Results for Age Groups in Section 3

ANOVA	Post Hoc Comparison
Overall – Incentives:	
$F(4, 169) = 3.848^*$, $p = .005$, $\eta^2 = .083$	$M_{25–34} > M_{45–54}$ ($p = .005$) $M_{25–34} > M_{55–64}$ ($p = .042$) $M_{25–34} > M_{65+}$ ($p = .004$)
Q17. Increased student access:	
$F(4, 169) = 2.889^*$, $p = .024$, $\eta^2 = .064$	$M_{25–34} > M_{55–64}$ ($p = .047$) $M_{25–34} > M_{65+}$ ($p = .016$)
Q18. Narrowed student attainment gaps:	
$F(4, 169) = 3.644^*$, $p = .007$, $\eta^2 = .079$	$M_{25–34} > M_{45–54}$ ($p = .010$) $M_{25–34} > M_{55–64}$ ($p = .004$) $M_{25–34} > M_{65+}$ ($p = .019$)
^^Q19. Reduced student financial costs:	
$F(4, 169) = 2.431$, $p = .050$, $\eta^2 = .054$	-
Q20. Improved student performance:	
$F(4, 169) = 3.343^*$, $p = .012$, $\eta^2 = .073$	$M_{25–34} > M_{45–54}$ ($p = .014$) $M_{25–34} > M_{65+}$ ($p = .013$)
Q21. Enhanced faculty innovation:	
$F(4, 169) = 2.647^*$, $p = .035$, $\eta^2 = .059$	$M_{25–34} > M_{65+}$ ($p = .019$)
Q22. Increased student engagement:	
$F(4, 169) = 1.804$, $p = .130$, $\eta^2 = .041$	-
Q23. Positive OER perceptions:	
$F(4, 169) = 2.650^*$, $p = .035$, $\eta^2 = .059$	$M_{25–34} > M_{65+}$ ($p = .018$)
Q24. Administrative encouragement:	
$F(4, 169) = 1.248$, $p = .293$, $\eta^2 = .029$	-
Q25. Financial incentives for faculty:	
$F(4, 169) = 1.100$, $p = .358$, $\eta^2 = .025$	-
Q26. Received recognition:	
$F(4, 169) = .900$, $p = .466$, $\eta^2 = .021$	-

Note. * denotes statistical significance at the $p < .05$ level; ^^ Levene's test indicated unequal variances, but Welch's ANOVA could not be conducted because at least one group had zero variance.

Job Title

For RQ3, we can review each incentive question (Q.17-Q.26) against each demographic variable. The ANOVA results for job titles in Section 3 are presented in

Table 19. Descriptive statistics for job titles in Section 3 are provided in Appendix E (Table E4).

Instructor (M = 3.70, SD = .64) had the highest overall mean across all incentive questions, followed by Lecturer (M = 3.35, SD = .87), Assistant Professor (M = 3.32, SD = .53), Professor (M = 3.31, SD = .68), and Associate Professor (M = 3.18, SD = .68), respectively. A one-way ANOVA was conducted to examine differences in the overall mean across all incentive questions by job title. Results indicated no statistically significant effect of job title on the overall mean across all incentive questions, $F(4, 169) = .873$, $p = .481$, $\eta^2 = .020$. In addition, no significant differences were found across job titles for any individual incentive.

Table 19

ANOVA Results for Job Titles in Section 3

ANOVA	Post Hoc Comparison
Overall – Incentives:	
$F(4, 169) = .873$, $p = .481$, $\eta^2 = .020$	-
Q17. Increased student access:	
$F(4, 169) = .977$, $p = .422$, $\eta^2 = .023$	-
Q18. Narrowed student attainment gaps:	
$F(4, 169) = .837$, $p = .503$, $\eta^2 = .019$	-
Q19. Reduced student financial costs:	
$F(4, 169) = .436$, $p = .783$, $\eta^2 = .010$	-
Q20. Improved student performance:	
$F(4, 169) = 1.405$, $p = .235$, $\eta^2 = .032$	-
Q21. Enhanced faculty innovation:	
$F(4, 169) = 1.100$, $p = .358$, $\eta^2 = .025$	-
Q22. Increased student engagement:	
$F(4, 169) = .633$, $p = .640$, $\eta^2 = .015$	-
Q23. Positive OER perceptions:	
$F(4, 169) = .994$, $p = .412$, $\eta^2 = .023$	-
Q24. Administrative encouragement:	
$F(4, 169) = 1.076$, $p = .370$, $\eta^2 = .025$	-
Q25. Financial incentives for faculty:	
$F(4, 169) = .112$, $p = .978$, $\eta^2 = .003$	-

Table 19 (continued).

Q26. Received recognition:	
$F(4, 169) = .745$, $p = .562$, $\eta^2 = .017$	-

Years of Teaching Experience

For RQ3, we can review each incentive question (Q.17-Q.26) against each demographic variable. The ANOVA results for years of teaching experience in Section 3 are presented in Table 20. Descriptive statistics for years of teaching experience in Section 3 are provided in Appendix E (Table E5).

Faculty who have 0–6 years of teaching experience ($M = 3.41$, $SD = .61$) had the highest overall mean across all incentive questions, followed by faculty with 7–12 years ($M = 3.36$, $SD = .82$), faculty with 13–19 years ($M = 3.23$, $SD = .75$), and faculty with 20+ years ($M = 3.21$, $SD = .51$), respectively. A one-way ANOVA was conducted to examine differences in the overall mean across all incentive questions by years of teaching experience. Results indicated no statistically significant effect of teaching experience on the overall mean across all incentive questions, $F(3, 90.74) = 1.117$, $p = .347$, $\eta^2 = .015$. In addition, no significant differences were found across the faculty teaching experience groups for any individual incentive.

Table 20

ANOVA Results for Years of Teaching Experience in Section 3

ANOVA	Post Hoc Comparison
^Overall – Incentives:	
$F(3, 90.74) = 1.117$, $p = .347$, $\eta^2 = .015$	-
Q17. Increased student access:	
$F(3, 171) = .488$, $p = .691$, $\eta^2 = .008$	-
Q18. Narrowed student attainment gaps:	
$F(3, 171) = 1.598$, $p = .192$, $\eta^2 = .027$	-
Q19. Reduced student financial costs:	
$F(3, 171) = 1.109$, $p = .347$, $\eta^2 = .019$	-

Table 20 (continued).

^Q20. Improved student performance:	
$F(3, 92.71) = 1.556$, $p = .205$, $\eta^2 = .030$	-
Q21. Enhanced faculty innovation:	
$F(3, 171) = .460$, $p = .711$, $\eta^2 = .008$	-
Q22. Increased student engagement:	
$F(3, 171) = 1.149$, $p = .331$, $\eta^2 = .020$	-
Q23. Positive OER perceptions:	
$F(3, 171) = .307$, $p = .821$, $\eta^2 = .005$	-
Q24. Administrative encouragement:	
$F(3, 171) = .054$, $p = .983$, $\eta^2 = .001$	-
Q25. Financial incentives for faculty:	
$F(3, 171) = .595$, $p = .619$, $\eta^2 = .010$	-
Q26. Received recognition:	
$F(3, 171) = 1.114$, $p = .345$, $\eta^2 = .019$	-

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test.

Academic Field

For RQ3, we can review each incentive question (Q.17-Q.26) against each demographic variable. The ANOVA results for years of academic field in Section 3 are presented in Table 21. Descriptive statistics for academic fields in Section 3 are provided in Appendix E (Table E6).

Health Science ($M = 3.37$, $SD = .53$) had the highest overall mean across all incentive questions, followed by the Business ($M = 3.34$, $SD = .55$), Humanities ($M = 3.31$, $SD = .84$), Social Science ($M = 3.30$, $SD = .79$), STEM ($M = 3.30$, $SD = .66$), Education ($M = 3.28$, $SD = .50$), and Other fields ($M = 3.27$, $SD = .64$), respectively. A one-way ANOVA was conducted to examine differences in the overall mean across all incentive questions by academic field. Results indicated no statistically significant effect of academic field on the overall mean across all incentive questions, $F(6, 167) = .038$, $p =$

1.000, $\eta^2 = .001$. In addition, no significant differences were found across the academic fields for any individual incentive.

Table 21

ANOVA Results for Academic Fields in Section 3

ANOVA	Post Hoc Comparison
Overall – Incentives:	
$F(6, 167) = .038$, $p = 1.000$, $\eta^2 = .001$	-
Q17. Increased student access:	
$F(6, 167) = .276$, $p = .948$, $\eta^2 = .010$	-
Q18. Narrowed student attainment gaps:	
$F(6, 167) = .240$, $p = .963$, $\eta^2 = .009$	-
Q19. Reduced student financial costs:	
$F(6, 167) = 1.611$, $p = .147$, $\eta^2 = .055$	-
Q20. Improved student performance:	
$F(6, 167) = .998$, $p = .428$, $\eta^2 = .035$	-
Q21. Enhanced faculty innovation:	
$F(6, 167) = .350$, $p = .909$, $\eta^2 = .012$	-
Q22. Increased student engagement:	
$F(6, 167) = .385$, $p = .888$, $\eta^2 = .014$	-
Q23. Positive OER perceptions:	
$F(6, 167) = .091$, $p = .997$, $\eta^2 = .003$	-
Q24. Administrative encouragement:	
$F(6, 167) = .838$, $p = .543$, $\eta^2 = .029$	-
Q25. Financial incentives for faculty:	
$F(6, 167) = .403$, $p = .876$, $\eta^2 = .014$	-
^Q26. Received recognition:	
$F(6, 41.44) = .491$, $p = .811$, $\eta^2 = .014$	-

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test.

Level of Coursework Taught

For RQ3, we can review each incentive question (Q.17-Q.26) against each demographic variable. The *t*-test results for the level of coursework taught in Section 3

are presented in Table 22. Descriptive statistics for the level of coursework taught in Section 3 are provided in Appendix E (Table E7).

When comparing the different levels of coursework taught against the overall mean across all incentive questions. Faculty who did not teach the college preparatory course (M = 3.32, SD = .68) had a slightly higher overall mean across all incentive questions than those who did (M = 3.24, SD = .75). Faculty who taught lower-level undergraduate courses (M = 3.37, SD = .68) had a slightly higher overall mean across all incentive questions than those who didn't (M = 3.22, SD = .67). Faculty who did not teach upper-level undergraduate courses (M = 3.34, SD = .69) had a slightly higher overall mean across incentive questions than those who did (M = 3.29, SD = .67). Faculty who did not teach at the graduate level (M = 3.32, SD = .69) had a slightly higher overall mean across all incentive questions than those who did (M = 3.30, SD = .66). An independent samples t-test was conducted to examine whether overall mean across all incentive questions differed by level of coursework taught. The results indicated no statistically significant difference in overall mean across all incentive questions between faculty who taught and those who did not, across different levels of coursework.

Among individual incentives across different levels of coursework, an independent samples test indicated a statistically significant difference in Q24. Administrative encouragement between faculty who taught (M = 3.32, SD = 1.03) and those who did not (M = 2.99, SD = 1.02) lower-level undergraduate courses, $t(173) = -2.122$, $p = .035$, $d = -.330$.

Table 22

T-Test Results for Q8. Coursework Taught in Section 3

T-Test	Comparison
College preparatory courses (0000 – 0999)	
Overall – Incentives:	
$t(173) = .306$, $p = .760$, $d = .105$	-
Q17. Increased student access:	
$t(173) = .421$, $p = .674$, $d = .144$	-
Q18. Narrowed student attainment gaps:	
$t(173) = .463$, $p = .644$, $d = .159$	-
Q19. Reduced student financial costs:	
$t(173) = .701$, $p = .485$, $d = .240$	-
Q20. Improved student performance:	
$t(173) = .668$, $p = .505$, $d = .229$	-
Q21. Enhanced faculty innovation:	
$t(173) = 1.008$, $p = .315$, $d = .345$	-
Q22. Increased student engagement:	
$t(173) = -.355$, $p = .723$, $d = -.121$	-
Q23. Positive OER perceptions:	
$t(173) = -.221$, $p = .825$, $d = -.076$	-
Q24. Administrative encouragement:	
$t(173) = -.742$, $p = .459$, $d = -.254$	-
Q25. Financial incentives for faculty:	
$t(173) = .714$, $p = .476$, $d = .244$	-
Q26. Received recognition:	
$t(173) = -.508$, $p = .612$, $d = -.174$	-
Lower-level undergraduate courses (1000 – 2000)	
Overall – Incentives:	
$t(173) = -1.389$, $p = .167$, $d = -.216$	-
Q17. Increased student access:	
$t(173) = -1.363$, $p = .175$, $d = -.212$	-
Q18. Narrowed student attainment gaps:	
$t(173) = -1.945$, $p = .053$, $d = -.303$	-
Q19. Reduced student financial costs:	
$t(173) = -1.561$, $p = .120$, $d = -.243$	-
Q20. Improved student performance:	
$t(173) = -.140$, $p = .889$, $d = -.022$	-
Q21. Enhanced faculty innovation:	
$t(173) = -1.131$, $p = .260$, $d = -.176$	-
Q22. Increased student engagement:	
$t(173) = .105$, $p = .917$, $d = .016$	-
Q23. Positive OER perceptions:	
$t(173) = -.080$, $p = .936$, $d = -.013$	-

Table 22 (continued).

Q24. Administrative encouragement:	
$t(173) = -2.122^*$, $p = .035$, $d = -.330$	$M_{CLU\_Y} > M_{CLU\_N}$ ($p = .035$)
Q25. Financial incentives for faculty:	
$t(173) = -1.307$, $p = .193$, $d = -.203$	-
Q26. Received recognition:	
$t(173) = .302$, $p = .763$, $d = .047$	-
Upper-level undergraduate courses (3000 – 4000)	
Overall – Incentives:	
$t(173) = .521$, $p = .603$, $d = .079$	-
Q17. Increased student access:	
$t(173) = .855$, $p = .394$, $d = .130$	-
Q18. Narrowed student attainment gaps:	
$t(173) = .996$, $p = .320$, $d = .151$	-
Q19. Reduced student financial costs:	
$t(173) = .078$, $p = .938$, $d = .012$	-
Q20. Improved student performance:	
$t(173) = .217$, $p = .828$, $d = .033$	-
Q21. Enhanced faculty innovation:	
$t(173) = .815$, $p = .416$, $d = .124$	-
Q22. Increased student engagement:	
$t(173) = .257$, $p = .797$, $d = .039$	-
Q23. Positive OER perceptions:	
$t(173) = -.177$, $p = .860$, $d = -.027$	-
Q24. Administrative encouragement:	
$t(173) = .973$, $p = .332$, $d = .148$	-
Q25. Financial incentives for faculty:	
$t(173) = .118$, $p = .906$, $d = .018$	-
Q26. Received recognition:	
$t(173) = -.555$, $p = .580$, $d = -.084$	-
Graduate level coursework (6000+)	
Overall – Incentives:	
$t(173) = .197$, $p = .844$, $d = .033$	-
Q17. Increased student access:	
$t(173) = .726$, $p = .469$, $d = .122$	-
Q18. Narrowed student attainment gaps:	
$t(173) = -.033$, $p = .974$, $d = -.006$	-
Q19. Reduced student financial costs:	
$t(173) = .776$, $p = .439$, $d = .131$	-
Q20. Improved student performance:	
$t(173) = -.684$, $p = .495$, $d = -.115$	-
Q21. Enhanced faculty innovation:	
$t(173) = -.279$, $p = .780$, $d = -.047$	-
Q22. Increased student engagement:	
$t(173) = -.685$, $p = .494$, $d = -.115$	-

Table 22 (continued).

Q23. Positive OER perceptions: $t(173) = -.152$, $p = .879$, $d = -.026$	-
Q24. Administrative encouragement: $t(173) = 1.716$, $p = .088$, $d = .289$	-
Q25. Financial incentives for faculty: $t(173) = .439$, $p = .661$, $d = .074$	-
Q26. Received recognition: $t(173) = -.492$, $p = .623$, $d = -.083$	-

Note. * denotes statistical significance at the $p < .05$ level.

Modality Of Instruction

For RQ3, we can review each incentive question (Q.17-Q.26) against each demographic variable. The ANOVA results for modality of instruction in Section 3 are presented in Table 23. Descriptive statistics for the modality of instruction in Section 3 are provided in Appendix E (Table E8).

A one-way ANOVA revealed no statistically significant effect of instruction modality on the overall mean across all incentive questions, $F(2, 171) = 2.527$, $p = .083$, $\eta^2 = .029$. Online instructors led the pack with ($M = 3.45$, $SD = .68$), then hybrid ($M = 3.33$, $SD = .73$), and face-to-face ($M = 3.21$, $SD = .66$).

For individual incentive, there was a statistically significant effect of modality on Q20. Improved student performance, $F(2, 171) = 3.846$, $p = .023$, $\eta^2 = .043$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty teaching online courses ($M = 3.22$, $SD = 1.01$) rated Q20. Improved student performance significantly higher than that of faculty with face-to-face courses ($M = 2.8$, $SD = .86$) ($p = .018$). In addition, there was also a statistically significant effect of modality of instruction on Q23. Positive perceptions of OER, $F(2, 171) = 3.117$, $p = .047$, $\eta^2 = .035$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty teaching online courses ($M = 3.41$, $SD = 1.19$) rated

Q23. Positive perceptions of OER significantly higher than those of faculty with face-to-face courses ($M = 2.97$, $SD = 1.04$) ($p = .036$).

Table 23

ANOVA Results for Modality of Instruction in Section 3

ANOVA	Post Hoc Comparison
Overall – Incentives:	
$F(2, 171) = 2.527$, $p = .083$, $\eta^2 = .029$	-
Q17. Increased student access:	
$F(2, 171) = 1.504$, $p = .225$, $\eta^2 = .017$	-
Q18. Narrowed student attainment gaps:	
$F(2, 171) = 1.166$, $p = .314$, $\eta^2 = .013$	-
Q19. Reduced student financial costs:	
$F(2, 171) = 1.431$, $p = .242$, $\eta^2 = .016$	-
Q20. Improved student performance:	
$F(2, 171) = 3.846$*, $p = .023$, $\eta^2 = .043$	$M_{Online} > M_{f2f}$ ($p = .018$)
Q21. Enhanced faculty innovation:	
$F(2, 171) = .862$, $p = .424$, $\eta^2 = .010$	-
Q22. Increased student engagement:	
$F(2, 171) = 1.548$, $p = .216$, $\eta^2 = .018$	-
Q23. Positive OER perceptions:	
$F(2, 171) = 3.117$*, $p = .047$, $\eta^2 = .035$	$M_{Online} > M_{f2f}$ ($p = .036$)
Q24. Administrative encouragement:	
$F(2, 171) = 1.174$, $p = .312$, $\eta^2 = .014$	-
Q25. Financial incentives for faculty:	
$F(2, 171) = .101$, $p = .904$, $\eta^2 = .001$	-
Q26. Received recognition:	
$F(2, 171) = .668$, $p = .514$, $\eta^2 = .008$	-

Note. * denotes statistical significance at the $p < .05$ level.

Ability to Choose Textbook

For RQ3, we can review each incentive question (Q.17-Q.26) against each demographic variable. The ANOVA results for the ability to choose a textbook in Section 3 are presented in Table 24. Descriptive statistics for the ability to choose a textbook in Section 3 are provided in Appendix E (Table E9).

Faculty who “strongly disagreed” (M = 3.80, SD = .45) that they have the ability to choose a textbook had the highest overall mean across all incentive questions, followed by faculty who “agreed” (M = 3.33, SD = .52) and “strongly agreed” (M = 3.33, SD = .70), then faculty who remained “neural” (M = 3.10, SD = 1.03) and faculty who “disagreed” (M = 2.94, SD = .48). A one-way ANOVA revealed no statistically significant effect of the faculty’s ability to choose their textbook on the overall mean across all incentive questions, $F(4, 14.84) = 2.079$, $p = .135$, $\eta^2 = .031$.

Among the individual incentives, textbook choice had a statistically significant effect on Q17. Increased student access. A one-way ANOVA revealed there was a statistically significant effect of textbook choice on Q17. increased student access, $F(4, 170) = 2.458$, $p = .047$, $\eta^2 = .055$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty who “agreed” with their ability to choose a textbook (M = 4.25, SD = .76) rated Q17. Increased student access significantly higher than that of faculty who remained “neutral” (M = 3.31, SD = 1.25) (p = .025).

In addition, one-way ANOVA revealed a statistically significant effect of textbook choice on Q20. Improved student performance, $F(4, 170) = 2.543$, $p = .041$, $\eta^2 = .056$. Faculty who “strongly disagreed” with their ability to choose a textbook (M = 4.20, SD = .84) rated Q20. Improved student performance significantly higher than that of faculty who were “neutral” (M = 2.77, SD = 1.24) (p = .031), faculty who “agreed” (M = 2.98, SD = .73) (p = .044), and faculty who “strongly agreed” (M = 2.97, SD = .97) (p = .034). Another statistically significant effect of textbook choice was found on Q21. Enhanced faculty innovation, $F(4, 170) = 3.371$, $p = .011$, $\eta^2 = .073$. Faculty who

"strongly agreed" with their ability to choose a textbook ($M = 3.31$, $SD = 1.01$) rated Q21. Enhanced faculty innovation significantly higher than that of faculty who "disagreed" ($M = 2.00$, $SD = .71$) ($p = .027$).

Lastly, a one-way ANOVA revealed a statistically significant effect of textbook choice on Q23. Positive perceptions of OER, $F(4, 14.59) = 3.456$, $p = .035$, $\eta^2 = .052$. Although the overall ANOVA indicated a statistically significant difference among group means, the post hoc comparisons did not reveal any statistically significant pairwise differences. This discrepancy may be attributed to the conservative nature of the post hoc test, which adjusts for multiple comparisons and reduces statistical power, thereby limiting the ability to detect specific group differences.

Table 24

ANOVA Results for Ability to Choose Textbook in Section 3

ANOVA	Post Hoc Comparison
^Overall – Incentives:	
$F(4, 14.84) = 2.079$, $p = .135$, $\eta^2 = .031$	-
Q17. Increased student access:	
$F(4, 170) = 2.458$*, $p = .047$, $\eta^2 = .055$	$M_A > M_N$ ($p = .025$)
^Q18. Narrowed student attainment gaps:	
$F(4, 14.82) = .178$, $p = .946$, $\eta^2 = .006$	-
Q19. Reduced student financial costs:	
$F(4, 170) = .468$, $p = .759$, $\eta^2 = .011$	-
Q20. Improved student performance:	
$F(4, 170) = 2.543$*, $p = .041$, $\eta^2 = .056$	$M_{SD} > M_N$ ($p = .031$) $M_{SD} > M_A$ ($p = .044$) $M_{SD} > M_{SA}$ ($p = .034$)
Q21. Enhanced faculty innovation:	
$F(4, 170) = 3.371$*, $p = .011$, $\eta^2 = .073$	$M_{SD} > M_D$ ($p = .010$) $M_{SA} > M_D$ ($p = .027$)
Q22. Increased student engagement:	
$F(4, 170) = 1.054$, $p = .381$, $\eta^2 = .024$	-
^^Q23. Positive OER perceptions:	
$F(4, 14.59) = 3.456$*, $p = .035$, $\eta^2 = .052$	!!No significant pairwise differences

Table 24 (continued).

Q24. Administrative encouragement:	
$F(4, 170) = 1.352$, $p = .253$, $\eta^2 = .031$	-
Q25. Financial incentives for faculty:	
$F(4, 170) = .158$, $p = .959$, $\eta^2 = .004$	-
Q26. Received recognition:	
$F(4, 170) = .548$, $p = .701$, $\eta^2 = .013$	-

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test; ^^ Levene's test indicated unequal variances, but Welch's ANOVA could not be conducted because at least one group had zero variance; * denotes statistical significance at the $p < .05$ level; !! Although the overall ANOVA was significant, the post hoc tests found no significant pairwise differences, possibly because the conservative adjustment for multiple comparisons reduced statistical power.

Overall Technology Ability for Education

For RQ3, we can review each incentive question (Q.17-Q.26) against each demographic variable. The ANOVA results for overall technology ability in education, presented in Section 3, are presented in Table 25. Descriptive statistics for overall technology ability in education, as presented in Section 3, are provided in Appendix E (Table E10).

Faculty who rated themselves as highly proficient in overall technology ability for education ($M = 3.43$, $SD = .83$) had the highest overall mean across all incentive questions, followed by faculty with proficiency ability ($M = 3.31$, $SD = .57$), faculty with basic ability ($M = 3.15$, $SD = .21$), and faculty with moderate ability ($M = 3.08$, $SD = .62$). A one-way ANOVA revealed that there was no statistically significant effect of overall technology ability in education on the overall mean across incentives questions, $F(3, 171) = 1.719$, $p = .165$, $\eta^2 = .029$.

Among all incentives, overall technology ability had a statistically significant effect on Q17. Increased student access, $F(3, 171) = 3.313$, $p = .021$, $\eta^2 = .055$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty with moderate overall technology ability for education ($M = 3.52$, $SD = .99$) rated Q17. Increased student access significantly lower than that of faculty who were proficient ($M = 4.15$, $SD = .87$) ($p = .018$) or highly proficient ($M = 4.12$, $SD = 1.18$) ($p = .043$).

Table 25

ANOVA Results for Overall Technology Ability in Section 3

ANOVA	Post Hoc Comparison
Overall – Incentives:	
$F(3, 171) = 1.719$, $p = .165$, $\eta^2 = .029$	-
Q17. Increased student access:	
$F(3, 171) = 3.313$*, $p = .021$, $\eta^2 = .055$	$M_{\text{Proficient}} > M_{\text{Moderate}}$ ($p = .018$) $M_{\text{Highly Prof.}} > M_{\text{Moderate}}$ ($p = .043$)
^^Q18. Narrowed student attainment gaps:	
$F(3, 171) = 1.213$, $p = .307$, $\eta^2 = .021$	-
Q19. Reduced student financial costs:	
$F(3, 171) = 2.557$, $p = .057$, $\eta^2 = .043$	-
Q20. Improved student performance:	
$F(3, 171) = .671$, $p = .571$, $\eta^2 = .012$	-
^^Q21. Enhanced faculty innovation:	
$F(3, 171) = .515$, $p = .672$, $\eta^2 = .009$	-
Q22. Increased student engagement:	
$F(3, 171) = .295$, $p = .829$, $\eta^2 = .005$	-
^^Q23. Positive OER perceptions:	
$F(3, 171) = 1.439$, $p = .233$, $\eta^2 = .025$	-
Q24. Administrative encouragement:	
$F(3, 171) = .681$, $p = .565$, $\eta^2 = .012$	-
Q25. Financial incentives for faculty:	
$F(3, 171) = .413$, $p = .744$, $\eta^2 = .007$	-
^Q26. Received recognition:	
$F(3, 5.01) = 1.327$, $p = .364$, $\eta^2 = .033$	-

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's

test; ^^ Levene's test indicated unequal variances, but Welch's ANOVA could not be conducted because at least one group had zero variance; * denotes statistical significance at the $p < .05$ level.

Findings from Open-ended Questions

Open-ended question #36 regarding incentives to adoption from faculty listed OER awareness, increased student access, financial support through ALG or other grants, reduced student costs, enhanced faculty innovation, administrative support, and/or recognition, negative aspects of their current instructional material, and OER training. Out of the 175 faculty members who completed the survey, 89 submitted open-ended answers to Q36. Faculty #147 summarizes many incentives in the response:

> Additional incentives that would encourage me to adopt OER include small grants or course-release time dedicated to developing, curating, or adapting materials for accessibility and alignment with program standards. Turnkey ancillary resources such as study guides, test banks, and lesson templates would make adoption more practical, especially when aligned with current standards. Institutional support through instructional designers, librarians, and technology specialists would streamline the discovery and adaptation process. Recognition of OER authorship and integration in tenure and promotion guidelines would also encourage broader participation. Furthermore, accessible-by-design repositories with clear quality indicators, LMS integration tools, and collaborative communities of practice across the University System of Georgia would make OER use both sustainable and innovative. Finally, the availability of micro-credentials or professional

learning focused on open pedagogy and OER creation could strengthen faculty confidence and skill[s] in this area.

Some USG faculty members had never heard of OER before this survey, while others boasted of 100% OER use in their courses. Faculty #158 stated, “If I knew what it was, I might use it.” Faculty member #71 had a similar statement, “Until I received an email to complete this survey, I had never heard of OER. If I could have saved my students money instead of having to purchase a textbook with its online resource, I would have.” Faculty member #74 was in the opposite situation; the faculty member stated, “I’ve already shifted to 100% OER implementation for my classes.”

The most frequently mentioned incentives were improving student access, ALG financial grants, and reducing student costs. Twenty-three faculty members (25.8%) mentioned lowering student costs and providing financial incentives for faculty. ALG grants were mentioned three times as specific financial incentives for faculty. Faculty #65 stated, “There should be financial incentives beyond what ALG provides. Creating OER (ensuring that they are high-quality, managing updates, checking copyright and accessibility) takes a lot of effort and should be compensated (either as a grant or a course overload).” Faculty #159 echoes the sentiment of faculty compensation, stating, “The financial incentives are absurdly low to produce OER. If they were meaningful, I would consider producing them/making what I've produced available.” Faculty #108 has a suggestion regarding faculty compensation: “Stipends or course release time to develop, update, and maintain OER content commensurate with the student financial savings for using OERs.” Regarding student savings, faculty #82 stated:

> The main reason for OER is [the] economic savings for students. We adopted OER for a popular survey course almost a decade ago, resulting in $25-30k in annual cost savings for students. That is significant, given the rise of tuition and fees.

Some faculty also mentioned faculty innovation as an incentive. For example, Faculty #52 mentioned faculty innovation in their comment: "I find that using OERs makes it easier for me to customize my courses. I can use multiple texts without worrying about burdening students with high costs."

Support from the institution and administration was mentioned by the faculty. Three faculty members specifically mentioned administrative support. Administrative support was mentioned by Faculty #30, "With the push to lower fees and costs for students, it would be nice if the administration supported OER more." Two faculty members mentioned that annual evaluations from the administration should include faculty who use OER. Faculty #22 mentioned recognition as an incentive for OER adoption: "I think departmental recognition at the institutional level (e.g., OER Seal of Excellence) for having a certain amount of adopted OER materials (75%) may incentivize me."

As noted in the literature, frustration with existing traditional textbook materials can also serve as an incentive. Faculty #7 stated:

> Not having to deal with our cumbersome course material adoption online system. If by adopting OER materials, I could never have to interact with that piece of technological crap again as long as I lived, I would FIND a way to adopt OER materials for every course in a heartbeat!

I can identify with faculty #7, as I consider myself proficient in educational technology, but I, too, have experienced frustration (not necessarily textbook-related) at least a time or two in my 11 years of teaching.

Five faculty members also mentioned they would benefit from training to switch to OER. Faculty #124 stated their incentive, "More training for new instructors / professors in how to use OER." Mentoring was mentioned by Faculty #101, "Ability to learn from faculty in my field who have switched to OER on how to do it well."

RQ4. To what extent does the USG faculty's perception of barriers to OER use differ across demographic groups?

- Hypothesis (H_1) for RQ4: There is a statistically significant difference in USG faculty's perception of barriers to OER use across different demographic groups.
- Null Hypothesis (H_0) for RQ4: There is no statistically significant difference in USG faculty's perception of barriers to OER use across different demographic groups.

For research question four, the dependent variable is the average of participants' responses to Questions 27 (Lack of Ancillary Materials) through Question 35 (Lack of Reliability) in Section 4, which pertains to their barriers to OER adoption. The independent variable for RQ4 is each demographic variable, including USG institution, gender, age, job title, years of teaching experience, academic field, level of coursework taught, modality of instruction, ability to choose textbooks, and overall technology ability for education. ANOVAs were used to analyze data for barriers to OER adoption across demographic groups for RQ4. Since Question 8 regarding coursework taught allowed

multiple responses, it was treated differently in the analysis. Each response option was recorded as a dichotomous (dummy) variable, with 0 indicating the option was not selected and 1 indicating it was selected. Independent samples *t*-tests were conducted for each dummy variable to determine whether statistically significant differences existed between groups. All descriptive statistics for each demographic variable in Section 4 are provided in Appendix E (Tables E1 to E10).

USG Institution

For RQ4, we can review each barrier question (Q.27-Q.35) against each demographic variable. The ANOVA results for USG institution groups in Section 4 are presented in Table 26. Descriptive statistics for USG institutions in Section 4 are provided in Appendix E (Table E1).

For Section 4 on "Barriers to OER Use," the questions asked faculty to rate their level of agreement or disagreement regarding the barriers to OER use. The data in Section 4 exhibited an inverse pattern compared to Section 3. Research Universities had the lowest overall mean rating (M = 2.40, SD = .71) across all items in Section 4; this USG group generally "disagreed" that these barriers influenced OER use. This USG group rated the lowest on five out of nine items, including Q27. Lack of ancillary materials (M = 2.00, SD = 1.22), Q30. Poor OER quality (M = 3.00, SD = 1.00), Q31. Negative OER perceptions (M = 1.80, SD = .45), Q32. Administrative pressure (M = 1.60, SD = .55), and Q35. Lack of reliability (M = 2.40, SD = .89), and conversely, had the highest rating on Q29. More course preparation time (M = 3.00, SD = 1.22) and Q33. Lack of administrative support (M = 2.20, SD = .84).

For Section 4, the highest overall mean rating was observed for Comprehensive Universities (M = 2.67, SD = .69), indicating that this USG group remained "neutral" regarding these barriers to OER use. Faculty at Comprehensive Universities rated the highest on three out of nine items, including Q31. Negative OER perceptions (M = 2.46, SD = 1.13), Q32. Administrative pressure (M = 1.95, SD = .91) and Q35. Lack of reliability (M = 2.89, SD = 1.14), and conversely, had the lowest rating on Q34. Lack of technical support (M = 2.28, SD = 1.08).

Overall, the USG groups, State Universities (M = 2.64, SD = .71) and State Colleges (M = 2.53, SD = .61), also remained "neutral" regarding the influence of these barriers to OER use. Faculty at State Universities rated the highest on four out of nine items, including Q27. Lack of ancillary materials (M = 2.92, SD = 1.18), Q28. Lack of 3000+ level material (M = 3.27, SD = 1.25), Q30. Poor OER quality (M = 3.36, SD = 1.25), and Q34. Lack of technical support (M = 2.45, SD = 1.19). Moreover, faculty at State Colleges rated the lowest on three out of 9 items, including Q28. Lack of 3000+ level materials (M = 3.19, SD = 1.04), Q29. More course preparation time (M = 2.74, SD = 1.05), and Q33. Lack of administrative support (M = 1.89, SD = .96), and conversely, had the highest rating on Q30. Poor OER quality (M = 3.36, SD = 1.22).

When comparing the USG Institution against the overall mean across all barrier questions, Comprehensive Universities (M = 2.67, SD = .69) had the highest overall mean, followed by State Universities (M = 2.64, SD = .71), State Colleges (M = 2.53, SD = .61), and Research Universities (M = 2.40, SD = .71), respectively. A one-way ANOVA was conducted to examine differences in overall mean across all barrier questions among USG Institution groups. Results indicated no statistically significant

effect of USG institution on the overall mean across all barrier questions, $F(3, 171) = .565$, $p = .639$, $\eta^2 = .010$. In addition, no significant differences were found across USG institution groups for any individual barrier.

Table 26

ANOVA Results for USG Institution Groups in Section 4

ANOVA	Post Hoc Comparison
Overall – Barriers:	
$F(3, 171) = .565$, $p = .639$, $\eta^2 = .010$	-
27. Lack of ancillary materials:	
$F(3, 171) = .930$, $p = .427$, $\eta^2 = .016$	-
28. Lack of 3000+ level materials:	
$F(3, 171) = .053$, $p = .984$, $\eta^2 = .001$	-
29. More course preparation time:	
$F(3, 171) = .086$, $p = .968$, $\eta^2 = .002$	-
30. Poor OER quality:	
$F(3, 171) = .152$, $p = .928$, $\eta^2 = .003$	-
^31. Negative OER perceptions:	
$F(3, 24.08) = 2.338$, $p = .099$, $\eta^2 = .020$	-
32. Administrative pressure:	
$F(3, 171) = 1.259$, $p = .290$, $\eta^2 = .022$	-
33. Lack of administrative support:	
$F(3, 171) = .805$, $p = .493$, $\eta^2 = .014$	-
34. Lack of technical support:	
$F(3, 171) = .264$, $p = .851$, $\eta^2 = .005$	-
35. Lack of reliability:	
$F(3, 171) = .787$, $p = .503$, $\eta^2 = .014$	-

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test.

Gender

For RQ4, we can review each barrier question (Q.27-Q.35) against each demographic variable. The ANOVA results for gender groups in Section 4 are presented

in Table 27. Descriptive statistics for gender in Section 4 are provided in Appendix E (Table E2).

For Section 4 on "Barriers to OER Use," the questions asked faculty to rate their level of agreement or disagreement regarding the barriers to OER use. Overall, both gender groups remained "neutral" on the influence of these barriers on OER adoption across all items in Section 4, with males' overall mean (M = 2.72, SD = .76) slightly higher than females' (M = 2.54, SD = .62). In Section 4, the male group rated slightly higher than the female group on nine out of nine items, including Q27. Lack of ancillary materials (M = 2.90, SD = 1.20), Q28. Lack of 3000+ level materials (M = 3.37, SD = 1.26), Q29. More course preparation time (M = 2.97, SD = 1.23), Q30. Poor OER quality (M = 3.37, SD = 1.22), Q31. Negative OER perceptions (M = 2.40, SD = 1.11), Q32. Administrative pressure (M = 1.90, SD = .92), Q33. Lack of administrative support (M = 2.18, SD = 1.17), Q34. Lack of technical support (M = 2.52, SD = 1.17), and Q35. Lack of reliability (M = 2.89, SD = 1.13).

When comparing the gender groups against the overall mean across all barrier questions, male faculty (M = 2.72, SD = .76) had a slightly higher overall mean across all barrier questions than female faculty (M = 2.54, SD = .62). A one-way ANOVA was conducted to examine differences in overall mean across all barrier questions among gender groups. Results indicated no statistically significant effect of gender on the overall mean across barrier questions, $F(2, 172) = 2.047$, $p = .132$, $\eta^2 = .023$. In addition, no significant differences were found between male and female faculty for any individual barrier.

Table 27

ANOVA Results for Gender Groups in Section 4

ANOVA	Post Hoc Comparison
Overall – Barriers:	
$F(2, 172) = 2.047$, $p = .132$, $\eta^2 = .023$	-
27. Lack of ancillary materials:	
$F(2, 172) = .299$, $p = .742$, $\eta^2 = .003$	-
28. Lack of 3000+ level materials:	
$F(2, 172) = .646$, $p = .525$, $\eta^2 = .007$	-
29. More course preparation time:	
$F(2, 172) = 2.062$, $p = .130$, $\eta^2 = .023$	-
30. Poor OER quality:	
$F(2, 172) = .061$, $p = .941$, $\eta^2 = .001$	-
31. Negative OER perceptions:	
$F(2, 172) = .842$, $p = .433$, $\eta^2 = .010$	-
32. Administrative pressure:	
$F(2, 172) = 1.112$, $p = .331$, $\eta^2 = .013$	-
^33. Lack of administrative support:	
$F(2, 2.67) = .851$, $p = .518$, $\eta^2 = .018$	-
34. Lack of technical support:	
$F(2, 172) = .947$, $p = .390$, $\eta^2 = .011$	-
35. Lack of reliability:	
$F(2, 172) = 1.315$, $p = .271$, $\eta^2 = .015$	-

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test.

Age

For RQ4, we can review each barrier question (Q.27-Q.35) against each demographic variable. The ANOVA results for age groups in Section 4 are presented in Table 28. Descriptive statistics for age in Section 4 are provided in Appendix E (Table E3).

When comparing age groups against the overall mean across all barrier questions, faculty aged 45–54 ($M = 2.67$, $SD = .71$) had the highest mean, followed by faculty aged

65+ (M = 2.65, SD = .70), 35–44 (M = 2.62, SD = .69), 55–64 (M = 2.56, SD = .59), and 25–34 (M = 2.43, SD = .76), respectively. A one-way ANOVA was conducted to examine differences in the overall mean across all barrier questions by age group. Results indicated no statistically significant effect of age on the overall mean across all barrier questions, $F(4, 169) = .420$, $p = .794$, $\eta^2 = .010$.

Among individual barriers, a one-way ANOVA revealed a statistically significant effect of age on barrier Q31. Negative perceptions of OER, $F(4, 56.23) = 5.487$, $p = <$ .001, $\eta^2 = .052$. The assumption of homogeneity of variance was violated, as indicated by Levene's test. Thus, Welch's ANOVA was conducted. When statistically significant results were observed, the Games–Howell post hoc test was used in place of Tukey's test for pairwise comparisons. The Games–Howell post hoc test indicated that faculty in the age range of 25–34 (M = 1.43, SD = .65) rated Q31. Negative perceptions of OER significantly lower than faculty 35–45 years of age (M = 2.38, SD = 1.10) (p = .004), and faculty 45–54 years of age (M = 2.31, SD = 1.29) (p = .006), faculty 55–64 years of age (M = 1.43, SD = .65) (p = .007) and faculty 65+ (M = 2.5, SD = .97) (p = .010). According to the result, USG faculty ages 25–34 are statistically more likely to "strongly disagree" that negative perceptions of OER are a barrier to OER adoption than faculty over the age of 35, who tended to lean more "neutral" with age.

In addition, a one-way ANOVA revealed a statistically significant effect of age on barrier Q32. Administrative pressure, $F(4, 169) = 2.520$, $p = .043$, $\eta^2 = .056$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty in the age range of 25–34 (M = 1.21, SD = .43) rated 32. Administrative pressure significantly lower than that of faculty 55–64 years of age (M = 2.02, SD = 1.0)

(p = .021). According to the result, younger USG faculty are less likely to be discouraged by administrative pressure as a barrier to OER adoption than their cohorts ages 55–64.

Table 28

ANOVA Results for Age Groups in Section 4

ANOVA	Post Hoc Comparison
Overall – Barriers:	
$F(4, 169) = .420$, $p = .794$, $\eta^2 = .010$	-
27. Lack of ancillary materials:	
$F(4, 169) = .388$, $p = .817$, $\eta^2 = .009$	-
28. Lack of 3000+ level materials:	
$F(4, 169) = .602$, $p = .662$, $\eta^2 = .014$	-
29. More course preparation time:	
$F(4, 169) = .530$, $p = .714$, $\eta^2 = .012$	-
30. Poor OER quality:	
$F(4, 169) = .999$, $p = .410$, $\eta^2 = .023$	-
^31. Negative OER perceptions:	
$F(4, 56.23) = 5.487$*, $p = <.001$, $\eta^2 = .052$	$M_{25–34} < M_{35–44}$ ($p = .004$) $M_{25–34} < M_{45–54}$ ($p = .006$) $M_{25–34} < M_{55–64}$ ($p = .007$) $M_{25–34} < M_{65+}$ ($p = .010$)
32. Administrative pressure:	
$F(4, 169) = 2.520$*, $p = .043$, $\eta^2 = .056$	$M_{25–34} < M_{55–64}$ ($p = .021$)
33. Lack of administrative support:	
$F(4, 169) = 1.419$, $p = .230$, $\eta^2 = .033$	-
34. Lack of technical support:	
$F(4, 169) = .319$, $p = .865$, $\eta^2 = .007$	-
35. Lack of reliability:	
$F(4, 169) = .054$, $p = .994$, $\eta^2 = .001$	-

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test; * denotes statistical significance at the $p < .05$ level.

Job Title

For RQ4, we can review each barrier question (Q.27-Q.35) against each demographic variable. The ANOVA results for job titles in Section 4 are presented in

Table 29. Descriptive statistics for job titles in Section 4 are provided in Appendix E (Table E4).

When comparing job titles against the overall mean across all barrier questions, Professor (M = 2.69, SD = .74) had the highest mean, followed by Assistant Professor (M = 2.65, SD = .68), Lecturer (M = 2.57, SD = .71), Associate Professor (M = 2.52, SD = .51), and Instructor (M = 2.35, SD = .63), respectively. A one-way ANOVA was conducted to examine differences in the overall mean across all barrier questions by job title. Results indicated no statistically significant effect of job title on the overall mean across all barrier questions, $F(4, 169) = .710$, $p = .586$, $\eta^2 = .017$.

Among individual barriers, a one-way ANOVA revealed a statistically significant effect of titles on barrier Q32. Administrative pressure of OER, $F(4, 169) = 2.799$, $p = .028$, $\eta^2 = .062$. Although the overall ANOVA indicated a statistically significant difference among group means, the post hoc comparisons did not reveal any statistically significant pairwise differences. This discrepancy may be attributed to the conservative nature of the post hoc test, which adjusts for multiple comparisons and reduces statistical power, thereby limiting the ability to detect specific group differences.

In addition, a one-way ANOVA revealed a statistically significant effect of job title on the barriers Q33. Lack of administrative support for OER adoption, $F(4, 169) = 2.693$, $p = .033$, $\eta^2 = .060$. Although the overall ANOVA indicated a statistically significant difference among group means, the post hoc comparisons did not reveal any statistically significant pairwise differences. This discrepancy may be attributed to the conservative nature of the post hoc test, which adjusts for multiple comparisons and reduces statistical power, thereby limiting the ability to detect specific group differences.

Table 29

ANOVA Results for Job Titles in Section 4

ANOVA	Post Hoc Comparison
Overall – Barriers:	
$F(4, 169) = .710$, $p = .586$, $\eta^2 = .017$	-
27. Lack of ancillary materials:	
$F(4, 169) = .181$, $p = .948$, $\eta^2 = .004$	-
28. Lack of 3000+ level materials:	
$F(4, 169) = .553$, $p = .697$, $\eta^2 = .013$	-
29. More course preparation time:	
$F(4, 169) = .278$, $p = .892$, $\eta^2 = .007$	-
30. Poor OER quality:	
$F(4, 169) = .544$, $p = .704$, $\eta^2 = .013$	-
31. Negative OER perceptions:	
$F(4, 169) = .694$, $p = .597$, $\eta^2 = .016$	-
32. Administrative pressure:	
$F(4, 169) = 2.799$*, $p = .028$, $\eta^2 = .062$	!!No significant pairwise differences
33. Lack of administrative support:	
$F(4, 169) = 2.693$*, $p = .033$, $\eta^2 = .060$	!!No significant pairwise differences
34. Lack of technical support:	
$F(4, 169) = 1.051$, $p = .382$, $\eta^2 = .024$	-
35. Lack of reliability:	
$F(4, 169) = .430$, $p = .787$, $\eta^2 = .010$	-

Note. * denotes statistical significance at the $p < .05$ level; !! Although the overall ANOVA was significant, the post hoc tests found no significant pairwise differences, possibly because the conservative adjustment for multiple comparisons reduced statistical power.

Years of Teaching Experience

For RQ4, we can review each barrier question (Q.27-Q.35) against each demographic variable. The ANOVA results for faculty teaching experience in Section 4 are presented in Table 30. Descriptive statistics for faculty teaching experience in Section 4 are provided in Appendix E (Table E5).

When comparing faculty teaching experience against the overall mean across all barrier questions, faculty with 13–19 years of teaching experience had the highest mean (M = 2.73, SD = .68), followed by 0–6 years (M = 2.63, SD = .73), 20+ years (M = 2.61, SD = .62), and 7–12 years (M = 2.48, SD = .66). A one-way ANOVA was conducted to examine differences in the overall mean across all barrier questions by faculty teaching experience. Results indicated no statistically significant effect of faculty teaching experience on the overall mean across all barrier questions, $F(3, 171) = .988$, $p = .400$, $\eta^2 = .017$.

Among individual barriers, a one-way ANOVA revealed a statistically significant effect of faculty teaching experience on barrier Q31. Negative perceptions of OER, $F(3, 171) = 3.089$, $p = .029$, $\eta^2 = .051$. The Tukey post hoc test was used to test for pairwise comparisons. The Tukey post hoc test indicated that faculty with 13–19 years of teaching experience (M = 2.73, SD = 1.3) rated Q31. Negative perceptions of OER significantly higher than those of new faculty with 0-6 years of experience (M = 2.11, SD = 1.03) (p = .041). According to the result, less experienced USG faculty (0–6 years) are less likely to be discouraged by negative perceptions of OER as a barrier to OER adoption than their more experienced cohorts (13–19 years).

Table 30

ANOVA Results for Years of Teaching Experience in Section 4

ANOVA	Post Hoc Comparison
Overall – Barriers:	
$F(3, 171) = .988$, $p = .400$, $\eta^2 = .017$	-
27. Lack of ancillary materials:	
$F(3, 171) = .705$, $p = .550$, $\eta^2 = .012$	-
28. Lack of 3000+ level materials:	
$F(3, 171) = .272$, $p = .845$, $\eta^2 = .005$	-

Table 30 (continued).

29. More course preparation time:	
$F(3, 171) = .029$, $p = .993$, $\eta^2 = .001$	-
30. Poor OER quality:	
$F(3, 171) = .132$, $p = .941$, $\eta^2 = .002$	-
31. Negative OER perceptions:	
$F(3, 171) = 3.089$*, $p = .029$, $\eta^2 = .051$	$M_{13–19} > M_{0–6}$ ($p = .041$)
32. Administrative pressure:	
$F(3, 171) = .422$, $p = .737$, $\eta^2 = .007$	-
33. Lack of administrative support:	
$F(3, 171) = .793$, $p = .499$, $\eta^2 = .014$	-
34. Lack of technical support:	
$F(3, 171) = 2.025$, $p = .112$, $\eta^2 = .034$	-
35. Lack of reliability:	
$F(3, 171) = 1.974$, $p = .120$, $\eta^2 = .033$	-

Note. * denotes statistical significance at the $p < .05$ level.

Academic Field

For RQ4, we can review each barrier question (Q.27-Q.35) against each demographic variable. The ANOVA results for the academic field in Section 4 are presented in Table 31. Descriptive statistics for the academic field in Section 4 are provided in Appendix E (Table E6).

When comparing academic fields against the overall mean across all barrier questions, Business had the highest mean ($M = 2.78$, $SD = .64$), followed by Health Science ($M = 2.76$, $SD = .63$), other fields ($M = 2.67$, $SD = 1.08$), STEM ($M = 2.60$, $SD = .66$), Education ($M = 2.58$, $SD = .67$), Social Science ($M = 2.56$, $SD = .76$), and Humanities ($M = 2.56$, $SD = .62$). A one-way ANOVA was conducted to examine differences in the overall mean across all barrier questions by academic field. Results indicated no statistically significant effect of academic field on the overall mean across all barrier questions, $F(6, 167) = .370$, $p = .897$, $\eta^2 = .013$.

Among individual barriers, A one-way ANOVA revealed a statistically significant effect of academic field on barrier Q27. Lack of ancillary materials, $F(6, 167) = 2.163$, p

= .049, η^2 = .072. Although the overall ANOVA indicated a statistically significant difference among group means, the post hoc comparisons did not reveal any statistically significant pairwise differences. This discrepancy may be attributed to the conservative nature of the post hoc test, which adjusts for multiple comparisons and reduces statistical power, thereby limiting the ability to detect specific group differences.

Table 31

ANOVA Results for Academic Fields in Section 4

ANOVA	Post Hoc Comparison
Overall – Barriers:	
$F(6, 167) = .370$, $p = .897$, $\eta^2 = .013$	-
27. Lack of ancillary materials:	
$F(6, 167) = 2.163$*, $p = .049$, $\eta^2 = .072$	!!No significant pairwise differences
28. Lack of 3000+ level materials:	
$F(6, 167) = 1.253$, $p = .282$, $\eta^2 = .043$	-
29. More course preparation time:	
$F(6, 167) = .693$, $p = .656$, $\eta^2 = .024$	-
30. Poor OER quality:	
$F(6, 167) = .446$, $p = .847$, $\eta^2 = .016$	-
31. Negative OER perceptions:	
$F(6, 167) = .905$, $p = .493$, $\eta^2 = .031$	-
32. Administrative pressure:	
$F(6, 167) = .844$, $p = .538$, $\eta^2 = .029$	-
33. Lack of administrative support:	
$F(6, 167) = .464$, $p = .835$, $\eta^2 = .016$	-
34. Lack of technical support:	
$F(6, 167) = .436$, $p = .854$, $\eta^2 = .015$	-
35. Lack of reliability:	
$F(6, 167) = 1.069$, $p = .383$, $\eta^2 = .037$	-

Note. !! Although the overall ANOVA was significant, the post hoc tests found no significant pairwise differences, possibly because the conservative adjustment for multiple comparisons reduced statistical power.

Level of Coursework Taught

For RQ4, we can review each barrier question (Q.17-Q.26) against each demographic variable. The *t*-test results for the level of coursework taught in Section 4 are presented in Table 32. Descriptive statistics for the level of coursework taught in Section 4 are provided in Appendix E (Table E7).

When comparing the different levels of coursework taught against the overall mean across all barrier questions. Faculty who did not teach the college preparatory course ($M = 2.61$, $SD = .68$) had a slightly higher overall mean across all barrier questions than those who did ($M = 2.56$, $SD = .70$). Faculty who did not teach lower-level undergraduate courses ($M = 2.64$, $SD = .71$) had a slightly higher overall mean across all barrier questions than those who did ($M = 2.60$, $SD = .66$). Faculty who taught upper-level undergraduate courses ($M = 2.68$, $SD = .69$) had a slightly higher overall mean across all barrier questions than those who did not ($M = 2.53$, $SD = .66$). Faculty who taught at the graduate level ($M = 2.62$, $SD = .72$) had a slightly higher overall mean across all barrier questions than those who did not ($M = 2.61$, $SD = .66$). An independent samples *t*-test was conducted to examine whether overall mean across all barrier questions differed by level of coursework taught. The results indicated no statistically significant difference in overall mean across all barrier questions between faculty who taught and those who did not, across different levels of coursework. In addition, no significant differences were found among the levels of coursework taught for any individual barrier.

Table 32

T-Test Results for Q8. Coursework Taught in Section 4

T-Test	Comparison
College preparatory courses (0000 – 0999)	
Overall – Barriers: $t(173) = .255$, $p = .799$, $d = .087$	-
27. Lack of ancillary materials: $t(173) = 1.407$, $p = .161$, $d = .482$	-
^28. Lack of 3000+ level materials: $t(10.89) = .103$, $p = .920$, $d = .021$	-
29. More course preparation time $t(173) = -.322$, $p = .748$, $d = -.110$	-
30. Poor OER quality $t(173) = .578$, $p = .564$, $d = .198$	-
31. Negative OER perceptions $t(173) = .112$, $p = .911$, $d = .038$	-
32. Administrative pressure $t(173) = .947$, $p = .345$, $d = .324$	-
33. Lack of administrative support $t(173) = -.473$, $p = .637$, $d = -.162$	-
34. Lack of technical support $t(173) = -1.134$, $p = .258$, $d = -.388$	-
35. Lack of reliability $t(173) = .226$, $p = .821$, $d = .077$	-
Lower level undergraduate courses (1000 – 2000)	
Overall – Barriers: $t(173) = .361$, $p = .718$, $d = .056$	-
27. Lack of ancillary materials: $t(173) = .005$, $p = .996$, $d = .001$	-
28. Lack of 3000+ level materials: $t(173) = -1.009$, $p = .315$, $d = -.157$	-
29. More course preparation time: $t(173) = .043$, $p = .965$, $d = .007$	-
30. Poor OER quality: $t(173) = .053$, $p = .958$, $d = .008$	-
31. Negative OER perceptions: $t(173) = 1.313$, $p = .191$, $d = .204$	-
32. Administrative pressure: $t(173) = .512$, $p = .609$, $d = .080$	-
33. Lack of administrative support: $t(173) = .842$, $p = .401$, $d = .131$	-
34. Lack of technical support: $t(173) = .257$, $p = .798$, $d = .040$	-

Table 32 (continued).

35. Lack of reliability:	
$t(173) = .118$, $p = .906$, $d = .018$	-
Upper level undergraduate courses (3000 – 4000)	
Overall – Barriers:	
$t(173) = -1.384$, $p = .168$, $d = -.210$	-
27. Lack of ancillary materials:	
$t(173) = -.066$, $p = .948$, $d = -.010$	-
28. Lack of 3000+ level materials:	
$t(173) = -1.244$, $p = .215$, $d = -.189$	-
29. More course preparation time:	
$t(173) = -1.076$, $p = .283$, $d = -.163$	-
30. Poor OER quality:	
$t(173) = -1.864$, $p = .064$, $d = -.283$	-
31. Negative OER perceptions:	
$t(173) = -.785$, $p = .433$, $d = -.119$	-
32. Administrative pressure:	
$t(173) = -1.938$, $p = .054$, $d = -.294$	-
^33. Lack of administrative support:	
$t(173.00) = -1.309$, $p = .192$, $d = -.195$	-
34. Lack of technical support:	
$t(173) = -.326$, $p = .745$, $d = -.049$	-
35. Lack of reliability:	
$t(173) = .527$, $p = .599$, $d = .080$	-
Graduate level coursework (6000+)	
Overall – Barriers:	
$t(173) = -.064$, $p = .949$, $d = -.011$	-
27. Lack of ancillary materials:	
$t(173) = .717$, $p = .474$, $d = .121$	-
28. Lack of 3000+ level materials:	
$t(173) = .298$, $p = .766$, $d = .050$	-
29. More course preparation time	
$t(173) = -.030$, $p = .976$, $d = -.005$	-
30. Poor OER quality:	
$t(173) = -.067$, $p = .947$, $d = -.011$	-
31. Negative OER perceptions:	
$t(173) = .133$, $p = .895$, $d = .022$	-
32. Administrative pressure:	
$t(173) = -1.296$, $p = .197$, $d = -.218$	-
33. Lack of administrative support:	
$t(173) = -1.121$, $p = .264$, $d = -.189$	-
34. Lack of technical support:	
$t(173) = .539$, $p = .591$, $d = .091$	-
35. Lack of reliability:	
$t(173) = .103$, $p = .918$, $d = .017$	-

Note. ^ The assumption of homogeneity of variance was violated, as indicated by Levene's test.

Instructional Modality

For RQ4, we can review each barrier question (Q.27-Q.35) against each demographic variable. The ANOVA results for instructional modality in Section 4 are presented in Table 33. Descriptive statistics for instructional modality in Section 4 are provided in Appendix E (Table E8).

When comparing instructional modality against the overall mean across all barrier questions, faculty who taught face-to-face courses had the highest mean (M = 2.73, SD = .70), followed by faculty who taught hybrid courses (M = 2.69, SD = .50), and faculty who taught online courses (M = 2.42, SD = .66). A one-way ANOVA was conducted to examine differences in the overall mean across all barrier questions instructional modality. A one-way ANOVA revealed a statistically significant effect of modality on overall mean across all the barrier questions, $F(2, 171) = 4.420$, $p = .013$, $\eta^2 = .049$. Face-to-face instructors lead the pack (M = 2.73, SD = .70), followed by hybrid (M = 2.69, SD = .5) and online (M = 2.42, SD = .66). The Tukey post hoc test was used to conduct pairwise comparisons. The Tukey post hoc test indicated that overall, faculty who taught face-to-face courses (M = 2.73, SD = .70) rated significantly higher than faculty who taught online courses (M = 2.42, SD = .66) (p = .011). Face-to-face faculty might experience more barriers to OER adoption than online faculty.

Among individual barriers, a one-way ANOVA revealed a statistically significant effect of modality on Q29. More course preparation time, $F(2, 171) = 3.244$, $p = .041$, $\eta^2 = .037$. Although the overall ANOVA indicated a statistically significant difference

among group means, the post hoc comparisons did not reveal any statistically significant pairwise differences. This discrepancy may be attributed to the conservative nature of the post hoc test, which adjusts for multiple comparisons and reduces statistical power, thereby limiting the ability to detect specific group differences.

Also, a one-way ANOVA revealed a statistically significant effect of instructional modality on Q31. Negative perceptions of OER, $F(2, 63.27) = 3.979$, $p = .024$, $\eta^2 = .039$. The assumption of homogeneity of variance was violated, as indicated by Levene's test. Thus, Welch's ANOVA was conducted. The Games–Howell post hoc test was used in place of Tukey's test for pairwise comparisons. The Games–Howell post hoc test indicated that faculty teaching face-to-face courses ($M = 2.47$, $SD = 1.18$) rated Q31. Negative perceptions of OER significantly higher than those of faculty with hybrid courses ($M = 1.95$, $SD = .76$) ($p = .044$).

Lastly, a one-way ANOVA revealed a statistically significant effect of instructional modality on Q34. Lack of technical support, $F(2, 171) = 4.419$, $p = .013$, $\eta^2 = .049$. The Tukey post hoc test was used to conduct pairwise comparisons. The Tukey post hoc test indicated that faculty who taught face-to-face courses ($M = 2.57$, $SD = 1.09$) rated Q34. Lack of technical support was significantly higher than that of faculty who taught online courses ($M = 2.03$, $SD = 1.16$) ($p = .010$). Faculty teaching face-to-face courses are more likely to agree that technical support is a barrier to OER adoption than the online faculty.

Table 33

ANOVA Results for Modality of Instruction in Section 4

ANOVA	Post Hoc Comparison
Overall – Barriers:	
$F(2, 171) = 4.420^*$, $p = .013$, $\eta^2 = .049$	$M_{f2f} > M_{Online}$ ($p = .011$)
27. Lack of ancillary materials:	
$F(2, 171) = 2.829$, $p = .062$, $\eta^2 = .032$	-
28. Lack of 3000+ level materials:	
$F(2, 171) = 1.402$, $p = .249$, $\eta^2 = .016$	-
29. More course preparation time:	
$F(2, 171) = 3.244^*$, $p = .041$, $\eta^2 = .037$	!!No significant pairwise differences
30. Poor OER quality:	
$F(2, 171) = .541$, $p = .583$, $\eta^2 = .006$	-
^31. Negative OER perceptions:	
$F(2, 63.27) = 3.979^*$, $p = .024$, $\eta^2 = .039$	$M_{f2f} > M_{Hybrid}$ ($p = .044$)
32. Administrative pressure:	
$F(2, 171) = 1.514$, $p = .223$, $\eta^2 = .017$	-
33. Lack of administrative support:	
$F(2, 171) = 2.910$, $p = .057$, $\eta^2 = .033$	-
34. Lack of technical support:	
$F(2, 171) = 4.419^*$, $p = .013$, $\eta^2 = .049$	$M_{f2f} > M_{Online}$ ($p = .010$)
35. Lack of reliability:	
$F(2, 171) = 1.849$, $p = .161$, $\eta^2 = .021$	-

Note. * denotes statistical significance at the $p < .05$ level; ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test; !! Although the overall ANOVA was significant, the post hoc tests found no significant pairwise differences, possibly because the conservative adjustment for multiple comparisons reduced statistical power.

Ability to Choose Textbook

For RQ4, we can review each barrier question (Q.27-Q.35) against each demographic variable. The ANOVA results for the ability to choose a textbook in Section

4 are presented in Table 34. Descriptive statistics for the ability to choose a textbook in Section 4 are provided in Appendix E (Table E9).

Faculty who "agreed" (M = 2.77, SD = .61) that they have the ability to choose a textbook had the highest overall mean across all barrier questions, followed by faculty who "disagreed" (M = 2.76, SD = .71) and remained "neural" (M = 2.73, SD = .77), then faculty who "strongly agreed" (SD = 2.53, SD = .69) and faculty who "strongly disagreed" (M = 2.27, SD = .54). A one-way ANOVA revealed no statistically significant effect of the faculty's ability to choose their textbook on the overall mean across all barrier questions, $F(4, 170) = 1.553$, $p = .189$, $\eta^2 = .035$. In addition, no significant differences were found among faculty with different abilities in choosing textbooks for any of the individual barriers.

Table 34

ANOVA Results for Ability to Choose Textbook in Section 4

ANOVA	Post Hoc Comparison
Overall – Barriers:	
$F(4, 170) = 1.553$, $p = .189$, $\eta^2 = .035$	-
27. Lack of ancillary materials:	
$F(4, 170) = .663$, $p = .619$, $\eta^2 = .015$	-
28. Lack of 3000+ level materials:	
$F(4, 170) = 1.865$, $p = .119$, $\eta^2 = .042$	-
29. More course preparation time:	
$F(4, 170) = 2.031$, $p = .092$, $\eta^2 = .046$	-
30. Poor OER quality:	
$F(4, 170) = .847$, $p = .497$, $\eta^2 = .020$	-
^^31. Negative OER perceptions:	
$F(4, 170) = 1.370$, $p = .246$, $\eta^2 = .031$	-
32. Administrative pressure:	
$F(4, 170) = 1.452$, $p = .219$, $\eta^2 = .033$	-
33. Lack of administrative support:	
$F(4, 170) = .450$, $p = .772$, $\eta^2 = .010$	-
34. Lack of technical support:	
$F(4, 170) = .925$, $p = .451$, $\eta^2 = .021$	-

Table 34 (continued).

35. Lack of reliability:	
$F(4, 170) = 1.239$, $p = .296$, $\eta^2 = .028$	-

Note. ^^ Levene's test indicated unequal variances, but Welch's ANOVA could not be conducted because at least one group had zero variance.

Overall Technology Ability for Education

For RQ4, we can review each barrier question (Q.27-Q.35) against each demographic variable. The ANOVA results for the overall technology ability for education in Section 4 are presented in Table 35. Descriptive statistics for the overall technology ability for education in Section 4 are provided in Appendix E (Table E10).

Faculty who rated themselves as basic in overall technology ability for education ($M = 3.06$, $SD = .08$) had the highest overall mean across all barrier questions, followed by faculty with moderate ability ($M = 2.69$, $SD = .69$), faculty with proficient ability ($M = 2.69$, $SD = .60$), and faculty with highly proficient ability ($M = 2.45$, $SD = .76$). A one-way ANOVA revealed no statistically significant effect of overall technology ability in education on the overall mean across barrier questions, $F(3, 171) = 2.024$, $p = .112$, $\eta^2 = .034$. In addition, no significant differences were found among faculty with different levels of overall technology ability in education for any individual barrier.

Table 35

ANOVA Results for Overall Technology Ability in Section 4

ANOVA	Post Hoc Comparison
Overall – Barriers:	
$F(3, 171) = 2.024$, $p = .112$, $\eta^2 = .034$	-
^^27. Lack of ancillary materials:	
$F(3, 171) = 1.650$, $p = .180$, $\eta^2 = .028$	-
^^28. Lack of 3000+ level materials:	
$F(3, 171) = .049$, $p = .985$, $\eta^2 = .001$	-

Table 35 (continued).

^^29. More course preparation time:	
$F(3, 171) = .254$, $p = .858$, $\eta^2 = .004$	-
^^30. Poor OER quality:	
$F(3, 171) = 1.423$, $p = .238$, $\eta^2 = .024$	-
31. Negative OER perceptions:	
$F(3, 171) = 2.641$, $p = .051$, $\eta^2 = .044$	-
32. Administrative pressure:	
$F(3, 171) = 1.431$, $p = .236$, $\eta^2 = .024$	-
33. Lack of administrative support:	
$F(3, 171) = .778$, $p = .507$, $\eta^2 = .013$	-
34. Lack of technical support:	
$F(3, 171) = 2.556$, $p = .057$, $\eta^2 = .043$	-
^^35. Lack of reliability:	
$F(3, 171) = 1.321$, $p = .269$, $\eta^2 = .023$	-

Note. ^^ Levene's test indicated unequal variances, but Welch's ANOVA could not be conducted because at least one group had zero variance.

Findings from Open-ended Questions

Open-ended question #37 regarding barriers to adoption from faculty listed increased course preparation time, lack of administrative support, poor OER quality, lack of ancillary materials, and lack of OER materials in fields like health science, and lack of OER in upper-level courses. Out of the 175 faculty respondents, 70 open-ended responses were received. Faculty #147 has a comprehensive statement regarding barriers:

> Several barriers could still prevent broader OER adoption. The most significant is the time required to ensure accessibility compliance and adapt materials for students with diverse learning needs. In specialized areas such as dyscalculia and advanced STEM or SPED coursework, there is often a shortage of high-quality, field-specific OER materials. Concerns about version control, link stability, and ongoing maintenance also create hesitancy. Faculty may face challenges aligning OER content with accreditation standards, departmental expectations, and assessment requirements. Additionally, inconsistencies in co-instructor buy-in,

> limited LMS compatibility, and [a] lack of integrated test banks can slow implementation. Legal and intellectual property questions, particularly around the creation and distribution of customized ancillaries, add further uncertainty. Finally, the absence of reliable, multimodal materials—especially those with strong math notation and assistive technology compatibility—can create accessibility and instructional gaps that discourage sustained OER use.

Increased course preparation time and a lack of administrative support were frequently cited as barriers to OER adoption among USG faculty. The theme of increased course preparation time is popular, as this is one of many faculty statements regarding question #37. Faculty #41 stated, “Time. Developing quality OER resources requires a lot of time, so anything that provides faculty with time is helpful.” Another faculty member #7 stated, “The expected course load for a lecturer (15 credit hours) prevents me from adopting OER in my intro-level courses because I do not have time to hand grade their homework.” Regarding faculty administrative support, faculty #2 stated, “Jumping through hoops to get administration to be on board” is a barrier. Faculty #168 stated, “The university doesn't seem to value OER work.”

Many faculty members also cited poor OER quality and a lack of ancillaries as barriers. Poor quality or lack of ancillaries was cited by 25 of the 70 respondents. Faculty #80 stated, “The quality of the materials and the absence of quality assessment questions and quality test bank questions are the most important factors.” Faculty #146 also stated, “For me, the poor quality of OER resources is the biggest obstacle.” Three health science faculty members stated that there is a lack of OER materials in their field. Faculty #148

states, “DO not have enough information for nursing courses.” Faculty 52# mentioned, “The only barrier I’ve encountered is a lack of OERs for upper division courses.”

Chapter Summary

The following represent the major findings derived from the survey data. All significant results for each demographic variable were compiled into large tables; therefore, these tables (Tables F1 to F10) are presented in Appendix F to avoid disrupting the flow of the main text.

OER Use before and after COVID

- Faculty reported higher OER use after the pandemic ($M = 3.22$, $SD = 1.31$) than before the pandemic ($M = 2.42$, $SD = 1.29$), $t(174) = 10.314$, $p < .001$, $d = 0.780$.

USG Institution

- State Colleges ($M = 4.57$, $SD = .65$) rated significantly higher on OER awareness than Research Universities ($M = 3.4$, $SD = 1.14$) ($p = .022$).

Gender

- No significant differences were found between male and female faculty.

Age

- Overall, faculty in the age range of 25–34 ($M = 3.90$, $SD = .53$) rated significantly higher than faculty 45–54 years of age ($M = 3.32$, $SD = .55$) ($p = .005$), 55–64 years of age ($M = 3.32$, $SD = .55$) ($p = .042$), and faculty 65+ ($M = 3.04$, $SD = .76$) ($p = .004$).
- Faculty ages 25–34 ($M = 4.71$, $SD = .47$) rated Q17. Increased student access significantly higher than faculty 55–64 ($M = 3.86$, $SD = .84$) ($p = .047$) and faculty 65+ ($M = 3.56$, $SD = 1.21$) ($p = .016$).

- Faculty ages 25–34 (M = 4.36, SD = .74) rated Q18. Narrowed student attainment gaps significantly higher than faculty 45–54 (M = 3.4, SD = 1.06) (p = .010), faculty 55–64 (M = 3.29, SD = .89) (p = .004), and faculty 65+ (M = 3.25, SD = 1.24) (p = .019).
- Faculty ages 25–34 (M = 3.71, SD = .91) rated Q20. Improved student performance significantly higher than faculty 45–54 (M = 2.84, SD = .98) (p = .014), and faculty 65+ (M = 2.63, SD = .89) (p = .013).
- Faculty ages 25–34 (M = 3.79, SD = .80) rated Q21. Enhanced faculty innovation significantly higher than that of faculty 65+ (M = 2.69, SD = 1.01) (p = .019).
- Faculty ages 25–34 (M = 3.86, SD = 1.10) rated Q23. Positive OER perceptions significantly higher than those of faculty 65+ (M = 2.63, SD = 1.02) (p = .018).
- Faculty in the age range of 25–34 (M = 1.43, SD = .65) rated 31. Negative OER perceptions significantly lower than faculty 35–45 years of age (M = 2.38, SD = 1.10) (p = .004), and faculty 45–54 years of age (M = 2.31, SD = 1.29) (p = .006), faculty 55–64 years of age (M = 1.43, SD = .65) (p = .007) and faculty 65+ (M = 2.5, SD = .97) (p = .010). According to the result, USG faculty ages 25–34 are statistically more likely to “strongly disagree” that negative perceptions of OER are a barrier to OER adoption than faculty over the age of 35, who tended to lean more “neutral” with age.
- Faculty in the age range of 25–34 (M = 1.21, SD = .43) rated 32. Administrative pressure was significantly lower than that of faculty 55–64 years of age (M = 2.02, SD = 1.0) (p = .021). According to the result, younger USG faculty are less

likely to be discouraged by administrative pressure as a barrier to OER adoption than their cohorts ages 55–64.

Job Title

- Professors (M = 2.87, SD = 1.07) reported significantly more years of OER use for course instruction than Assistant Professors (M = 2.13, SD = 1.00) (p = .007).
- Professors (M = 2.88, SD = 1.22) reported significantly more OER use for course instruction than Assistant Professors (M = 1.82, SD = 1.17) (p < .001) before COVID-19.
- A significant effect was observed for Q32. Administrative pressure in relation to job title; however, no significant pairwise differences were identified.
- A significant effect was observed for 33. Lack of administrative support in relation to job title; however, no significant pairwise differences were identified.

Years of Teaching Experience

- Faculty with 20+ years of teaching experience (M = 2.90, SD = 1.00) reported significantly more OER use in course instruction than those with 0–6 years of teaching experience (M = 2.13, SD = 1.02) (p = .002).
- Faculty with 7–12 years of teaching experience (M = 2.73, SD = 1.23) reported significantly more OER use in their course than those with 0–6 years of teaching experience (M = 1.79, SD = 1.10) before COVID-19 (p = .002).
- Faculty with 13–19 years of teaching experience (M = 2.60, SD = 1.37) also reported significantly more OER use in their course than those with 0–6 years of teaching experience (M = 1.79, SD = 1.10) before COVID-19 (p = .011).

- Faculty with 20+ years of teaching experience ($M = 2.76$, $SD = 1.24$) also reported significantly more OER use in their course than those with 0–6 years of teaching experience ($M = 1.79$, $SD = 1.10$) before COVID-19 ($p = .001$).
- Faculty with 20+ years of teaching experience ($M = 3.66$, $SD = 1.09$) reported significantly more OER use in their course than those with 13–19 years of teaching experience ($M = 2.88$, $SD = 1.49$) after COVID-19 ($p = .034$).
- Faculty with 13–19 years of teaching experience ($M = 2.73$, $SD = 1.3$) rated Q31. Negative perceptions of OER significantly higher than those of new faculty with 0-6 years of experience ($M = 2.11$, $SD = 1.03$) ($p = .041$). According to the result, less experienced USG faculty (0–6 years) are less likely to be discouraged by negative perceptions of OER as a barrier to OER adoption than their more experienced cohorts (13–19 years).

Academic Field

- Humanities, Social Science, and STEM groups all reported significantly more years of OER adoption than the Health Science group, $M_{\text{Hum.}} > M_{\text{HLSC}}$ ($p < .001$), $M_{\text{Soc. Sci.}} > M_{\text{HLSC}}$ ($p < .001$), and $M_{\text{STEM}} > M_{\text{HLSC}}$ ($p < .001$).
- Humanities, Social Science, and STEM groups all reported significantly more OER use before COVID-19 than the Health Science group, $M_{\text{Hum.}} > M_{\text{HLSC}}$ ($p = .021$), $M_{\text{Soc. Sci.}} > M_{\text{HLSC}}$ ($p = .025$), and $M_{\text{STEM}} > M_{\text{HLSC}}$ ($p = .005$).
- Humanities, Social Science, and STEM groups all reported significantly more OER use after COVID-19 than the Health Science group, $M_{\text{Hum.}} > M_{\text{HLSC}}$ ($p < .001$), $M_{\text{Soc. Sci.}} > M_{\text{HLSC}}$ ($p = .007$), and $M_{\text{STEM}} > M_{\text{HLSC}}$ ($p = .003$).

- A significant effect was observed for Q27. Lack of ancillary materials in relation to the academic field; however, no significant pairwise differences were identified.

Level of Coursework Taught

- Faculty who taught lower-level undergraduate courses (M = 2.60, SD = 1.14) reported significantly more years of OER adoption than faculty who did not (M = 2.25, SD = 1.08) (p = .046).
- Faculty who did not teach graduate courses rated significantly higher (M = 2.60, SD = 1.09) on the agreement of perceived impact of COVID-19 on OER use for course instruction than faculty who did (M = 2.10, SD = 1.16) (p = .008).
- Faculty who taught lower-level undergraduate courses (M = 3.32, SD = 1.03) rated in Q24. Administrative encouragement was significantly higher than that of those who did not (M = 2.99, SD = 1.02) (p = .035).

Modality of Instruction

- Faculty teaching online (M = 2.73, SD = 1.38) reported significantly more OER use before COVID-19 than faculty teaching face-to-face (M = 2.15, SD = 1.20) (p = .017).
- Faculty teaching online (M = 3.52, SD = 1.24) reported significantly more OER use after COVID-19 than faculty teaching face-to-face (M = 2.97, SD = 1.27) (p = .024).
- Faculty teaching face-to-face instructors had a significantly greater probability of remaining “neutral” on the COVID-19 pandemic’s impact on OER use for course

instruction (M = 2.65, SD = .99) versus the faculty teaching online who leaned more toward "disagreeing" with its impact (M = 2.16, SD = 1.22) (p = .022).

- Faculty teaching online courses (M = 3.22, SD = 1.01) rated Q20. Improved student performance was significantly higher than that of faculty with face-to-face courses (M = 2.8, SD = .86) (p = .018).
- Faculty teaching online courses (M = 3.41, SD = 1.19) rated Q23. Positive perceptions of OER were significantly higher than those of faculty with face-to-face courses (M = 2.97, SD = 1.04) (p = .036).
- Overall, faculty teaching face-to-face courses (M = 2.73, SD = .70) rated significantly higher than faculty teaching online courses (M = 2.42, SD = .66) (p = .011). Face-to-face faculty might experience more barriers to OER adoption than online faculty.
- A significant effect was observed for Q29. More course preparation time in relation to the modality of instruction; however, no significant pairwise differences were identified.
- Faculty teaching face-to-face courses (M = 2.47, SD = 1.18) rated Q31. Negative perceptions of OER significantly higher than those of faculty with hybrid courses (M = 1.95, SD = .76) (p = .044).
- Faculty teaching face-to-face courses (M = 2.57, SD = 1.09) rated Q34. Lack of technical support significantly higher than faculty teaching online courses (M = 2.03, SD = 1.16) (p = .010). Faculty teaching face-to-face courses are more likely to agree that technical support is a barrier to OER adoption than the online faculty.

Ability to Choose Textbook

- Faculty who "agreed" with their ability to choose a textbook ($M = 4.25$, $SD = .76$) rated Q17. Increased student access was significantly higher than that of faculty who remained "neutral" ($M = 3.31$, $SD = 1.25$) ($p = .025$).
- Faculty who "strongly disagreed" with their ability to choose a textbook ($M = 4.20$, $SD = .84$) rated Q20. Improved student performance significantly higher than that of faculty who were "neutral" ($M = 2.77$, $SD = 1.24$) ($p = .031$), faculty who "agreed" ($M = 2.98$, $SD = .73$) ($p = .044$), and faculty who "strongly agreed" ($M = 2.97$, $SD = .97$) ($p = .034$).
- Faculty who "strongly disagreed" with their ability to choose a textbook ($M = 4.0$, $SD = 1.0$) rated Q21. Enhanced faculty innovation was significantly higher than that of faculty who "disagreed" ($M = 2.00$, $SD = .71$) ($p = .010$). Faculty who "strongly agreed" with their ability to choose a textbook ($M = 3.31$, $SD = 1.01$) rated Q21. Enhanced faculty innovation was significantly higher than that of faculty who "disagreed" ($M = 2.00$, $SD = .71$) ($p = .027$).

Overall Technology Ability for Education

- Faculty who considered themselves highly proficient in overall technology ability for education rated OER awareness ($M = 4.71$, $SD = .72$) significantly higher than those who considered themselves moderate ($M = 3.97$, $SD = 1.09$) ($p < 0.01$).
- A significant effect was observed for years of OER adoption in relation to overall technology ability for education; however, no significant pairwise differences were identified.

- Faculty that with moderate overall technology ability for education (M = 3.52, SD = .99) rated Q17. Increased student access significantly lower than that of faculty who were proficient (M = 4.15, SD = .87) (p = .018) or highly proficient (M = 4.12, SD = 1.18) (p = .043).

Open-ended Questions

- Open-ended question #36 regarding incentives to adoption from faculty listed OER awareness, increased student access, financial support through ALG or other grants, reduced student costs, enhanced faculty innovation, administrative support, and/or recognition, negative aspects of their current instructional material, and OER training.
- Open-ended Q.37 regarding barriers to adoption from faculty listed increased course preparation time, a lack of administrative support, poor OER quality, a lack of ancillary materials, and a lack of OER materials in fields like health science, and a lack of OER in upper-level courses.

Chapter V

Conclusions, Implications, and Recommendations

This chapter discusses the findings of the study in relation to the research questions and existing literature. It interprets the findings presented in Chapter IV and highlights their significance. The chapter also outlines the implications for practice and provides recommendations for future research.

Summary of the Study

The current study surveyed 175 full-time USG faculty members across 13 USG institutions regarding the impact of the COVID-19 pandemic on OER use, differences in OER use across demographics, incentives for OER adoption, and barriers to OER adoption. Regarding RQ1, there was a significant increase in OER use among surveyed USG faculty before and after the pandemic ($p < .001$). An increase in OER use by USG faculty was predicted by Gallant and Lasseter (2018) in their report. RQ2 found significant differences in OER use across demographic groups, including USG institution, job title, years of teaching experience, academic field, level of coursework taught, modality of instruction, and overall technical ability in education. RQ3 found a significant difference in the overall mean across all incentive questions when compared with faculty age groups. Other demographics were not significant overall, but significant differences were found for individual incentive questions across demographic groups, including Q17. increased student access, Q18. narrowed student attainment gaps, Q20. improved student performance, Q21. enhanced faculty innovation, Q23. positive OER perceptions, and Q24. administrative encouragement. RQ4 compared demographic

groups to barriers to OER adoption, with the overall modality of instruction significant, $M_{f2f} > M_{Online}$ ($p = .011$). The face-to-face instructors noted barriers such as Q29. increased course preparation time, Q31. negative perceptions of OER, and Q34. a lack of technical support. The younger faculty (25-34 years) with less experience seemed to be less impacted by negative perceptions of OER and administrative pressure as barriers than the older faculty (35+). Other significant differences in barriers across demographic groups related to Q32. administrative pressure, Q33. A lack of administrative support, and Q27. A lack of ancillary materials.

Discussion of Major Findings

RQ1. To what extent does the USG faculty's use of differ before and after the COVID-19 pandemic?

RQ1. Our study first set out to determine whether the pandemic affected OER adoption rates among USG faculty members. Faculty were asked about their awareness of OER and then asked to rank their use of OER before and after the pandemic. Gallant and Lasseter (2018) discussed that 60% of the USG faculty surveyed were aware of OER and predicted an increase in OER adoption over the following three years. Our study found that all 75 faculty members agreed they were aware of OER. According to our results, the USG faculty surveyed reported a significant increase in OER use post-pandemic ($p < .001$). This supports Gallant and Lasseter's (2018) prediction of increased OER use, which may have been further accelerated by the pandemic (Parks, 2024).

RQ2. To what extent does the USG faculty's use of OER differ across demographic groups?

RQ2. This research question aimed to clarify whether there were any differences among USG faculty demographics in OER awareness, years of OER adoption, OER use before and after COVID-19, and perceived impact of OER. OER awareness varied significantly across two demographics: USG institutions and overall technology ability in education. State college faculty were significantly more aware of OER than research universities. Research institution tuition costs are significantly higher than those at state colleges (USG, 2025a). Dennis (2022) noted that students are seeking a return on their college investment post-pandemic. Lowering "Cost" to students is also mentioned in the SCOPE framework (Clinton-Lisell et al., 2023). Are state college faculty more aware of the cost impact on students of OER than research university faculty? This difference between the faculty groups is significant, but it may also be skewed by the higher number of respondents from state college faculty compared to research faculty.

There were also significant differences in OER awareness among groups with varying levels of technological ability in education. Faculty who ranked themselves as highly proficient were significantly more aware of OER than those who ranked themselves as moderate. This was supported by the findings in Kuo et al. (2024). A lack of technical proficiency and/or technical support was mentioned in numerous sources as a barrier to OER adoption (Burtis et al., 2024; Kuo et al., 2024; Short et al., 2024; Werth & Williams, 2023; Williams & Kollar, 2020). It seems that USG faculty who are more comfortable with technology are significantly more aware of OER.

Comparing years of OER adoption across different demographics was significant for faculty teaching fields, titles, years of teaching experience, lower-level undergraduate courses, and overall technology ability in education. There were significant differences between the Health Science field and other fields such as Humanities, Social Science, and STEM. Humanities, Social Science, and STEM have a variety of different OER resources. Health Science rated the lowest in years of OER use amongst USG faculty. In the open-ended questions, one faculty member specifically mentioned that there were not enough OER resources in the Health Science field. Hopefully, new resources are being developed, and this field will grow. Despite violating the assumption of homogeneity of variance, the Welch ANOVA yielded significant results, indicating that faculty titled Professor with 20+ years of experience scored significantly higher on years of OER adoption than those entering academia. Regarding USG institutions and the level of coursework they teach, OER is more commonly found in introductory-level courses. State colleges predominantly teach those lower-level undergraduate courses and thus might be more aware of their use.

USG faculty teaching face-to-face significantly felt the impact of the pandemic more than their peers teaching online. This makes sense, as the face-to-face instructors needed to change their instruction platforms from face-to-face to entirely online at the end of the Spring 2020 and Summer 2020 semesters. Many institutions had resources to assist faculty during the transition to online instruction, but many face-to-face faculty members felt the impact. Faculty already teaching online during the pandemic would feel less of that impact, as they did not need to reformat their course instruction in their learning management system. This transition to online is also discussed in the literature

regarding education across the state of Georgia (Basilaia & Kvavadze, 2020), the United States (Williams & Kollar, 2020), and worldwide (Farooq et al., 2020; Mansoor, 2020; Mićunović et al., 2023; Niemczyk, 2021).

RQ3. To what extent does the USG faculty's perception of incentives for switching to OER differ across demographic groups?

RQ3 assessed the perceived incentives faculty might have to use OER resources in their classrooms. These incentives were then compared across the different demographic groups within the faculty. First of all, age appeared to show the most significant difference across demographics. The younger faculty, ages 25–34, were more likely to choose OER adoption than their counterparts aged 45 and over. The incentives motivate younger faculty for OER adoption compared to older faculty, including increased student access (Marshall, 2023), narrowed student attainment gaps (Parks, 2024), increased student performance (Nagashima & Hrach, 2021), enhanced faculty innovation (Coleman-Prisco, 2017), and a positive perception of OER (Herbert et al., 2023). All of these incentives were echoed by the USG faculty respondents in their responses to open-ended question #36.

Second, OER is more commonly used in introductory-level courses. State colleges also predominantly teach those lower-level undergraduate courses and thus might be more aware of their use. Cregger (2024) noted that state colleges might also be more aware of the potential benefits of OER adoption, such as reducing students' financial barriers and expanding access. In the current study, faculty teaching lower-level undergraduate courses agreed more strongly with the statement about administrative encouragement, suggesting they perceive it as an incentive for OER adoption.

Third, instructional modality had a significant effect on increased student performance and positive perceptions of OER. The online faculty rated these incentives significantly higher than the face-to-face faculty. Online faculty instructors are typically technologically proficient, which may impact their use and perceptions of OER to increase student success (Ceciliano, 2024).

Fourth, faculty who "strongly disagreed" with their ability to choose their textbook also did not believe that improved student performance was an incentive for adopting OER. If a faculty does not have control over their textbook resources, it makes sense that they would be less inclined to think student performance is related to their textbooks.

Lastly, faculty who ranked themselves as proficient or highly proficient in overall technology ability for education agreed more strongly that increased student access is the incentive motivating them to adopt OER. This aligns with previous literature surrounding incentives for adoption and characteristics of faculty (Ceciliano, 2024).

RQ4. To what extent does the USG faculty's perception of barriers to OER use differ across demographic groups?

RQ4 assessed perceived barriers that faculty might have to using OER resources in their classrooms. These barriers were then compared to the different demographics of the faculty groups. The most significant demographic overall was the face-to-face instructional modality, which rated barriers much higher than the online modality. The significant modality barriers mentioned included increased course preparation time (Wang & Wang, 2017), negative perceptions of OER, and a lack of technical support (Short et al., 2024). The face-to-face instructors were more likely than the online faculty

to agree that negative perceptions of OER and a lack of technical support contributed to barriers to OER adoption.

Regarding age and barriers, younger faculty (25–34) were less likely than older faculty to agree that administrative pressure and negative perceptions of OER were barriers. I find this mentality interesting. The younger faculty are less influenced by outside pressures, at least regarding their teaching methods and content selection. This age similarly aligns with the experience results. Faculty with 13-19 years of experience are more likely to consider negative perceptions of OER a barrier than those in the 0-6-year category.

Implications for OER Practices

On average, USG faculty in this study are "emerging users" with 2-3 years of experience using OER in courses. Before the COVID-19 pandemic, faculty on average "rarely" used OER in their courses (e.g., in 1 course) or used it on an experimental basis. However, after the COVID-19 pandemic, the frequency of OER use increased in some courses. Despite the increase in OER use after COVID-19, OER are still not widely used by USG faculty. Thus, based on the major findings, I would suggest increasing incentives for faculty to adopt OER and lowering barriers to its adoption. The following are possible strategies for future OER practices:

- Investments in faculty grants, such as the ALG program, to assist faculty in OER adoption would be recommended, based on the 25% of respondents who mentioned lowering student costs and the grant work needed for faculty to create and adopt OER.

- One of the large barriers mentioned was “time” needed to switch, create resources, and prepare courses for OER. Increased faculty funding or possible course release, as one faculty member mentions, is another suggestion.
- Investment in maintaining OER and creation of ancillary materials is necessary, as nearly 1/3 of barrier responses to the open-ended question #37 mentioned this specifically. The availability of sufficient, up-to-date OER resources would encourage greater faculty adoption.
- Compared to other fields, the Health Science group has significantly fewer years of OER adoption. Also, as noted in the open-ended questions and significant ANOVA results, there is a shortage of OER resources in the health sciences compared to other fields; encouraging faculty to develop such resources may increase OER adoption.
- Administrative encouragement can play a critical role in motivating faculty who teach lower-level undergraduate courses and young faculty, as these groups may be more responsive to institutional guidance. This support, when accompanied by incentives, training opportunities, and accessible resources, may increase the likelihood of OER adoption. As suggested by five respondents to the open-ended question #36, hosting OER training may help reduce faculty uncertainty and build their confidence, making them more likely to better understand the benefits of OER, which may lead to increased adoption in their courses.

- Compared to online faculty, faculty who teach face-to-face in the current study reported significantly less OER use before and after COVID-19. Overall, they reported significantly greater agreement on the listed barriers than online faculty. To increase their OER use, consider helping them locate ready-to-use materials, emphasizing the benefits of OER, sharing instructional examples of how to use OER, providing sufficient technical support or training opportunities, and giving them more course preparation time.
- One of the results of the current study found that faculty who ranked themselves as proficient or highly proficient in overall technology ability for education reported significantly higher OER awareness. If possible, improving the usability of OER resources would increase the likelihood of adoption among faculty with lower levels of technology ability for education.

Recommendations for Future Research

I would like to see the entire USG faculty surveyed regarding OER use. It would provide a more accurate portrayal of current adoption rates and barriers to use among USG faculty. With the state of Georgia's funding through Affordable Learning Georgia (ALG) grants, it would be impactful to survey all faculty who had the opportunity to utilize or create OER for their courses. Previously, ALG surveyed past grant recipients (Gallant & Lasseter, 2018), but I feel that surveying all faculty might reduce bias from responses limited to ALG grant recipients. It is interesting to note that financial motivation was not a statistically significant incentive to adoption across any

demographic measured in this survey, despite being mentioned in the open-ended questions and ALG being featured in the USG 2024 strategic plan for educational affordability (Nagashima & Hrach, 2021).

In addition, this survey utilized mostly quantitative data. More information could be gleaned from a qualitative survey of faculty (Cregger, 2024), one-on-one interviews conducted with faculty at community colleges via an online conference tool or in person. This methodology could be applied to future studies of USG faculty's use of OER.

Moreover, the current study was limited to full-time faculty employed within the USG in Georgia. It would be helpful to expand outside the state of Georgia. Other states have similar OER grant programs, such as the one in Alabama (Pate, 2021). A nationwide survey of OER use among higher-education faculty may be necessary.

Conclusions

There are many significant findings regarding OER from a sample of 175 full-time USG faculty. During the COVID-19 pandemic, OER use among USG faculty significantly increased. Within the sampled USG faculty, there were significant differences among demographic groups in OER awareness, years of OER adoption, and perceived impact of the pandemic. The most significant demographic factor influencing OER adoption incentives was age. The most significant demographic for barriers was instructional modality, with face-to-face instructors noting more barriers to adoption than their online counterparts. Overall, the current study raises awareness of OER use amongst USG faculty, the impact of the pandemic, and what incentives and barriers faculty might experience. Suggestions for OER practices, increasing incentives for faculty to adopt OER, and lowering barriers to its adoption are provided. A more comprehensive USG

faculty survey, including qualitative methods and an expanded sample size, is recommended for future research.

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Appendix A:

Survey Questionnaire (for Formal Study)

Instruction:

You are being asked to participate in a research project entitled "Assessing the Use of Open Educational Resources by University System of Georgia Faculty," which is being conducted by Kimberly Subacz, a doctoral student in the Department of Leadership, Technology, & Workforce Development at Valdosta State University (VSU). The purpose of the study is to examine faculty use of Open Educational Resources (OER) within the University System of Georgia. You will receive no direct benefits from participating in this research study. However, your responses may help us better understand the incentives and barriers that influence faculty use of OER. There are no foreseeable risks involved in participating in this study other than those encountered in day-to-day life. Participation should take approximately 15 minutes to complete. This survey is anonymous. No one, including the researcher, will be able to associate your responses with your identity. Your participation is voluntary. You may choose not to take the survey, to stop responding at any time, or to skip any questions that you do not want to answer. Participants must be at least 18 years of age to participate in this study. Your completion of the survey serves as your voluntary agreement to participate in this research project and your certification that you are 18 or older. You may print a copy of this statement for your records.

Questions regarding the purpose or procedures of the research should be directed to Kimberly Subacz at kbsubacz@valdosta.edu. This study has been exempted from the VSU Institutional Review Board (IRB) review in accordance with Federal regulations. The IRB, a university committee established by Federal law, is responsible for protecting the rights and welfare of research participants. If you have concerns or questions about your rights as a research participant, you may contact the IRB Administrator at 229-253-2947 or irb@valdosta.edu.

Section 1: Demographics

1. Are you a USG faculty member?
☐Yes – please proceed to the next question
☐No – thank you for your time

2. Please select the USG institution you are currently teaching at from the list below:
All USG institutions here

3. What is your gender?
☐Female
☐Male

4. What is your age?
☐Under 25 years old – Early-career, new teachers, recent graduates
☐25–34 years old – Early-career teachers, developing professional experience
☐35–44 years old – Mid-career educators, established in the profession

☐45–54 years old – Experienced teachers, potential leadership roles
☐55–64 years old – Senior educators, nearing retirement
☐65+ years old – Late-career or retired educators

5. What is your title as an instructor within the USG?
☐Assistant Professor
☐Associate Professor
☐Professor
☐Instructor
☐Lecturer
☐Other:

6. How long have you been teaching within the USG?
☐0–6 years (Early-career)
☐7–12 years (Mid-career)
☐13–19 years (Late-career)
☐20+ years (Late-career, Distinguished and/or Emeritus)

7. What is the field that you primarily teach in?
☐Business
☐Humanities
☐Education
☐Social Sciences
☐STEM (Science, Technology, Engineering and Mathematics)
☐Other:

8. What level of coursework do you typically teach? Please select all that apply.
☐College preparatory courses (0000 – 0999)
☐Lower level undergraduate courses (1000 – 2000)
☐Upper level undergraduate courses (3000 – 4000)
☐Graduate level coursework (6000+)

9. What would you say is the modality for a majority of your course instruction?
☐Online
☐Hybrid
☐Face-to-face

10. Please rate the following statement: I have the ability to choose the textbook for the courses I teach.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree

☐Strongly Agree

11. How would you rate your overall technology ability in an educational setting?
☐Not proficient at all
☐Basic knowledge (can perform simple tasks with guidance)
☐Moderate proficiency (can perform most tasks independently)
☐Proficient (comfortable using technology efficiently)
☐Highly proficient (expert-level skills, can teach others)

Section 2: OER Use and COVID-19 Impact

12. Please rate the extent to which you agree or disagree with the following statement: "I am aware of Open Educational Resources (OER)."
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

13. How long have you utilized OER course materials in your instruction?
☐New Adopter (0–1 year) – Just starting to explore and implement OER.
☐Emerging User (2–3 years) – Has some experience using OER in courses.
☐Established User (4–6 years) – Regularly integrates OER into teaching.
☐Experienced User (7+ years) – Consistently uses OER and may advocate for or develop resources.

14. How frequently did you use OER in your courses BEFORE the COVID-19 pandemic?
☐Never
☐Rarely (used in 1 course or on an experimental basis)
☐Sometimes (used in some courses)
☐Often (used in most courses)
☐Always (OER is the primary resource in all my courses)

15. How frequently do you use OER in your courses AFTER the COVID-19 pandemic?
☐Never
☐Rarely (used in 1 course or on an experimental basis)
☐Sometimes (used in some courses)
☐Often (used in most courses)
☐Always (OER is the primary resource in all my courses)

16. Please rate the extent to which you agree or disagree with the following statement: "My use of OER for course instruction was impacted during the pandemic."

☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

Section 3: Incentives to Switch to OER

Please rate the extent to which you agree or disagree with each of the following statements regarding the incentives for you to switch to OER materials.

17. The use of OER increases student access to course materials.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

18. The use of OER narrows attainment gaps.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

19. The use of OER reduces student financial costs.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

20. The use of OER improves student performance.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

21. The use of OER enhances faculty innovation in teaching.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree

☐Strongly Agree

22. The use of OER helps increase student engagement.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

23. Positive perception of OER inspires my decision to switch course materials to OER.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

24. Administrative encouragement inspires my decision to switch course materials to OER.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

25. Financial incentive inspires my decision to switch course materials to OER.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

26. Received recognition inspires my decision to switch course materials to OER.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

Section 4: Barriers to OER Use

Please rate the extent to which you agree or disagree with each of the following statements regarding the barriers to OER use.

27. The lack of ancillary materials (e.g., study guides, outlines, test banks, etc.) discourages me from using OER in my courses.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

28. The lack of OER materials for higher-level collegiate courses (3000+) discourages me from using OER in my courses.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

29. Increased course preparation time discourages me from using OER in my courses.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

30. The lack of quality OER materials discourages me from using OER in my courses.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

31. My negative perception of OER discourages me from using OER in my courses.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

32. Administrative pressure discourages me from using OER in my courses.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

33. The lack of administrative support discourages me from using OER in my courses.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

34. The lack of technical support discourages me from using OER in my courses.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

35. The lack of reliability, such as link sustainability, discourages me from using OER in my courses.
☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

Section 5: Open-Ended Questions

36. What additional incentives, beyond those mentioned above, would encourage you to adopt OER?

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37. What additional barriers, beyond those mentioned above, would prevent you from adopting OER?

Appendix B:

IRB Approval

Institutional Review Board (IRB)
for the Protection of Human Research Participants

PROTOCOL EXEMPTION REPORT

Protocol Number: 04610-2025

Responsible Researcher(s): Kimberly Subacz

Supervising Faculty: Dr. Jamie Workman

Dissertation Research Member: Dr. E-Ling Hsiao

Project Title: *Assessing the Use of Open Educational Resources by University System of Georgia Faculty.*

Institutional Review Board Determination:

This research protocol is **exempt** from Institutional Review Board (IRB) oversight under 45 CFR 46.101(b) of the federal regulations, **category 2**. If the nature of the research changes such that exemption criteria no longer apply, please consult with the IRB Administrator (irb@valdosta.edu) before continuing your research study.

Additional Information & Guidance:

- *IRB protocol approval number **(04610-2025)** must be included at the bottom/end of all consent, correspondence, and recruitment documents.*
- *Upon completion of the research study all data (e.g. data, pseudonym lists, email address lists, transcripts, etc.) must be securely maintained (e.g. locked file cabinet, password protected computer, etc.) and accessible only by the researcher for a **minimum of 3 years**. At the end of the required time, collected data must be permanently destroyed.*

☒ ***Proposed modifications must be submitted to the IRB Administrator at tmwright@valdosta.edu for review and approval. Implementing any modifications without written approval from the IRB is strictly prohibited.***

Elizabeth W. Olphie *05.13.2025*

Elizabeth W. Olphie, IRB Administrator Date

Thank you for submitting an IRB application.

Please direct questions to tmwright@valdosta.edu.

Revised: 06.02.16

Appendix C:

USG System Office Academic Affairs Email

Afaha, Nakita
Program Manager, Affordable Learning Georgia
Affordable Learning Georgia
[redacted]

Good morning,

I hope you are having a wonderful day. My name is Kimberly Subacz, and I'm an Associate Professor of Biology at Georgia Highlands College. I am also a doctoral candidate in the Department of Leadership, Technology, & Workforce Development at Valdosta State University.

I am conducting a survey of USG faculty regarding their use of Open Educational Resources (OER). As a former Affordable Learning Georgia (ALG) grant recipient, I am passionate about supporting student success through the adoption of OER.

My study involves a 37-question online survey, which assesses faculty demographics (without collecting any personally identifiable information), the possible impact of the pandemic on OER adoption rates, and the incentives and barriers faculty encounter when adopting OER. A copy of the survey is attached for your reference. I am currently in the process of obtaining IRB approval from Valdosta State University.

I hope to distribute the survey to full-time faculty across all 26 USG institutions. I've noticed that some institutional listservs are publicly accessible, while others are not. I would appreciate your guidance on whether a letter of cooperation or other permissions are needed to access these lists or contact faculty.

Thank you in advance for your time and assistance. Please let me know if you need any additional information from me.

Sincerely,

Kimberly Subacz
kbsubacz@valdosta.edu

Appendix D:

Invitation E-Mail

Dear Faculty,

My name is Kimberly Subacz. I am a doctoral student in the Department of Leadership, Technology, & Workforce Development at Valdosta State University. I want to invite you to participate in a research project titled "Assessing the Use of Open Educational Resources by University System of Georgia Faculty." The purpose of the study is to examine faculty use of Open Educational Resources (OER) within the University System of Georgia. There are no known risks if you decide to participate in this research; there are no costs to you for participating in the study as well. It should take you approximately 15 minutes to complete a confidential survey. No one, including the researcher, can associate your responses with your identity. There is no question about identifiable private information in this research; all data received will remain confidential. Only the researcher and the Valdosta State University Institutional Review Board will have access to the research materials. The information you provide will form the basis for future research and may be used in scholarly publications. The information collected will help educators learn more about the faculty's OER use within USG. Your participation in this research is voluntary, and you may choose not to take the survey, stop responding at any time, or skip any questions you do not want to answer.

Questions regarding the purpose or procedures of the research should be directed to Kimberly Subacz at kbsubacz@valdosta.edu. This study (IRB-***04610-2025)*** has been exempted from the VSU Institutional Review Board (IRB) review in accordance with Federal regulations. The IRB, a university committee established by Federal law, is responsible for protecting the rights and welfare of research participants. If you have concerns or questions about your rights as a research participant, you may contact the IRB Administrator at 229-253-2947 or irb@valdosta.edu.

You must be at least 18 years of age to participate in this study. If you agree to participate in this research, please click the link below to start the survey. Your click serves as your voluntary agreement to participate in this research. It also confirms that you are 18 years or older and that you are a full-time faculty.

Thank you!

Survey URL: https://valdosta.co1.qualtrics.com/jfe/form/SV_40J5F5WAk0pecOq

Appendix E:

Descriptive Data Tables

Table E1

Descriptive Data for USG Institution

	RU (n = 5)		CU (n = 57)		SU (n = 66)		SC (n = 47)	
Question	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Section 2: OER Use and COVID-19 Impact:								
Q12. OER Awareness	3.40	1.14	4.37	.82	4.38	1.00	4.57	.65
Q13. Years of OER Adoption	1.80	1.30	2.32	1.07	2.55	1.13	2.62	1.15
Q14. OER_Use_Before_COVID	2.00	1.22	2.40	1.39	2.30	1.18	2.66	1.32
Q15. OER_Use_After_COVID	2.60	1.14	3.05	1.43	3.32	1.23	3.34	1.27
Q16. Perceived_COVID_Impact	2.20	.84	2.37	1.28	2.52	1.08	2.53	1.04
Section 3: Incentives to Switch to OER:								
Overall - Incentives	3.50	.64	3.27	.72	3.37	.65	3.27	.69
Q17. Increased student access	4.60	.55	3.88	1.13	4.12	1.02	4.02	.90
Q18. Narrowed student attainment gaps	3.80	1.30	3.46	1.02	3.50	1.04	3.47	.95
Q19. Reduced student financial costs	4.80	.45	4.32	.83	4.45	.73	4.38	.82
Q20. Improved student performance	2.80	.45	2.98	.95	3.14	.99	2.79	.88
Q21. Enhanced faculty innovation	3.20	1.10	3.23	.98	3.29	1.02	3.09	.95
Q22. Increased student engagement	3.00	.71	2.98	.94	3.09	.96	2.91	.86
Q23. Positive OER perceptions	3.40	1.14	3.09	1.24	3.20	1.04	3.11	1.03
Q24. Administrative encouragement	3.20	.84	3.12	1.09	3.03	.99	3.51	1.02
Q25. Financial incentives for faculty	4.00	1.22	3.11	1.29	3.35	1.21	3.36	1.28
Q26. Received recognition	2.20	.84	2.51	1.02	2.50	.98	2.11	1.03
Section 4: Barriers to OER Use:								
Overall - Barriers	2.40	.71	2.67	.69	2.64	.71	2.53	.61
Q27. Lack of ancillary materials	2.00	1.22	2.89	1.25	2.92	1.18	2.89	1.17
Q28. Lack of 3000+ level materials	3.20	1.10	3.26	1.16	3.27	1.25	3.19	1.04
Q29. More course preparation time	3.00	1.22	2.75	1.14	2.79	1.17	2.74	1.05
Q30. Poor OER quality	3.00	1.00	3.32	1.17	3.36	1.25	3.36	1.22
Q31. Negative OER perceptions	1.80	.45	2.46	1.13	2.24	1.20	2.11	.98
Q32. Administrative pressure	1.60	.55	1.95	.91	1.86	.91	1.64	.76
Q33. Lack of administrative support	2.20	.84	2.19	.99	2.08	1.04	1.89	.96
Q34. Lack of technical support	2.40	1.14	2.28	1.08	2.45	1.19	2.32	1.14
Q35. Lack of reliability	2.40	.89	2.89	1.14	2.76	1.12	2.60	1.08

Note. RU = Research Universities; CU = Comprehensive Universities; SU = State Universities; SC = State Colleges

Table E2

Descriptive Data for Gender

	Male (n = 62)		Female (n = 111)		Missing (n = 2)	
Question	*M*	*SD*	*M*	*SD*	*M*	*SD*
Section 2: OER Use and COVID-19 Impact:						
Q12. OER Awareness	4.40	.86	4.41	.89	4.00	1.41
Q13. Years of OER Adoption	2.66	1.09	2.36	1.13	2.50	2.12
Q14. OER_Use_Before_COVID	2.48	1.08	2.40	1.40	2.00	1.41
Q15. OER_Use_After_COVID	3.31	1.11	3.18	1.40	2.50	2.12
Q16. Perceived_COVID_Impact	2.44	1.07	2.47	1.17	3.00	.00
Section 3: Incentives to Switch to OER:						
Overall - Incentives	3.27	.57	3.34	.74	3.20	.28
Q17. Increased student access	3.85	.99	4.13	1.03	4.00	1.41
Q18. Narrowed student attainment gaps	3.29	.91	3.59	1.06	3.50	.71
Q19. Reduced student financial costs	4.32	.81	4.45	.76	4.00	1.41
Q20. Improved student performance	2.84	.79	3.06	1.02	3.00	.00
Q21. Enhanced faculty innovation	3.19	.85	3.22	1.07	3.50	.71
Q22. Increased student engagement	3.02	.78	3.00	.99	3.00	.00
Q23. Positive OER perceptions	3.24	.99	3.09	1.17	3.00	.00
Q24. Administrative encouragement	3.24	.94	3.17	1.10	3.00	.00
Q25. Financial incentives for faculty	3.24	1.21	3.32	1.29	3.00	.00
Q26. Received recognition	2.50	.95	2.33	1.04	2.00	1.41
Section 4: Barriers to OER Use:						
Overall - Barriers	2.72	.76	2.54	.62	3.11	.31
Q27. Lack of ancillary materials	2.90	1.20	2.86	1.21	3.50	.71
Q28. Lack of 3000+ level materials	3.37	1.26	3.17	1.09	3.50	.71
Q29. More course preparation time	2.97	1.23	2.65	1.05	3.50	.71
Q30. Poor OER quality	3.37	1.22	3.32	1.21	3.50	.71
Q31. Negative OER perceptions	2.40	1.11	2.18	1.11	2.50	2.12
Q32. Administrative pressure	1.90	.92	1.77	.84	2.50	.71
Q33. Lack of administrative support	2.18	1.17	1.99	.88	3.00	1.41
Q34. Lack of technical support	2.52	1.17	2.27	1.12	2.50	.71
Q35. Lack of reliability	2.89	1.13	2.66	1.10	3.50	.71

Note. Missing = No response or Prefer not to answer

Table E3

Descriptive Data for Age

	25–34 (*n* = 14)		35–44 (*n* = 40)		45–54 (*n* = 62)		55–64 (*n* = 42)		65+ (*n* = 16)	
Question	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Section 2: OER Use and COVID-19 Impact:										
Q12. OER Awareness	4.71	.61	4.18	1.03	4.60	.64	4.33	.90	4.13	1.20
Q13. Years of OER Adoption	2.14	.77	2.35	1.10	2.48	1.20	2.57	1.15	2.69	1.14
Q14. OER_Use_Before_COVID	2.07	1.07	2.23	1.23	2.40	1.31	2.62	1.32	2.75	1.44
Q15. OER_Use_After_COVID	3.79	.97	3.00	1.36	3.13	1.36	3.26	1.21	3.38	1.41
Q16. Perceived_COVID_Impact	2.86	1.10	2.53	1.18	2.53	1.20	2.43	.97	1.75	1.00
Section 3: Incentives to Switch to OER:										
Overall - Incentives	3.90	.53	3.36	.59	3.21	.76	3.32	.55	3.04	.76
Q17. Increased student access	4.71	.47	4.10	1.03	4.05	1.09	3.86	.84	3.56	1.21
Q18. Narrowed student attainment gaps	4.36	.74	3.58	.87	3.40	1.06	3.29	.89	3.25	1.24
Q19. Reduced student financial costs	5.00	.00	4.38	.77	4.35	.89	4.29	.77	4.38	.50
Q20. Improved student performance	3.71	.91	2.98	.86	2.84	.98	3.10	.91	2.63	.89
Q21. Enhanced faculty innovation	3.79	.80	3.15	.98	3.16	.99	3.33	.95	2.69	1.01
Q22. Increased student engagement	3.43	1.02	3.05	.93	2.92	.87	3.12	.86	2.63	.96
Q23. Positive OER perceptions	3.86	1.10	3.18	1.17	3.05	1.08	3.24	1.01	2.63	1.02
Q24. Administrative encouragement	3.50	1.29	3.43	.98	3.03	1.12	3.19	.80	3.06	1.12
Q25. Financial incentives for faculty	3.79	1.25	3.40	1.28	3.11	1.32	3.40	1.04	3.13	1.36
Q26. Received recognition	2.79	1.42	2.43	.96	2.24	1.07	2.43	.86	2.44	.89
Section 4: Barriers to OER Use:										
Overall - Barriers	2.43	.76	2.62	.69	2.67	.71	2.56	.59	2.65	.70
Q27. Lack of ancillary materials	3.00	1.36	2.90	1.24	2.89	1.17	2.69	1.16	3.06	1.18
Q28. Lack of 3000+ level materials	3.29	1.44	3.30	1.18	3.34	1.12	3.00	1.08	3.25	1.13
Q29. More course preparation time	2.71	1.27	2.85	1.25	2.87	1.08	2.57	1.04	2.69	1.08
Q30. Poor OER quality	3.29	1.44	3.48	1.32	3.39	1.16	3.05	1.06	3.63	1.20
Q31. Negative OER perceptions	1.43	.65	2.38	1.10	2.31	1.29	2.26	.94	2.50	.97
Q32. Administrative pressure	1.21	.43	1.75	.74	1.85	.88	2.02	1.00	1.94	.85
Q33. Lack of administrative support	1.79	1.05	1.90	.87	2.11	1.03	2.33	1.07	1.94	.85
Q34. Lack of technical support	2.36	1.39	2.25	1.13	2.47	1.14	2.36	1.14	2.19	.98
Q35. Lack of reliability	2.79	1.31	2.75	1.10	2.76	1.11	2.76	1.05	2.63	1.26

Table E4

Descriptive Data for Job Title

Question	Asst. Prof (*n* = 39)		Assoc. Prof. (*n* = 33)		Prof. (*n* = 69)		Instructor (*n* = 7)		Lecturer (*n* = 26)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Section 2: OER Use and COVID-19 Impact:										
Q12. OER Awareness	4.36	.90	4.42	.61	4.54	.78	4.71	.49	4.00	1.30
Q13. Years of OER Adoption	2.13	1.00	2.24	1.06	2.87	1.07	2.71	1.25	2.19	1.20
Q14. OER_Use_Before_COVID	1.82	1.17	2.39	1.17	2.88	1.22	2.57	1.62	2.15	1.32
Q15. OER_Use_After_COVID	3.05	1.28	2.94	1.43	3.51	1.16	3.71	1.50	2.88	1.42
Q16. Perceived_COVID_Impact	2.44	1.07	2.39	1.25	2.38	1.07	3.14	1.35	2.69	1.12
Section 3: Incentives to Switch to OER:										
Overall - Incentives	3.32	.53	3.18	.68	3.31	.68	3.70	.64	3.35	.87
Q17. Increased student access	4.05	.89	3.91	1.16	4.03	.92	4.71	.49	3.92	1.32
Q18. Narrowed student attainment gaps	3.54	.82	3.42	1.15	3.43	.96	4.14	.90	3.46	1.24
Q19. Reduced student financial costs	4.31	.80	4.52	.62	4.38	.79	4.43	1.13	4.50	.81
Q20. Improved student performance	3.10	.94	2.76	.87	2.93	.90	3.57	.79	3.00	1.10
Q21. Enhanced faculty innovation	3.38	.96	2.94	.97	3.17	.95	3.43	.79	3.31	1.16
Q22. Increased student engagement	3.10	1.05	2.82	.81	2.99	.87	3.29	.95	3.04	.96
Q23. Positive OER perceptions	3.15	1.04	2.88	1.08	3.17	1.12	3.71	.95	3.23	1.21
Q24. Administrative encouragement	3.13	1.00	3.03	1.10	3.32	.96	3.71	1.25	3.04	1.15
Q25. Financial incentives for faculty	3.23	1.22	3.27	1.40	3.30	1.24	3.57	1.27	3.31	1.26
Q26. Received recognition	2.23	.96	2.30	.98	2.41	1.03	2.43	1.40	2.65	.98
Section 4: Barriers to OER Use:										
Overall - Barriers	2.65	.68	2.52	.51	2.69	.74	2.35	.63	2.57	.71
Q27. Lack of ancillary materials	2.90	1.05	2.79	1.29	2.93	1.18	3.14	1.21	2.81	1.41
Q28. Lack of 3000+ level materials	3.18	1.02	3.39	1.22	3.33	1.11	3.00	1.15	3.04	1.37
Q29. More course preparation time	2.77	.99	2.76	1.15	2.77	1.15	2.43	.79	2.92	1.32
Q30. Poor OER quality	3.38	1.14	3.58	1.15	3.30	1.23	3.14	1.21	3.15	1.32
Q31. Negative OER perceptions	2.21	1.03	2.21	1.17	2.39	1.13	1.71	.76	2.23	1.24
Q32. Administrative pressure	2.05	.89	1.58	.66	1.94	.97	1.29	.49	1.62	.75
Q33. Lack of administrative support	2.28	1.02	1.67	.69	2.23	1.10	1.71	1.11	1.92	.84
Q34. Lack of technical support	2.44	1.19	2.09	1.07	2.45	1.14	1.86	1.07	2.50	1.14
Q35. Lack of reliability	2.67	1.03	2.58	1.09	2.84	1.18	2.86	1.07	2.85	1.12

Table E5

Descriptive Data for Years of Teaching Experience

	0–6 years (n = 53)		7–12 years (n = 41)		13–19 years (n = 40)		20+ years (n = 41)	
Question	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Section 2: OER Use and COVID-19 Impact:								
Q12. OER Awareness	4.30	.97	4.32	.96	4.53	.88	4.49	.64
Q13. Years of OER Adoption	2.13	1.02	2.49	1.14	2.45	1.24	2.90	1.00
Q14. OER_Use_Before_COVID	1.79	1.10	2.73	1.23	2.60	1.37	2.76	1.24
Q15. OER_Use_After_COVID	3.08	1.25	3.29	1.31	2.88	1.49	3.66	1.09
Q16. Perceived_COVID_Impact	2.55	1.23	2.49	1.08	2.10	1.03	2.68	1.08
Section 3: Incentives to Switch to OER:								
Overall - Incentives	3.41	.61	3.36	.82	3.23	.75	3.21	.51
Q17. Increased student access	4.17	.91	3.98	1.21	3.95	1.06	3.98	.91
Q18. Narrowed student attainment gaps	3.62	1.02	3.66	1.15	3.28	.93	3.34	.88
Q19. Reduced student financial costs	4.42	.82	4.56	.74	4.25	.78	4.37	.77
Q20. Improved student performance	3.23	1.05	2.90	1.04	2.83	.90	2.90	.66
Q21. Enhanced faculty innovation	3.34	.90	3.15	1.22	3.13	1.07	3.20	.75
Q22. Increased student engagement	3.15	.99	3.07	1.01	2.83	.87	2.93	.72
Q23. Positive OER perceptions	3.23	1.14	3.20	1.19	3.10	1.13	3.02	.96
Q24. Administrative encouragement	3.17	1.07	3.17	1.09	3.25	1.10	3.20	.90
Q25. Financial incentives for faculty	3.30	1.17	3.39	1.36	3.40	1.34	3.07	1.19
Q26. Received recognition	2.47	1.05	2.51	1.03	2.40	1.06	2.15	.88
Section 4: Barriers to OER Use:								
Overall - Barriers	2.63	.73	2.48	.66	2.73	.68	2.61	.62
Q27. Lack of ancillary materials	2.98	1.15	2.71	1.36	2.78	1.19	3.02	1.11
Q28. Lack of 3000+ level materials	3.28	1.17	3.12	1.31	3.23	1.14	3.34	.99
Q29. More course preparation time	2.77	1.12	2.80	1.23	2.78	1.23	2.73	.92
Q30. Poor OER quality	3.28	1.25	3.37	1.32	3.43	1.24	3.29	1.01
Q31. Negative OER perceptions	2.11	1.03	2.15	1.11	2.73	1.30	2.12	.93
Q32. Administrative pressure	1.77	.82	1.73	.81	1.90	1.03	1.90	.83
Q33. Lack of administrative support	2.06	.99	1.88	.84	2.18	1.08	2.17	1.07
Q34. Lack of technical support	2.43	1.17	2.12	1.00	2.68	1.25	2.20	1.05
Q35. Lack of reliability	2.91	1.11	2.41	1.07	2.93	1.16	2.71	1.05

Table E6

Descriptive Data for Academic Field

Question	Business (n = 15)		Hum. (n = 35)		Educ. (n = 20)		Soc. Sci. (n = 32)		STEM (n = 49)		Other (n = 6)		HLSC (n = 17)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Section 2: OER Use and COVID-19 Impact:														
Q12. OER Awareness	4.33	.82	4.57	.61	4.50	.76	4.59	.61	4.29	1.06	3.67	1.75	4.18	.88
Q13. Years of OER Adoption	2.33	1.23	2.77	1.03	2.15	1.09	2.72	.99	2.71	1.08	1.67	1.03	1.35	.79
Q14. OER_Use_Before_COVID	2.33	1.11	2.66	1.33	1.95	1.19	2.66	1.26	2.76	1.30	1.33	.82	1.47	.87
Q15. OER_Use_After_COVID	3.27	1.39	3.63	1.17	2.95	1.32	3.41	1.24	3.41	1.26	2.17	1.33	2.06	1.09
Q16. Perceived_COVID_Impact	2.80	1.01	2.63	1.11	2.10	1.37	2.09	1.09	2.61	1.13	2.33	.82	2.53	1.01
Section 3: Incentives to Switch to OER:														
Overall - Incentives	3.34	.55	3.31	.84	3.28	.50	3.30	.79	3.30	.66	3.27	.64	3.37	.53
Q17. Increased student access	3.87	1.06	4.17	1.01	4.15	.99	3.97	1.23	3.96	1.00	4.00	.89	4.06	.83
Q18. Narrowed student attainment gaps	3.53	.92	3.63	1.00	3.35	.93	3.44	1.27	3.51	.98	3.50	.84	3.35	.93
Q19. Reduced student financial costs	4.47	.74	4.54	.70	4.10	.85	4.56	.67	4.43	.74	4.00	1.26	4.12	.93
Q20. Improved student performance	3.00	1.00	2.77	.97	3.00	.73	3.19	1.12	2.92	.86	2.67	1.03	3.29	.92
Q21. Enhanced faculty innovation	3.20	1.01	3.06	1.16	3.40	.88	3.31	1.09	3.16	.94	3.33	.82	3.18	.73
Q22. Increased student engagement	2.93	.88	2.89	.90	3.05	.94	3.09	1.06	2.98	.90	2.83	.75	3.24	.83
Q23. Positive OER perceptions	3.20	1.01	3.06	1.26	3.05	1.19	3.19	1.31	3.14	.89	3.17	.75	3.24	1.15
Q24. Administrative encouragement	3.40	.99	3.31	1.18	3.20	1.11	2.88	1.07	3.27	.97	2.83	.75	3.24	.90
Q25. Financial incentives for faculty	3.20	1.37	3.34	1.45	3.25	1.21	3.06	1.34	3.35	1.16	3.83	.75	3.35	1.11
Q26. Received recognition	2.60	.83	2.31	1.28	2.25	.79	2.38	1.10	2.35	.93	2.50	1.05	2.65	.93
Section 4: Barriers to OER Use:														
Overall - Barriers	2.78	.64	2.56	.62	2.58	.67	2.56	.76	2.60	.66	2.67	1.08	2.76	.63
Q27. Lack of ancillary materials	3.60	1.06	2.66	1.21	2.50	1.24	2.66	1.26	2.94	1.16	3.00	1.26	3.35	1.00
Q28. Lack of 3000+ level materials	3.73	.88	3.23	.97	2.75	1.21	3.22	1.29	3.39	1.24	3.00	1.41	3.24	.90
Q29. More course preparation time	3.13	1.19	2.57	1.17	2.90	1.07	2.63	1.29	2.90	1.03	2.67	1.37	2.71	.92
Q30. Poor OER quality	3.47	1.13	3.23	1.24	3.30	1.22	3.63	1.34	3.24	1.13	3.17	1.17	3.35	1.22
Q31. Negative OER perceptions	2.47	1.06	2.03	1.07	2.60	1.35	2.28	1.30	2.14	.94	2.17	1.17	2.53	1.07
Q32. Administrative pressure	1.80	.86	1.69	.93	1.80	.70	1.81	1.03	1.78	.71	2.00	.89	2.24	1.03
Q33. Lack of administrative support	1.87	1.13	2.17	1.20	2.10	.72	2.03	1.12	1.98	.83	2.00	.89	2.35	1.06
Q34. Lack of technical support	2.33	1.11	2.49	1.15	2.20	1.11	2.19	1.18	2.39	1.08	2.83	1.72	2.41	1.18
Q35. Lack of reliability	2.60	.99	2.97	1.29	3.10	1.25	2.56	1.13	2.59	.89	3.17	1.47	2.71	1.05

Table E7

Descriptive Data for Coursework Taught

	College Preparatory				Lower level Undergraduate				Upper level Undergraduate				Graduate level			
	No (n = 166)		Yes (n = 9)		No (n = 67)		Yes (n = 108)		No (n = 79)		Yes (n = 96)		No (n = 126)		Yes (n = 49)	
Question	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*M*	*SD*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Section 2: OER Use and COVID-19 Impact:																
Q12. OER Awareness	4.42	.85	4.00	1.32	4.37	.97	4.42	.82	4.43	.89	4.38	.87	4.41	.89	4.37	.86
Q13. Years of OER Adoption	2.48	1.13	2.22	1.09	2.25	1.08	2.60	1.14	2.47	1.13	2.47	1.12	2.46	1.15	2.49	1.06
Q14. OER_Use_Before_COVID	2.45	1.29	2.00	1.32	2.19	1.29	2.56	1.27	2.41	1.31	2.44	1.28	2.40	1.28	2.47	1.32
Q15. OER_Use_After_COVID	3.23	1.29	3.00	1.66	3.01	1.30	3.34	1.31	3.27	1.43	3.18	1.21	3.20	1.34	3.27	1.24
Q16. Perceived_COVID_Impact	2.48	1.15	2.22	.67	2.31	1.18	2.56	1.09	2.53	1.20	2.41	1.07	2.60	1.09	2.10	1.16
Section 3: Incentives to Switch to OER:																
Overall - Incentives	3.32	.68	3.24	.75	3.22	.67	3.37	.68	3.34	.69	3.29	.67	3.32	.69	3.30	.66
Q17. Increased student access	4.04	1.04	3.89	.60	3.90	1.12	4.11	.95	4.10	1.02	3.97	1.02	4.06	.99	3.94	1.09
Q18. Narrowed student attainment gaps	3.49	1.02	3.33	.87	3.30	1.04	3.60	.98	3.57	1.07	3.42	.96	3.48	.98	3.49	1.10
Q19. Reduced student financial costs	4.41	.77	4.22	.97	4.28	.81	4.47	.75	4.41	.82	4.40	.75	4.43	.77	4.33	.80
Q20. Improved student performance	2.99	.94	2.78	1.09	2.97	1.01	2.99	.90	3.00	.97	2.97	.92	2.95	.91	3.06	1.03
Q21. Enhanced faculty innovation	3.23	.98	2.89	1.05	3.10	1.00	3.28	.97	3.28	1.01	3.16	.97	3.20	.98	3.24	1.01
Q22. Increased student engagement	3.00	.92	3.11	.78	3.01	1.02	3.00	.84	3.03	.93	2.99	.90	2.98	.90	3.08	.95
Q23. Positive OER perceptions	3.14	1.09	3.22	1.30	3.13	1.18	3.15	1.06	3.13	1.18	3.16	1.04	3.13	1.08	3.16	1.18
Q24. Administrative encouragement	3.18	1.04	3.44	1.01	2.99	1.02	3.32	1.03	3.28	1.12	3.13	.97	3.28	1.02	2.98	1.07
Q25. Financial incentives for faculty	3.31	1.25	3.00	1.41	3.13	1.25	3.39	1.25	3.30	1.26	3.28	1.25	3.32	1.26	3.22	1.25
Q26. Received recognition	2.38	1.00	2.56	1.24	2.42	.97	2.37	1.04	2.34	1.01	2.43	1.01	2.37	1.02	2.45	1.00
Section 4: Barriers to OER Use:																
Overall - Barriers	2.61	.68	2.56	.70	2.64	.71	2.60	.66	2.53	.66	2.68	.69	2.61	.66	2.62	.72
Q27. Lack of ancillary materials	2.91	1.20	2.33	1.22	2.88	1.23	2.88	1.19	2.87	1.20	2.89	1.20	2.92	1.16	2.78	1.30
Q28. Lack of 3000+ level materials	3.25	1.17	3.22	.67	3.13	1.19	3.31	1.12	3.13	1.09	3.34	1.19	3.26	1.13	3.20	1.21
Q29. More course preparation time	2.77	1.13	2.89	1.05	2.78	1.11	2.77	1.13	2.67	1.12	2.85	1.12	2.77	1.12	2.78	1.14
Q30. Poor OER quality	3.35	1.20	3.11	1.27	3.34	1.23	3.33	1.19	3.15	1.27	3.49	1.12	3.33	1.21	3.35	1.18
Q31. Negative OER perceptions	2.27	1.12	2.22	.97	2.40	1.16	2.18	1.08	2.19	1.14	2.32	1.09	2.27	1.13	2.24	1.07
Q32. Administrative pressure	1.84	.88	1.56	.73	1.87	.87	1.80	.87	1.68	.78	1.94	.93	1.77	.83	1.96	.96
Q33. Lack of administrative support	2.06	1.00	2.22	1.09	2.15	.94	2.02	1.03	1.96	.88	2.16	1.08	2.02	.98	2.20	1.04
Q34. Lack of technical support	2.34	1.12	2.78	1.39	2.39	1.15	2.34	1.13	2.33	1.11	2.39	1.16	2.39	1.12	2.29	1.19
Q35. Lack of reliability	2.75	1.12	2.67	1.00	2.76	1.17	2.74	1.08	2.80	1.11	2.71	1.11	2.75	1.09	2.73	1.19

Table E8

Descriptive Data for Modality of Instruction

	Online (n = 63)		Hybrid (n = 20)		Face-to-face (n = 91)	
Question	*M*	*SD*	*M*	*SD*	*M*	*SD*
Section 2: OER Use and COVID-19 Impact:						
Q12. OER Awareness	4.59	.80	4.25	1.16	4.30	.85
Q13. Years of OER Adoption	2.68	1.09	2.60	1.14	2.29	1.13
Q14. OER_Use_Before_COVID	2.73	1.38	2.65	1.18	2.15	1.20
Q15. OER_Use_After_COVID	3.52	1.24	3.30	1.49	2.97	1.27
Q16. Perceived_COVID_Impact	2.16	1.22	2.60	1.27	2.65	.99
Section 3: Incentives to Switch to OER:						
Overall - Incentives	3.45	.68	3.33	.73	3.21	.66
Q17. Increased student access	4.21	1.03	3.95	1.05	3.92	1.00
Q18. Narrowed student attainment gaps	3.63	1.15	3.30	.92	3.43	.92
Q19. Reduced student financial costs	4.52	.72	4.40	.68	4.31	.84
Q20. Improved student performance	3.22	1.01	3.05	1.00	2.80	.86
Q21. Enhanced faculty innovation	3.33	1.03	3.20	1.01	3.12	.95
Q22. Increased student engagement	3.14	1.03	3.10	.85	2.89	.84
Q23. Positive OER perceptions	3.41	1.19	3.10	1.02	2.97	1.04
Q24. Administrative encouragement	3.33	1.12	3.25	1.12	3.08	.96
Q25. Financial incentives for faculty	3.32	1.24	3.35	1.31	3.24	1.26
Q26. Received recognition	2.41	.99	2.60	1.14	2.32	1.00
Section 4: Barriers to OER Use:						
Overall - Barriers	2.42	.66	2.69	.50	2.73	.70
Q27. Lack of ancillary materials	2.63	1.24	3.30	.98	2.97	1.20
Q28. Lack of 3000+ level materials	3.05	1.18	3.35	1.14	3.35	1.13
Q29. More course preparation time	2.49	1.16	3.05	1.05	2.90	1.09
Q30. Poor OER quality	3.29	1.30	3.60	1.14	3.32	1.15
Q31. Negative OER perceptions	2.06	1.08	1.95	.76	2.47	1.18
Q32. Administrative pressure	1.68	.88	2.00	.86	1.89	.86
Q33. Lack of administrative support	1.84	.90	2.10	.97	2.23	1.04
Q34. Lack of technical support	2.03	1.16	2.45	1.10	2.57	1.09
Q35. Lack of reliability	2.65	1.12	2.45	1.00	2.90	1.11

Table E9

Descriptive Data for Ability to Choose Textbook

	SD (n = 5)		D (n = 5)		N (n = 13)		A (n = 48)		SA (n = 104)	
Question	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Section 2: OER Use and COVID-19 Impact:										
Q12. OER Awareness	4.20	1.30	4.40	.55	4.38	.87	4.33	.91	4.44	.87
Q13. Years of OER Adoption	2.80	1.10	2.40	1.34	2.62	1.19	2.52	1.15	2.41	1.11
Q14. OER_Use_Before_COVID	3.20	1.30	3.00	1.87	2.15	1.14	2.38	1.20	2.41	1.32
Q15. OER_Use_After_COVID	4.00	1.22	3.20	2.05	3.00	1.53	3.21	1.15	3.21	1.33
Q16. Perceived_COVID_Impact	2.40	1.34	2.60	.55	2.31	1.03	2.69	1.15	2.38	1.14
Section 3: Incentives to Switch to OER:										
Overall - Incentives	3.80	.45	2.94	.48	3.10	1.03	3.33	.52	3.33	.70
Q17. Increased student access	4.40	.89	4.00	.71	3.31	1.25	4.25	.76	4.00	1.08
Q18. Narrowed student attainment gaps	3.20	1.48	3.40	.55	3.31	1.25	3.54	.80	3.50	1.07
Q19. Reduced student financial costs	4.40	.89	4.60	.55	4.31	.63	4.29	.85	4.45	.77
Q20. Improved student performance	4.20	.84	2.60	.89	2.77	1.24	2.98	.73	2.97	.97
Q21. Enhanced faculty innovation	4.00	1.00	2.00	.71	3.08	1.26	3.08	.77	3.31	1.01
Q22. Increased student engagement	3.60	1.34	2.60	1.14	2.85	1.28	3.10	.72	2.97	.91
Q23. Positive OER perceptions	4.00	1.22	2.00	.71	3.00	1.47	3.08	.87	3.20	1.13
Q24. Administrative encouragement	4.00	.71	3.20	1.30	3.00	1.41	3.35	.86	3.11	1.05
Q25. Financial incentives for faculty	3.60	1.14	3.00	1.41	3.31	1.38	3.25	1.10	3.31	1.32
Q26. Received recognition	2.60	.55	2.00	.71	2.15	1.28	2.33	.88	2.45	1.06
Section 4: Barriers to OER Use:										
Overall - Barriers	2.27	.54	2.76	.71	2.73	.77	2.77	.61	2.53	.69
Q27. Lack of ancillary materials	2.60	1.14	2.80	1.64	3.23	1.30	3.02	1.00	2.79	1.26
Q28. Lack of 3000+ level materials	2.20	.84	3.40	1.14	3.46	1.13	3.48	1.03	3.15	1.20
Q29. More course preparation time	2.20	1.30	3.80	1.10	2.92	1.32	2.94	.98	2.65	1.13
Q30. Poor OER quality	2.80	1.10	4.00	1.22	3.62	1.19	3.35	1.16	3.29	1.23
Q31. Negative OER perceptions	1.60	.89	2.00	.00	2.69	1.11	2.42	1.11	2.18	1.14
Q32. Administrative pressure	2.00	1.00	1.40	.55	2.23	1.01	1.92	.82	1.74	.87
Q33. Lack of administrative support	2.00	1.00	2.00	.71	1.92	.95	2.23	1.04	2.02	1.00
Q34. Lack of technical support	2.00	1.00	2.60	1.34	2.00	.91	2.56	1.17	2.32	1.14
Q35. Lack of reliability	3.00	1.22	2.80	1.64	2.46	.88	3.02	1.02	2.64	1.14

Note. Strongly Disagree = SD, Disagree = D, Neutral = N, Agree = A, Strongly Agree = SA

Table E10

Descriptive Data for Overall Technology Ability for Education

	Basic (n = 2)		Moderate (n = 29)		Proficient (n = 85)		Highly (n = 59)	
Question	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Section 2: OER Use and COVID-19 Impact:								
Q12. OER Awareness	3.50	.71	3.97	1.09	4.35	.83	4.71	.72
Q13. Years of OER Adoption	4.00	.00	2.17	1.10	2.35	1.09	2.73	1.13
Q14. OER_Use_Before_COVID	4.50	.71	2.14	1.19	2.38	1.21	2.56	1.39
Q15. OER_Use_After_COVID	4.50	.71	2.72	1.19	3.22	1.29	3.41	1.35
Q16. Perceived_COVID_Impact	3.00	.00	2.55	1.12	2.60	1.09	2.20	1.17
Section 3: Incentives to Switch to OER:								
Overall - Incentives	3.15	.21	3.08	.62	3.31	.57	3.43	.83
Q17. Increased student access	3.50	.71	3.52	.99	4.15	.87	4.12	1.18
Q18. Narrowed student attainment gaps	3.00	.00	3.24	.79	3.47	.92	3.64	1.21
Q19. Reduced student financial costs	4.50	.71	4.17	.89	4.33	.79	4.61	.67
Q20. Improved student performance	3.00	.00	2.76	.79	3.01	.87	3.05	1.12
Q21. Enhanced faculty innovation	3.00	.00	3.03	.87	3.21	.94	3.31	1.12
Q22. Increased student engagement	3.00	.00	2.86	.79	3.02	.83	3.05	1.09
Q23. Positive OER perceptions	3.00	.00	2.86	.99	3.09	.96	3.36	1.32
Q24. Administrative encouragement	3.00	.00	3.03	1.05	3.31	.99	3.12	1.12
Q25. Financial incentives for faculty	3.00	1.41	3.07	1.13	3.33	1.20	3.36	1.40
Q26. Received recognition	2.50	.71	2.28	1.00	2.25	.84	2.64	1.20
Section 4: Barriers to OER Use:								
Overall - Barriers	3.06	.08	2.69	.69	2.69	.60	2.45	.76
Q27. Lack of ancillary materials	3.00	.00	3.14	.95	2.98	1.21	2.61	1.27
Q28. Lack of 3000+ level materials	3.00	.00	3.28	.96	3.26	1.18	3.22	1.23
Q29. More course preparation time	3.00	.00	2.76	1.06	2.84	1.04	2.68	1.28
Q30. Poor OER quality	3.00	.00	3.48	1.02	3.47	1.18	3.08	1.30
Q31. Negative OER perceptions	3.00	.00	2.24	1.02	2.46	1.06	1.97	1.19
Q32. Administrative pressure	3.00	.00	1.90	.77	1.76	.84	1.83	.95
Q33. Lack of administrative support	3.00	.00	2.17	1.14	2.06	.92	2.00	1.05
Q34. Lack of technical support	3.50	.71	2.52	1.27	2.48	1.13	2.07	1.03
Q35. Lack of reliability	3.00	.00	2.76	1.21	2.89	1.00	2.53	1.21

Appendix F:

Significant Results in Inferential Statistics

Table F1

Significant ANOVA Results for Section 2

OER Use	ANOVA	Post Hoc Comparison
USG Institution:		
Q12. OER Awareness	$F(3, 171) = 2.914$*, $p = .036$, $\eta^2 = .049$	$M_{SC} > M_{RU}$ ($p = .022$)
Job Title:		
Q13. Years of OER Adoption	$F(4, 169) = 4.209$*, $p = .003$, $\eta^2 = .091$	$M_{Prof} > M_{Asst.\ Prof}$ ($p = .007$)
Q14. OER_Use_Before_COVID	$F(4, 169) = 5.100$*, $p < .001$, $\eta^2 = .108$	$M_{Prof} > M_{Asst.\ Prof}$ ($p < .001$)
Years of Teaching Experience:		
^Q13. Years of OER Adoption	$F(3, 91.60) = 4.462$*, $p = .006$, $\eta^2 = .063$	$M_{20+} > M_{0–6}$ ($p = .002$)
Q14. OER_Use_Before_COVID	$F(3, 171) = 6.803$*, $p = <.001$, $\eta^2 = .107$	$M_{7–12} > M_{0–6}$ ($p = .002$) $M_{13–19} > M_{0–6}$ ($p = .011$) $M_{20+} > M_{0–6}$ ($p = .001$)
Q15. OER_Use_After_COVID	$F(3, 171) = 2.806$*, $p = .041$, $\eta^2 = .047$	$M_{20+} > M_{13–19}$ ($p = .034$)
Academic Field:		
Q13. Years of OER Adoption	$F(6, 167) = 5.434$*, $p < .001$, $\eta^2 = .163$	$M_{Hum.} > M_{HLSC}$ ($p < .001$) $M_{Soc.\ Sci.} > M_{HLSC}$ ($p < .001$) $M_{STEM} > M_{HLSC}$ ($p < .001$)
Q14. OER_Use_Before_COVID	$F(6, 167) = 4.029$*, $p < .001$, $\eta^2 = .126$	$M_{Hum.} > M_{HLSC}$ ($p = .021$) $M_{Soc.\ Sci.} > M_{HLSC}$ ($p = .025$) $M_{STEM} > M_{HLSC}$ ($p = .005$)
Q15. OER_Use_After_COVID	$F(6, 167) = 4.298$*, $p < .001$, $\eta^2 = .134$	$M_{Hum.} > M_{HLSC}$ ($p < .001$) $M_{Soc.\ Sci.} > M_{HLSC}$ ($p = .007$) $M_{STEM} > M_{HLSC}$ ($p = .003$)
Modality of Instruction:		
Q14. OER_Use_Before_COVID	$F(2, 171) = 4.220$*, $p = .016$, $\eta^2 = .047$	$M_{Online} > M_{f2f}$ ($p = .017$)
Q15. OER_Use_After_COVID	$F(2, 171) = 3.548$*, $p = .031$, $\eta^2 = .040$	$M_{Online} > M_{f2f}$ ($p = .024$)
Q16. Perceived_COVID_Impact	$F(2, 171) = 3.765$*, $p = .025$, $\eta^2 = .042$	$M_{f2f} > M_{Online}$ ($p = .022$)
Overall Technology Ability for Education:		
Q12. OER Awareness	$F(3, 171) = 6.135$*, $p < .001$, $\eta^2 = .097$	$M_{Highly\ Prof.} > M_{Moderate}$ ($p < .001$)
Q13. Years of OER Adoption	$F(3, 171) = 3.402$*, $p = .019$, $\eta^2 = .056$	!!No significant pairwise differences

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test; * denotes statistical significance at the $p < .05$ level; !! Although the overall ANOVA was significant, the post hoc tests found no significant pairwise differences, possibly because the conservative adjustment for multiple comparisons reduced statistical power.

Table F2

Significant T-Test Results for Q8. Coursework Taught in Section 2

OER Use	T-Test	Comparison
Lower level undergraduate courses (1000 - 2000):		
Q13. Years of OER Adoption	$t(173) = .751$*, $p = .046$, $d = -.313$	$M_{CLU\_Y} > M_{CLU\_N}$ ($p = .046$)
Q16. Perceived_COVID_Impact	$t(173) = 2.685$*, $p = .008$, $d = .452$	$M_{CG\_N} > M_{CG\_Y}$ ($p = .008$)

Note. * denotes statistical significance at the $p < .05$ level.

Table F3:

Significant ANOVA Results for Section 3

Incentives to OER	ANOVA	Post Hoc Comparison
Age:		
Overall - Incentives	$F(4, 169) = 3.848$*, $p = .005$, $\eta^2 = .083$	$M_{25–34} > M_{45–54}$ ($p = .005$) $M_{25–34} > M_{55–64}$ ($p = .042$) $M_{25–34} > M_{65+}$ ($p = .004$)
Q17. Increased student access	$F(4, 169) = 2.889$*, $p = .024$, $\eta^2 = .064$	$M_{25–34} > M_{55–64}$ ($p = .047$) $M_{25–34} > M_{65+}$ ($p = .016$)
Q18. Narrowed student attainment gaps	$F(4, 169) = 3.644$*, $p = .007$, $\eta^2 = .079$	$M_{25–34} > M_{45–54}$ ($p = .010$) $M_{25–34} > M_{55–64}$ ($p = .004$) $M_{25–34} > M_{65+}$ ($p = .019$)
Q20. Improved student performance	$F(4, 169) = 3.343$*, $p = .012$, $\eta^2 = .073$	$M_{25–34} > M_{45–54}$ ($p = .014$) $M_{25–34} > M_{65+}$ ($p = .013$)
Q21. Enhanced faculty innovation	$F(4, 169) = 2.647$*, $p = .035$, $\eta^2 = .059$	$M_{25–34} > M_{65+}$ ($p = .019$)
Q23. Positive OER perceptions	$F(4, 169) = 2.650$*, $p = .035$, $\eta^2 = .059$	$M_{25–34} > M_{65+}$ ($p = .018$)
Modality of Instruction:		
Q20. Improved student performance	$F(2, 171) = 3.846$*, $p = .023$, $\eta^2 = .043$	$M_{Online} > M_{f2f}$ ($p = .018$)
Q23. Positive OER perceptions	$F(2, 171) = 3.117$*, $p = .047$, $\eta^2 = .035$	$M_{Online} > M_{f2f}$ ($p = .036$)
Ability to Choose Textbook:		
Q17. Increased student access	$F(4, 170) = 2.458$*, $p = .047$, $\eta^2 = .055$	$M_A > M_N$ ($p = .025$)
Q20. Improved student performance	$F(4, 170) = 2.543$*, $p = .041$, $\eta^2 = .056$	$M_{SD} > M_N$ ($p = .031$) $M_{SD} > M_A$ ($p = .044$) $M_{SD} > M_{SA}$ ($p = .034$)
Q21. Enhanced faculty innovation	$F(4, 170) = 3.371$*, $p = .011$, $\eta^2 = .073$	$M_{SD} > M_D$ ($p = .010$) $M_{SA} > M_D$ ($p = .027$)
^^Q23. Positive OER perceptions	$F(4, 14.59) = 3.456$*, $p = .035$, $\eta^2 = .052$	!!No significant pairwise differences
Overall Technology Ability for Education:		
Q17. Increased student access	$F(3, 171) = 3.313$*, $p = .021$, $\eta^2 = .055$	$M_{Proficient} > M_{Moderate}$ ($p = .018$) $M_{Highly\ Prof.} > M_{Moderate}$ ($p = .043$)

Note. ^^ Levene's test indicated unequal variances, but Welch's ANOVA could not be conducted because at least one group had zero variance; * denotes statistical significance at the $p < .05$ level; !! Although the overall ANOVA was significant, the post hoc tests found no significant pairwise differences, possibly because the conservative adjustment for multiple comparisons reduced statistical power.

Table F4:

Significant T-Test Results for Q8. Coursework Taught in Section 3

Incentives to OER	T-Test	Comparison
Lower level undergraduate courses (1000 - 2000):		
Q24. Administrative encouragement	$t(173) = -2.122^*$, $p = .035$, $d = -.330$	$M_{CLU\_Y} > M_{CLU\_N}$ ($p = .035$)

Note. * denotes statistical significance at the $p < .05$ level.

Table F5:

Significant ANOVA Results for Section 4

Barriers to OER Use	ANOVA	Post Hoc Comparison
Age		
^31. Negative OER perceptions	$F(4, 56.23) = 5.487$*, $p = <.001$, $\eta^2 = .052$	$M_{25–34} < M_{35–44}$ ($p = .004$) $M_{25–34} < M_{45–54}$ ($p = .006$) $M_{25–34} < M_{55–64}$ ($p = .007$) $M_{25–34} < M_{65+}$ ($p = .010$)
32. Administrative pressure	$F(4, 169) = 2.520$*, $p = .043$, $\eta^2 = .056$	$M_{25–34} < M_{55–64}$ ($p = .021$)
Job Title		
32. Administrative pressure	$F(4, 169) = 2.799$*, $p = .028$, $\eta^2 = .062$	!!No significant pairwise differences
33. Lack of administrative support	$F(4, 169) = 2.693$*, $p = .033$, $\eta^2 = .060$	!!No significant pairwise differences
Years of Teaching Experience:		
31. Negative OER perceptions	$F(3, 171) = 3.089$*, $p = .029$, $\eta^2 = .051$	$M_{13–19} > M_{0–6}$ ($p = .041$)
Academic Field:		
27. Lack of ancillary materials	$F(6, 167) = 2.163$*, $p = .049$, $\eta^2 = .072$	!!No significant pairwise differences
Modality of Instruction:		
Overall - Barriers	$F(2, 171) = 4.420$*, $p = .013$, $\eta^2 = .049$	$M_{f2f} > M_{Online}$ ($p = .011$)
29. More course preparation time	$F(2, 171) = 3.244$*, $p = .041$, $\eta^2 = .037$	!!No significant pairwise differences
^31. Negative OER perceptions	$F(2, 63.27) = 3.979$*, $p = .024$, $\eta^2 = .039$	$M_{f2f} > M_{Hybrid}$ ($p = .044$)
34. Lack of technical support	$F(2, 171) = 4.419$*, $p = .013$, $\eta^2 = .049$	$M_{f2f} > M_{Online}$ ($p = .010$)

Note. ^ Because the homogeneity of variance assumption was violated based on Levene's test, Welch's ANOVA and the Games–Howell post hoc test were used instead of Tukey's test; ^^ Levene's test indicated unequal variances, but Welch's ANOVA could not be conducted because at least one group had zero variance; * denotes statistical significance at the $p < .05$ level; !! Although the overall ANOVA was significant, the post hoc tests found no significant pairwise differences, possibly because the conservative adjustment for multiple comparisons reduced statistical power.

Table F6:

Significant T-Test Results for Q8. Coursework Taught in Section 4

Barriers to OER Use	T-Test	Comparison
No Significant T-Test Results for Q8. Coursework Taught in Section 4		