

CHLOE 6

ONLINE LEARNING LEADERS ADAPT
FOR A POST-PANDEMIC WORLD

CHLOE 6: ONLINE LEARNING LEADERS ADAPT FOR A POST-PANDEMIC WORLD

THE CHANGING LANDSCAPE OF ONLINE EDUCATION, 2021
Quality Matters & Eduventures Survey of Chief Online Officers

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CHLOE 6: Online Learning Leaders Adapt for a Post-Pandemic World

The Changing Landscape of Online Education, 2021

I. INTRODUCTION

This CHLOE 6 Report: Online Learning Leaders Adapt for a Post-Pandemic World, continues our focus on the greatest challenge that U.S. Higher Education has faced in modern times—perhaps since the expansion that followed the Second World War—a pandemic that caused the shuttering of virtually all higher education institutions in March 2020 to mitigate the rapid spread of a deadly virus. What soon became apparent was that the best regulatory social measures would have to prevail for an extended period of time before medical research could develop a means to end the pandemic. These circumstances effectively eliminated the practice of in-person group learning from primary and secondary education through postsecondary education for Spring 2020. This state of affairs has continued for over a year and, only in recent months, has the introduction of vaccines to immunize the population against COVID-19 allowed us to think seriously about a return to long-established patterns of education.

For online learning in U.S. higher education, this past year has been an unplanned yet unavoidable stress test on online learning's capability to expand rapidly to replace in-person higher education on an emergency basis. In a matter of days or a few weeks, more than 4,000 public and private institutions had to mobilize their resources to serve the entire postsecondary student population of roughly 20 million by online and remote learning, and to rapidly address any inadequacies exposed by the Spring 2020 emergency remote pivot (ERP) in time to deliver a complete academic year of predominantly online and remote learning.

How did online leadership respond to this challenge, prepare in-person faculty and students to quickly adapt to a different mode of teaching and learning, marshal resources to overcome the technical challenges, implement reasonable levels of quality assurance, manage their finances while deprived of some expected sources of revenue, and, most importantly, keep students on track to achieve their educational goals? What lessons have we learned, and where do we go from here? How has this experience affected attitudes toward online learning, and how will it change the role of online learning after the crisis has passed?

These are the questions that CHLOE 6 posed to frontline leaders, the chief online officers (COOs) upon whom CHLOE relies to gain insight into the changing landscape of online education. We hope that their observations and this report will help the reader make sense of this transformative experience and contribute to the ongoing discussion of the future of online learning in higher education. We invite you to share your reactions and insights.

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II. EXECUTIVE SUMMARY

The disruption caused by the COVID-19 pandemic constituted a stress test on U.S. higher education in general and online learning in particular. Could higher education, through an array of public and private institutions at varying levels of preparedness, continue to serve more than 20 million students while in-person learning was nearly impossible? The answer is that the great majority of currently enrolled and new students were able to make academic progress in Fall 2020, the first full term after the onset of the pandemic, with minimal enrollment and revenue loss. This was due in large part to the efforts of institutional leaders, faculty, and support staff, as well as a plethora of ancillary tools, resources, and organizations.

More than 80% of institutions relied primarily on either fully online (31%) or emergency remote learning (ERL) (50%) courses in Fall 2020, many including some in-person component at the outset. During the term, there was a 5% shift toward exclusively online and ERL instruction, as pandemic outbreaks and restrictions took effect.

Higher education enrollment exhibited substantial volatility in Fall 2020. Undergraduate enrollment fell, particularly among older students and underrepresented minorities, and at community colleges. Undergraduate decline is thought to be due in part to the stark contrast between the in-person study norm and the wholly or largely online format that characterized the vast majority of schools in Fall 2020. Economic stress and health concerns also distracted current and prospective undergraduates in particular. Graduate enrollment, by contrast, climbed faster than in recent years (the expected consumer response during a normal economic downturn).

Fall 2020 grades shifted slightly lower when compared to the previous fall. Pass/Fail grading options, which had been widely adopted during the pivot to ERL in Spring 2020, were invoked only half as often in Fall 2020, perhaps indicating greater faculty and administration confidence in the efficacy of online learning and ERL and in recognition that students had more time to adapt. Other strategies, such as extended deadlines for withdrawal and/or completion of course assignments appear to have replaced Pass/Fail. Most institutions (87%) had plagiarism detection already in place, as well as remote proctoring (70%) and secure browser monitoring (58%), and few are planning major further investments in exam security.

Most COOs (64%) reported that their institutions generally charged the same tuition for online programs as their on-ground programs. An equal number (14%) charged more and charged less. Private four-year institutions were the most likely to offer reduced online tuition, public four-year institutions less likely, and public two-year institutions not at all. Most institutions (63%) made “some” or “substantial” additional resources available to support online learning at their institution, 18% reported resources were flat, and 18% indicated resource reductions. For institutions reporting additional investments, the top target for incremental funding was technology hardware and licensing for software.

Institutions in all sectors, including those that had low-online enrollment in the past, increased their technology investments during the pandemic. Consistent with emergency spending priorities associated with ERL, the crisis boosted mainstream adoption of some educational technology (edtech) tools more than others. Video conferencing produced by far the largest gains, going from 51% mainstream adoption in 2019 to a projected 87% by the end of 2021. Video recording and distribution and accessibility tools also moved into majority territory for the first time. Virtual labs and simulations saw the greatest proportional increase in adoption (a more than 100% increase) to 23%, overall, as their use was minimal prior to the pandemic.

Fall 2020 showed a substantial increase in both required and optional student orientation to online learning across all sectors to accommodate the ongoing needs of formerly in-person students transitioning to online. Schools offering free-standing online orientation courses increased by 15% above pre-pandemic levels, those providing orientation modules within online courses increased by 12%, and those providing learning management system (LMS) training increased by 10%. Forty-three percent of COOs ranked enhancing academic services as their top student-related priority over the next few years, followed by student support services (37%) and student orientation (32%).

Remote learning exacted a particularly heavy toll on students lacking the proper hardware and internet connections, a problem widely referred to as the “digital divide.” The majority (59%) of COOs reported that 0-15% of their student body had such access issues, while 23% estimated a higher proportion of their students faced these issues, and 17% claimed not to know the full extent of the digital divide at their institution. To address this problem, the majority of institutions in the survey (56%) distributed laptops or tablets to affected students, nearly half (48%) expanded on-campus internet access, and 44% distributed wireless hotspots. The great majority of COOs, however, do not consider providing computing equipment or off-campus access to be a major responsibility looking forward.

In the Spring 2020 emergency remote pivot (ERP), support services for students studying online struggled to meet the needs of students suddenly thrust into online study. As reliance on ERL and fully online learning for their entire student body extended into the fall, these services expanded to better meet the challenge. For example, the percentage of institutions offering or requiring a stand-alone online student orientation increased from 72% to 87%, those offering or requiring student orientation modules within an academic course increased from 62% to 74%, and institutions offering or requiring LMS/technology training increased from 85% to 95%. While progress was reported in expanding other support services, COOs singled out mental health, disability, and accessibility services for remote students as the areas in greatest need of development, and more than 40% also identified a number of established areas of academic and student services as needing further enhancement, including tutoring, proctoring, placement, and student organization support.

Many institutions took the time between the pivot to ERL in Spring 2020 and the Fall 2020 term to bolster support services for faculty members, as well, particularly for those faculty having to pivot to ERL with no prior background in online teaching. The percentage of institutions prepared to require training in various aspects of online teaching, including teaching methods, course design, technology, and quality assurance, grew about 10% overall, and the percentage of schools not offering even optional professional development in these areas dropped to the low single digits. COOs affirmed that these same four online competencies were the leading priority areas for further enhancement of faculty development at the institutional level, suggesting that a far larger segment of in-person faculty is expected to acquire online competency going forward.

While most higher education institutions relied on their internal capacity to meet the crisis, many looked for external assistance to support their efforts to serve students through ERL and remote services. More than two-thirds of respondents cite guidance from a range of nonprofit organizations and associations. Nearly half of responding COOs report that their school participated in some form of external assistance or collaboration. A quarter indicate partnerships with other academic institutions, and nearly as many have partnerships with companies. The proportion relying on online program managers (OPMs) rose slightly to 17.5%, with 27.5% use at private four-year schools and 18% at public four-year schools but only 5% representation at community colleges.

The CHLOE 6 Survey found a significant increase in the application of quality standards for online (and ERL courses) as compared to CHLOE 4, the last pre-pandemic CHLOE survey. Fifty-seven percent of COOs judged student grades in Fall 2020 as being equivalent to Fall 2019 at their institutions. Of the remainder, twice as many judged student grades to have slipped modestly as those who believe they improved modestly. Pass/Fail options that were widely adopted during the ERP had fallen off by nearly half in fall.

Ninety-five percent of survey respondents confirmed the existence of a chief online officer or an officer approximating this role at their institution. A major share of the responsibility for leading college and university responses to the emergency represented by the pandemic fell to chief online officers. The great majority of COOs indicated that their roles had grown in responsibility during the pandemic. Based on responses to the survey, as many as two-thirds of institutions have relied on their COO to coordinate the institutional response, and, in the process, the COO has become a more visible and influential officer.

COOs in all sectors, including those from previously low-online enrollment institutions, expressed confidence that online learning would continue to grow beyond the pandemic, with some new programs

growing out of ERL courses and a larger synchronous component than in past online programs in some fields. The pandemic experience is leading a majority of institutions (57%) in all sectors to reevaluate their strategic priorities relative to the role of online learning. The largest number of those reporting a strategic reassessment cited plans to expand online course and program options, followed by those indicating that the pivot experience had led to a more positive assessment of the value and efficacy of online learning, leading to receptivity and support for new and expanded online initiatives. Others cited an intention to work toward more flexibility in permitting students to move among various modes of instruction, including online and hybrid models.

III. THE CHLOE 6 SAMPLE

As in past years, the CHLOE 6 Report is based on an online survey of chief online officers at colleges and universities in the United States. Fielded in February 2021, the survey was sent to the COO or closest equivalent at a large majority of public, private, and for-profit two- and four-year schools in the country, drawn from existing CHLOE contacts, past survey completers, and purchased lists of relevant titles.

The term “chief online officer” was coined by the CHLOE team to capture the growing number of online learning leadership roles in higher education institutions. Specific online leaders have many different job titles, and some occupy positions that span online learning and other responsibilities. The CHLOE 6 Survey invitation was sent to chief online officers at 3,452 colleges and universities. A total of 284 complete and 138 useable partial responses were received, for a response rate of 12%.

In past years, the CHLOE team used only complete responses for analysis and reporting. In 2020 and 2021, online leaders have been tasked with ensuring academic continuity in a crisis, affording less time than usual to complete voluntary third-party surveys such as CHLOE. In some CHLOE 6 sections, requesting specific institutional data, it was clear that a number of respondents put the survey aside to seek the necessary information, but not all returned to complete the survey. Given the unusual circumstances, and to respect the contributions of all online leaders who took the time to complete at least part of the CHLOE 6 Survey, the CHLOE team decided to also include some partial responses in the final tally. Review confirmed that the response profile of partials matched that of completes. With that reassurance, the addition of partial responses boosted the scale and reliability of the CHLOE 6 sample. The report notes each question-specific response size.

The margin of error for the CHLOE 6 sample, allowing for question-specific sample variation between the mid-300s and low 400s, is 5% (95% confidence interval)—the same as in CHLOE 4. The CHLOE 6 sample closely resembles that of prior CHLOE surveys and the profile of U.S. higher education. Table 1 compares the CHLOE 6 sample to U.S. higher education institutions (degree-granting) for overall enrollment and online enrollment.

Table 1. The CHLOE 6 Sample vs. U.S. Higher Education

Sector	Public 2Y	Public 4Y	Private 4Y	For-Profit
Institutions	22%	18%	36%	21%
Total Enrollment*	28%	46%	21%	5%
Online Enrollment**	27%	45%	18%	10%
Fully Online Enrollment*	24%	33%	25%	18%
CHLOE 6 Sample	26%	35%	35%	3%
DIFFERENCE between CHLOE 6 Sample and Online Enrollment	-1 percentage point	-10 percentage points	+17 percentage points	-7 percentage points

N.B. Row totals exclude the small number of degree-granting institutions that fall outside these sectors.

**Undergraduate and graduate students combined (Fall 2020).*

***Fully online students and those taking one or two online courses as part of an otherwise campus-based experience—undergraduate and graduate combined (Fall 2020).*

Source of institutional and enrollment data: IPEDS 2019.

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At the institutional level, the CHLOE 6 sample matches the incidence of community colleges and private four-year institutions. By contrast, public four-year schools are overrepresented, and for-profits are underrepresented. When total and online enrollment ratios are considered, public four-year schools appear to be underrepresented in the CHLOE 6 sample, which helps explain the high proportion of this type of school in the sample relative to institutional numbers.

For comparison, the CHLOE 4 sample, conducted in 2019, was almost identical to that of CHLOE 6: 27% public two-year, 36% public four-year, 34% private four-year, and 2.2% for-profit institutions. This offers confidence that, despite the travails of the pandemic, the CHLOE 6 sample is comparable to historical CHLOE data, and (with the exception of for-profits) offers reasonable representation of U.S. higher education as a whole and online higher education in particular. The CHLOE 6 sample captures the state-of-play from the institutions with the highest online enrollment to the lowest (Table 2).

Table 2. The CHLOE 6 Sample by Online Student Headcount (Fall 2019)

CHLOE 6 Sample	High Online >7,500	Mid-Sized Online 1,000-7,500	Low Online <1,000
Schools by Number of Fully Online Students	13	147	244
% of CHLOE 6 Sample	3.1%	35%	53%
Schools by Number of Partially Online Students	26	182	170
% of CHLOE 6 Sample	6.2%	43%	40%
Schools by Number of Fully and Partially Online Students	65	209	116
% of CHLOE 6 Sample	15%	50%	27%

N.B. Rows do not add up to 100% because they exclude a small proportion of CHLOE 6 respondents who have zero fully and/or partially online students. Source: IPEDS Fall 2019.

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A large majority of degree-granting institutions in the United States, pre-pandemic, enrolled fully and/or partially online students. A small but growing proportion represent online enrollment scale, defined by CHLOE as more than 7,500 fully or partially online students. Most schools enroll smaller numbers, but the CHLOE 6 sample features somewhat greater “high” and “mid-sized” ratios compared to prior CHLOE surveys, indicative of online enrollment momentum generally.

The pandemic supercharged online mainstreaming, while also blurring the line between “true” online and “remote” delivery—a key theme of this report. As discussed in the Enrollment Trends section, this ambiguity undermined the reliability of online enrollment reporting in the CHLOE 6 Survey.

IV. ENROLLMENT TRENDS

Past CHLOE surveys offered an early read on online enrollment trends before publication of the latest IPEDS data. The COVID-19 pandemic has complicated the situation to say the least. There is no doubt that the pandemic has impacted enrollment generally: Fall 2020 saw unprecedented year-over-year enrollment declines at the undergraduate level, most obviously among older students and underrepresented minorities, and at community colleges. At the graduate level, by contrast, enrollment climbed faster than in recent years (the expected consumer response during a normal economic downturn).

Undergraduate decline is thought to be due to the stark contrast between the in-person study norm and the wholly or largely emergency remote learning (ERL) that characterized the vast majority of schools in Fall 2020. At the graduate level, where fully online study was already commonplace pre-crisis, this tension was (often) absent or minimal. Economic stress and health concerns also distracted many current and prospective undergraduates in particular. In contrast, many graduate students are employed full-time in jobs that could be done remotely during the crisis.

According to the National Student Clearinghouse, fully online schools did particularly well with enrollment in Fall 2020 at both the undergraduate and graduate levels. However, whether responding to CHLOE, IPEDS, or any other survey, institutions must attempt to distinguish between “truly” online students and students engaged in emergency remote learning. It is clear from CHLOE 6 responses that many chief online officers found this challenging. Unless “fully online” enrollment reporting for the pandemic period is broadly comparable to pre-pandemic definitions, year-over-year comparisons will be misleading.

Comparing Fall 2020 “fully online” students reported in CHLOE 6 against Fall 2019 data from IPEDS generated as much noise as signal. Some schools reported huge jumps in “online enrollment” while others reported large declines, a phenomenon seen across all sectors and institutions with larger and smaller online operations. The overall fully online enrollment trend appears to be positive and strong—consistent with National Student Clearinghouse data and other CHLOE 6 results—indicating that about 80% of chief online officers anticipate increased online undergraduate and graduate enrollment at their institution over the next three to five years. But, many component numbers were too volatile and inconsistent to permit reliable analysis. The CHLOE 6 Survey Enrollment Trends section elicited the lowest answer-confidence ratios of any section in the survey, with only 19% of chief online officers expressing “full confidence” in their enrollment numbers. The Fall 2020 IPEDS enrollment data must overcome the same difficulties, and the U.S. Department of Education has made every effort to guide schools on how to report. Time will tell whether data quality proves to be a major issue.

International Students

While many international students at U.S. colleges and universities opted to stay on during the pandemic, many prospective international students were unable to gain a visa or were unable or unwilling to travel. The CHLOE 6 Survey sought information on the number of international students, distinguishing undergraduates from graduate students, in possession of or intending to obtain a U.S. student visa but who were studying at a U.S. school online from their home country as of Fall 2020.

The CHLOE 6 Survey found lower ratios: about 3% for undergraduates and 10% for graduate students. The discrepancy likely reflects the fact that many universities and colleges with significant international student populations are less active than institutions with average online enrollments and, therefore, less likely to complete the CHLOE survey. Also, the chief online officer may not be best placed to collate data on international online students who intended to enter the country on a student visa. At many schools, the international and online divisions are separate, interaction may be limited, and online international students were rare pre-pandemic.

CHLOE 6 asked about the location of international students studying online in Fall 2020. When schools identified their top two countries or regions, the breakdown was:

- China = 28%
- India = 17%
- Other Asia = 14%
- Latin America = 12%
- Middle East/North Africa = 10%
- Western Europe = 9%
- Caribbean = 3%
- Sub-Saharan Africa = 3%
- Pacific = 3%

These ratios roughly correspond to the hierarchy of international student markets for U.S. higher education, highlighting that many schools suddenly had to manage fully online students on multiple

continents. Pre-pandemic, a small proportion of fully online students at U.S. schools were international but, typically, these were working adults rather than traditional-aged undergraduates or full-time graduate students.

Online Market Focus

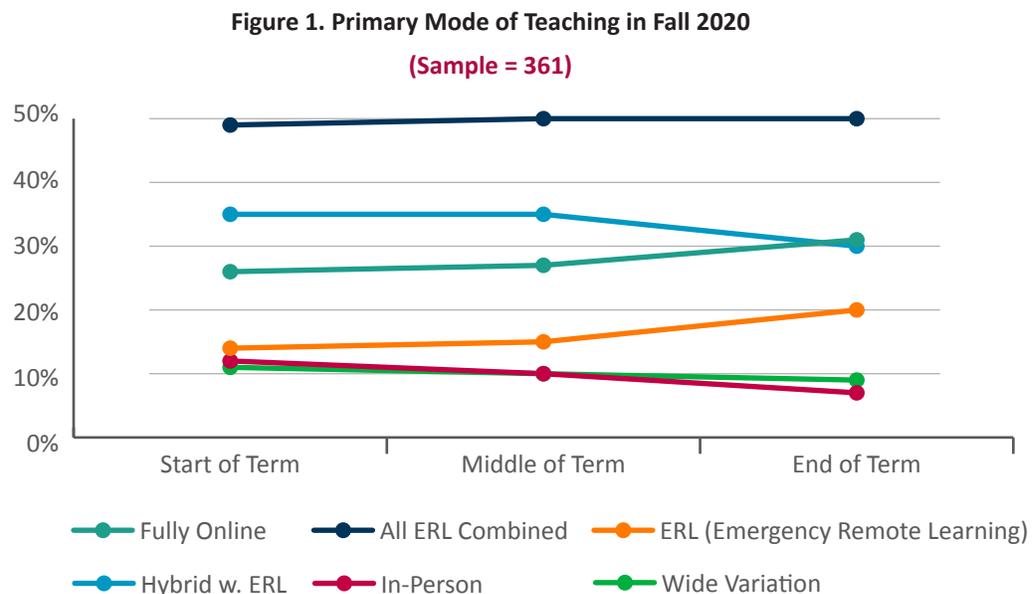
Chief online officers were asked, looking beyond the pandemic, to prioritize markets for their institutions' fully online programs. Ever-more online programs, and anticipated increased market interest, has not affected relative market priority: on average, schools see local/home state markets as top priority (average of 1.54 on a scale of 1-4 with 1 as top priority), then regional markets (2.08), national markets (2.71), and finally international markets (3.51). Pre-pandemic, typical fully online students enrolled at a school based in their home state.

The CHLOE 6 market priority pattern varied little by existing online enrollment scale; whereas, community colleges are mostly locally oriented and private four-year schools are somewhat less so.

Indeed, any pandemic boost to online enrollment is likely to reinforce the importance of local online recruitment where most school brands are strongest. By definition, most schools cannot become big national online players. Insofar as the national market favors the few, it is in the interest of the vast majority of schools to craft forms of online that appeal to local students first and foremost. This may be the best way to counter the online giants and carve out a sustainable market niche.

V. ONLINE MODES OF TEACHING PREVAIL

Fall 2020 offered proof that hope for a quick return to in-person post-secondary instruction after the Spring 2020 pivot to remote learning was premature. Non-contact alternatives dominated at the outset and expanded during the term, as in-person instruction proved unsustainable under the circumstances of the pandemic due to COVID outbreaks on campuses and in surrounding communities, as well as various restrictions adopted by state and local governments that affected the ability of students to gather together. By the end of the fall term, 81% of reporting COOs indicated that online in some form was the primary mode of instruction (Figure 1).



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Emergency remote learning (ERL) accounted for half of all surveyed institutions. Fully online learning was the prevailing mode of instruction at nearly a third of institutions. The reliance on fully online learning by a significant proportion of institutions during the fall term, as well as a corresponding growth in fully online capability, has drawn scant attention due to a focus on ERL, but its significance should not be underestimated.

Only 12% of COOs in the CHLOE 6 sample (361) reported that their institutions began Fall 2020 with the intention of hosting primarily in-person instruction, typically coupled with social distancing measures and a COVID testing regimen for students, faculty, and staff. This percentage decreased to 10% of institutions by mid-term and further decreased to 7% by the end of the term.

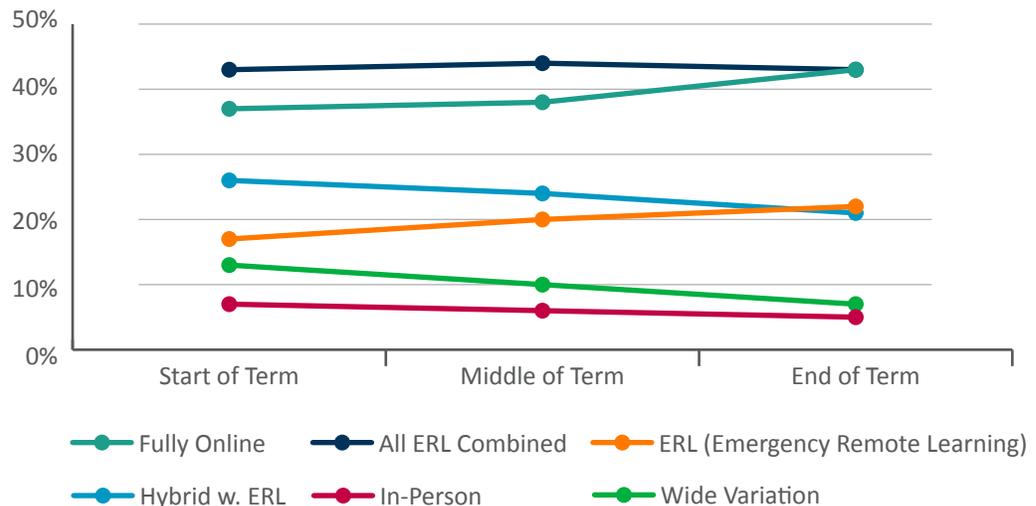
A full picture would include the institutions reporting wide variation, of which a significant proportion was also likely online. Institutions with wide variation typically differentiated by level of instruction (e.g., lower division, upper division, graduate, or by program or school within larger institutions) and allowed some in-person learning in hands-on labs and clinical programs.

Close examination of these data indicates some subtle shifts as well. Hybrid learning lost ground due to pandemic-related events during the term, shifting another 5% of the sample toward fully ERL. Another 5% moved to fully online learning during the semester, probably drawn from a mix of previously in-person, ERL, and variation categories.

Differences in teaching mode between public two-year institutions and public and private four-year institutions were significant (Figures 2-4). A much higher proportion of community colleges began the fall term with predominantly fully online instruction, and the proportion of community colleges in this mode grew even further during the term, ending at 43%, matching the percent of public two-year schools practicing ERL (Figure 2). The extensive reliance on fully online learning reflects the long engagement of the community college sector with online learning. Only 7% of public two-year schools began the term attempting in-person instruction at scale; this proportion fell to 5% by the end of the term.

Figure 2. Public 2Y Modes of Teaching in Fall 2020

(Sample = 94)



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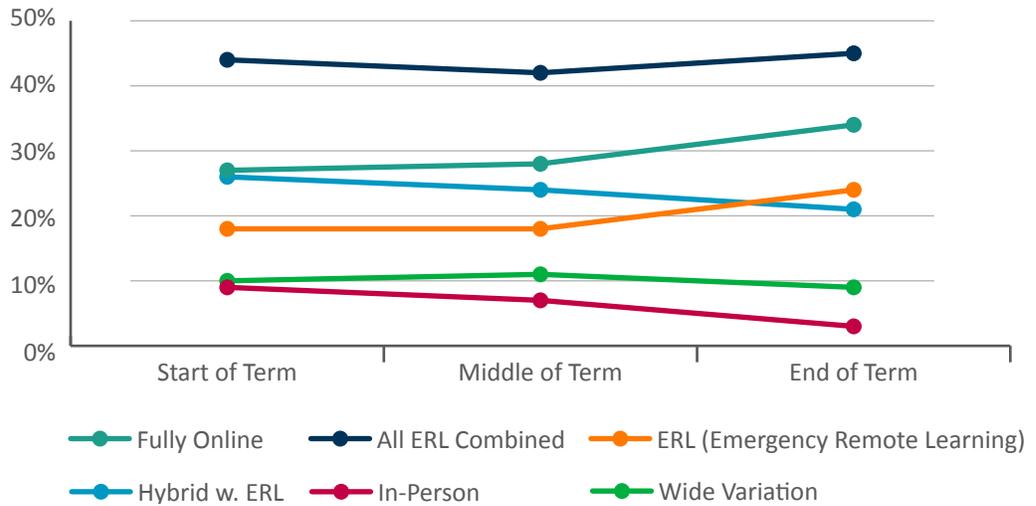
Almost half of public four-year schools began and ended the term relying primarily on ERL (Figure 3). As the term wore on, the 10% of schools in this sector that began in person declined to just 3%. It would appear that a corresponding increase occurred in public four-year schools turning to fully online instruction, which rose from 27% to 34%. It is likely, however, that this shift was typically achieved by



upgrading some ERL courses to fully online and converting additional in-person courses to remote or hybrid instruction, rather than a one-for-one substitution of fully online courses for in-person courses.

Figure 3. Public 4Y Modes of Teaching in Fall 2020

(Sample = 128)



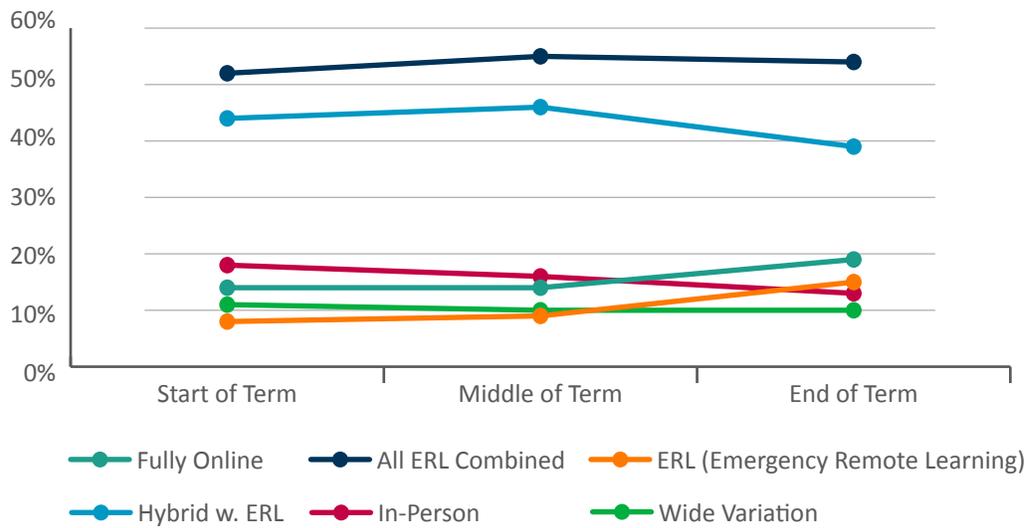
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In contrast with public two- and four-year institutions, a higher percentage (18%) of four-year private schools attempted to support in-person instruction at the start of the Fall 2020 term (Figure 4). Influences on the decision of more private institutions to risk this mode of instruction might have included concerns about revenue, preservation of the institutional reputation for high-touch learning, and uncertainty about their capability to rely on either fully online or remote learning options. The proportion of private institutions prepared to operate in fully online mode (14% rising to 19%) was much lower than either public two-year or four-year institutions. Correspondingly, the privates relied more heavily on ERL (52% rising to 54%). The in-person percentage fell to 13% by the end of the term, no doubt due to pandemic effects on campuses and in surrounding communities.



Figure 4. Private 4Y Modes of Teaching in Fall 2020

(Sample = 124)

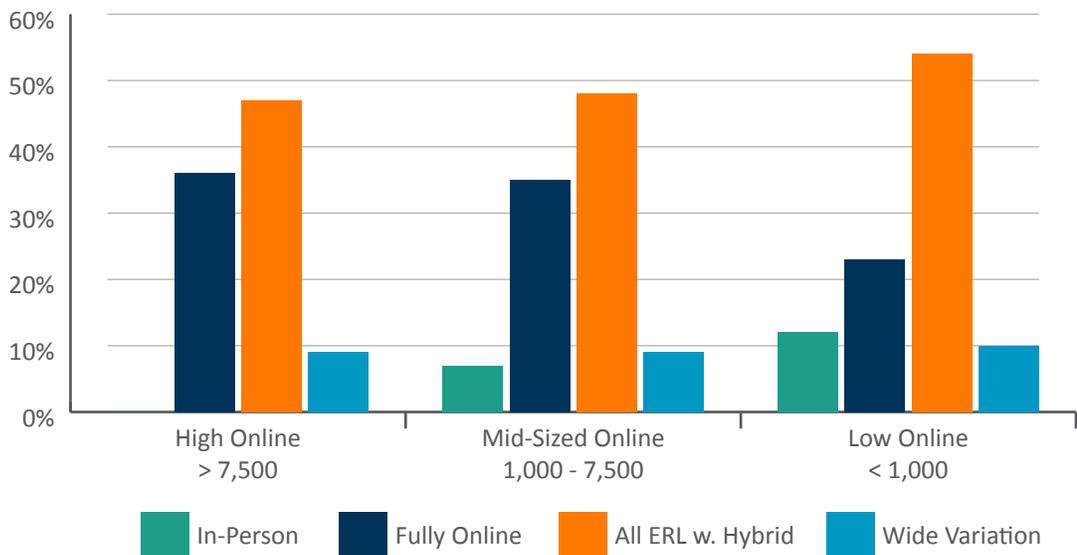


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The size and scale of a school’s online learning investment prior to the onset of the pandemic appears to have had a measurable effect on institutional response. Virtually all schools—both public and private—with large online enrollment (i.e., more than 7,500 fully and partly online students), ended the term online or combining fully online and remote instruction, with the highest proportion of fully online of any sector (Figure 5). Institutions with low online enrollment prior to the pandemic (i.e., less than 1,000 fully and partly online students) were most likely to maintain in-person programs (12%) and to rely on ERL rather than fully online learning when they could not sustain in-person programs.

Figure 5. Modes of Teaching by Online Enrollment at the End of Fall 2020

(Sample = 356)



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Chief Online Officers Views of Post-Pandemic Online Learning

In the first months of the pandemic, widely different views were expressed about the long-term impact of the rapid pivot to emergency remote learning. Some pundits argued that exposing the entire in-person student body to poorly executed remote courses would damage the reputation and appeal of online learning as a whole for many years to come. Others argued that many students previously unfamiliar with online learning, though not all, would find much to like during the emergency remote pivot (ERP) and gravitate to online opportunities as a result. Now that vaccine distribution is well underway and COOs can envision the shape of postsecondary education after COVID more clearly, CHLOE surveyed their expectations about demand for online learning in the next three to five years.

Asked about the effect of the ERP on enrollment in fully and majority online courses and programs at their institutions, the great majority of COOs predicted growth rather than flight from online learning (Table 3). In CHLOE's sample of 361 officers, 13% predicted continuation of the pre-pandemic growth pattern in online undergraduate programs, 60% predicted "some" further increase, and 17% anticipate a "strongly increased" online growth. These positive expectations sum to 90% of the CHLOE sample, with only 6% of COOs predicting any decline at their schools.

Table 3. Long-Term Impact of the Pandemic on Online Undergraduate Enrollment

(Sample = 361)

How will the ERL experience during the pandemic affect online undergraduate enrollment?	Sample	Public 2Y	Public 4Y	Private 4Y	Low Online < 1,000
Strongly decreased online enrollment	2%	1%	1%	5%	4%
Some decreased online enrollment	4%	5%	5%	2%	3%
About the same as pre-pandemic	13%	7%	8%	23%	19%
Some increased online enrollment	60%	64%	63%	52%	52%
Strongly increased online enrollment	17%	22%	20%	12%	15%
N/A – We are already fully online	1%	0%	2%	2%	1%

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The most significant difference among sectors is the approximate 20% confidence gap regarding future online enrollment growth between public and private nonprofits, with many more private four-year institutions less confident that the pandemic experience will lead to an increase in online enrollment. This may reflect a stronger belief at many private schools that their undergraduate students will return to the

classroom in pre-pandemic number and proportion. Public institutions, on the other hand, appear more likely to believe that the pandemic will lead to a shift of students toward online options.

Breaking down the CHLOE sample by size of pre-pandemic online enrollment, the most noteworthy impact of the ERP is the confidence of two-thirds of COOs representing low-online enrollment institutions (less than 1,000 fully and partly online students) that the pandemic would lead to increased (52%) or “strongly” increased (15%) undergraduate online enrollment.

At the graduate level, out of 231 four-year officers in the CHLOE sample, 12% predict continuation of the pre-pandemic growth pattern in online undergraduate programs, 45% predict “some” further increase, and 35% anticipate “strongly increased” online growth, for a total of 92% (Table 4). The gap observed at the undergraduate level between public and private COOs’ online enrollment predictions is much less at the graduate level. This reflects the roughly comparable representation of online graduate enrollment across institution types.

Table 4. Long-Term Impact of the Pandemic on Online Graduate Enrollment
(Sample = 231)

How will the ERL experience during the pandemic affect online graduate enrollment?	Sample	Public 4Y	Private 4Y	Low Online < 1,000
Strongly decreased online enrollment	1%	1%	0%	0%
Some decreased online enrollment	3%	3%	2%	1%
About the same as pre-pandemic	12%	7%	17%	13%
Some increased online enrollment	45%	49%	41%	43%
Strongly increased online enrollment	35%	37%	33%	37%
N/A – We are already fully online	4%	3%	7%	5%

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As noted for undergraduate online enrollment, low-online enrollment institutions anticipate increased (43%) and “strongly” increased (37%) graduate online enrollment, suggesting that the pandemic experience may have changed the posture of many institutions that have not focused on online enrollment in the past. This impression is confirmed by the strong response of low-online enrollment institutions indicating an increased priority for online learning (Table 5).

In completing this section of the CHLOE 6 Survey, a few respondents reported that their predictions were based more on long-term planning at their institution and less, if at all, on the effects of the pivot. Yet, even in these cases, it is clear that the ERP has not dampened the prospects of continued and, for many, accelerated growth in online learning. This impression is reinforced by responses to a follow-up question

in the survey (Table 5) asking specifically whether ERL has elevated the priority of online learning “in the coming years.” Using a five-point Likert scale, 22% of the respondents rated the increase in priority at a “5” and 64% at a “4,” while only 1% rated it a “1” for “greatly decreased priority” or “2” for decreased priority. When comparing institutions by sector, it is significant that public two- and four-year institutions and private four-year institutions show 80-90% agreement that the priority of online learning at their institutions is increasing at least in part due to the ERP.

Table 5. Emergency Remote Pivot Impact on Future Priority of Online Learning

(Sample = 361)

ERP Impact on Future Priority of Online Learning	Sample	Public 2Y	Public 4Y	Private 4Y	Low Online < 1,000
1 – Greatly decreased priority for online learning	1%	1%	1%	2%	2%
2–Decreased priority for online learning	2%	2%	2%	1%	0%
3 – No change	12%	15%	10%	11%	10%
4 – Increased priority for online learning	64%	55%	70%	65%	65%
5 – Much greater priority for online learning	22%	27%	17%	21%	24%

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Further, COOs envision the influence of the ERP as more than an uptick in generalized interest in online learning. In a number of cases, they anticipate the conversion of in-person courses to remote courses during the pivot (their subsequent refinement into fully online courses), as being likely to lead the expansion of fully online courses and programs at the institution. When asked “How likely is it that emergency remote learning (ERL) and online courses developed in response to the pandemic will evolve into permanent new online degree programs?” (Table 6), 9% said it would be “very likely” for undergraduate programs, another 59% said it would be likely for some programs but not others, and 24% said it would be “unlikely” to occur.

Table 6. Likelihood That Undergraduate ERL Courses Will Evolve into Online Programs
(Sample = 360)

Will ERL courses evolve into online undergraduate programs at your institution?	Sample	Public 2Y	Public 4Y	Private 4Y	Low Online < 1,000
Very likely	9%	10%	5%	10%	10%
Likely for some subjects but not for others	59%	72%	67%	44%	50%
Unlikely	24%	15%	23%	35%	30%
N/A – We are already fully online	4%	3%	2%	6%	3%
We do not and will not offer online degrees	4%	0%	3%	6%	7%

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In this case, averages mask some important differences by sector. On the positive side, a higher proportion of community college COOs are anticipating growth in online programs based on ERL courses than public four-year sector COOs, an especially higher proportion when compared with private four-year COOs. While only 15% of community college COOs consider it unlikely that ERL courses will mature into online programs, 35% of private four-year COOs share this view. The contrast highlights the equivocal stance of many private colleges regarding how to fully support undergraduate online growth, as compared to public two-year and, to a lesser extent, public four-year institutions.

Results for graduate programs show that 15% of responding COOs believe it “very likely” that ERL courses at their institutions will evolve into fully online courses and programs, 57% of COOs see this as likely for some such programs, and 19% regard it as “unlikely” (Table 7). The prospects for growth in online graduate study based on the ERL experience were judged more consistently between public and private four-year COOs than their view of online undergraduate growth. Generally speaking, at the graduate level, online learning seems to be as well-established and as acceptable in private nonprofit institutions as in public ones.

Table 7. Likelihood That Graduate ERL Courses Will Evolve into Online Programs
(Sample = 233)

Will graduate ERL courses evolve into online programs at your institution?	Sample	Public 4Y	Private 4Y
Very likely	15%	10%	17%
Likely for some subjects but not for others	57%	67%	51%
Unlikely	19%	20%	19%
N/A- We are already fully online	10%	4%	14%

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Synchronous Online Learning

Earlier CHLOE reports (CHLOE 1 – 3, 2017 to 2019) indicated that, pre-pandemic, entirely or predominantly synchronous online courses and programs occupied a tiny niche of the online market (1 – 3%), while courses that balanced synchronous and asynchronous delivery accounted for 10 – 16% of online learning, and 50 – 56% of primarily asynchronous courses contained at least a minor component of synchronous activity. Prior CHLOE data does not help us distinguish between very occasional, peripheral, or optional synchronous components in contrast to substantive reliance on synchronous methods to deliver a significant portion of course content or objectives in primarily asynchronous courses and programs.

During the ERP, however, massive numbers of courses were converted to online delivery primarily by delivering classroom lectures via video conferencing software. A great deal of debate in the educational press has focused on the merits and effectiveness of this form of online teaching. Critics argued that hour-long synchronous lectures fostered student passivity, while proponents argued that properly planned synchronous activities increased student engagement. The issues are unresolved and likely to be with us for some time to come. CHLOE 6 asked COOs whether new online programs are likely to be designed with a significant synchronous component (Table 8).

Table 8. Likelihood of Synchronous Components in New Online Courses

(Sample = 258 UG; 125 G)

Are new and revised online courses/programs, including converted ERL courses, likely to include a significant synchronous component?	Very likely	Likely for some subjects but not others	Unlikely
Undergraduate	26%	57%	14%
Graduate	21%	56%	23%

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The responses point to heightened interest in integrating a substantial synchronous component in new online courses and programs. Twenty-six percent of responding COOs anticipate that their future undergraduate online courses and programs are “very likely” to incorporate significant synchronous elements, and 21% indicate the same for future online graduate programs. A further 56-57% of the sample responded that there would likely be substantial synchronous elements in some, though not all, subject areas, suggesting that closer examination of the value and effectiveness of synchronous online learning is underway at many institutions. It makes sense that the highest proportions of “very likely” synchronous inclusion come from representatives of private four-year and low-online enrollment institutions—sectors that are most heavily invested in in-person instruction and which led the synchronous statistics in previous CHLOE surveys. Only 14% of COOs responded with doubt that the ERL emphasis on synchronous online learning would be sustained in program development at the undergraduate level. (Twenty-three percent were similarly skeptical at the graduate level.)

Future CHLOE surveys will seek to determine whether the ERL experience has a lasting influence on the shape of future online education, including whether synchronous components gain a larger role in primarily asynchronous online courses and program, and are increasingly associated with specific activities, content, and learning objectives.

VI. REVENUES AND EXPENDITURES

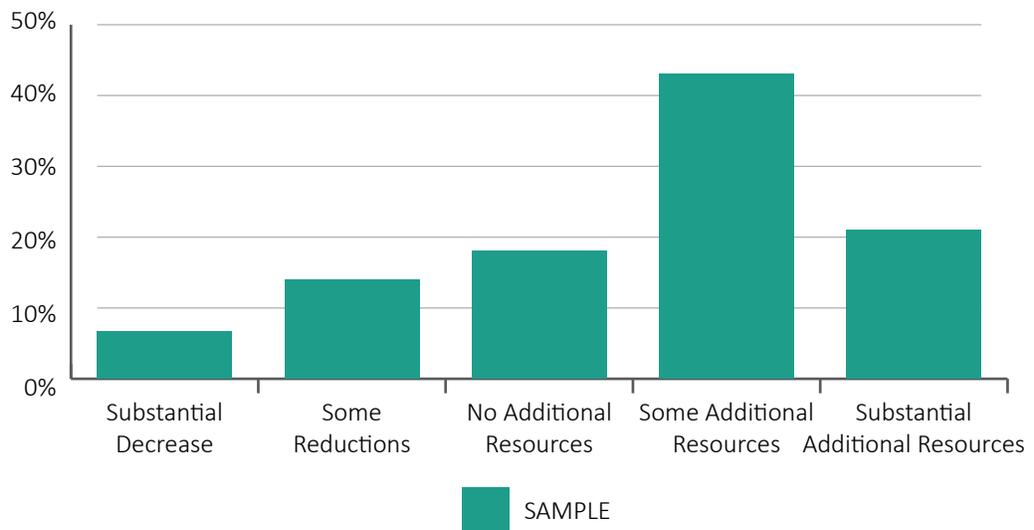
Historically, the financial situations and conditions of higher education institutions have been as varied as the colleges and universities themselves. Some have been well off due to notable endowments, and some have survived on more modest means. In general, though, the pandemic, starting with the ERP in March 2020, has had a significant financial impact on virtually every school. Many institutions had to send students home in Spring 2020, along with refunds for dining and housing. Universities with medical centers were impacted by the loss of numerous clinical operations when they were required to focus on providing critical care for those suffering from the pandemic. Some degree of budget cuts and furloughs of staff were not uncommon. Concerns about enrollments in the near term, including those of international students, were being raised across college and university campuses. And, of course, the ability of institutions to pivot to provide online instruction became essential.

This section of CHLOE 6 explores the financial impact of continuing remote and online learning activities during Fall 2020. Financial resources were broadly defined to include available budget, staffing, hardware, and software, as well as the cost of outsourcing, consulting arrangements, etc.

When chief online officers were asked to compare 2019 resources to 2020 resources, responses indicated that most institutions (63%) made “some” or “substantial” additional resources available to support online learning at their institution (Figure 6). In a lesser number of cases (18%), COOs reported flat budgets. This may not reflect a lack of emphasis or value, but, instead, reflect support relative to the negative overall financial situation of the school. A flat budget in the context of budget reductions in all other areas of the institution indicates the priority placed on online learning during the pandemic. Comments from COOs highlighted the importance of federal support through the CARES Act.

Figure 6. Impact on Resources for Online Learning

(Sample = 286)



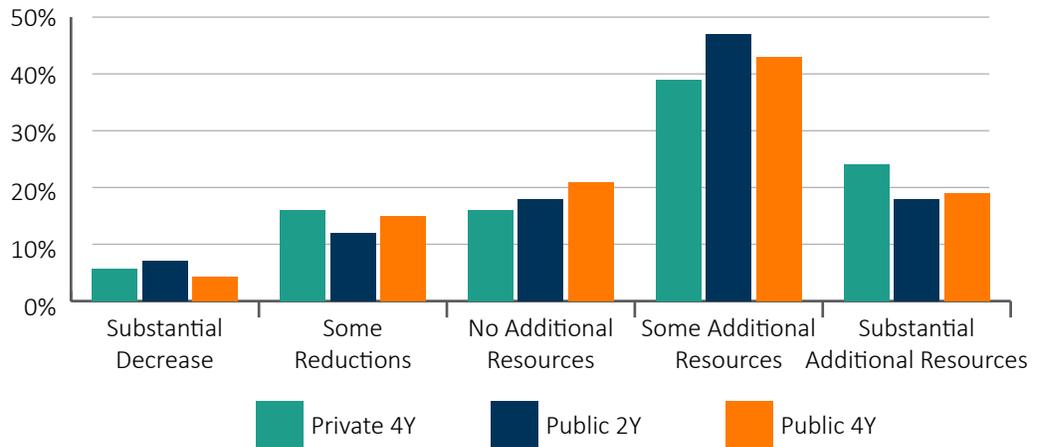
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Breaking this question down by sector reveals some modest differences (Figure 7). The majority (63%) of private four-year institutions reported a positive impact, but 16% were neutral and 20% indicated a negative impact on resources. The public institutions shared a similar story with the majority (65% for public two-year and 62% for public four-year) stating a positive impact, while 18% of public two-year and 21% of public four-year were neutral, and 17% of public two-year, and 18% of public four-year indicated a negative impact on resources.



Figure 7. Impact on Resources for Online Learning by Sector

(Sample = 281)

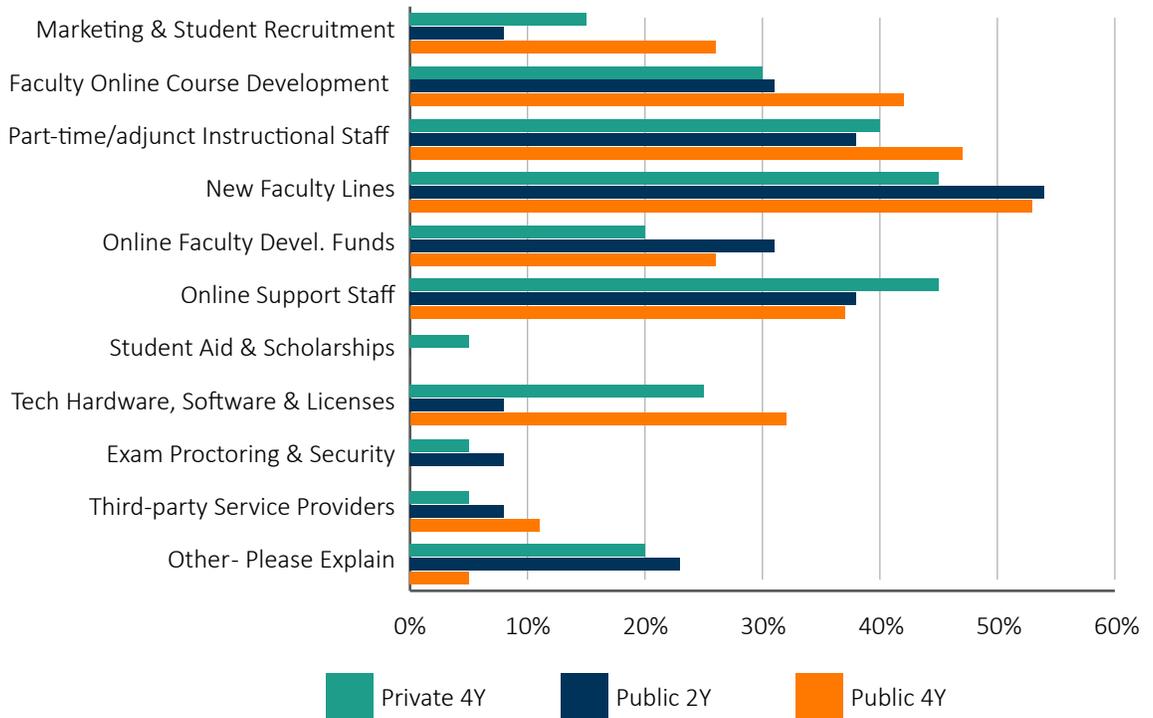


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For those schools reporting a negative impact, CHLOE 6 asked what areas in their operations were reduced. COOs identified the top three as represented in Figure 8 as budget for new faculty lines, budget for part-time/adjunct instructional staff, and online support staff hires. For those facing budget reductions, adding human resources during this demanding time was not the priority.

Figure 8. Resource Reduction Areas for Online Learning by Sector

(Sample = 52)



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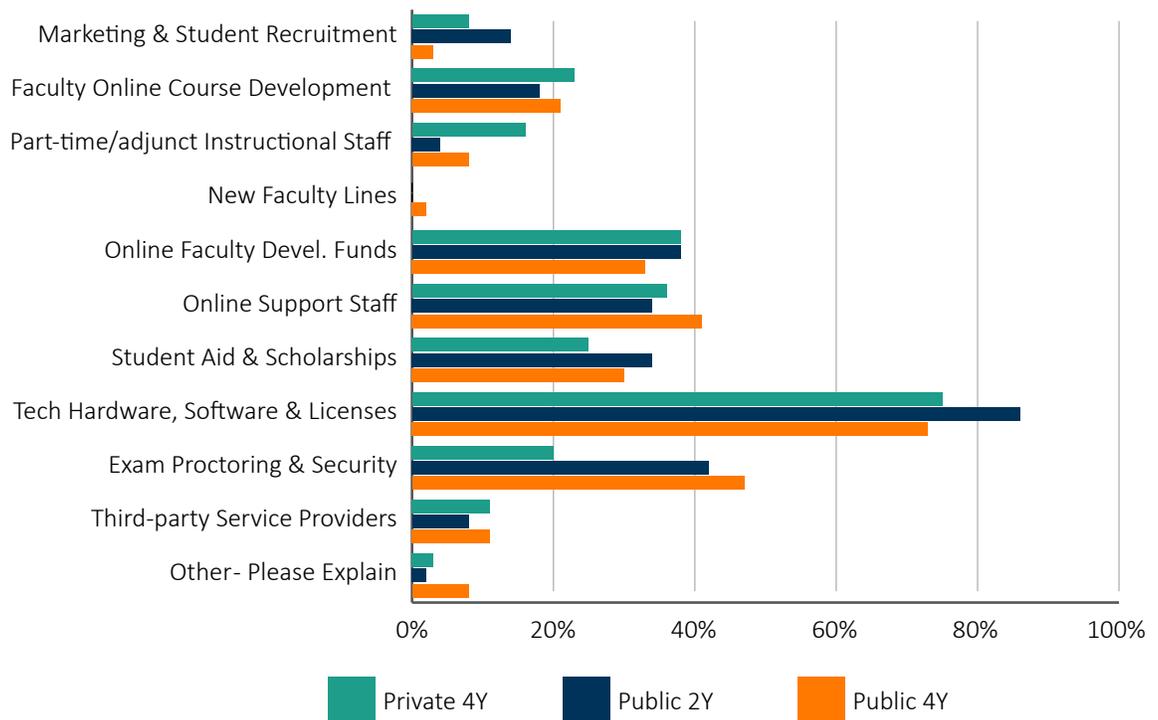
The top three areas reported by the private four-year institutions were budget for new faculty lines, budget for part-time/adjunct instructional staff, and online support staff hires (Figure 8). The top three areas reported by the public four-year institutions were budget for new faculty lines, budget for part-time/adjunct instructional staff, and budget to compensate faculty for online course development. The top three areas reported by the public two-year institutions were budget for new faculty lines, online support staff hires, and budget for part-time/adjunct instructional staff. While a number of operational areas realized some reduction, it seems that financial support for new hires experienced the greatest reduction.

CHLOE 6 asked COOs who reported a positive impact where they made investments in their operations (Figure 9). While a number of areas were acknowledged for incremental support, a notable 77% of COOs made investments in technology hardware and software license expenses. Ensuring a stable and robust infrastructure and platform for online learning was an understandable priority during the monumental shift in demand. Online support staff hires, funds for online exam proctoring/security services, and faculty development funds for online learning were cited by more than a third of COOs.

CHLOE 6 explored this by sector and found some interesting differences (Figure 9). Three-quarters of the private four-year institutions added resources to technology hardware and software license expenses along with 38% adding to faculty development funds for online learning. The top budget area cited by both public four-year and two-year schools was technology hardware and software license expenses. This might suggest that these sectors needed to bolster and reinforce their infrastructure when a significant amount of traditional residential experiences needed to be accommodated in their online spaces.

Figure 9. Resource Investment Areas for Online Learning by Sector

(Sample = 182)



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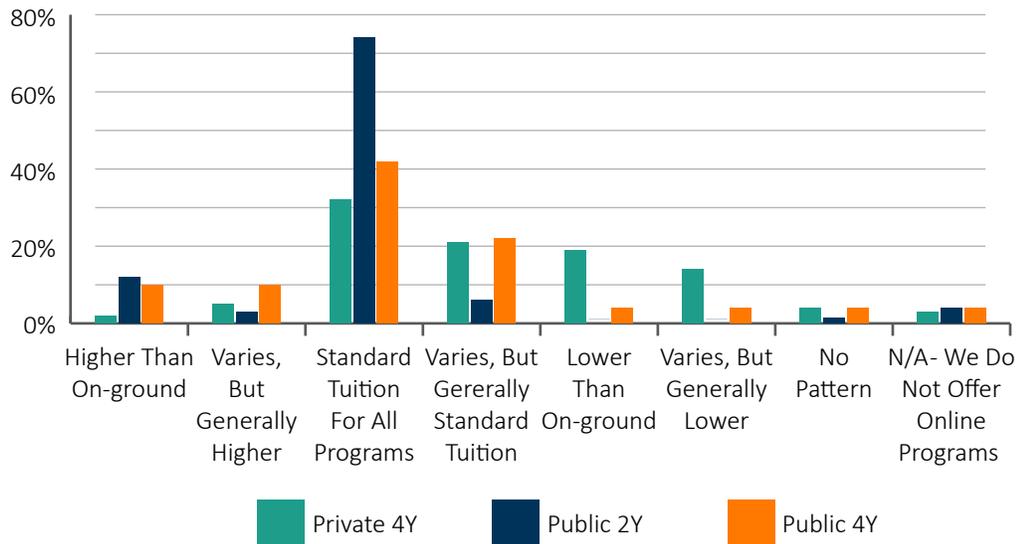
Tuition Policy

Related to the financial landscape in higher education during this time, CHLOE 6 inquired about the tuition policies of the institution. The overall pattern for tuition policies for online learning is similar to prior CHLOE studies where the majority (64%) of institutions generally charge a standard tuition rate that is the same as on-ground tuition. And like previous CHLOE studies, an equal number (14%) reported higher tuition rates for online learning and lower tuition rates for online learning. A small number (3%) reported no pattern, and 4% indicated that they do not offer fully online programs. This finding of not differentiating tuition based on various modes of instruction, consistent with past CHLOE surveys, counters any perceptions of colleges and universities broadly discounting tuition during the pandemic. Stepping back from 2020, this is also consistent with higher education institutions charging the same tuition for the variety of course formats on campus, such as large lecture courses and small seminar courses.

Examining this question by sector reveals some differences in tuition policy (Figure 10). While the majority (53%) of private four-year institutions reported a generally standard policy (the same as on-ground), one-third of these COOs indicated that their tuition rate was lower for online programs, and only 7% charged a higher rate for online programs. The majority (64%) of public four-year schools had a tuition policy for online programs that was generally the same as on-ground, while 20% of them charged more for online, and only 8% charged less for online programs. The approach for public two-year schools was even more pronounced, with 80% with a tuition policy for online programs that was generally the same as on-ground, 15% of them charging higher rates for online, and no schools charging lower rates for online programs.

Figure 10. Institutional Online Program Tuition Policy by Sector

(Sample = 281)



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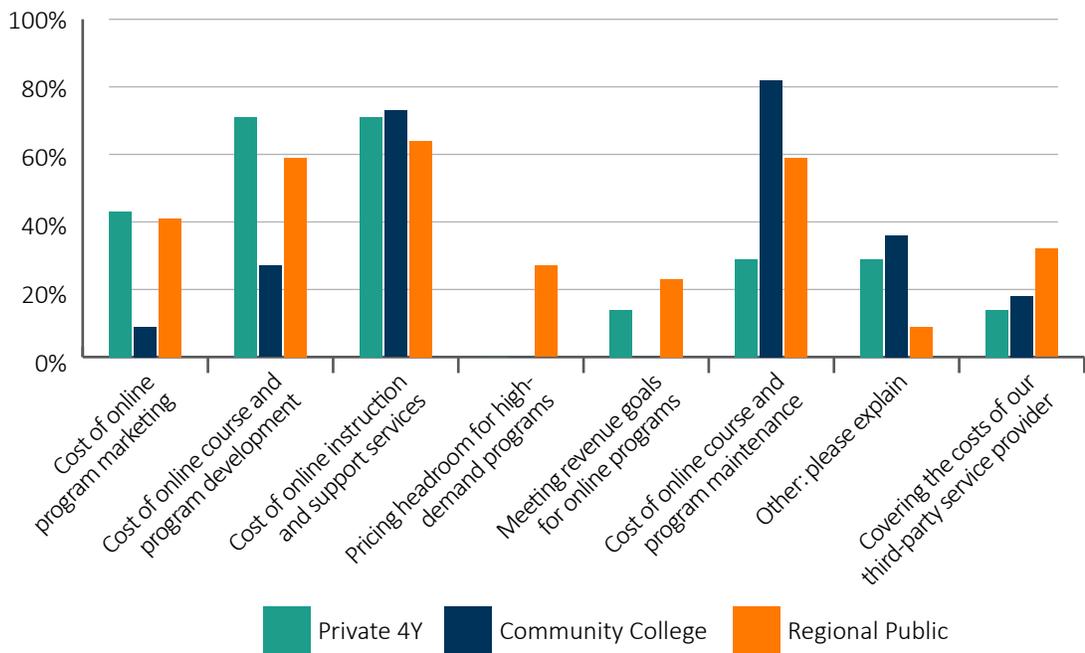
For those COOs reporting an approach to tuition for online programs that was generally higher, CHLOE 6 asked them to identify all of the reasons that justified their policy (Figure 11). The cost of online instruction and support services was highlighted by 68% of COOs, the cost of online course and program maintenance was selected by 60% of COOs, and the cost of online course and program development was noted by 53% of COOs.

Breaking down the rationale for higher tuition policies by sector again revealed differences (Figure 11). The cost of online instruction and support services was highlighted by 71% of private four-year institutions, the cost of online course and program maintenance was selected by 71% of these COOs,



and the cost of online program marketing was selected by 43%. Sixty-four percent of public four-year institutions pointed to the cost of online instruction and support services as a reason for higher tuition policies, while 59% indicated the cost of online course and program maintenance, and 59% chose the cost of online course and program development. Eighty-two percent of the COOs of the public two-year colleges selected the cost of online course and program maintenance, 73% identified the costs of online instruction and support services, and 36% designated covering the costs of third-party service providers as the rationale for higher tuition policies.

Figure 11. Reasons for Higher Online Program Tuition Policies by Sector
(Sample = 40)



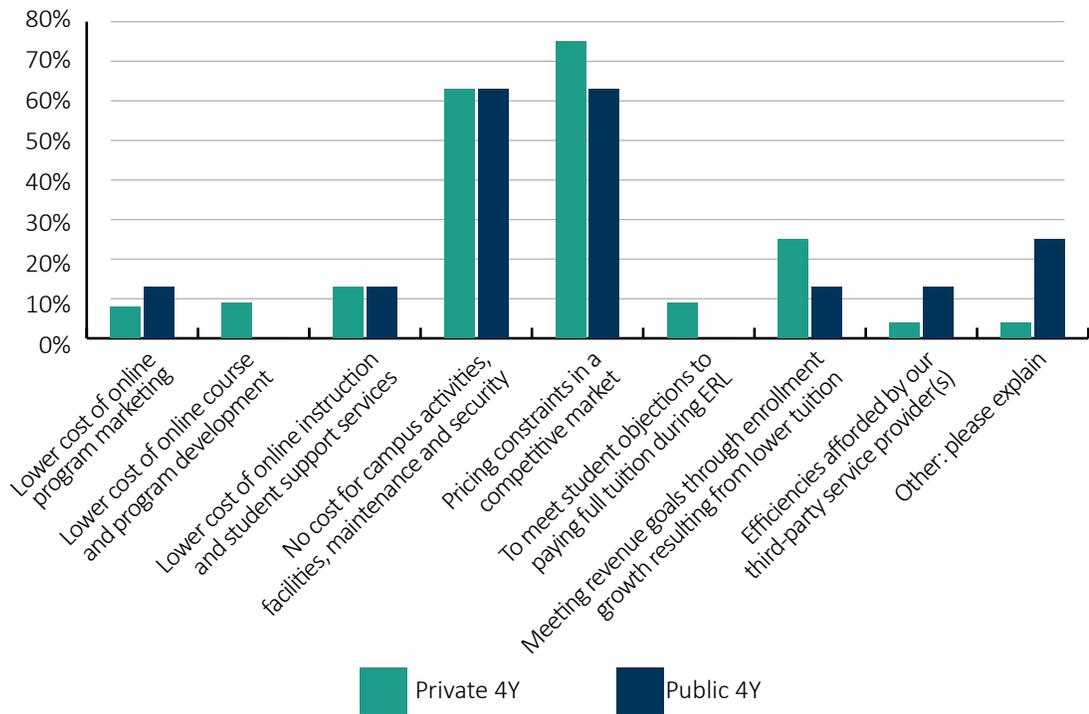
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For those COOs reporting an approach to tuition for online programs that was generally lower, CHLOE 6 asked them to identify all of the reasons that justified that policy. In this case, two reasons were prominent. Seventy-three percent of all COOs pinpointed pricing constraints in a competitive market, and 63% noted that there was no cost for campus activities, facilities, maintenance, and security.

Breaking down the rationale for lower tuition policies by sector yielded consistent results given that only two groups reported lower tuition policies (Figure 12). Seventy-five percent of the private four-year institutions cited pricing constraints in a competitive market, and 63% noted that there was no cost for campus activities, facilities, maintenance, and security. Sixty-three percent of the public four-year institutions cited pricing constraints in a competitive market, and the same percentage noted that there was no cost for campus activities, facilities, maintenance, and security.



Figure 12. Reasons for Lower Online Program Tuition Policies by Sector
(Sample = 40)



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Finally, CHLOE 6 asked whether institutions had modified their online program tuition strategy in the wake of the COVID-19 pandemic and the emergency remote pivot. It was the rare exception that institutions made changes to their tuition policies, with 5% standardizing rates regardless of delivery mode, 1% raising tuition for all or most online programs, and 2% lowering tuition for all or most online programs below the on-campus norm. Ninety-two percent of institutions did not change their approach to tuition policies.

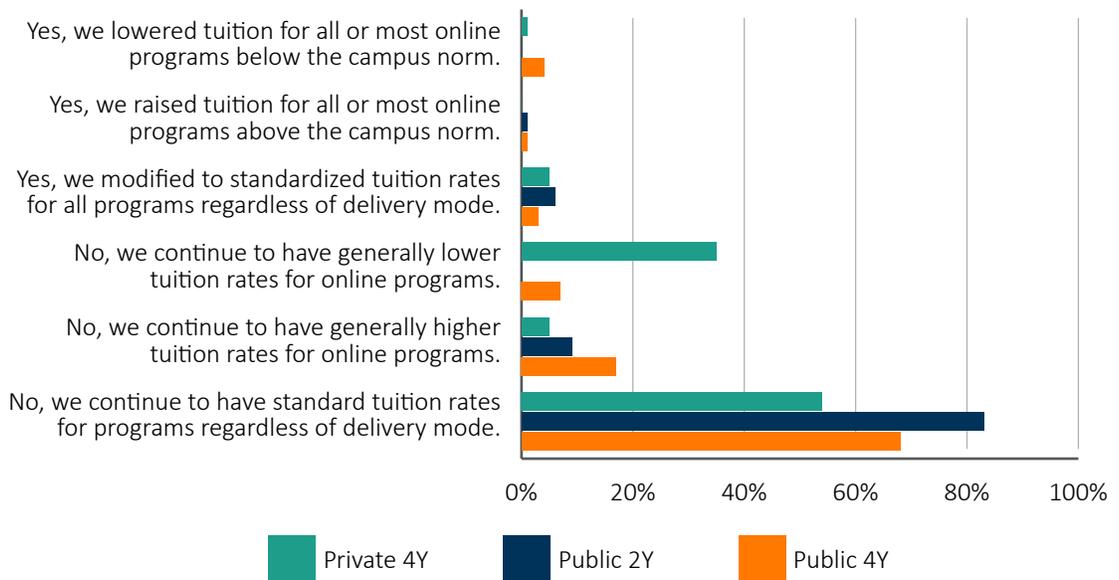
Analyzing this last question by sector yielded a high level of consistency with the results of all sectors combined (Figure 13).

It should be acknowledged that COOs were very confident in their answers to this section of the survey. When asked to reflect on their responses in this section and qualify the relative confidence of their answers, 86% of them rated this as a four or five on a five-point scale, with five representing full confidence.

Based on all of these findings, a few key points stand out. Most institutions realized the need to make additional resources available to support their online learning activities during the pandemic. While this may be an obvious necessity given the clear reliance on online learning to be the primary vehicle for academic continuity, it is also surprising that almost one in five institutions reduced resources in this vital area. This was not a time to add staff, but most institutions did invest in technology hardware and software, and this seems reasonable if the existing campus infrastructure was not in place to accommodate the demand for online courses required by the pandemic-driven pivot. It is of note that approaches to tuition policies for online programs are generally the same as for on-ground programs, and this is consistent with prior CHLOE surveys. And, most institutions did not alter this strategy due to the pandemic.

Figure 13. Changes in Online Program Tuition Policies Due to the Pandemic by Sector

(Sample = 281)



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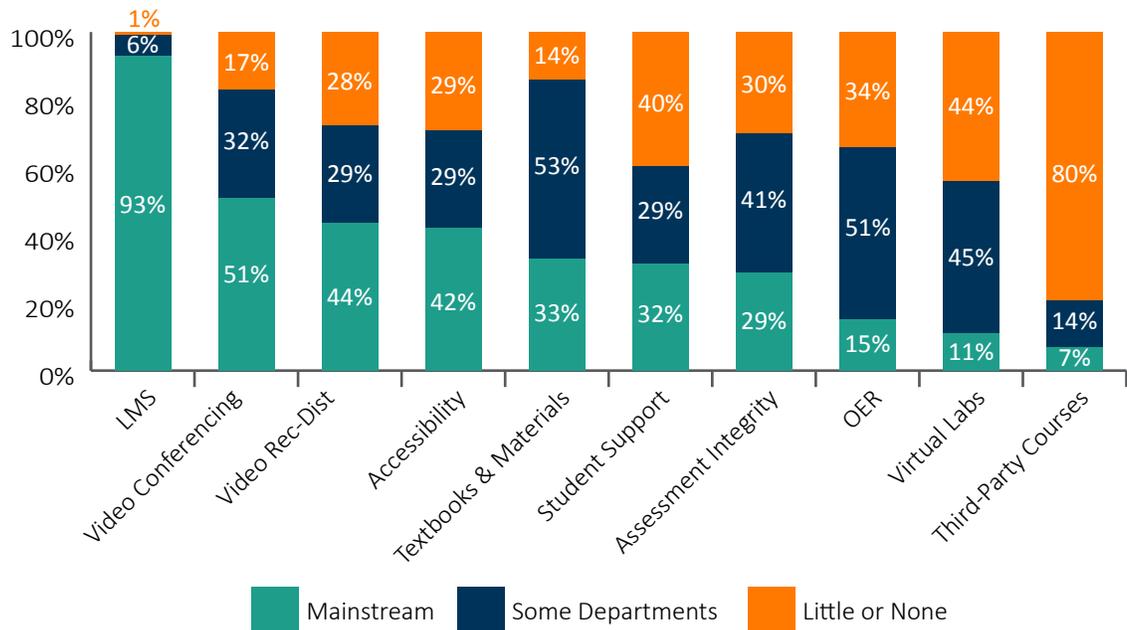
Moving forward to the new academic year, it will be interesting to see upcoming financial plans to support online learning. A common theme echoed across campuses in this country is a discussion regarding what to retain that worked well during this transition. The belief is that specific strategies and initiatives were valuable and should continue even after institutions shift back to a more traditional approach. An excellent way to track whether colleges and universities prioritize these efforts will be to “follow the money.” Will U.S. higher educational institutions make additional investments that enable them to hold onto the new opportunities and options presented through this challenging time? Future CHLOE surveys will need to revisit budget expenditures and staffing levels to see if leadership remembers the importance of institutional readiness in this area. It can be collectively hoped that schools will be poised for continued online growth, rather than needing to return to past days of playing “catch up” to address lacking institutional support and infrastructure.

VII. ONLINE LEARNING TECHNOLOGIES

As physical campuses shuttered, the COVID-19 pandemic forced colleges of all kinds, from the most to the least traditional, to scramble together a semblance of academic continuity. Online technology helped make this possible. Which technology types did colleges and universities invest in, and how significant were those investments? Going forward, will such emergency operations have a lasting impact on institutional infrastructure and capability, as well as online learning trajectories compared to the pre-pandemic baseline? To start, Figure 14 presents the mainstream, partial, and non-adoption by edtech segment for 2019 (pre-pandemic).

Figure 14. From Rare to Mainstream Pre-Pandemic Edtech Adoption

Mainstream, Partial & None (2019)
(Sample = 345)



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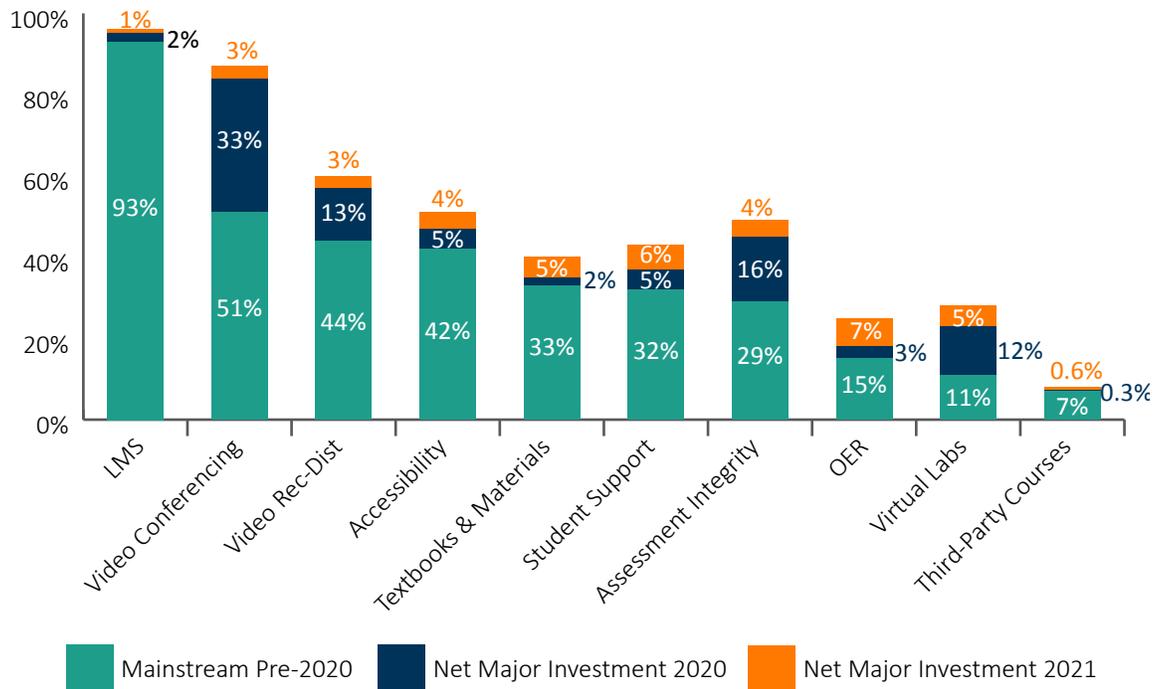
With one exception (third-party online courses), a majority of schools reported at least partial adoption of these technologies pre-pandemic. In 2019, for only four of the 10 edtech segments—LMS, video conferencing, video recording and distribution, and accessibility—was mainstream institutional adoption most common. Textbooks and materials, assessment integrity, open educational resources (OER), and virtual labs were most likely to be adopted by certain departments rather than by the institution centrally or across the board. Only student support/retention and third-party online courses had non-adoption as their most common response, and only the latter by a majority of the CHLOE 6 sample. Mainstream adoption of OER, virtual labs, and third-party courses was very much the exception pre-pandemic.

How did COVID-19 change this picture? Figure 15 charts types of education technology, distinguishing pre-2020 mainstream adoption, net major investment in 2020, and net executed or planned major investment in 2021.

Consistent with emergency spending priorities (see Section VI), the pandemic crisis boosted mainstream adoption of all 10 edtech segments, but some more than others. Video conferencing produced by far the largest gains, increasing from 51% mainstream adoption in 2019 to a projected 87% by the end of 2021. Video recording and distribution and accessibility tools also moved into majority territory for the first time. From a lower base, assessment integrity (including e-proctoring) jumped by two-thirds from 29% 2019 mainstream adoption to a projected 49% through 2021, and student support (including retention tools) rose from 32% to 43%. OER also increased by two-thirds, from a lower base (15% to 25%). Virtual labs and simulations was the only category to more than double its mainstream adoption rate during the course of the pandemic—from 11% in 2019 to 28% projected by the end of 2021. Third-party online courses grew marginally and remained in the single digits.

Figure 15. Pandemic Education Technology Momentum

Mainstream Adoption Pre-2020, 2020 & 2021
(Sample = 345)



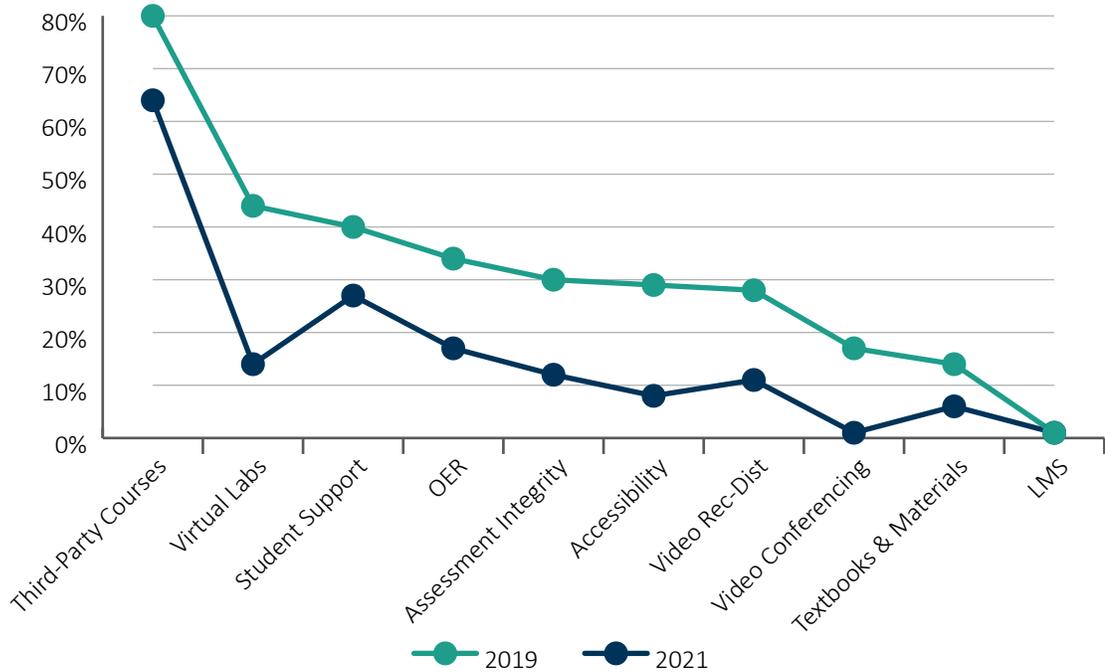
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The technologies that saw strongest net mainstream adoption gains in 2020 were those seen as fundamental to managing the COVID crisis short-term—video conferencing and supporting video infrastructure, assessment solutions, and virtual labs. Other edtech segments got higher net adoption ratios in 2021—student support, OER, and textbooks and materials. This may indicate the evolution of institutional thinking as priorities shift from emergency management to longer-term operations.

Figure 16 compares the proportion of schools reporting “little or no investment” in an edtech segment in 2019 to the proportion projected for the end of 2021.

All edtech segments saw significant reduction in institutional non-participation, including both mainstream and partial investment (e.g., investment by certain departments). All edtech segments, save third-party online courses, already enjoyed majority mainstream or partial adoption pre-pandemic. By the end of 2021, all but two segments are forecast to have been at least partially adopted by 80% or more of CHLOE 6-responding schools. Video conferencing matches the LMS with almost 100% mainstream or partial adoption. Again, virtual labs exhibits the most striking change, moving from close to half non-adoption in 2019 to only 14% non-adoption by 2021.

Figure 16. Step-Change in Educational Technology Investment
‘Little or No Investment’ by Edtech Segment 2019 vs. 2021
 (Sample = 345)



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Some sectors were less active in certain edtech segments pre-pandemic. Table 9 breaks down edtech mainstream adoption by sector for 2019 and projected for the end of 2021.

Mainstream adoption leadership varies by segment, with public two-year schools leading on online textbooks and materials, assessment integrity, and virtual labs. The pervasiveness of online courses in this sector alongside cost constraints and, perhaps, greater need for virtual replacements for hands-on classes explain this pattern. Public four-year schools are in front on accessibility tools, video conferencing, and video recording and distribution, consistent with larger operations and compliance pressures. Private four-year institutions are ahead on third-party courses, which may indicate higher-priced schools in search of lower-cost, pre-packaged content.

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Table 9. Technology Adoption Varies by Sector

Mainstream Adoption by Technology Segment—2019 vs. 2021 (Sample = 318)
(Green-shaded cells indicate the sector with the highest mainstream adoption ratio each year.)

Technology	Public 2Y (2019)	Public 2Y (2021)	Public 4Y (2019)	Public 4Y (2021)	Private 4Y (2019)	Private 4Y (2021)
LMS	97%	100%	97%	100%	89%	95%
Accessibility Tools	47%	56%	50%	63%	29%	42%
Textbooks & Materials	46%	50%	29%	31%	27%	40%
Video Conferencing	44%	84%	55%	88%	50%	86%
Assessment Integrity	35%	58%	32%	51%	22%	39%
Video Rec-Dist	32%	45%	54%	70%	41%	59%
Student Support	31%	44%	34%	44%	29%	39%
OER	15%	33%	12%	14%	17%	23%
Virtual Labs	11%	22%	9%	13%	10%	20%
Third-Party Courses	6%	8%	5%	5%	10%	11%

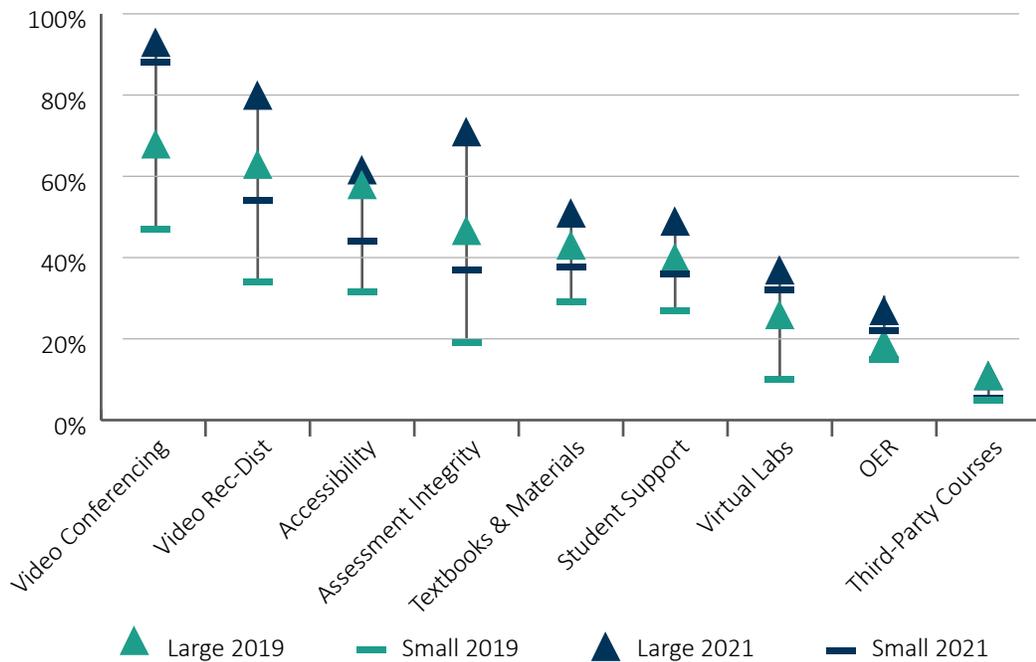
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In most segments, the leading sectors in 2019 retained their lead in 2021. One exception was OER, where public two-year schools moved into first place, which is in tune with the priorities of access-oriented institutions looking for low-cost online solutions. Schools with more than 7,500 fully or partly online students, what CHLOE terms “high-online enrollment” institutions, were mostly likely to have adopted all of the 10 edtech segments discussed here. CHLOE counts schools with between 1,000 and 7,500 online students as “midsized” or “medium-online enrollment” institutions and “small” or “low-online enrollment” institutions as those under 1,000.

Figure 18 contrasts the large vs. small mainstream adoption gap for each edtech type in 2019 vs. (projected) for end of 2021. It is, perhaps, too soon to determine if the ERP closed or widened this gap, overall.



Figure 17. Catching Up in Some Segments; Still Behind in Others
Large vs. Small Online Schools: Mainstream Adoption by Edtech Type, 2019 vs. 2021
 (Sample = 345)



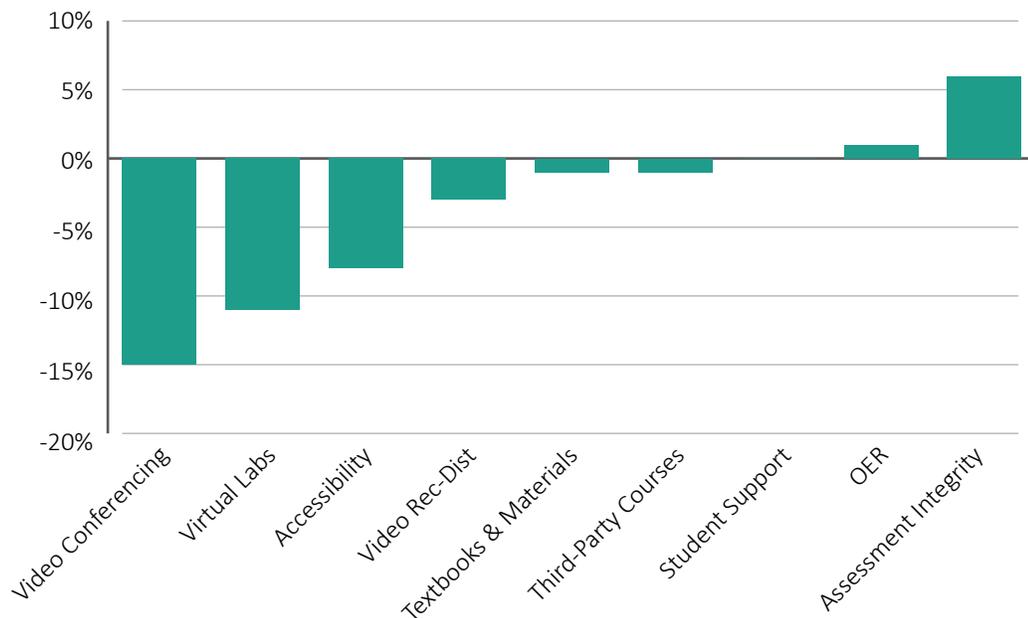
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Projecting to the end of 2021, large online schools remain ahead of small ones on all nine edtech adoption metrics (LMS is excluded given that almost all schools already report mainstream adoption). But, compared to 2019, some gaps have closed substantially. Video conferencing, for example, exhibited a gap of 21% in 2019, between large and small online schools, which had reduced to five percentage points by end of 2021. Similarly, virtual labs and simulations had a large vs. small gap of 16% pre-pandemic, reduced to five in 2021. In three cases—OER, virtual labs, and video conferencing—small online schools in 2021 are set to pass the large online school baseline of 2019.

In most other cases, however, the gap barely budged. Both large and small online schools experienced roughly comparable adoption growth during the pandemic.

Figure 18 looks specifically at the gap between high- and low-online enrollment schools by edtech segment, pre-pandemic vs. the end of 2021.

Figure 18: Technology Adoption Gaps
Mainstream 2019 and/or Major Investment in 2020 or 2021
'High' vs. 'Low' Online Scale (percentage point change)
(Sample = 317)



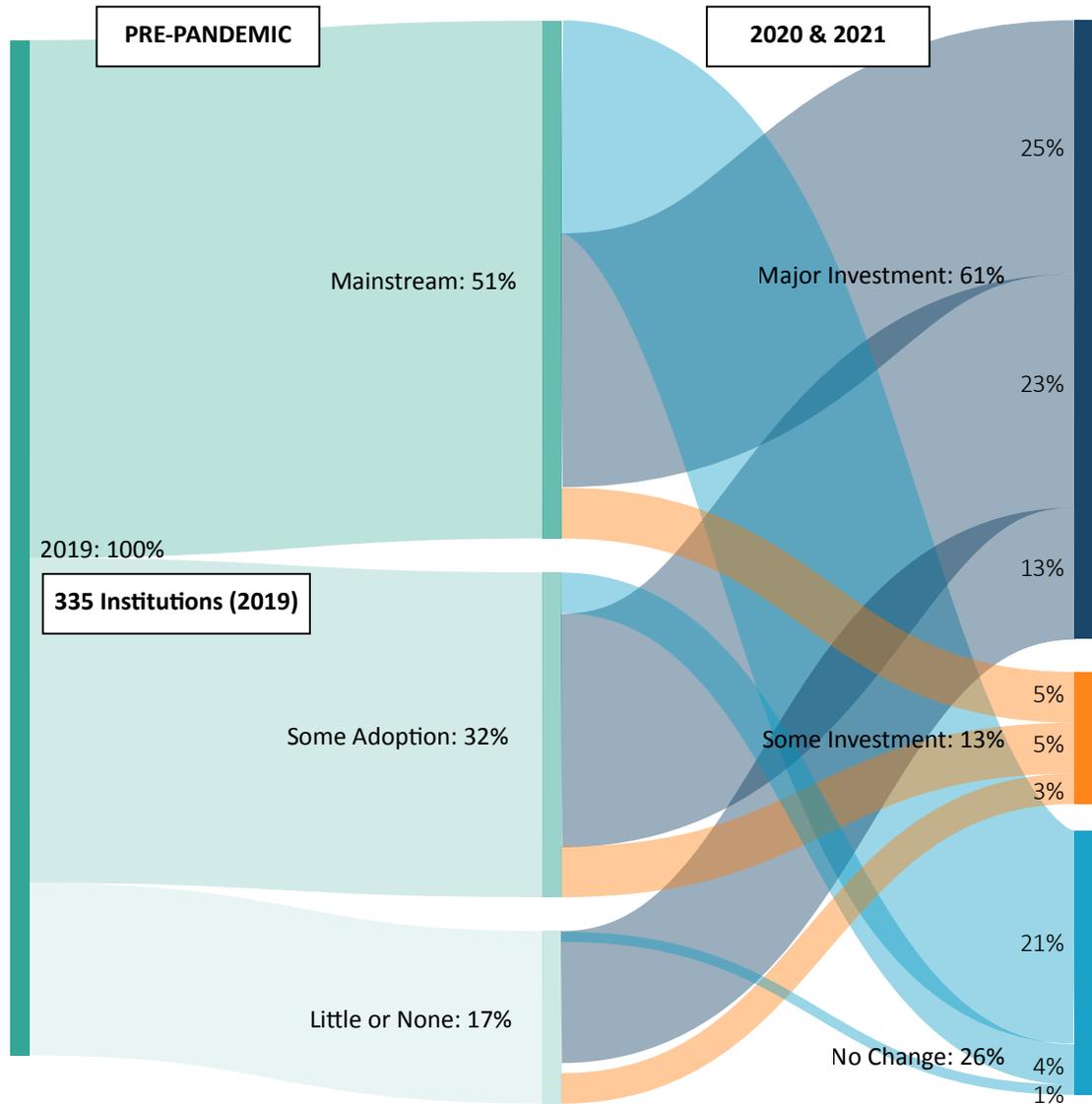
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The ERP more often than not narrowed the mainstream adoption gap between large and small online schools but did so substantially in only three cases (video conferencing, virtual labs, and accessibility)—three segments core to academic continuity during the crisis. For the rest, the gap barely shifted, even as adoption ratios increased generally.

Assessment integrity actually saw the large vs. small online school adoption gap increase. This likely reflects initial enthusiasm for—and then subsequent backlash against—e-proctoring tools during the pandemic. Remote assessment made sense during the remote pivot, but privacy and other concerns often overrode that approach. Larger online schools—more likely to have this technology in place pre-pandemic—avoided implementation challenges mid-crisis, while smaller schools without this technology may have been more hesitant or put-off by negative publicity.

Going back to the whole CHLOE 6 sample, Figure 19 tracks institutional adoption patterns for video conferencing, distinguishing “major,” “some,” and “no investment” during 2020 and 2021. This offers more detail on how the adoption landscape has changed.

Figure 19. Video Conferencing Adoption from Pre-COVID Baseline

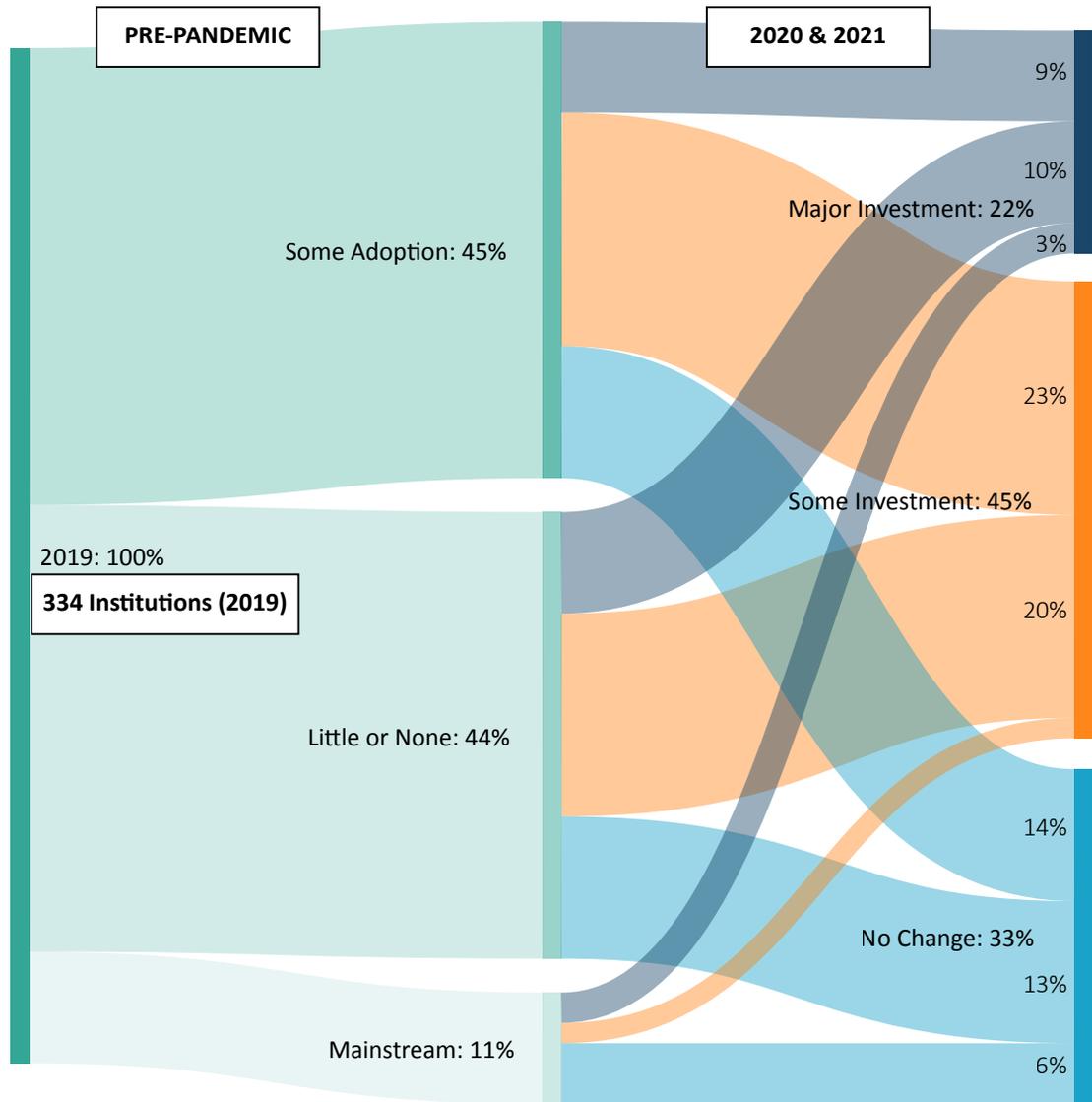


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From a starting point of 51% mainstream adoption pre-COVID, 32% some adoption, and 17% little or no adoption in 2019, about half of schools that already had video conferencing as mainstream did not make further investments in the technology during the pandemic, but the remainder did. For schools that reported mainstream video conferencing adoption in 2019, major investment in 2020 and/or 2021 was much more common than some investment, underscoring the magnitude of pandemic disruption relative to the implementation starting point.

Major investment in 2020 and/or 2021 was the most common pattern for some adoption (as of 2019), and the majority of schools with little or no video conferencing in place pre-pandemic also tended to report (primarily major) investment thereafter. Figure 20 visualizes the same adoption pattern for virtual labs and simulations.

Figure 20. Virtual Labs and Simulation Adoption from Pre-COVID Baseline



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This edtech segment, exhibiting much lower mainstream adoption pre-COVID compared to video conferencing, is experiencing rapid pandemic-driven change. Only 14% of CHLOE 6 respondents still expect little or no adoption by the end of 2021, compared to 44% in 2019. But, unlike video conferencing, the recent adoption trend favors partial adoption and some investment rather than mainstream adoption and major investment. This speaks to the emerging and fragmented nature of this edtech segment, encompassing many field-specific tools and implementations. This may predict future consolidation and investment scale if products prove successful and mergers and acquisitions roll up disparate solutions.

The pandemic pushed schools of all types, including those least active pre-ERP, to invest in novel forms of technology or reinvest in existing capabilities. Whether by sector or online enrollment scale, COVID-19 has closed technology adoption gaps faster and more decisively than anything previous. Certain segments—video conferencing and assessment integrity—were central to mid-crisis academic continuity, boosting

2020 adoption and scale, while others (e.g., virtual labs) got a dramatic pandemic push from a lower base. Similarly, more mature segments (e.g., video conferencing) saw big swings in favor of mainstream adoption and major investment, while others (e.g., virtual labs) saw more sub-institutional investment.

There are cases where adoption has increased across-the-board, yet historical gaps remain (e.g., video recording and distribution and accessibility tools). Mainstream adoption remains uneven by technology segment and, in some cases, by sector. Large online schools remain much more likely, in most segments, to have achieved mainstream adoption.

However, the purchase of technology by itself reveals little about student, faculty, and staff adoption on the ground, and the distinction between adoption for emergency management vs. post-pandemic transformation compared to 2019 remains. Other CHLOE 6 data—student and faculty perceptions of online learning coming out of the pandemic—and chief online officer perspectives on student academic outcomes during the crisis strongly suggest that these edtech investments will have a significant impact on institutional futures.

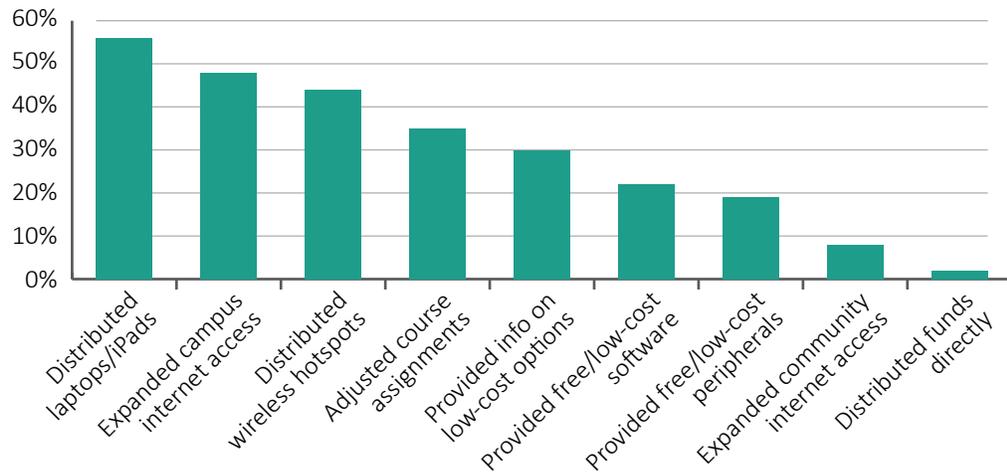
VIII. THE DIGITAL DIVIDE

In terms of both supporting students and addressing educational equity, the digital divide became a spotlight issue during the ERP and beyond, as many campus-based students did not have ready, or any, access to the technology required for online learning, including reliable internet access. This also included international students who had returned home and were initially quarantined. Although digital divide issues seem to have been somewhat segmented by institutional characteristics such as geographic location, the majority (59%) of COOs reported that only 15% or less of their student body had access issues. Fewer COOs (18%) reported that 16–30% of students had access issues, and 5% reported that more than 30% of the student body was impacted by the digital divide. It is of note, however, that 18% of COOs were unsure just how many students had technology/access issues.

To address the problem, most institutions (56%) turned to distributing laptops or tablets to affected students, while a near-majority (48%) expanded on-campus internet access, and 44% distributed wireless hotspots. Several COOs noted that even when campus-based classes were suspended, institutional internet options remained available, due at least in part to digital divide issues. Thirty-five percent of institutions included or favored less technology-focused solutions and adjusted course assignments in various ways, such as redesigning high-stakes exams or providing flexibility on assignment due dates or deliverables. Institutions also shared information with students on low-cost technology and internet options (30%) or provided free or low-cost software (22%) or peripherals (19%). Fewer institutions expanded internet access off-campus but within the community (8%), and a small number (2%) noted that they directly distributed funds to students to purchase necessary technology (Figure 21).

Most COOs rate addressing the digital divide as a minor issue/responsibility. Only a small fraction indicated that digital divide issues were a major responsibility during the pandemic. Sixteen percent indicated that “facilitating internet access for underserved students and faculty” was high on their list of concerns during the pandemic—a figure that dropped to 13% when COOs were asked about post-pandemic responsibilities. The response was only marginally stronger—24% during the pandemic and 18% beyond—when asked about major responsibility for provision of “digital devices to students and faculty lacking personal equipment.”

Four-year public institutions overall appear to have been the least responsive or slowest to respond to digital divide issues. Other sectors have given measurably greater priority to the provision of digital devices to facilitate remote learning during the pandemic than to addressing web connectivity issues for students and faculty, but many schools expect that the need for this service will slacken with the return of in-person learning. On the other hand, schools with the lowest online enrollment prior to the ERP encountered the greatest need for internet devices and connectivity and have been somewhat more responsive, as indicated by the data.

Figure 21. How Institutions Addressed the Digital Divide**(Sample = 328)**

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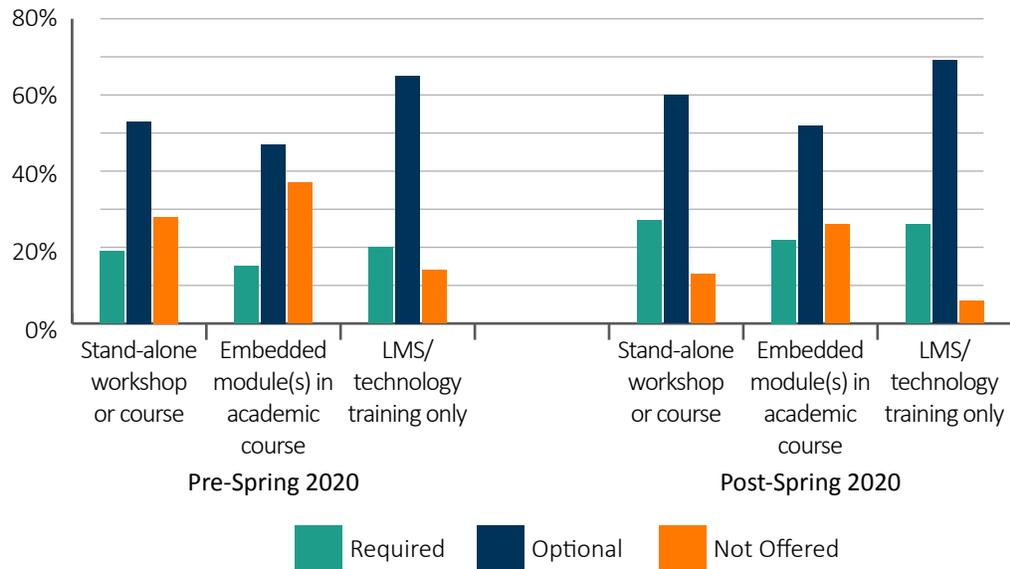
IX. STUDENT SUPPORT

CHLOE 6 segmented online student orientation offerings by three prevalent types: a stand-alone workshop or course, information or modules embedded in academic courses, or orientations focused solely on using the LMS and other online technologies. Prior to the ERP, CHLOE 5 reported that 51% of undergraduate students had no online experience and, coupled with the fact that some institutions did not offer either a stand-alone orientation workshop or course (28%) or one embedded within online academic courses (37%), many institutions committed to improving or increasing these offerings by Fall 2020. Post-Spring 2020 showed increases across all three training types for both required and optional orientations, with corresponding decreases in institutions that did not offer any such services. By Fall 2020, institutions offering or requiring a stand-alone online student orientation increased from 72% to 87%, those offering or requiring student orientation modules within an academic course increased from 62% to 74%, and institutions offering or requiring LMS/technology training increased from 85% to 95% (Figure 22).

Similar to faculty development for online learning, public four-year institutions were the least likely to require an online student orientation prior to Spring 2020, with only 12% requiring a separate workshop or course (compared with 21% of public two-year and 23% of private four-year schools), 8% requiring an orientation embedded in an academic course (compared with 15% of public two-year and 21% of private four-year schools), and 13% requiring LMS training only (compared with 19% of public two-year and 26% of private four-year schools). However, post-Spring 2020 saw public four-year institutions leading the charge with requiring a stand-alone orientation (34%, vs. 24% of public two-year schools and just 18% of private four-year schools). While it remains to be seen if required vs. optional orientations result in differing levels of student readiness, requiring a student orientation is, at least, one way to ensure a better-prepared student body should an institution need to quickly re-orient to remote or online instruction in the future. At the very least, however, the ERP proved to be a catalyst for institutions creating or sourcing online student orientations.

Figure 22. Online Student Orientation Offerings Pre/Post Spring 2020

(Sample = 310)



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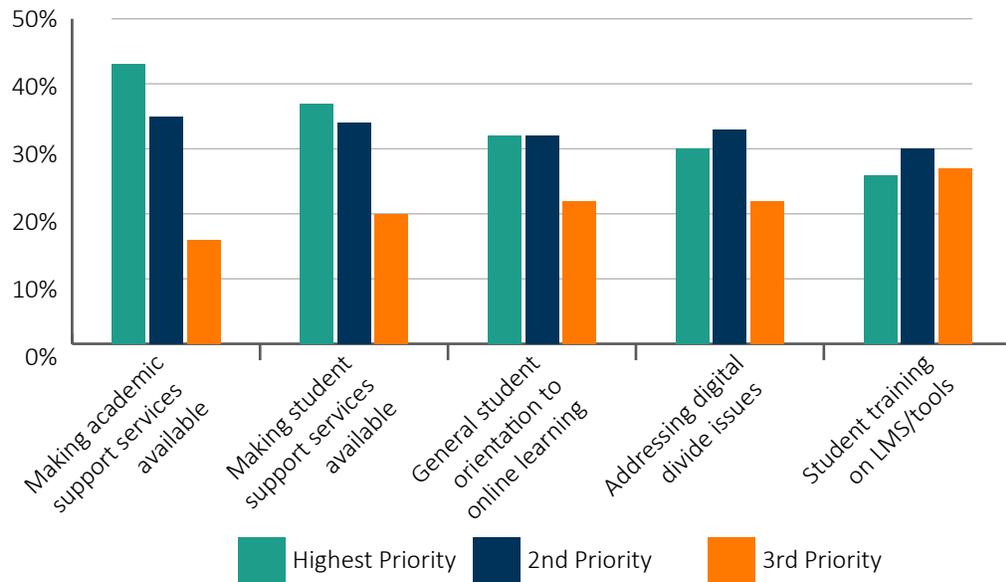
Looking at size of online enrollment, many low-online enrollment institutions simply did not offer a stand-alone (36%) or embedded orientation (44%) prior to the ERP, which was much more common than in medium (26%) or high (19%) online enrollment schools for a stand-alone orientation or an embedded one (medium = 36%; high = 27%). Much like public four-year schools, however, low-online enrollment institutions were more likely to require a stand-alone orientation post-Spring 2020 (35% vs. 21% of medium-online enrollment schools and 27% of high-online enrollment schools) or an embedded orientation (31% vs. 17% of medium-online enrollment schools and 21% of high-online enrollment schools). For LMS/technology training, there was little variation across institutions, however, with over 90% making that training either required or optional.

Additional comments from COOs, though, revealed that the substance and scope of online student orientations varied greatly, even within a specific type. One COO explained that their online student orientation was a “3-credit foundational course,” while another described their offering as focused on “FAQs, technical documentation, and videos.” In lieu of a student orientation, some COOs noted they provided only a readiness assessment or checklist, while others took the opportunity to mainstream online student support, embedding it within their general orientation or a “first-year experience” course.

Moving forward, many institutions are making it a top priority to better support online students. In asking COOs to prioritize future online student support, most placed online student support options as one of their top three priorities. Increasing online student access to academic support services, such as tutoring or academic advising, was listed as the highest priority for 43% of institutions, followed closely by student support services (37%), including, for example, financial aid or mental health services (Figure 23).

Figure 23. Top Institutional Priorities for Online Students

(Sample = 316)



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In examining specific online student services, very few institutions responded that any one item was a low-development priority, save for 24/7 multi-functional triage support (18%) and placement testing for online students (17%). Otherwise, the vast majority of institutions have either well-established online student support services that are working well or existing services that need improvement. Low-online enrollment institutions were more likely to describe services as needing enhancement vs. working well, while public four-year institutions were more likely to report that services were in place and already working well. Slightly more than half of all institutions have disability, mental health, or accessibility support in place for online learners but plan to improve these services. It is likely that focusing on improving these resources was prompted by the ERP and the related stress of the pandemic, as institutions began to discuss more and better ways to holistically support students. By Fall 2020, most institutions had many online student services in place, while far fewer institutions were developing or looking to develop brand-new services and resources (Table 10).

In sum, the ERP necessitated increased online support for remote and online students. Most institutions responded by offering or requiring an online student orientation, which will set higher expectations for online learning support moving forward. Additionally, existing academic and student support resources were improved or targeted for future improvement by many institutions, ensuring that future online students will be better prepared and supported, as will remote students, in the event of another emergency situation. Finally, the unique aspects of the ERP shone a light on equity issues, such as the digital divide, and needed non-academic support services, such as mental health services. These were often under-supported areas for online students in the past, but institutional investment now will likely serve all students in years to come, including campus-based students who need flexible, online support options and easy and/or lower-cost access.

Table 10. Functionality and Prioritization Level of Online Student Services
(Sample = 327)

	In place, Working Well	In place, Needs Improvement	Under Development/ Future Priority	Not a Priority
Library Services	76%	22%	2%	0%
Course Registration	69%	27%	3%	0%
Technical Support	66%	30%	3%	1%
Billing	65%	31%	3%	1%
Financial Aid	60%	37%	3%	1%
Student Communications Infrastructure	59%	37%	3%	1%
Admissions	59%	35%	5%	1%
Academic Advisors	54%	40%	6%	0%
Tutoring	52%	42%	5%	2%
Disability Services	40%	53%	6%	1%
Placement Testing	35%	38%	10%	17%
Proctoring	33%	47%	11%	9%
24/7 Support	33%	22%	27%	18%
Accessibility Support	32%	52%	15%	1%
Mental Health Services	27%	55%	17%	2%
Work Placements	22%	44%	25%	9%
Student Organization Clubs	20%	47%	24%	9%

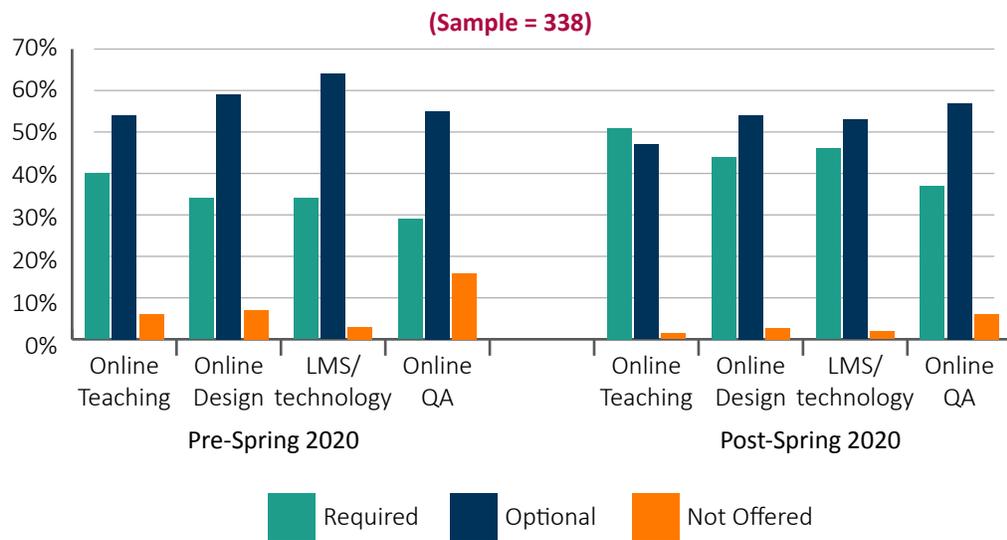
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X. FACULTY SUPPORT

Institutions responded quickly and well to the increased and immediate need for faculty development in online learning during the ERP, though most were likely underprepared for the need. Prior to Spring 2020, the majority of schools had optional faculty development for online teaching (54%), online course design (59%), LMS/technology training (64%), and quality assurance for online learning (55%). However, the majority of schools did not require any training in online learning topics, and, while a minority did not offer any training for online teaching (6%), design (7%) or LMS (3%), a more significant number (16%) had no faculty development options for quality assurance (Figure 24). This likely resulted in many campus-based faculty being largely unprepared or under-prepared for the ERP, as it can be assumed that at least some instructors opted not to invest time in professional development for a modality they did not teach in.

On the issue of required vs. optional, however, there may be important differences and similarities to consider with faculty development for online vs. campus-based teaching. For example, required training for campus-based teaching is still relatively uncommon, so it's not surprising that the majority of institutions provided faculty development for online teaching and learning as optional, rather than required. However, unlike online teaching, campus-based teaching does not require use of a LMS, specific technology, or teaching and design strategies with which faculty might be entirely unfamiliar. Many institutions and faculty likely had this realization during the ERP, leading to an increase in required training in subsequent terms.

Figure 24. Online Learning Faculty Development Offerings Pre/Post Spring 2020



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The data for low-online enrollment institutions showed a more dire situation leading into the emergency remote pivot (ERP), as 7% of low-online enrollment schools offered no faculty development for LMS/technology, 13% offered nothing for online teaching, 15% offered no options for online course design, and an incredible 27% offered no training for online quality assurance. For institutions with fewer than 1,000 online students, it's not surprising that online faculty development offerings would be less robust, though. This was a sharp contrast, however, to high- and medium-online enrollment institutions, which ranged from 0% to 4% for "not offered" across all training topics with the exception of medium-enrollment schools and quality assurance, where 13% reported that no faculty development for online quality assurance (QA) was offered prior to Spring 2020.

Private four-year institutions were seemingly the least prepared for the quick shift to online learning, as 11% offered no options for online teaching, 12% did not offer training in online design, and 27% did not offer training in online quality assurance prior to Spring 2020. Faculty teaching at public two-year institutions, on the other hand, were likely better prepared by requiring training for online teaching (58%), online design (47%), and LMS/technology (50%) prior to the ERP. Public four-year institutions were best able to capitalize on existing trainings as they were the most likely to have training options across all topics: Only 1% did not offer training in online teaching and LMS/technology, 3% did not offer training in design, and 7% did not offer quality assurance training. These institutions were also the most likely to make training optional, as has been found consistently in past CHLOE surveys.

Post-Spring 2020 faculty development offerings showed a much different picture, with the percentage of institutions not offering training in the four focal topic areas decreasing across-the-board, down 5% for online teaching and design, 2% for LMS/technology training, and a full 10% for training in online quality assurance (Figure 25). Some COOs indicated that training was not offered because they belonged to a consortium or had other non-institutional avenues for faculty development and/or assistance. For others, online was not indicated to be a significant focus post-pandemic, so attending to current, but temporary, ERL issues with minimal or technology-focused training might seem a best-fit for institutional resources.

By institutional type, the biggest effort to create training that was not previously offered was done by private four-year institutions, which went from 11% not offering online teaching training prior to Spring 2020 to 1% by the fall, down from 12% to 2% for design training, and down from 27% to 8% for quality assurance training. As in previous years, public four-year institutions led the field in providing optional, rather than required training, while public two-year and private four-year institutions were more likely to require training, also in line with previous reports (see Table 11).

Table 11. Post-Spring 2020 Faculty Development Offerings by Sector

(Sample = 338)

	Online Teaching			Online Design			LMS/Technology			Quality Assurance		
	Public 2Y	Public 4Y	Private 4Y	Public 2Y	Public 4Y	Private 4Y	Public 2Y	Public 4Y	Private 4Y	Public 2Y	Public 4Y	Private 4Y
Not offered	1%	1%	1%	0%	2%	2%	0%	1%	2%	5%	3%	8%
Optional	36%	64%	43%	50%	64%	50%	41%	71%	49%	56%	68%	50%
Required	63%	36%	56%	50%	34%	48%	59%	28%	50%	40%	29%	41%

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Similar patterns were seen for low-online enrollment institutions, which showed the largest increase in offerings, reducing from 13% to 2% for those that did not offer training for online teaching, 15% to 4% for online design, and a huge increase in quality assurance offerings for these institutions dropped from 27% that did offer QA training to just 8%. Low-online enrollment institutions were also the least likely to have well-established faculty development offerings and support prior to the ERP while, across all categories, high-online enrollment institutions were the most likely to enter the ERP with well-established faculty development for online learning. A majority of high-online (54%) and medium-online (51%) enrollment institutions had LMS training in place prior to Spring 2020, but only high-enrollment institutions had a majority advantage for online teaching training (51%) (Table 12).

These numbers show that many institutions followed through on their intention to expand faculty professional development for online learning, as 95% of COOs reported in CHLOE 5 that faculty development would be either required (51%) or optional (44%) for those teaching remote courses. Although historically it has been most common for faculty development to be optional, rather than required, it is important to note that faculty surveys, faculty development data from educational providers, and anecdotal reports all support that, even when optional, faculty took advantage of online-specific professional development in large numbers during and after the ERP.

Table 12. Well-Established Faculty Development Prior to Spring 2020

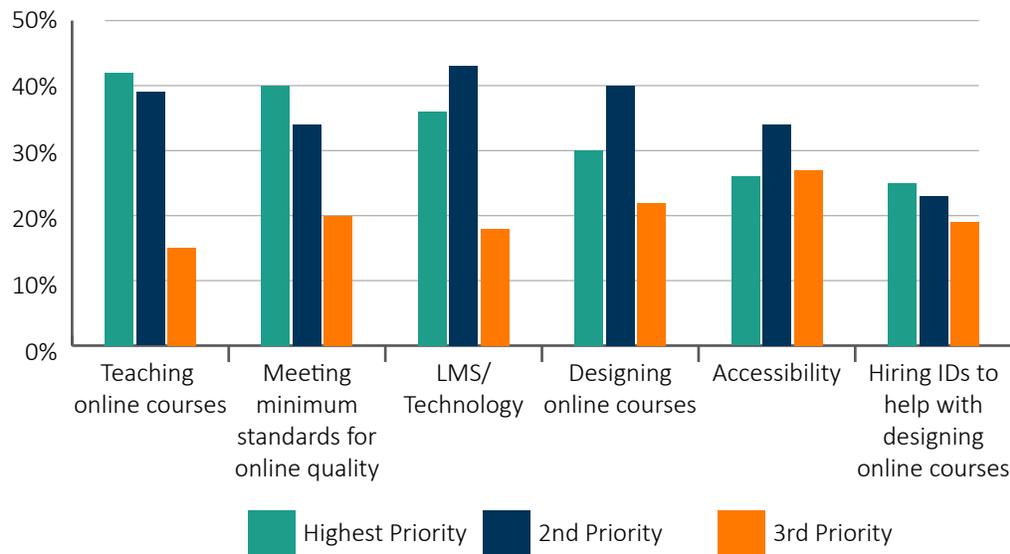
(Sample = 422)

	Sample	High Online Enrollment >7,500	Medium Online Enrollment 1,000-7,500	Low Online Enrollment <1,000
LMS and teaching with technology	45%	54%	51%	34%
Teaching online courses	35%	51%	41%	22%
Hiring IDs to help design online courses	33%	49%	35%	23%
Designing online courses	33%	48%	37%	22%
Meeting minimum quality standards	26%	38%	27%	19%
Making digital materials accessible	17%	28%	18%	12%

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In reporting future institutional priorities for online faculty development, COOs were asked what level of priority, from “1” (lowest) to “5” (highest), their institution was placing on five faculty support areas: online teaching, online design, LMS/technology, quality standards, accessibility, and hiring instructional designers. Moving forward, COOs identified online teaching (42%) and meeting minimum standards for online quality (40%) as the highest priority. Training for using the LMS/technology was a highly ranked second priority (43%) for many institutions, as was designing online courses (40%). One new consideration, though, brought about through the ERP embrace of synchronous online learning, is whether faculty development for topics such as teaching, design, and technology focus on synchronous and/or asynchronous modalities, or reflect the new, broadly varied landscape of modes, strategies, and technologies. Across all institutions, accessibility and the hiring of instructional designers ranked lower in priority for faculty development, though the latter received the most open-ended comments, as many expressed a need or desire for instructional designers but did not have the budget or approval to hire new staff (Figure 25).

Figure 25. Top Three Institutional Priorities for Faculty Development/Support
(Sample = 422)



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Hiring instructional designers was also the lowest-ranked priority for low-online enrollment institutions (33%), compared with only 9% of high-online enrollment institutions ranking this as the lowest priority. Medium-online enrollment institutions seemed somewhat split on prioritizing the hiring of instructional designers (IDs), with the majority ranking it as the highest (31%) or second-highest (20%) priority, but also 20% ranking it as the very lowest priority, likely due to drastically different (and shifting) budgets and financial needs. Public, two-year institutions seemed relatively split on prioritizing ID hires, with 31% ranking it as their lowest priority and 24% ranking it as their highest. In CHLOE 4, community colleges had nearly twice the number of institutions reporting that no ID support was available (22%) as compared with other institutional types, suggesting that public two-year institutions are now in greater need of design support, and are in favor of hiring instructional designers, if budget allows.

In examining which institutions identified future faculty development and support options as the highest or next-to-highest priority, there was surprising consistency among institutions of all enrollment sizes, save for the categories of hiring IDs: 36% for low-online enrollment vs. medium (51%) and high (61%), and the less-variable category of making digital materials accessible (54% for low vs. medium (62%) and high (63%) (Table 13). With the exception of those two categories, a greater percentage of medium-online enrollment institutions reported prioritizing online faculty development moving forward, likely as a strategic way to support faculty in designing and teaching a now-growing catalog of online courses and programs.

Table 13. Highly Ranked Faculty Development/Support Priorities by Online Enrollment
(Sample = 422)

	Sample	High Online Enrollment >7,500	Medium Online Enrollment 1,000-7,500	Low Online Enrollment <1,000
Teaching online courses	81%	79%	85%	78%
LMS and teaching with technology	79%	78%	83%	76%
Meeting minimum quality standards	73%	69%	76%	71%
Designing online courses	70%	63%	76%	66%
Making digital materials accessible	60%	63%	62%	54%
Hiring IDs to help design online courses	48%	61%	51%	36%

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In looking at faculty support areas that were ranked as the highest or second-highest priority, there were obvious differences based on institutional type. With the exception of faculty training for meeting quality standards, which ranked as a “highest priority” for 42% of both public two-year and four-year institutions, and also for the hiring of instructional designers, which was only the highest priority for about a quarter of reporting institutions, regardless of type, public two-years ranked online faculty development as the highest priority moving forward. Over half (53%) see faculty development for online teaching as the highest priority, compared with only 41% of public four-year and 35% of private four-year institutions. Similarly, LMS/technology training ranks as the highest priority for 46% of public four-years, compared with only 28% of public four-years and 37% of private four-years (Table 14).

While faculty development for online design is more even across type (35% for public two-years vs. 28% and 29% for public and private four-years, respectively), there is another dramatic difference when looking at accessibility training (37% of public two-years rank this as the highest priority, compared with 24% and 25% of public and private four-year institutions, respectively). It is likely that these prioritization differences reflect both the level of faculty development that existed pre-pandemic, as well as areas where faculty can receive outside support vs. what the institution needs to provide to individual faculty members. For example, in past CHLOE reports four-year institutions reported having more instructional design help, which might lessen the need or prioritization for design training, and four-year institutions may also have more staff or third-party help for digital accessibility.

Table 14. Highest Faculty Development/Support Priority by Sector
(Sample = 422)

	Sample	Public 2Y	Public 4Y	Private 4Y
Teaching online courses	42%	53%	41%	35%
LMS and teaching with technology	36%	46%	28%	37%
Meeting minimum quality standards	39%	42%	42%	33%
Designing online courses	30%	35%	28%	29%
Making digital materials accessible	26%	37%	21%	22%
Hiring IDs to help design online courses	25%	24%	24%	25%

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Although lower percentages of institutions that are prioritizing accessibility training and ID hires likely reflect budget constraints or areas where institutions could temporarily outsource needs, a high majority of institutions, regardless of type or online enrollment size, are prioritizing faculty development for online teaching, design, technology, and quality assurance moving forward. In looking at prioritization vs. what is currently well-established, we see a commitment to quality online learning moving forward, reinforcing the prevailing thinking that many institutions will incorporate online learning as part of their intentional institutional strategy, even if high online enrollment is not the eventual goal. Doing so is one method of insuring against future environmental and pandemic disasters that could affect campus-based learning. It also taps into future students seeking either a quality online experience or a campus-based education with institutional assurance that a future remote pivot will include better-prepared faculty and higher-quality remote courses.

Additionally, faculty who return to mostly or exclusively campus-based teaching now have exposure—or even expertise—in new teaching strategies and technologies, based on participation in faculty development, as well as experience with remote and online teaching. New or continued faculty development options for online, therefore, might also be due to faculty desire for greater access to online tools and techniques that have become both familiar and helpful during the pandemic.

XI. EXTERNAL ALLIANCES, PARTNERSHIPS, AND INFLUENCERS

Online higher education has always featured partnerships and alliances between institutions and between institutions and third parties (e.g., professional associations, vendors, and online program management firms—OPMs). When COVID-19 hit, to what extent did schools turn to new or existing partners to help manage the crisis?

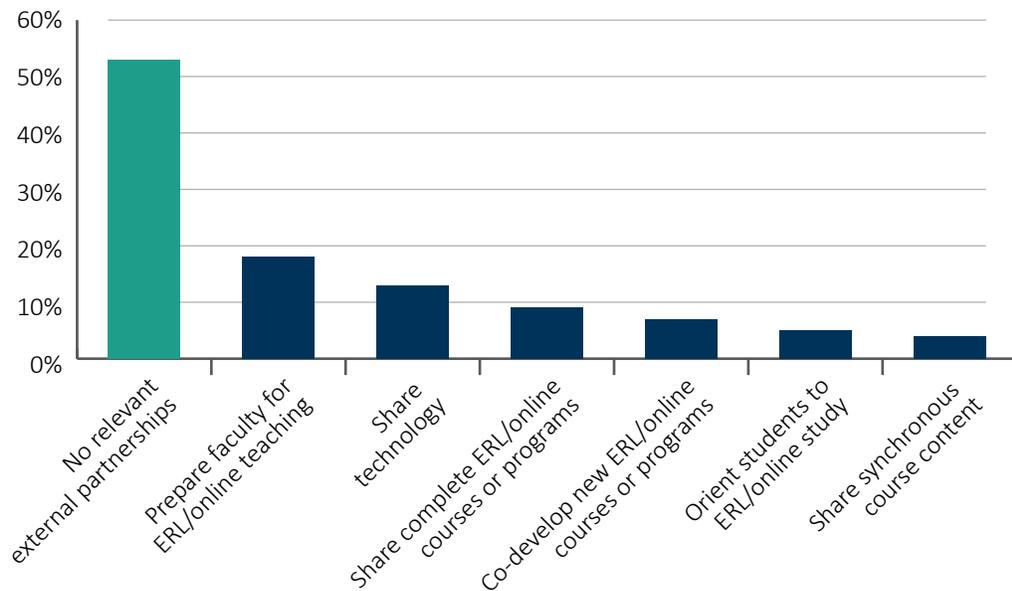
A slim majority of schools (53%) did not cite such collaboration, instead relying on internal resources. About 25% of chief online officers noted higher education institutions as partners, and 13% cited companies. Platforms such as edX and Coursera were sometimes mentioned under “other.” Respondents

were asked to exclude OPM relationships (separate question—see below). Schools were more likely than average to select a partner among schools of the same type (e.g., 24% of public two-year institutions selected one or more other public two-year schools as their top partner vs. a sample average of 10%).

Regarding partnership rationales, Figure 26 lays out the rationale breakdown for schools' primary external partnerships (where applicable).

Figure 26. Rationales for Primary External Partnership to Enhance ERL During the Pandemic

(Sample = 239)



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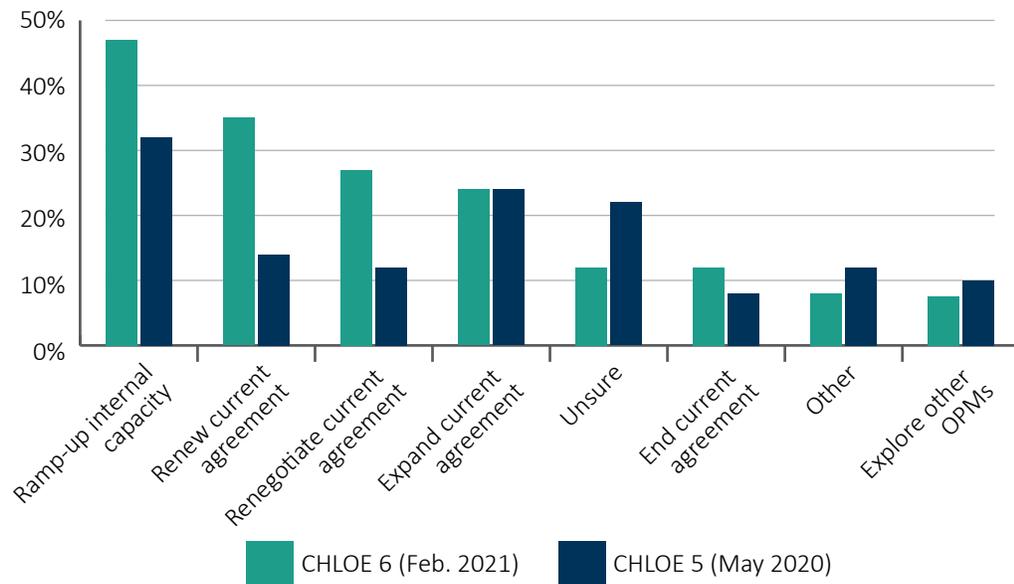
It is striking how unusual, even in a once-in-a-century crisis, it is for colleges and universities to look externally for assistance with academic and operational fundamentals. Third-party course or program adoption or co-development was rarest—closest to the academic core—along with student orientation. Somewhat more common were sharing technology and faculty development, perhaps viewed as less sensitive, as enablers of in-house capacity rather than substitutes. Because the shock and speed of the pandemic required institutions to move very quickly, it is hard to imagine new workable partnerships coming to life with such short notice. Relying on internal resources, or well-established partnerships where such existed, was most practical in an emergency. Under all six rationales in Figure 26, respondents cited both other school and company partners.

OPMs

Online program management (OPM) firms have emerged as an increasingly visible and significant dimension of the online higher education market. The CHLOE 5 Report found that 16.2% of schools used an OPM in 2019. In early 2021, according to CHLOE 6, that ratio climbed to 17.5%. Private four-year schools were mostly likely to cite such a partnership (27%), then public four-year (18%) and least likely public two-year schools (5%). By online enrollment scale, OPM partnerships were equally common (17-18%).

For schools already working with an OPM, the survey asked about plans for 2021. Figure 27 compares CHLOE 6 and CHLOE 5 results for this question. CHLOE 5 was administered in May 2020, in the early months of the pandemic, while CHLOE 6 was conducted in February 2021.

Figure 27. Anticipated Increase in OPM Activity and Internal Capacity
(Schools with a Current OPM Contract and 2021 Plans)
(Sample = 49)



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The only difference between the CHLOE 5 and CHLOE 6 versions of this question was that the former asked about school plans for existing OPM contracts in the “next few months,” while CHLOE 6 asked about plans for 2021. That nuance aside, the CHLOE 6 data point to sharper institutional thinking. Chief online officer uncertainty about the future of existing OPM relationships fell between the two surveys, and plans to renew or renegotiate current contracts increased markedly, as did plans to end a current agreement. As in CHLOE 5, the anticipated renewal/renegotiation rate is much higher than the anticipated rate of termination, underscoring the generally positive take on OPMs among existing customers. Equally, just as in CHLOE 5, the most common response among schools with existing OPM relationships was “ramp-up internal capacity,” which jumped from 32% to 47% between the two surveys.

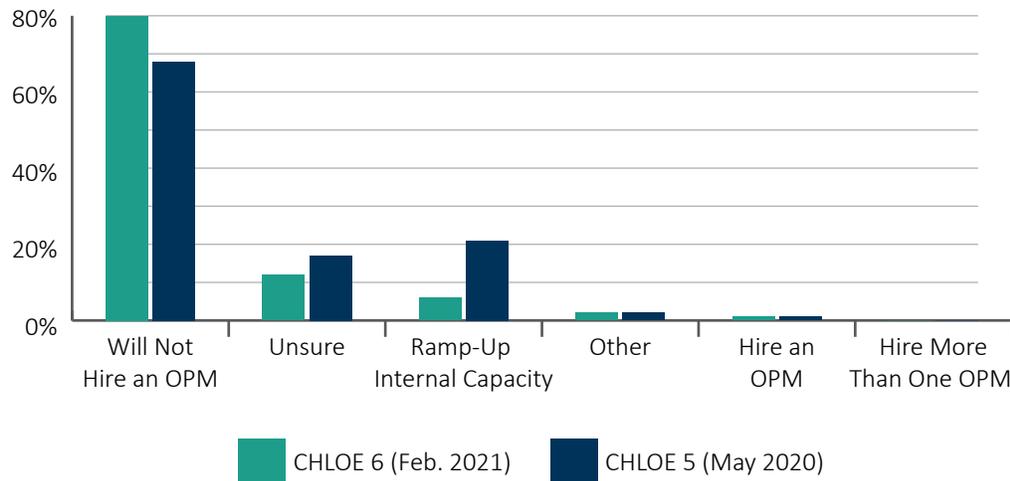
Now that the pandemic is (hopefully) past its peak, most existing OPM customers are planning to double down on these partnerships as well as to boost internal capacity. Both signal the growing centrality of online learning, supercharged by the pandemic, and schools’ ongoing balancing of insourcing and outsourcing.

The CHLOE 6 Survey also repeated a question about OPM interest among schools without a current OPM contract (Figure 28).

In February 2021, non-OPM customers increased their resolve not to work with an OPM. As in May 2020, only 1% of respondents said they planned to work with an OPM in the near future, but the “we will not hire an OPM” ratio leapt from 68% to 80% of non-customers. Uncertainty dipped from 17% to 12%.

To an even greater extent than prior CHLOE surveys, CHLOE 6 accentuates an interesting tension between widespread satisfaction among existing OPM customers and widespread indifference among non-customers. The OPM market may have matured to the point that most non-customers have no illusions about their limited scope to “go big” with an OPM, and OPM companies may be similarly pragmatic about choosing partners.

Figure 28. Non-Customers Report Reduced OPM Interest
(Schools Without an OPM Partnership—2021 Plans)
(Sample = 230)



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Surprisingly, “ramp-up internal capacity” fell sharply. Perhaps more chief online officers not already engaged with an OPM regard internal capacity as already in a good place, pushed forward by the pandemic. Another possibility is that many online leaders are more focused on online learning as a supplement for in-person students rather than on fully online programs. Given longer experience with remote learning, and with the end of the pandemic seemingly in sight, at many institutions, thoughts may be returning to campus reopening instead of fully online strategies.

Other Influencers

CHLOE 6 also inquired about mid-pandemic institutional reliance on national organizations and associations with an online focus (e.g., EDUCAUSE, WCET). Table 15 lists the organizations most frequently cited by chief online officers.

The CHLOE team did not wish to use a predefined list of organizations, so the question was open-ended. Respondents listed organizations by their full names, abbreviations, and acronyms. Table 15 aggregates the 1-3 responses 221 COOs gave, listing organizations named by 2% or more of the respondents.

Various non-profit and for-profit organizations top the list, with a few technology and services companies also featured. Only 2% of respondents indicated no use of such organizations and associations, a much lower “none” response than was the case for the response to the formal cross-institutional and commercial partnership question (53%) discussed above.

Table 15. Most Relied-Upon External Organizations During the Pandemic
(Sample = 221)

ORGANIZATION	MENTIONS	%
QM (Quality Matters)	106	47%
OLC (The Online Learning Consortium)	89	40%
EDUCAUSE & ELI 9 (EDUCAUSE Learning Initiative)	41	18%
UPCEA (University Professional, Continuing & Online Education Association)	33	15%
WICHE & WCET (The Western Interstate Commission for Higher Education and WICHE Cooperative for Educational Technologies)	31	14%
EAB (Education Technology, Services and Research)	13	6%
POD (The Professional and Organizational Development Network)	9	4%
ACUE (The Association of College and University Educators)	8	4%
ITC (The Instructional Technology Council)	8	4%
Bb (Blackboard)	5	2%
HLC (The Higher Learning Commission)	5	2%
NISOD (National Institute for Staff and Organizational Development)	4	2%
USDLA (United States Distance Learning Association)	4	2%

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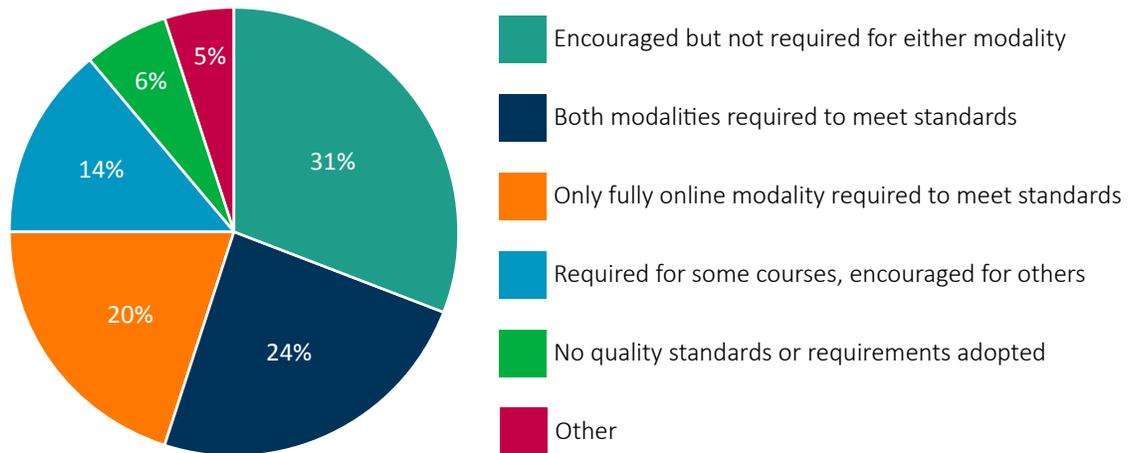
XII. QUALITY ASSURANCE

Past CHLOE survey reports have focused on whether there was a quality assurance (QA) process in place for online courses (CHLOE 3), as well as faculty support options for meeting QA standards (CHLOE 4). CHLOE 6 expands the examination of the online QA topic by asking COOs whether online and/or ERL courses were required or encouraged to meet quality standards. COOs report that while 24% of their institutions require fully online and ERL courses to meet minimum standards for quality, a higher percentage (32%) encourage both modalities to meet quality standards but do not require it. Other institutions differentiated by modality, with 20% reporting that fully online courses are required to meet quality standards, but ERL courses are not. Others indicated that their requirements differ according to other metrics, with 15% reporting that adherence to quality standards varies and is required for some

courses at an institution, while encouraged for others. Very few reporting institutions (6%), however, have not adopted any quality standards or requirements (Figure 29).

Figure 29. Fall 2020 Quality Standards for Online and ERL courses

(Sample = 284)



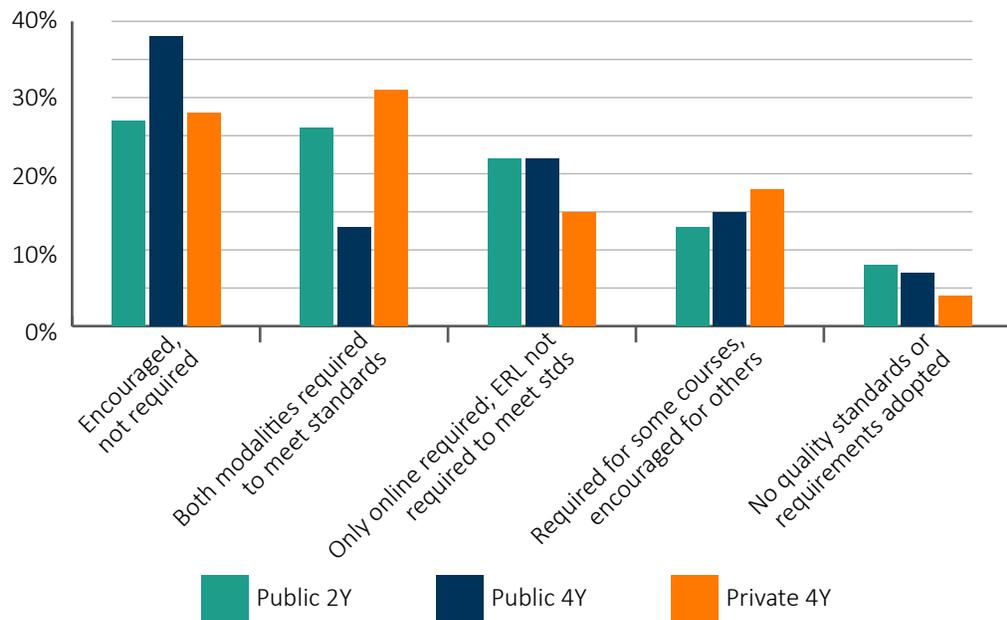
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In the CHLOE 5 Survey (2020), COOs reported on planned quality improvements for Fall 2020 remote courses, with 43% reporting that they planned to require all remote courses to meet a common set of quality standards and 29% reporting that meeting standards would be optional. With blurred lines and varying definitions for “online” vs. “ERL,” more institutions seemed to have moved to encouraging quality, rather than requiring it, though 44% of institutions required this year that fully online, not ERL, courses meet quality standards. That number was up from the 27% of institutions who reported in CHLOE 4 (2020) that increasing online quality was a top goal in the next five years. This could demonstrate an increasing commitment to quality for courses purposefully designed for online, which will likely become part of an online-expanded course catalog at many institutions long after remote learning has served its purpose, and the pandemic has subsided enough to bring all students back to campus.

Looking at the breakdown by institutional type, 38% of public four-year institutions encouraged fully online and ERL courses to meet minimum standards for quality but did not require it. Thirty-one percent of private four-year institutions, on the other hand, required both modalities to meet quality standards, but encouraging without requiring (28%) was nearly as popular an option for these institutions. Community colleges were fairly evenly split between encouraging, not requiring, courses to meet standards (27%), requiring both modalities to meet quality standards (26%), and requiring only online courses to meet standards (22%) (Figure 30).

Figure 30: Meeting Quality Standards by Institutional Type in Fall 2020

(Sample = 266)



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Looking ahead, a plurality of COOs (42%) reported that all online and emergency remote learning (ERL) courses will be required to meet quality assurance standards in 2021; this was the top response across all institutional types as well, and was also reported by a majority (52%) of schools with low online enrollment. Similar to the previous question, public four-year institutions were more likely (26%) than other institutional types to encourage online and ERL courses to meet quality standards, rather than requiring them to do so. This aligns with previous and current public four-year institutions' policies on related items, such as faculty training and development, where they are traditionally the least likely sector to impose requirements as opposed to providing options. Four-year private institutions seem most focused on QA goals for online courses, with 43% requiring both online and ERL to meet standards and 20% requiring only online courses to meet QA standards in 2021 (Table 16).

An extreme minority of institutions across all types have yet to adopt any quality standards, with public two-year institutions (8%) and public four-year institutions (7%) both lagging behind private four-year institutions (4%) in this regard. Optimistically, however, across all institutional types, only 6% of institutions have not adopted online quality standards, a stark improvement from the 24% of institutions who reported in 2019's CHLOE 3 that they had not adopted quality standards for online course design.

As previously mentioned, this gives a strong indication of the growing commitment to online quality assurance, which is likely to continue beyond the pandemic. During and directly after the ERP, conversations and concerns about educational equity and value quickly became focused on the quality of remote and online offerings. By Fall 2020, most institutions had invested time and financial resources in faculty and student support options that aligned with creating a higher quality educational experience. This investment, combined with the reported increased interest in having distance learning courses meet minimal quality standards, may be a harbinger for a greatly increased focus on quality in the coming years. In essence, now that nearly all students have had some type of distance learning experience and are better able to differentiate a quality online course, this may result in an increased institutional focus on quality, especially as a differentiating factor for marketing and enrollment.

Table 16. Institutional Goals for Quality Assurance in 2021**(Sample = 284)**

2021 Institutional QA Goals	Sample	Public 2Y	Public 4Y	Private 4Y	Low Online < 1,000
All online and ERL required to meet QA standards	42%	44%	36%	43%	52%
Only online required to meet QA standards	17%	16%	15%	20%	16%
Some required, some encouraged to meet standards	14%	17%	14%	14%	12%
All online and ERL encouraged to meet QA standards	19%	16%	26%	17%	12%
QA standards will not be adopted	4%	3%	3%	5%	4%
Other	4%	4%	6%	2%	3%

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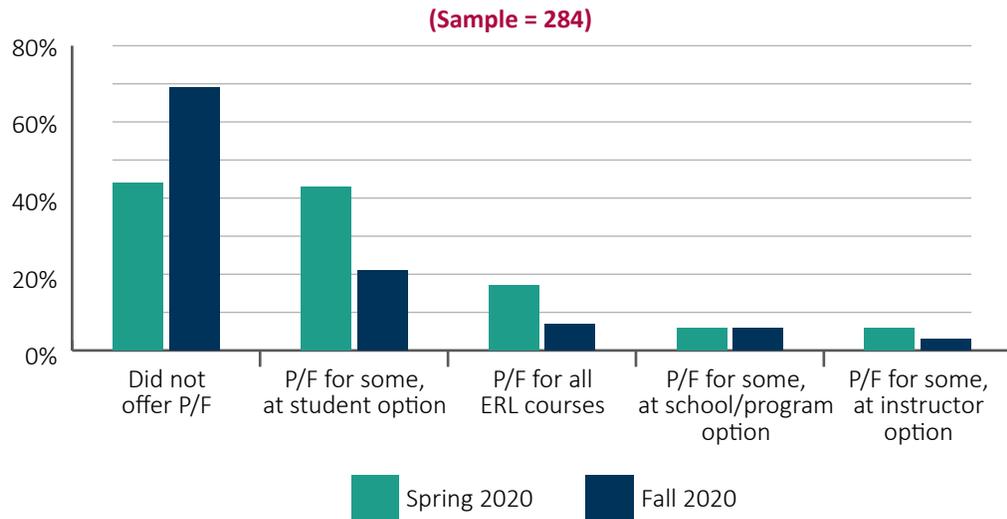
Student Outcomes

Allowing a Pass/Fail grade option, especially during the ERP, relieved the pressure and stress of a letter grade for many students, allowing them to focus solely on maintaining academic progress and not the potential impact of the pandemic on their GPA. During the ERP, most institutions (56%) offered a Pass/Fail grade option for at least some remote (ERL) courses, but only 17% offered it for all ERL courses. Instead, the Pass/Fail grade option was most frequently offered only for some ERL courses at the option of the student (43%), while a few institutions also offered it by school or program option (6%) or at instructor option (6%). This difference may have been impacted by requirements for programmatic accreditation, licensure, et al. in some fields. Institutions electing to expand Pass/Fail grade options for Spring 2020 did so to acknowledge the many logistical issues of pivoting to remote learning, such as lack of appropriate technology or living situations that negatively impacted synchronous activities, as well as the high level of anxiety experienced by many students.

By Fall 2020, however, many faculty and students were becoming acclimated to remote learning, and a much smaller percentage of institutions (31%) offered a Pass/Fail option for some or all ERL courses. Similar to Spring 2020, a minority of institutions (7%) offered the Pass/Fail option for all courses, as the majority who offered it (21%) did so as a student option; those offering it by school/program option remained the same from Spring 2020, while those offering Pass/Fail at instructor option decreased slightly to 3% (Figure 31). While reports of students lobbying for increased Pass/Fail options for fall were

common, institutions instead sought alternatives such as extending course withdrawal periods, extending assignment deadlines when necessary, and stating that the Pass/Fail grading option of Spring 2020 was never intended to become a long-term policy. Institutions also cited the potential detrimental effects of longer-term Pass/Fail grade options, such as impacts on scholarship eligibility.

Figure 31. Undergraduate Pass/Fail Grade Option for ERL, Spring 2020 vs. Fall 2020



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However, size of undergraduate online enrollment may have impacted the decision to offer a Pass/Fail grading option for ERL courses. Over one-fourth of high-online enrollment institutions (26%) offered a Pass/Fail option for all remote courses in Spring 2020, while just 16% of medium—and 12% of low—online enrollment institutions did so. By Fall 2020, 15% of high-enrollment institutions offered Pass/Fail for all ERL, while only a small percentage of medium (5%) and low-online enrollment (4%) institutions did so (Table 17).

These data seem to contradict the idea that better preparation translated into higher levels of academic continuity/minimized learning disruption, as high-online enrollment institutions were better prepared, in terms of support and resources, than medium- or low-online enrollment institutions. However, an examination of the high-online enrollment institutions revealed that these were high enrollment institutions overall and that the campus-based portion of their student body was much greater than that of low-online enrollment schools, as well as the vast majority of medium-online enrollment schools. Therefore, despite the increased availability of resources heading into the ERP, high-online enrollment institutions were likely still facing thousands of students (and faculty) who were unprepared for remote or online learning, which likely necessitated an increased need for Pass/Fail grading options.

Table 17. Undergraduate Pass/Fail Grade Option for ERL, by Online Enrollment

Spring 2020 vs. Fall 2020

(Sample = 284)

	High > 7,500	Medium 1,000-7,500	Low < 1,000
Spring 2020			
Offered for all ERL in Spring 2020	26%	16%	12%
Offered for some Spring ERL, various options	45%	47%	46%
Not offered for ERL in Spring 2020	30%	38%	43%
Fall 2020			
Offered for all ERL in Fall 2020	15%	5%	4%
Offered for some Fall ERL, various options	35%	28%	23%
Not offered for ERL in Fall 2020	52%	69%	75%

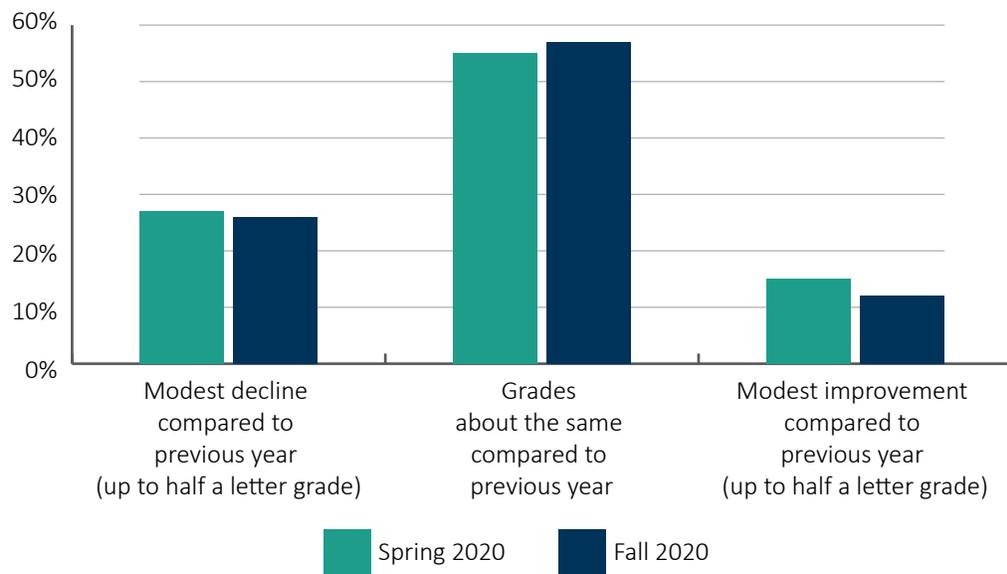
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In terms of grade changes and distribution compared to previous years, the majority of COOs reported that grades remained relatively constant in Spring 2020 vs. Spring 2019 (55%) and also in Fall 2020 vs. Fall 2019 (57%) (Figure 32). About a third of institutions saw a modest grade decline (less than half a letter grade) in Spring 2020 (27%) and Fall 2020 (26%) vs. the previous year, and a few institutions reported a sharp decline in Spring 2020 grades (2%) and Fall 2020 grades (2%) that amounted to more than half a letter grade. A small percentage of institutions reported a modest grade improvement in Spring 2020 (15%) and Fall 2020 (12%) vs. the previous year, with a few reporting a sharp Spring (1%) or Fall increase (1%).

While the majority (55%) of COOs reported that grades in Spring 2020 were similar to Spring 2019, there was variation in grade patterns by online enrollment size. High-online enrollment institutions had a higher percentage of grade stasis compared to the previous year (61%), while medium- and small-online enrollment institutions saw more grade decline (30% and 32%, respectively). This might be attributable to their higher level of institutional preparation leading into the pandemic, especially in terms of student and faculty support and institutional infrastructure. In other words, being better prepared for a move to 100% distance learning potentially translated into greater academic stability.



Figure 32. Undergraduate Grade Trends for Spring 2020 and Fall 2020, Compared to Previous Year
(Sample = 280)



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Fall 2020 showed a similar grade distribution pattern, though high-online enrollment institutions had a greater grade decline (26%) in fall, compared with spring (17%). Fewer institutions/courses offering a Pass/Fail option, less leniency by faculty, and/or the continued stress of the pandemic could all have been contributing factors. Overall, however, the majority of institutions across all types reported that grades remained similar in Spring 2020 (55%) and Fall 2020 (57%) compared to their respective 2019 terms, even with the previously discussed decrease in Pass/Fail grade options for Fall 2020 as compared to the spring term (Table 18).

Table 18. Undergraduate Grade Trends for, by Online Enrollment

Spring 2020 & Fall 2020 vs. Previous Year

(Sample = 280)

	Sample	High > 7,500	Medium 1,000-7,500	Low < 1,000
Spring 2020				
Grade decline compared to Spring 2019	29%	17%	30%	32%
Similar grades, compared to Spring 2019	55%	61%	53%	45%
Grade increase compared to Spring 2019	16%	22%	17%	12%

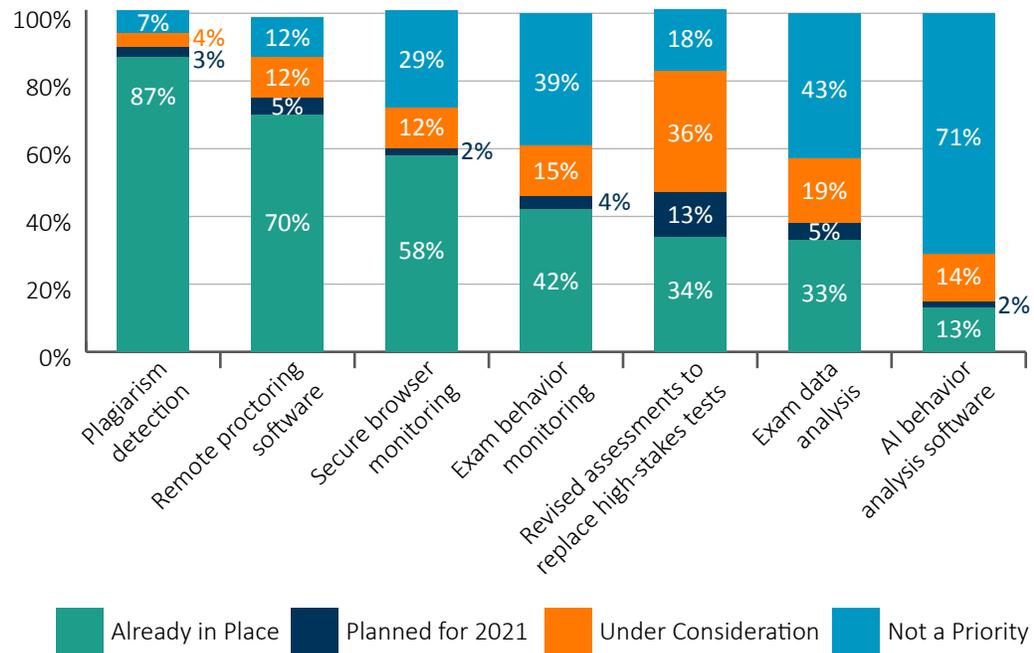
	Sample	High > 7,500	Medium 1,000-7,500	Low < 1,000
Fall 2020				
Grade decline compared to Fall 2019	28%	26%	30%	26%
Similar grades, compared to Fall 2019	57%	61%	54%	61%
Grade increase compared to Fall 2019	13%	13%	16%	13%

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The low incidence of on-campus testing after the Spring 2020 ERP necessitated a rethinking of academic integrity measures, such as monitoring and securing online exams. Most institutions (87%) had plagiarism detection already in place, as well as remote proctoring (70%) and secure browser monitoring (58%). Fewer institutions already had systems in place for exam behavior monitoring (42%), exam data analysis (33%), and artificial intelligence behavior analysis software (13%).

Approximately one-third of institutions (34%) already had revised assessment strategies in place for the replacement of high-stakes tests, and a similar percentage (36%) are considering revised assessment strategies for 2021, while a small minority (13%) have incorporated that in their 2021 planning. A move to alternative assessments, such as lower-stakes evaluation or authentic assessment types, became an even greater focus as remote students experienced various issues with exam proctoring. Perhaps further supporting a move to revised assessment strategies was the anxiety and stress sometimes experienced during a remotely proctored exam, which seemed to dominate social media at times, as students transparently shared stories that had faculty and administrators alike considering alternatives. Of all the given options for academic integrity measures, 5% of institutions or fewer planned for new measures in 2021 (aside from revised assessment strategies), and fewer than 20% of institutions across all categories were considering new measures for 2021 (again, aside from revised assessment strategies) (Figure 33).

In general, despite concerns to the contrary, student outcomes after nearly a year of remote learning seem relatively on par with pre-pandemic levels, perhaps assisted early by expanded Pass/Fail grading options and even by a greater and seemingly more determined focus on remote and online learning quality. More invasive academic integrity measures, such as exam behavior monitoring and exam data analysis, are less a priority moving forward than more student-friendly options, such as revised assessment strategies, to replace high-stakes online exams.

Figure 33. Academic Integrity Measures: Tools and Strategies
(Sample = 281)


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XIII. CHIEF ONLINE OFFICERS RISE TO THE CHALLENGE

For many chief online officers, the pandemic emphasized their importance to their institutions and within the administrative hierarchy. Of 281 respondents answering a series of questions on the COO role during the pandemic, 95% indicated the presence of an officer fitting the description. Only 5% (14) indicated that their institution did not currently have an individual serving in the COO role. Several of these COOs indicated that they were in the process of establishing such a position, no doubt influenced by the current crisis and higher education's response to it.

Respondents from institutions identifying this role were nearly unanimous that the visibility of the COO at their institution had been increased by the response to the pandemic. Of these, two-thirds reported that the role had "increased (42%) or greatly increased (26%) in scope and standing" during the pandemic. This proportion closely corresponds to the 69% of responses indicating that the COO served as the overall coordinator of the emergency remote pivot (ERP).

From a list of functions to be managed during the ERP, COOs identified those that were major responsibilities that fell within their scope. These included:

- Faculty training (84%)
- Classroom course conversion (74%)
- Overall coordination of the ERP (69%), as noted above
- Leadership in strategic planning for long-term institutional digital capabilities (68%)
- Provision of tools and technical support for synchronous online study (67%)
- Orientation of formerly in-person students to online study (50%)
- Quality assurance of emergency remote learning (ERL) courses (47%)

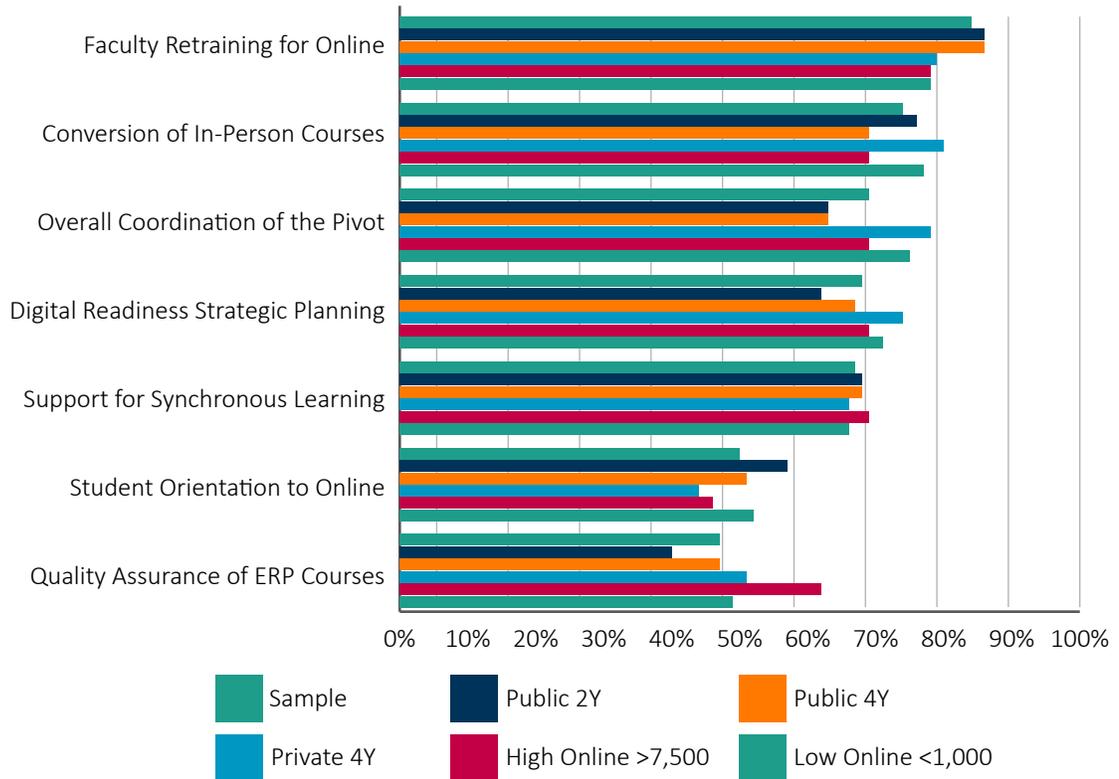


Roughly the same proportion of respondents agreed that, aside from the COO role in emergency course conversion, which, by its nature, was a temporary issue, this list of major COO responsibilities would remain in place beyond the pandemic. Forty-eight percent of respondents expect the expanded role of the COO during this crisis to continue beyond the end of the pandemic, and 89% of these respondents expect the role to expand even further.

Individual respondents identified a number of additional major COO functions that they carried during the pandemic and that they predict will be an ongoing responsibility. These range from management of the technical infrastructure supporting online learning to boosting faculty morale, and include budgeting, curriculum planning, etc. We are unable to determine which, if any, of these additional duties might have been judged a major responsibility by the entire respondent pool, however, as additional duties were self-reported and not explicitly asked about in CHLOE 6.

The relative emphasis by sector and extent of pre-pandemic online enrollment on some of these functions over others is indicated in Figure 34. Major differences were few.

Figure 34. Chief Online Officer Major Responsibilities During the Pandemic
(Sample = 219)



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Roughly the same proportion of respondents agreed that, aside from the COO role in emergency course conversion, which by its nature was a temporary issue, this list of major COO responsibilities would remain in place beyond the pandemic. Forty-eight percent of respondents expect the expanded role of the COO during this crisis to continue beyond the end of the pandemic, and 89% of these respondents expect the role to expand even further.

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XIV. ERL IMPACT ON THE FUTURE OF ONLINE LEARNING

In the first months of the pandemic, widely different views were expressed about the long-term impact of the rapid pivot to emergency remote learning. Some pundits argued that exposing the entire in-person student body to poorly executed remote courses would damage the reputation and appeal of online learning as a whole for many years to come. Others argued that many students previously unfamiliar with online learning, though not all, would find much to like during the emergency remote pivot (ERP) and gravitate to online opportunities as a result. Now that vaccine distribution is well underway and COOs can envision the shape of postsecondary education after COVID more clearly, CHLOE surveyed their expectations about demand for online learning in the next three to five years.

Asked about the effect of the ERP on enrollment in fully and majority online courses and programs at their institutions, the great majority of COOs predicted growth rather than flight from online learning (Table 19). In CHLOE's sample of 361 officers, 13% predicted continuation of the pre-pandemic growth pattern in online undergraduate programs, 60% predicted "some" further increase, and 17% anticipate "strongly increased" online growth. These positive expectations sum to 90% of the CHLOE sample, with only 6% of COOs predicting any decline at their schools.

Table 19. Long-Term Impact of the Pandemic on Online Undergraduate Enrollment
(Sample = 357)

How will the ERL experience during the pandemic affect online undergraduate enrollment?	Sample	Public 2Y	Public 4Y	Private 4Y	Low Online < 1,000
Strongly decreased online enrollment	2%	1%	1%	5%	4%
Some decreased online enrollment	4%	5%	5%	2%	3%
About the same as pre-pandemic	13%	7%	8%	23%	19%
Some increased online enrollment	60%	64%	63%	52%	52%
Strongly increased online enrollment	17%	22%	20%	12%	15%
N/A – We are already fully online	1%	0%	2%	2%	1%

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The most significant difference among sectors is the approximate 20% confidence gap regarding future online enrollment growth between public and private nonprofits, with many fewer private four-year institutions confident that the pandemic experience will lead to an increase in online enrollment. This may reflect a stronger belief at many private schools that their undergraduate students will return to the classroom in pre-pandemic number and proportion. Public institutions, on the other hand, appear more likely to believe that the pandemic will lead to a shift of students toward online options.

Breaking down the CHLOE sample by size of pre-pandemic online enrollment, the most noteworthy impact of the ERP is the confidence of two-thirds of COOs representing low-online enrollment institutions (less than 1,000 fully and partly online students) that the pandemic would lead to increased (52%) or “strongly” increased (15%) undergraduate online enrollment.

At the graduate level, out of 231 four-year officers in the CHLOE sample, 12% predict continuation of the pre-pandemic growth pattern in online undergraduate programs, 45% predict “some” further increase, and 35% anticipate “strongly increased” online growth, for a total of 92% (Table 20). The gap observed at the undergraduate level between public and private COOs’ online enrollment predictions is much less at the graduate level. This reflects the roughly comparable representation of online graduate enrollment across institution types. As noted for undergraduate online enrollment, low-online enrollment institutions anticipate increased (43%) and “strongly” increased (37%) graduate online enrollment, suggesting that the pandemic experience may have changed the posture of many institutions that have not focused on online enrollment in the past. This impression is confirmed by the strong response of low-online enrollment institutions, indicating an increased priority for online learning (Table 20).

Table 20. Long-Term Impact of the Pandemic on Online Graduate Enrollment

(Sample = 231)

How will the ERL experience during the pandemic affect online graduate enrollment?	Sample	Public 4Y	Private 4Y	Low Online < 1,000
Strongly decreased online enrollment	1%	1%	0%	0%
Some decreased online enrollment	3%	3%	2%	1%
About the same as pre-pandemic	12%	7%	17%	13%
Some increased online enrollment	45%	49%	41%	43%
Strongly increased online enrollment	35%	37%	33%	37%
N/A – We are already fully online	4%	3%	7%	5%

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In completing this section of the CHLOE 6 Survey, a few respondents reported that their predictions were based more on long-term planning at their institution and less, if at all, on the effects of the pivot. Yet, even in these cases, it is clear that the ERP has not dampened the prospects of continued and, for many, accelerated growth in online learning. This impression is reinforced by responses to a follow-up question in the survey (Table 21), asking specifically whether ERL has elevated the priority of online learning “in the coming years.” Using a five-point Likert scale, 22% of the respondents rated the increase in priority at a “5” and 64% at a “4,” while only 1% rated it a “1” for “greatly decreased priority” or “2” for decreased priority. When comparing institutions by sector, it is significant that public two- and four-year institutions and private four-year nonprofits show between 80 and 90% agreement that the priority of online learning at their institutions is increasing at least in part due to ERL.

Table 21. ERL Impact on Future Priority of Online Learning**(Sample = 357)**

ERL Impact on Future Priority of Online Learning	Sample	Public 2Y	Public 4Y	Private 4Y	Low Online < 1,000
1 – Greatly decreased priority for online learning	1%	1%	1%	2%	2%
2–Decreased priority for online learning	2%	2%	2%	1%	0%
3 – No change	12%	15%	10%	11%	10%
4 – Increased priority for online learning	64%	55%	70%	65%	65%
5 – Much greater priority for online learning	22%	27%	17%	21%	24%

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Further, COOs envision the influence of ERL as more than an uptick in generalized interest in online learning. In a number of cases, they anticipate the conversion of in-person courses to remote courses during the pivot, and their subsequent refinement into fully online courses is likely to lead to their long-term presence in the curriculum and the expansion of fully online programs at the institution. When asked “How likely is it that emergency remote learning (ERL) and online courses developed in response to the pandemic will evolve into permanent new online degree programs?” (Table 22) 9% said it would be “very likely” for undergraduate programs, another 59% said it would be likely for some programs but not others, and 24% said it would be “unlikely” to occur.

Table 22. Likelihood That Undergraduate ERL Courses Will Evolve into Online Programs**(Sample = 360)**

Will ERL courses evolve into online undergraduate programs at your institution?	Sample	Public 2Y	Public 4Y	Private 4Y	Low Online < 1,000
Very likely	9%	10%	5%	10%	10%
Likely for some subjects but not for others	59%	72%	67%	44%	50%
Unlikely	24%	15%	23%	35%	30%
N/A – We are already fully online	4%	3%	2%	6%	3%
We do not and will not offer online degrees	4%	0%	3%	6%	7%

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In this case, averages mask some important differences by sector. On the positive side, a higher proportion of community college COOs are anticipating growth in online programs based on ERL courses than public four-year sector COOs, an especially higher proportion when compared with four-year private COOs.

While only 15% of community college COOs consider it unlikely that ERL courses would mature into online programs, 35% of private four-year private COOs share this view. The contrast highlights the equivocal stance of many private colleges regarding how fully to support undergraduate online growth, as compared to public two-year and, to a lesser extent, public four-year institutions.

Results for graduate programs show that 15% of responding COOs believe it “very likely” that ERL courses at their institutions would evolve into fully online courses and programs, 57% of COOs see this as likely for some such programs, and 19% regard it as “unlikely” (Table 23). The prospects for growth in online graduate study based on the ERL experience were judged more consistently between public and private four-year COOs than their view of online undergraduate growth. Generally speaking, at the graduate level, online learning seems as well-established and acceptable in private nonprofit institutions as in public ones.

Table 23. Likelihood That Graduate ERL Courses Will Evolve into Online Programs

(Sample = 233)

Will graduate ERL courses evolve into online programs at your institution?	Sample	Public 4Y	Private 4Y
Very likely	15%	10%	17%
Likely for some subjects but not for others	57%	67%	51%
Unlikely	19%	20%	19%
N/A- We are already fully online	10%	4%	14%

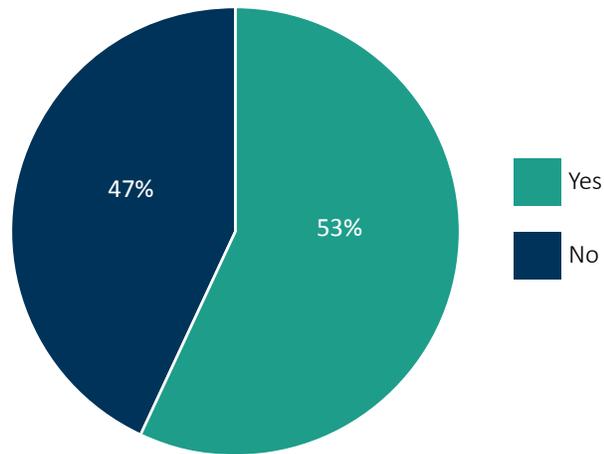
The Long-Term Impact of ERL on Higher Education Strategic Priorities

The final question in the CHLOE 6 Survey asked COOs whether the pivot to ERL altered their institution’s strategic priorities and identity or stimulated a reexamination of those issues. Given the usual pace of change in higher education, the results were striking. The majority of our 276-respondent sample gave an affirmative answer to this question (Figure 35). This seems a remarkably high proportion of institutions to be taking a serious look at their strategic priorities and identity at any particular time, attesting to the pervasive impact of the pandemic on the future of higher education.

Perhaps even more remarkable is the consistency with which different sectors and institutions with widely varied involvement in online learning answered the question (Figure 36). The affirmative response ranged from 54% at public four-year institutions to 60% at public two-year schools, with private four-year institutions splitting the difference at 57%. Similarly, when looked at from the perspective of pre-pandemic engagement with online learning, 55% of COOs from institutions with the highest online enrollment—more than 7,500 fully or partly online students—answered affirmatively, while 57% of COOs from mid-sized and low-online enrollment schools did the same.

Figure 35. Did the ERP Influence Strategic Priorities at Your Institution?

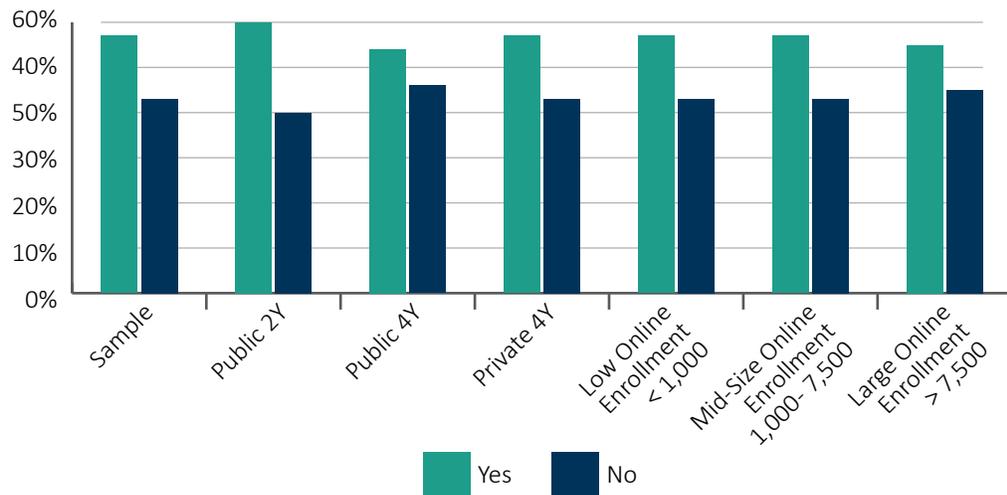
(Sample = 275)



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Figure 36. The ERP is Prompting Reevaluation of Strategic Priorities Across Higher Education

(Sample = 273)



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More than 150 respondents took the opportunity to indicate the general nature of the change being implemented, planned, or discussed at their institution in a brief comment (Table 24). While limited to a single sentence, a number of respondents managed to include several strategic issues in their comments. In virtually all cases, the nature of the change or changes in strategic priority were related to the role of online learning at their institution. The most common theme, noted by a third of those who responded, is an intention to expand online courses and programs. Another quarter of the responses point to a new, more positive view of online learning at their school that would support its expansion and enhancement moving forward. The next highest ranking response focuses on increasing institutional flexibility by providing instruction in a variety of modes, such as in-person, hybrid, HyFlex, and fully online. Fourteen see the planned change at their institution as an increased emphasis on course and program quality.

Thirteen indicate that they had already been engaged in a broader strategic planning initiative prior to the pandemic, which the recent ERP experience would now inform.

Table 24. Focus of Strategic Initiatives Influenced by ERL

(Sample = 152)

Strategic Initiatives	# of Respondents	% of Respondents
Expand online course and program choices	50	33%
Recognize and support online learning priorities and needs	36	24%
Increase flexibility to meet student needs with multiple teaching modes	26	17%
Apply quality standards to online courses, programs, and services	14	9%
Fold the ERL experience into a broader strategic planning initiative	13	9%
Commit to greater accessibility to all students	7	5%
Prepare faculty for online teaching	4	3%
Improve technical infrastructure	4	3%
Expand online student services	4	3%
Provide holistic support for the entire student	3	2%
Emphasize worker retraining	3	2%
Expand synchronous online learning	3	2%

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These strategic initiatives appear to augur a shift in institutional priorities toward the further integration of online learning into the mainstream of primarily campus-based institutions, with online tools and pedagogy augmenting face-to-face learning and synchronous elements adding more personal engagement to primarily fully online learning. We might anticipate more blending of online and on-ground experiences, greater flexibility in moving between the two, and new student and instructor options (e.g., HyFlex or a hybrid of online synchronous and asynchronous modes). We may also see changes in policy at many institutions factoring in students' personal, non-academic, needs to a greater extent when advising and supporting them, and allowing them greater flexibility in pursuing their programs and goals.

However, lest we become too bullish or alarmed regarding the prospects for fundamental change in postsecondary education, depending on our view of online tools and pedagogy, we need to remind ourselves of the durability of traditional in-person learning in higher education. We should not

underestimate its ability to absorb the insights and key elements of new educational movements while remaining fundamentally unchanged. In this case, the changes noted in responses to the final question suggest that while the pandemic experience with online learning will influence change across a wide swath of postsecondary institutions to the benefit of students, faculty, and institutions, it may still fall short of transformational change. CHLOE will need to track how quickly and thoroughly the great majority of primarily in-person institutions snap back to accustomed practices and how deeply the promised and anticipated changes take hold.

XV. ACKNOWLEDGEMENTS

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Last year we established the CHLOE Advisory Panel consisting of experienced senior online officers and leading researchers in the online learning space (listed below). Their input in shaping the scope and focus of this report has been invaluable.

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