CHLOE 7

TRACKING ONLINE LEARNING FROM MAINSTREAM ACCEPTANCE TO UNIVERSAL ADOPTION

CHLOE 7: TRACKING ONLINE LEARNING FROM MAINSTREAM ACCEPTANCE TO UNIVERSAL ADOPTION

THE CHANGING LANDSCAPE OF ONLINE EDUCATION, 2022

Quality Matters & Eduventures Survey of Chief Online Officers

Co-Directors:

Richard Garrett
*Eduventures Chief Research Officer
ENCOURA*

Bethany Simunich, Ph.D.
*Quality Matters Director of
Research and Innovation*

Senior Editor:

Ron Legon, Ph.D.
*Executive Director Emeritus,
Quality Matters*

Contributing Editor:

Eric E. Fredericksen, Ed.D.
*Associate Vice President for Online Learning and
Professor, University of Rochester*

QUALITY MATTERS
QM

encoura
Eduventures
Research

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

SUGGESTED CITATION

CHLOE 7: Tracking Online Learning from Mainstream Acceptance to Universal Adoption
The Changing Landscape of Online Education, 2022

I. EXECUTIVE SUMMARY

Building on years of pre-crisis online learning adoption, nearly two years of widespread online accommodations to meet the exigencies of the COVID-19 pandemic have changed the higher education landscape. Details are fuzzy, but for chief online officer respondents to the CHLOE 7 Survey, the direction seems clear. COOs indicated that student interest in online learning has increased substantially in the past two years, and the majority predict that this interest will continue to grow in the next several years, though at a slower pace.

New combinations of campus, online synchronous, and online asynchronous learning are envisioned. When asked to project the prevailing modes of learning at their own institutions three years hence (2025), COOs predicted that few students would be studying exclusively on-ground (4% of traditional-aged undergraduates and 1% of adult undergraduates and graduate students), or exclusively online (2% of traditional-aged undergraduates, 9% of adult undergraduates, and 17% of graduate students). Instead, online leaders predict that the great majority of students at all levels would be combining on-ground and online experiences through a variety of blended and hybrid formats at both the course and program level.

COOs were asked to report on the scope and sufficiency of their institutions' support of online learning, on which the vast majority of students would depend in 2025, if their predicted trend toward near universal student engagement with forms of online learning were to come to pass. Do schools have the online learning staff and resources to serve nearly the entire student body's online learning dependence? Do they have the policies, training, services, and quality assurance measures in place or under development to assure faculty competency and student success in the anticipated mixed-mode environment? Are current institutional strategic priorities in line with these demand-driven needs? The answers were varied and nuanced, indicating progress in many areas, and some concerning gaps and challenges. More than half of responding COOs believe that meeting the anticipated undergraduate online demand at their institution will require realignment of institutional strategy and priorities. Most expressed optimism about this realignment, but some see unresolved tensions between long-standing priorities and shifting student demand.

With regard to services that support the online learner, the survey found a 17% increase in staffing levels over the past two years in key roles for online success (i.e., instructional designers, educational technologists, advisers, and coaches). Institutions with relatively low online enrollment (less than 1,000 full- and part-time students) have made significant investments to improve their capabilities relative to institutions with higher online enrollment. Regarding online services, CHLOE 7 notes a trend toward handling many online services centrally. An increase in the integration of services for online and campus students may reflect the fact that students themselves increasingly bridge between the two delivery modes.

While most institutions meet the needs of online programs internally, outsourcing contracts are nevertheless quite common, usually on a fee-for-service basis that gives the institution more control of costs rather than a revenue-sharing partnership. About 18% of the CHLOE sample institutions, however, work with online program managers (OPMs), and these arrangements are twice as likely to include revenue-share agreements rather than fee-for-service.

Online student support experienced growth during the past two years, but not as much as other areas. During the pandemic, many institutions expanded efforts to provide students in need with computing equipment and Internet access and introduced or expanded mental health services for students. Orientation and training for students to navigate online study, however, typically remain optional rather than required—a major concern as enrollments grow.

Faculty support to meet online needs expanded during the pandemic years, though from a more substantial base of support. Proportionally, low-online enrollment schools (low-OE) made the greatest strides during the pandemic and have substantially closed the gap with high-online enrollment schools* (mid- or high-OE). In most areas of faculty professional development, such as online technical capacity, teaching, instructional design, and quality assurance, higher education appears to be reaching the saturation point, with only a small fraction of institutions (2-6%) not providing these services. COO comments highlighted some of the new areas of investment, such as provision of web-conferencing software, targeted support for synchronous and multi-modal courses, and technical support for faculty who now teach from home. A weakness among the faculty support areas queried was training to recognize and respond to student mental health issues. On this issue, 27% of institutions reported not providing such training, yet this was simultaneously the area of greatest expanded investment, with 32% of schools addressing this issue in the past two years.

Almost all institutions in the CHLOE sample (96%) have adopted quality standards for online courses, and most also have standards for online programs, but there are major shortcomings in the quality assurance (QA) processes at most schools surveyed. While 50% of responding COOs indicate that their institution requires all asynchronous online courses to meet quality standards, two-thirds of institutions lack any required process to validate compliance with the standards. Voluntary review and adherence to the standards is the rule. The report questions whether standards without any enforceable policy to evaluate individual online courses or programs constitute a credible QA process. The survey results indicate that online and blended program standards exhibit the same characteristics and issues as course standards, with optional compliance and no true "assurance" of quality at most institutions.

---

*CHLOE Designations of Institutions by the Size of Their Fully and Partly Online Enrollment with the following definitions:

Low online enrollment institutions (low-OE) = Less than 1,000 online students

Mid or mid-sized online enrollment institutions (mid-OE) = 1,000- 7,500 online students

High online enrollment institutions (high-OE) = More than 7,500 online students

An additional concern raised about QA as practiced by the majority of schools is their frequent omission of standards addressing student outcomes (34%) and student support (27%). Moreover, relatively few institutions require a review of courses in emerging modes of instruction that blend online and face-to-face, including online synchronous (27%); hybrid (24%); and multi-modal learning, including HyFlex (21%). The inclusion of a face-to-face component may be an impediment to the development of such standards, since only 13% of surveyed institutions report review processes are enforced for face-to-face courses. Time will tell whether the newer hybrid varieties of courses and programs are able to develop standards and evaluation processes comparable to asynchronous learning. This factor could prove critical to their credibility, durability, and effectiveness in achieving the expanded role for online learning projected by COOs.
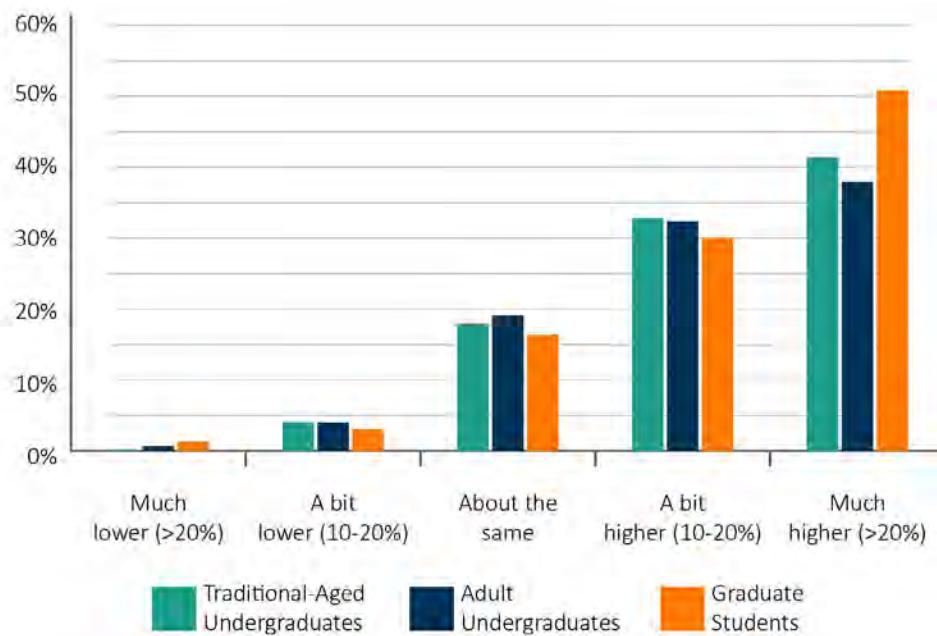
Lastly, having taken chief online officers through an assessment of their institutions' resources, staffing, policy, and quality assurance measures affecting online learning, CHLOE 7 asked them to step back and look at the big picture. All but a few respondents indicated either that their institution was fully capable of dealing with a crisis requiring campus closure for an extended period of time prior to COVID-19 or that their capabilities to do so had improved during the pandemic years. Most judged that a wide range of competencies that meet the needs of online students had been strengthened, including improved technological resources, greater flexibility in the modes of course delivery and the working conditions of faculty and staff, and even in the institutional leadership's capacity to manage crisis decision making. A significant proportion of COOs, however, acknowledged shortcomings in their ability to meet the social and psychological needs of students (19%) and train students effectively to succeed in online learning (35%). Clearly, significant challenges remain if online learning is to achieve and sustain the near-universal role predicted by chief online officers.

II. STUDENT DEMAND, MODALITY, AND INSTITUTIONAL ALIGNMENT

The pandemic has thrown higher education delivery mode assumptions into question. A steady increase in fully online enrollment and market share for adult undergraduates and graduate students, pre-crisis, suddenly turned into near-universal "emergency remote learning" (ERL). As institutions moved from ERL to designed-for-online courses, however, students embraced the broader, more flexible options to complete their degrees. Among younger undergraduates, used to taking occasional online courses but not fully online programs, the pandemic ushered in an even more dramatic change.

To address this pandemic-led impact, a fundamental question addressed in CHLOE 7 was: Has the pandemic significantly changed delivery mode preferences and trends in higher education? Will any changes last, or, as COVID-19 fades, might those changes fade with it? CHLOE's informant is the chief online officer (COO), the online leader, by whatever title, who coordinates online learning at a college or university. The CHLOE 7 Survey asked COOs their view on how relative student interest in online learning at their institution had shifted between Fall 2019 and Fall 2021. Respondents were asked to distinguish between traditional-aged undergraduates (defined as age <25), adult undergraduates, and graduate students (Figure 1).

**Figure 1. Online Leaders Think Pandemic Significantly Boosted Student Online Interest
Fall 2021 vs. Fall 2019 (Sample = 176)**
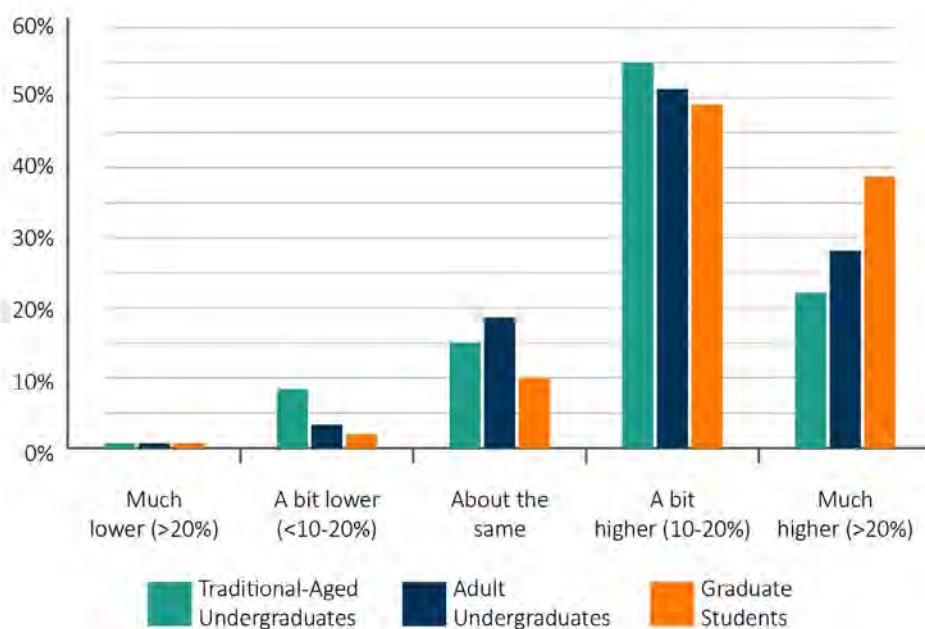
© Eduventures Research and Quality Matters, 2022

The results are unequivocal: regardless of student type, about 70-80% of online leaders consider students at their institutions, as of Fall 2021, to have been at least somewhat more interested in online learning compared to two years prior. About a fifth judged student interest unchanged, and fewer than 5% saw lower interest. Online leaders at community colleges were most likely (51%) to cite "much higher" student interest, and those at private four-year institutions least likely (30%); but the general pattern of Figure 1 held regardless of sector. There was a modest association between higher online enrollment pre-pandemic and perceived higher student interest as of Fall 2021.

In the CHLOE 7 Survey, online leaders were then asked to offer an opinion (Figure 2) on what student online interest at their institution might look like in Fall 2025 (compared to Fall 2021), noting that the COVID-19 pandemic might no longer be a major issue by that point.

**Figure 2. COOs Anticipate Further Growth in Online Student Interest by 2025 vs. 2021
(Sample = 269 Traditional-Aged UG, 264 Adult UG, and 175 Graduate)**

© Eduventures Research and Quality Matters, 2022
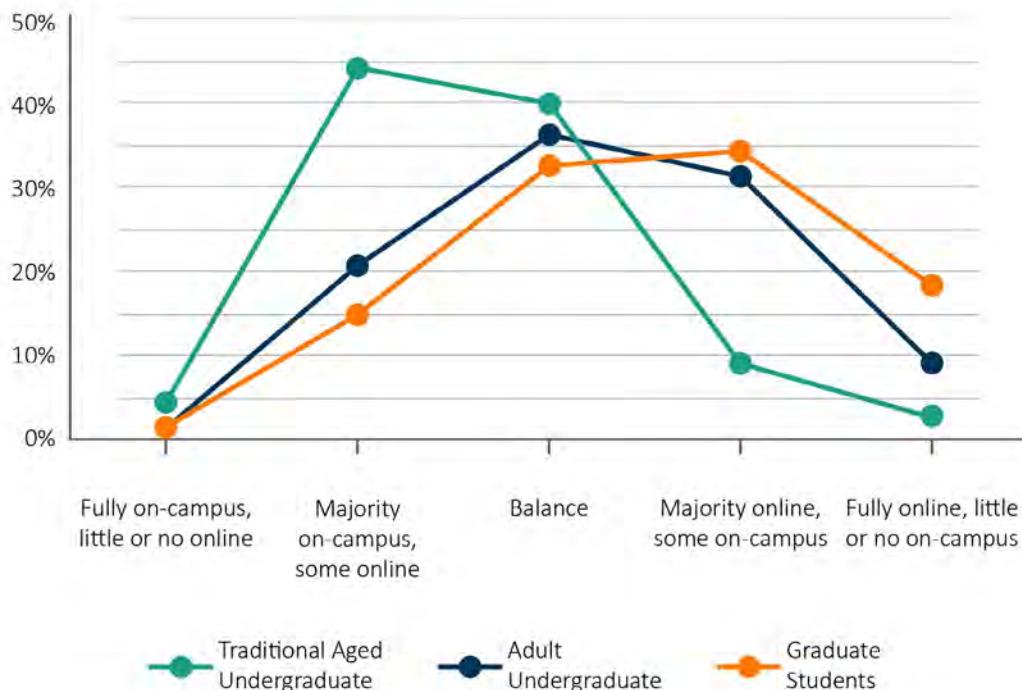
Figure 2 adds nuance to the picture. "More online interest" is anticipated across the board—77-89% of respondents expect online interest among their students to continue to grow—but there is a sharper distinction by student type. Almost 90% of online leaders think graduate student interest in online will continue to grow compared to "only" 77% for traditional-aged undergraduates, and only 22% of respondents thought the latter would see much higher interest by 2025 versus 39% for graduate students. Nine percent of COOs think traditional-aged undergraduate online interest will diminish, which is two-to-three times the rate for the other student types.

Also, online leaders were most likely to predict "a bit higher" interest going forward, which is aligned with a perceived bigger jump in interest between 2019 and 2021. The status quo is predicted by only 10-18% of online leaders, reinforcing both the steady march of online adoption pre-pandemic plus pandemic-driven exposure and options.

By sector, online leaders at public two-year schools were least likely to forecast "much higher" online interest by 2025 compared to 2021, consistent with above-average online enrollment pre-crisis. Public four-year schools were most likely to do so, which reflects both elevated online enrollment over time and (in general) greater openness to the modality compared to many private schools. An association between existing online enrollment scale and anticipated greater online interest three years out held, just as it did for COO perceptions of pre- versus mid-pandemic student interest.

CHLOE 7 then asked COOs to look forward to Fall 2025 once again and forecast which of five modalities or combinations would characterize the typical student experience at their institutions (again, breaking out three student types). The goal was to see how the recent and predicted change in student online interest related by COOs might translate into institutional offerings and arrangements. Figure 3 portends a more "online" near-future for institutions.

**Figure 3. COOs' Projection of Student Distribution by Delivery Mode in 2025
(Sample = 269 Traditional-Aged UG, 264 Adult UG, 175 Graduate)**


© Eduventures Research and Quality Matters, 2022

Figure 3 offers an intriguing vision, in many respects quite different from the pre-pandemic baseline and today. Almost no online leaders expect that the typical adult undergraduate and graduate student experience at their institutions will feature little or no online elements, and only 4% think this will be the case for traditional-aged undergraduates.

Beyond that, however, the results diverge, with a plurality of COOs who think the traditional undergraduate experience at their school will be "majority campus, some online." But, the majority go further: 40% think campus and online will be in balance, and 11% think online will dominate. In contrast, COOs anticipate a greater role for majority and wholly online learning for adult undergraduates and graduate students.

COOs expect that hybrid models, providing a balance between online and on-campus, will characterize the anticipated experience for the vast majority of students regardless of type. But there is a wide range between "majority campus, some online" and "majority online, some campus" and many possible permutations. "Hybrid," in other words, still lacks definition.

COOs do not necessarily see greater online student interest as positive. One worries that for undergraduates, convenience is the driving factor along with a view of online courses as "easier." Especially without quality assurance in place, the concern is that faculty and schools will compensate for poorer student performance in online courses by muddying academic standards and fueling ill-directed online demand. In the words of a responding COO, "What students want is valuable to know but is not always in their best interest."

Majorities of public and private four-year schools voted for "majority campus, some online" for their traditional-aged undergraduates. Community colleges (18%) were most visible in the "majority online" camp, but no community college online leader sees a wholly online near-future for this student group.

This may reflect investments in hands-on fields, such as nursing and automotive, that are hard to replicate online. There may also be concern—based on institutional experience—that fully online study is rarely ideal for the typical community college student, setting aside the modality's popularity.

When it comes to adult undergraduates, though, private four-year respondents were most likely (18%) to foresee a fully online future. A mix in this sector of adult-centric institutions and those that have turned to online as a way to serve adults help explain this result. The same applied at the graduate level, where 23% of private four-year online leaders looked ahead to fully online study as the typical experience.

How does Figure 3 compare to actual enrollment patterns pre-pandemic? The data are incomplete. Federal figures do not report modality and age, complicating any appreciation of delivery mode among younger and older graduates. Examining undergraduate enrollment patterns by age and association with rates of full and some distance enrollment, the CHLOE team estimated the ratios in Table 1. Federal data distinguishes only "some distance" enrollment, not finer shades of hybrid. Therefore, Table 1 uses "Hybrid" as a catch-all for three of the modalities (Majority Campus, Some Online; Balanced; Majority Online, Some Campus).

Table 1. More Hybrid: IPEDS Fall 2019 Enrollment by Modality vs. COO Forecasts for Fall 2025

Modality	Traditional-Aged Undergraduates IPEDS 2019 vs. COOs 2025	Adult Undergraduates IPEDS 2019 vs. COOs 2025	Graduate Students IPEDS 2019 vs. COOs 2025
Campus (little or no online)	75% vs. 4%	35% vs. 1%	62% vs. 1%
Hybrid	20% vs. 94%	25% vs. 90%	10% vs. 82%
Online (little or no campus)	5% vs. 2%	40% vs. 9%	28% vs. 17%
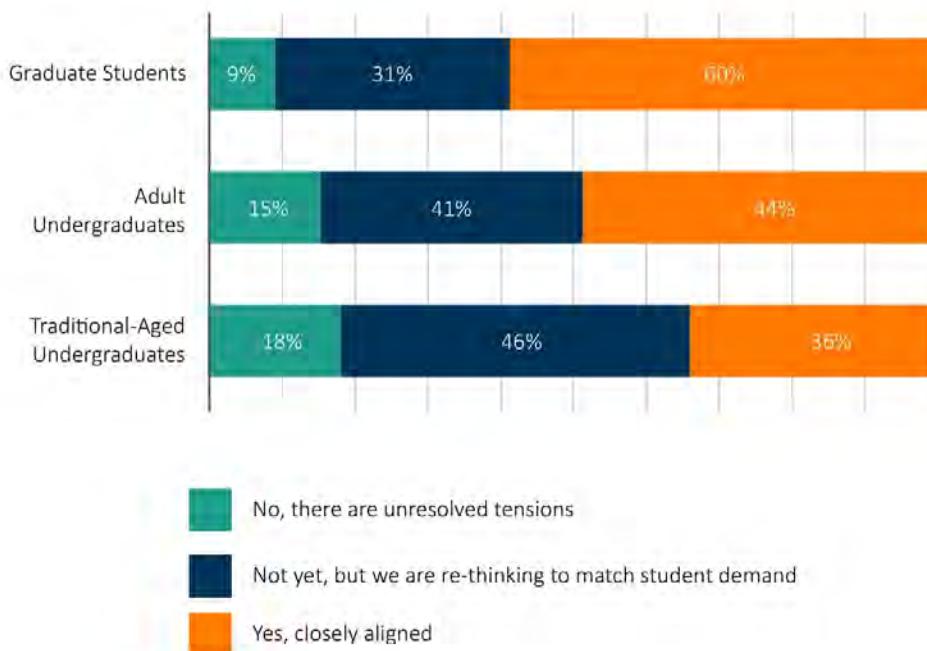
© Eduventures Research and Quality Matters, 2022

Looked at in this way, the forecast of online leaders looks strikingly different from the pre-pandemic baseline. A campus norm for traditional-aged undergraduates and graduate students is anticipated to shift to a hybrid norm. Fully online ratios are, perhaps counterintuitively, predicted by COOs to decline, also in favor of hybrid. In reality, as of 2019, there were blurred lines between the "campus" and "online" categories and adjacent hybrids. This suggests that "hybrid" was likely more significant than federal reporting suggests. "Online learning" in the form of materials, resources, and assignments has long been more commonplace than modality shifts captured in federal data.

In summary, there is no doubt that online leaders are pointing to genuine increased awareness and openness among students to forms of online learning, part of a long-term trend that has been accelerated by the pandemic. But "online learning" is a broad term with multiple definitions, spanning everything from materials to courses and programs. Data on student attitudes—direct from students/prospects—suggest enduring instincts about campus appeal and online limitations, certainly among traditional-aged undergraduates. Students want more online options and flexibility, but that does not necessarily mean they want to reject the campus. Forms of hybrid, multiple and evolving, are the way forward for the typical student at all levels.

This leads to the next CHLOE 7 Survey question in this section. Online leaders were asked to judge relative alignment between growing student online interest and institutional strategy, investments, and operations (Figure 4).

**Figure 4. Alignment of Growing Student Demand for Online Learning with Institutional Strategy
(Sample = 269 Traditional-Aged UG, 264 Adult UG, 175 Graduate)**

© Eduventures Research and Quality Matters, 2022

Most online leaders judged alignment to already be good or that their institution was actively working on adapting priorities to address the needs of a growing online student population. There was much reference to strategic plans, dedicated divisions, new online programs, and new or supportive leadership. With the exception of graduate students, more COOs reckon their schools still have work to do than not, but in most cases adequate alignment is expected to emerge over time. Not surprisingly, the greatest friction relates to traditional-aged undergraduates, but the breakdown is not dissimilar to that for adult undergraduates.

Figure 4 suggests that most online leaders see the pandemic as fast-forwarding anticipated trends, to which institutions were already responsive. Few, however, foresee a wide scale decentering of the campus for traditional-aged undergraduates, even if online plays a larger role. The anticipated downturn in high school graduates from the mid-2020s on is a reason some COOs cited as driving greater institutional investment in online learning.

Only a minority of online leaders see student demand and institutional arrangements in genuine tension. A few such COOs commented that faculty or trustees are not interested in expanding online learning—even if the student demand is there—and want to "get back to normal." Recent school investment in buildings and dorms, with payments due, was sometimes cited as a disincentive to a greater online emphasis. One COO commented, "The Online Team believes student demand for online learning will grow. Undergraduate campus faculty and institutional leadership believe it will go back to normal." The messaging around "back to normal" has interfered with previous strategies to invest in online. The blurred line between intentionally designed "online learning" and "emergency remote learning" is further complicating assessment of student experiences and preferences. Another respondent said, "The students

who had a poor online experience are louder than those who quietly found it to be an effective learning option and a good fit for their busy lives."

State and institutional policies, accreditor and professional body requirements, budget pressures, and limited faculty preparation to teach online were also noted as problems preventing demand-resource alignment. Perceived misassumption about what "quality online learning really is" (versus emergency remote learning) was an issue for some COOs, with some faculty wanting to charge ahead and others dismissing online entirely. Others pointed to institutional mission—and perceived student demand—favoring a campus-based approach long term. At schools with significant international student populations, particularly at the graduate level, accommodating both growing domestic online demand and sustained international desire (and regulatory requirements) for an in-person experience may be increasingly challenging.

By sector, private four-year schools were least likely (11%) to see unresolved tension when it came to traditional-aged undergraduates; whereas, public two- and four-year schools expressed greater levels of concern (20% and 23%, respectively). This is consistent with perceived higher levels of online interest among students at such schools. Although, equally many such schools might have been accustomed to such trends pre-pandemic.

The same pattern applied for adult undergraduates where, again, private four-year schools expressed least concern. A view of adults as either a minor market or one with dedicated online programming may explain this ease. Many public institutions may be unable to draw clear distinctions between traditional and adult learners in terms of needs and preferences, making modality adjustments at scale more challenging.

Public four-year schools exhibited the most tension at the graduate level (13% of COOs cited unresolved tensions, and another 40% said resolution was in the works). The equivalent ratios were only 4% and 24% for private schools. Again, private schools may think they are able to draw a cleaner distinction between campus and online enrollment, requiring less adaptation. Public institutions may be less convinced.

No statistically significant differences emerged by pre-pandemic online-enrollment scale. This is a reminder that scale alone is an incomplete guide to institutional operations and alignment. A large school may have a large online enrollment total but have relied on departmental initiative and administrative workarounds rather than enterprise alignment. A small online operation, by contrast, may have received considerable strategic attention from day one.
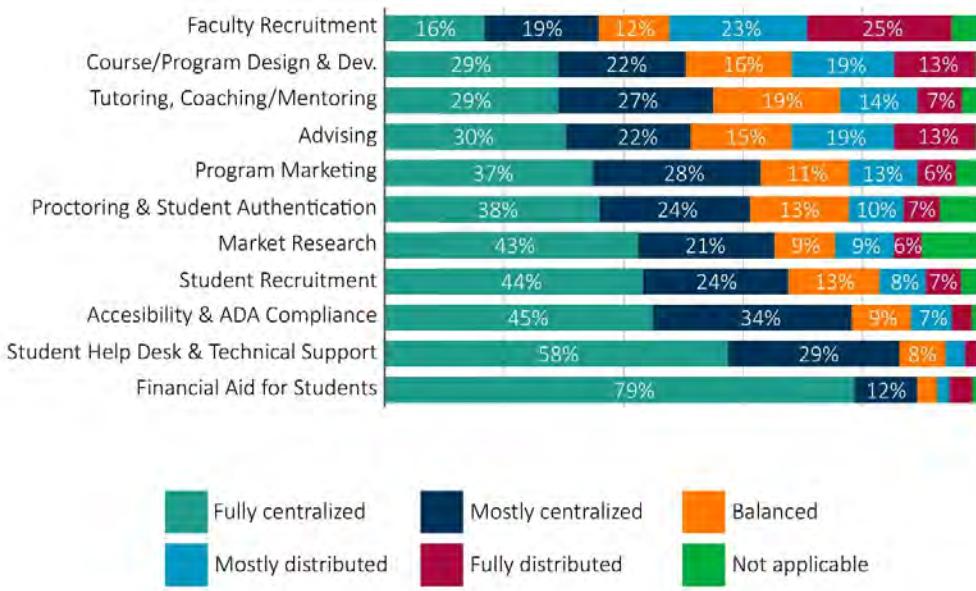
Chief online officers expressed quite high confidence in their answers to the questions in this section of 4.15 out of a maximum of five. This was the highest relative confidence across the four main sections of the CHLOE 7 Survey. Notably, this section was also the least data dependent, relying more on COO opinions and perceptions.

III. ONLINE LEARNING SERVICES

CHLOE 7 inquired about the organization of online learning services, such as financial aid, student tutoring, and marketing. As online learning grew in popularity pre-pandemic, institutions grappled with how best to accommodate the modality. Should particular online services be centralized or left to academic departments? For campus-based schools, are online functions sufficiently similar to campus ones to recommend integration, or are some online services better handled by separate units? A third dimension is whether a service is offered in-house or contracted with a third party.

Questions of relative centralization and integration were asked in the CHLOE 4 survey in 2019, offering a vantage point to gauge shifts over time. Figure 5 shows relative centralization, judged by COOs, for 11 online learning services. The chart is ordered by the least-centralized service at the top (faculty recruitment) to the most centralized (financial aid).

**Figure 5. Centralization vs. Distribution of Online Student Services
(Sample = 268)**

Service	Fully centralized	Mostly centralized	Balanced	Mostly distributed	Fully distributed	Not applicable
Faculty Recruitment	16%	19%	12%	23%	25%	
Course/Program Design & Dev.	29%	22%	16%	19%	13%	
Tutoring, Coaching/Mentoring	29%	27%	19%	14%	7%	
Advising	30%	22%	15%	19%	13%	
Program Marketing	37%	28%	11%	13%	6%	
Proctoring & Student Authentication	38%	24%	13%	10%	7%	
Market Research	43%	21%	9%	9%	6%	
Student Recruitment	44%	24%	13%	8%	7%	
Accessibility & ADA Compliance	45%	34%	9%	7%		
Student Help Desk & Technical Support	58%	29%	8%			
Financial Aid for Students	79%	12%				

Legend: Fully centralized · Mostly centralized · Balanced · Mostly distributed · Fully distributed · Not applicable

© Eduventures Research and Quality Matters, 2022

Most services lean centralized. Only one area – faculty recruitment – is reported to be majority decentralized or balanced. More administrative or externally regulated services, such as financial aid and accessibility, exhibit greater centralization. Services concerned with academics, notably faculty recruitment, course/program development, tutoring and advising, are least centralized.

At the same time, Figure 5 highlights that there is no universal approach to the organization of any of these 11 services. In every case, there are examples of "fully centralized" and "fully distributed," and combinations in between. Some schools see an advantage in aligning online services with institutional culture: If a certain service is managed by academic departments, for example, the best way to seed that service for online students may be to go with the grain. Other schools take the opposite view: prioritizing cultural alignment may minimize tensions but may also stymie innovation or perpetuate subpar practices. Local circumstances have a big role in decision making. It is rare for any of the 11 online learning-related services to not be offered. Exceptions were some small institutions with very nascent online operations. Market research was most likely to not be offered (12% of the sample).

How do centralization versus decentralization patterns vary by sector and online enrollment scale? There were minimal differences by sector. Two-year schools were somewhat more likely to cite above-average centralization for academic-related services, which may reflect less marked distinctions between faculty and administration compared to many four-year schools.

By size, the schools with the largest online headcount pre-pandemic exhibited below-average "fully centralized" ratios in more academic service areas, but above-average in more administrative realms. This is consistent with inclusion of many sizable campus-based public universities in the high-online enrollment (high-OE) category where online scale has been attained through the decentralized efforts of academic departments as much as enterprise coordination. The small number of fully online schools in the sample, by contrast, exhibit above-average services centralization.
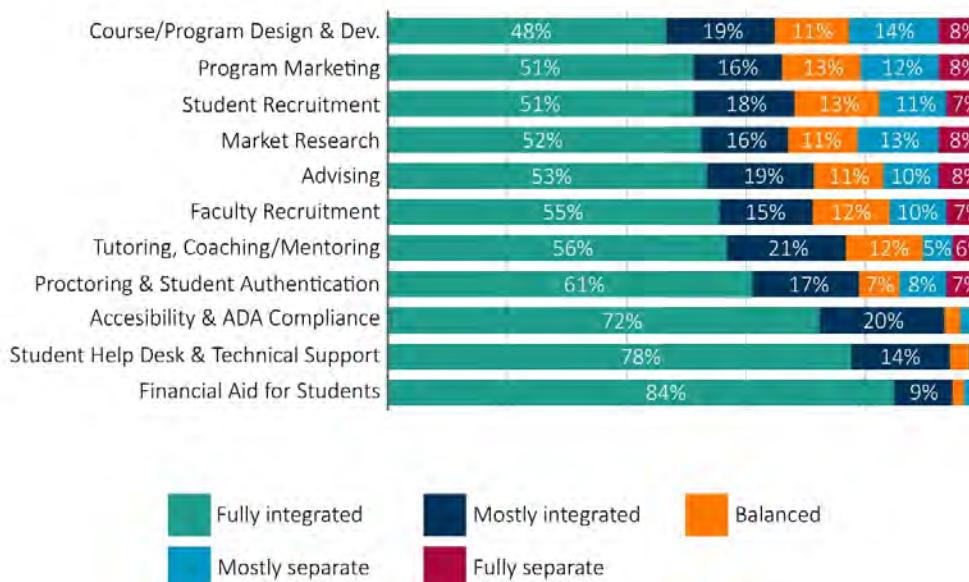
How does Figure 5 compare to responses to the same question in CHLOE 4 back in 2019? There is evidence of greater centralization over time. Help desk/technical support, marketing, and student recruitment all edged further in favor of centralization by eight percentage points or more. But some

services moved in the other direction, such as tutoring and faculty recruitment. It is to be expected that the pandemic may have rationalized greater centralization of certain services. Equally, in the rush to effect emergency remote learning at scale, localized workarounds and trade-offs were also common. As the pandemic fades, elements of centralization and decentralization remain.

The growing scale and influence of online learning, and increasingly blurred lines between "campus" and "online" students, favors more centralization over time. Respondents to CHLOE 4 (from 2019), on average, associated greater centralization with superior online student support and enhanced efficiency. But institutional culture and service specifics will remain important in determining optimal organization.

The second online services dimension considered in CHLOE 7 is relative integration (Figure 6). The chart is ordered from the least-integrated service at the top (course/program design and development) to the most integrated (financial aid).

**Figure 6. Degree of Integration vs. Separation of Services for Online Students
(Sample = 238-266)**

© Eduventures Research and Quality Matters, 2022

Integration is more common than centralization. No service in Figure 6 exhibits a majority distributed profile. The lowest fully/mostly separate ratio, for course/program design and development, is 67%. The highest, financial aid, is 93%. The same association pertains: More administrative and externally regulated services post the highest integration ratios whereas more academic services post the lowest.

Faculty recruitment, tutoring, and advising fall in the middle of Figure 6, suggesting that most schools see few meaningful differences in serving on-campus and online students, not least because many students have both labels. These services may be more decentralized than average but online students are served in the same way on-campus students are.

Course/program design and development, program marketing, student recruitment, and market research are least integrated. Online course/program design and development often involves teams of professionals, templates, and third-party standards, arrangements quite different from how campus courses are organized at many schools. Getting online production off the ground convinced many institutions to create dedicated units, working with but separate from academic departments. The fact that online programs target distinct student populations, such as adult learners, and geography matters

less, helps explain why market research, marketing, and recruitment are less integrated than average. Peer groups and competitor sets sometimes vary by modality, necessitating special attention.

As with relative centralization, two-year schools were more likely than average to cite tutoring and advising as "fully integrated." The same was true for online course/program design and development, market research, marketing, faculty recruitment, and student recruitment. Community colleges have considerable experience with online learning and embody fewer academic vs. administrative sensitivities. Both factors favor online services integration.
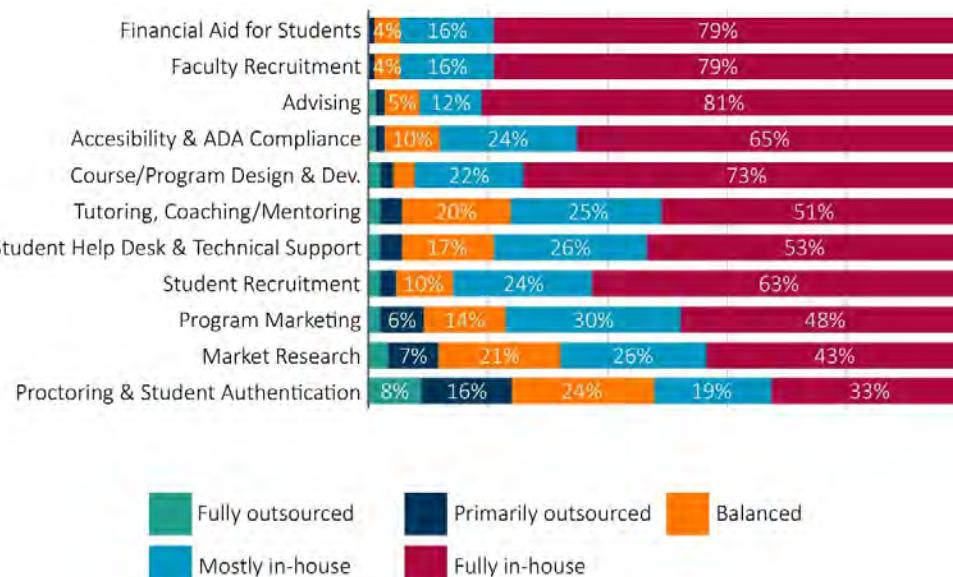
High-online enrollment schools, with more than 7,500 online course and program students, exhibited the least services integration, on average. This fits the reduced centralization ratios noted above for many large public schools. Of course, the integration question does not apply at fully online schools.

Compared to CHLOE 4 (2019), all online services in Figure 6 grew more integrated over time. The biggest gainers (five-to-10 percentage points) were proctoring, tutoring, accessibility, help desk/technical support, and marketing. As online learning continues to scale and normalize, schools will see greater merit in services integration. Efficiency and cost savings will be factors, but, in ever more schools, the fading "separateness" of online will be the overriding integration rationale.

What about outsourcing? The higher education press often writes about partnerships between universities and online program management (OPM) companies, as well as the plethora of edtech products and services in the market, from proctoring to tutoring. Coverage often implies that such alliances are the norm. Prior CHLOE surveys did not ask about online services outsourcing, so historical benchmarks are not available. Future CHLOE surveys will revisit this issue.

Figure 7 divides the CHLOE 7 sample by online service and extent of outsourcing, ordered from the service delivered most in-house (financial aid) at the top to most outsourced (proctoring). A subsequent question deals with OPM relationships, specifically. This question noted both third-party products and services that an institution uses. (A later question sought to distinguish between the two). Figure 7 suggests that most institutions run all 11 services wholly or primarily in-house. This is a testament to the maturity of online operations at many schools and the limitations of external offerings. It is hard to imagine an online operation at an institution that was both significant and primarily outsourced.

**Figure 7. Outsourcing Online Student Services
(Sample = 248-266)**

© Eduventures Research and Quality Matters, 2022

Just three services (proctoring, market research, program marketing) reported a majority of the CHLOE 7 sample with at least a measure of outsourcing. Proctoring and market research are the only online learning services where a double-digit proportion of respondents cited majority outsourcing. The rush to organize emergency remote learning in the early weeks of the pandemic explains the prominence of proctoring, an online function most schools lacked at any scale and a segment with an established stable of vendors.

Resorting to third parties for market research is a matter of expertise and objectivity. As the online program market has grown more crowded, schools put a premium on disinterested advice about which programs to launch, which to cut, and how best to position a portfolio. Online program marketing is driven by similar motivations, as schools search for an edge in terms of creative, search engine optimization, and lead management. The rise of B2B companies that market schools to a select group of enterprise clients—aiming to lower student acquisition costs—are a variation on the theme.

In the middle of the pack are student recruitment, tutoring, and help desk/technical support, where large minorities of the sample point to some level of outsourcing. Online student recruitment sustains the same logic as program marketing: the value of specialized expertise and productivity in a crowded market where marketing expenditures and response time favor the largest schools. Tutoring is close to the academic core but is a function few institutions operate systematically or online at scale. A mature cadre of external providers exists, touting 24/7 coverage and economies of scale that institutions are hard pressed to mount alone. Help desk/technical support is more of a commodity—overlapping with institution-wide tech support—that may be more efficiently and effectively offered by outside specialists.

Online course/program design and development, the fifth-least outsourced service, straddles both academic sensitivities, limiting outsourcing, and unfamiliar territory that many institutions are ill-equipped to handle solo. Third-party design templates, simulation development, and full-course build services can usefully augment faculty and other in-house capabilities.

The four remaining services, those least outsourced, include highly regulated areas (financial aid, accessibility), where institutions may turn to third parties for discrete services, but accountability demands school ownership. Advising may be too institution-specific to attract vendors. In most fields, faculty recruitment may be too much of a buyers' market and average online instructor pay too low to incentivize many companies to come up with an attractive business model.

It is an open question whether the online leaders who reported zero outsourcing excluded products or services other respondents classified differently. In most online service areas, it is difficult to imagine an institutional operation where absolutely everything, from software to services, is developed and executed in-house. The line between online service-specific functionality and enterprise backbone or everyday information technology may be challenging to draw in some instances.
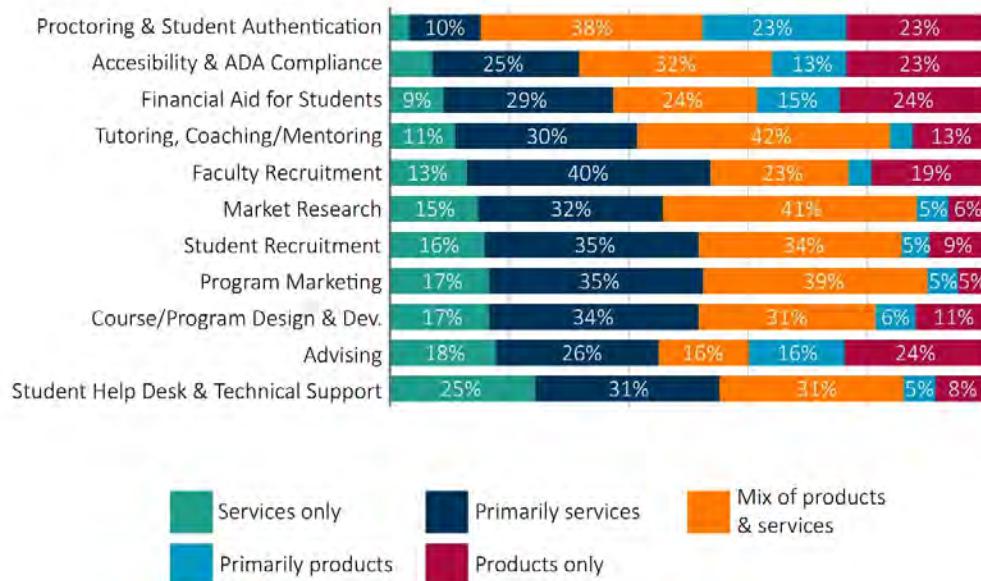
By sector, two-year schools were more likely than average to cite some level of outsourcing for tutoring and related services. This may reflect a less decentralized and sensitive academic culture, and simply greater experience with online learning and a preponderance of online students with support needs. Two-year institutions were less likely to point to third-party market research, program marketing, and student recruitment assistance, consistent with a hyper-local focus.

Private nonprofit four-year schools noted above-average outsourcing of course/program design and development. More recent use of online offerings, often modest in-house resources at smaller schools and a desire to keep online developments separate from institutional norms boosts the appeal of working with third parties.

Schools with larger online enrollment were most likely to cite extensive outsourcing of proctoring and student authentication services, evidence of the challenge of managing such services in-house at scale. However, the larger the online enterprise, the less reliance on third party course/program design and development services.

For online leaders that cited outsourcing, a follow-up question inquired about the mix of third-party products and services. Figure 8 shows the breakdown.

Figure 8. Outsourcing Support for Online Students: Products, Services, or Both?
(Sample = 52–162)

© Eduventures Research and Quality Matters, 2022

The more services-centric outsourcing cases, such as help desk, course/program design, and advising, speak to the interpersonal and qualitative fundamentals of such functions, with any software in a generic or supporting role. The same is true, to a lesser extent, for program marketing, student recruitment, and market research. At the other end of the spectrum, the most product-centric outsourcing is concentrated in more technical, quantifiable, and automatable functions, such as financial aid, accessibility, and proctoring/student authentication.

Of course, the line between products and services is often artificial, and many companies package the two. Hence the often plurality of responses that cited product-service combinations. In most cases, the outsourcing samples by service were too small to admit reliable comparisons by sector or online enrollment scale.

The final outsourcing question in the CHLOE 7 Survey concerned contractual details, asking whether particular third-party partnerships (by function) were fee-for-service or revenue share. This distinction, most associated with OPMs, is one way of judging partnership incentives and institutional needs. Revenue share, typically premised on a bundle of services to comply with federal incentive compensation restrictions, implies the deepest partnership where the company "wins" based on the institutional performance its service helps shape. Institutions tend to like this model insofar as it addresses in-house capability limitations and offers a jump-start in the online market anticipated to justify giving up a significant portion of online revenue. Fee-for-service, on the other hand, is a more conventional arrangement where the company gets paid for services rendered rather than ultimate outcomes. Fee-for-service is the norm at schools with mature in-house operations.

Table 2 summarizes the results for the 264 schools that completed this part of the survey.

Table 2. Fee-for-Service Much More Common Than Revenue Share
(Sample = 264)

Outsourced Type/Function (from highest to lowest incidence)	Fee-for-Service % (% 2+ partners)	Revenue Share % (% 2+ partners)	TOTAL- % (any outsourcing)
Market research	31% (11%)	5% (1%)	36%
LMS management	30% (2%)	3% (1%)	33%
Help desk	25% (2%)	3% (<1%)	28%
Student recruitment	17% (3%)	9% (2%)	26%
OPM bundle	6% (<1%)	12% (1%)	18%
Student advising/ retention	7% (<2%)	5% (<1%)	12%

© Eduventures Research and Quality Matters, 2022

More than half the sample (59%) cited one (or occasionally more than one) external contract in the six service areas or bundles in Table 2. The most common was market research, mentioned by 36% of schools, then LMS management at 33%, and help desk at 28%. Fee-for-service is much more common, as expected, than revenue share, which is largely confined to OPM relationships. Most of the revenue-share partnerships posted beyond the "OPM Bundle" category are thought to concern discrete services within such a bundle rather than distinct revenue-share arrangements in their own right. This is both a matter of staying on the right side of the incentive compensation rules, which necessitate a service bundle if revenue share is used, and the difficulty of attributing revenue to a third party that supplies only a very limited portion of online operations.

The combined OPM ratio—18% of the CHLOE 7 sample say they work with such a company—is in line with prior CHLOE surveys and Eduventures analysis of the OPM market. The fact that this ratio has not increased noticeably compared to CHLOE 6 (2021) and CHLOE 4 (2019) is consistent with other data (from LISTedTECH, an Eduventures data partner) that shows a marked slowdown in new OPM contracts in 2021. Based on Table 2, about two-thirds of OPM contracts are revenue share, and one-third are fee-for-service. The latter is in the ascendent as institutional online capabilities grow.

The outsourcing-active portion of the CHLOE 7 sample was too small to allow reliable breakdowns by sector and online enrollment size.

IV. ONLINE STAFFING LEVELS

TREND QUESTION: Staffing Levels of Instructional Designers, Educational Technologists, Advisers

The CHLOE 7 Survey included questions about a number of instructional designers (IDs), educational technologists (ETs), and student advisers employed by or otherwise available to institutions to support online learning efforts. These three types of professionals are often central to online operations, but there

is little cross-institutional data on numbers and trends. Many chief online officers (COOs) might find it helpful to know the average number of instructional designers, say, employed at a school of similar type or similar scale of online learning development or aspiration. The survey asked online leaders to also assess the perceived adequacy of ID, ET, and adviser numbers at their institutions.

We acknowledge several limitations to the staffing data provided below. First, while the CHLOE Survey concerns online students, we recognize that IDs, ETs, and advisers may also serve other types of students. Second, while the three areas chosen are key functions for online program success, we are aware that institutions employ other types of professionals in service of online learning. CHLOE 7 focused on IDs, ETs, and advisers. Future CHLOE surveys may inquire about other roles.

For IDs, ETs and advisers, respectively, online leaders were asked to report the number of full-time equivalent employees at their institutions, distinguishing those budgeted centrally versus those budgeted by colleges or departments. Respondents were also asked to count any outsourced professional capacity. To judge pandemic impact, the survey asked about two points in time: Fall 2019 and Fall 2021.

The tables in this section use medians as the best guide to cross-institutional trends, controlling for the influence of a handful of institutions that reported an atypical (100+) number of IDs, ETs and/or advisers. Table 3 presents the proportion of schools reporting any IDs, the median, and the 25th and 75th percentiles in Fall 2019 and Fall 2021. The vast majority of institutions reported IDs in Fall 2019: 87%. The mean number of total ID FTEs was just two (five at the 75th percentile).

Table 3. Total of FTE Instructional Designers Up 20% between 2019 and 2021
(Sample = 266)

ID Type & Year	Median (% Report ID FTEs)	25th Percentile	75th Percentile	TOTAL (growth from 2019)
IDs- Central(Fall 2019)	2 (83%)	1	4	**942**
IDs- Central(Fall 2021)	2 (88%)	1	5	**1,128** (+20%)
IDs- Local (Fall 2019)	3 (18%)	1	6	**375**
IDs- Local (Fall 2021)	3 (20%)	1	8	**455** (+21%)
IDs- Outsourced (Fall 2019)	1 (10%)	1	4	**161**
IDs- Outsourced (Fall 2021)	1 (14%)	1	5	**189** (+17%)
TOTAL (Fall 2019)	2 (87%)	1	5	**1,478**
TOTAL (Fall 2021)	3 (94%)	1	6	**1,772** (+20%)

© Eduventures Research and Quality Matters, 2022

Centrally-budgeted IDs were by far the most common type. As of Fall 2019, the highest number of ID FTEs budgeted centrally was 100, and 83% of the sample reported at least 0.5 FTE such staff budgeted centrally (median of two). The highest number of ID FTEs budgeted locally was 100, but the majority of respondents (82%) reported zero. The median number of ID FTEs budgeted locally, among schools that reported any, was three. Outsourced ID FTEs were least common: only 10% of schools reported any. The highest number of outsourced ID FTEs was 80, and the median (among schools that reported any outsourced IDs) was one.

Total reported ID FTEs increased by 20% by Fall 2021, and the proportion of respondents reporting IDs grew to 94%. Pandemic-induced "emergency remote learning" explains this rapid increase but fell far short of the dramatic growth in "online" students during the crisis.

The median number of total ID FTEs grew from two to three between 2019 and 2021, and from five to six at the 75th percentile. All three types of IDs (centrally budgeted, locally budgeted, outsourced) increased over the period at about the same rate.

The number of ID FTEs tracked with institutional type and online enrollment scale. The median number of total ID FTEs at public four-year schools was four in Fall 2019, two for private nonprofit four-year, and 1.5 for public two-year schools (versus two for the sample as a whole). This suggests alignment with resources as well as scale. At schools with more than 7,500 fully or partly online students in 2019, the median number of total ID FTEs was 10. But there was no neat correlation between number of IDs and online student volume: some schools reported more IDs than online student headcount might suggest and others the opposite. Even among schools with larger online student headcount, four-year institutions tended to report higher ID totals than two-year schools.
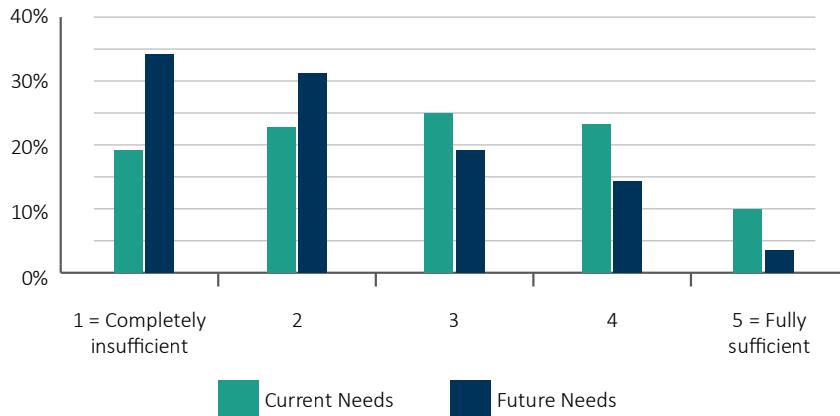
Public two-year schools reported above-average ID growth between 2019 and 2021 (up 33%). Schools with low-online student headcount posted the fastest ID FTE growth (over 50%).

Diverse approaches to online course development and inconsistent definitions of who counts as an ID no doubt play a role in the data.

When asked to characterize the source of the ID figures, 77% of online leaders identified "comprehensive institutional data," 8% said "partial" data, and 14% relied on an estimate. Public two-year schools were most likely (87%) to report comprehensive data, and schools with high-online student headcount—often comprehensive institutions with decentralized online efforts—least likely (55%).

Only 10% of online leaders said that ID capacity as of Fall 2021 was "fully sufficient" for present needs, and only 3% judged it to meet anticipated needs (Figure 9). Given COOs' projection of significant further growth in online enrollment, insufficient instructional design staffing may be one of online learning's most serious long-term vulnerabilities.

Figure 9. COOs Express Concern About Present and Future Instructional Design Capacity (Sample 268)

© Eduventures Research and Quality Matters, 2022

On current needs, the sample is widely distributed, but the majority of schools do not judge their ID capacity to be adequate. There is perceived greater insufficiency when anticipated needs are considered. There were few significant differences by sector. Schools with high online headcount were moderately more content with ID capacity.

Educational technologists (ETs) are next. Table 4 presents the proportion of schools reporting any ETs, the median, and the 25th and 75th percentiles in Fall 2019 and Fall 2021.

**Table 4. Total of FTE Educational Technologists Up 24% between 2019 and 2021
(Sample = 266)**

ET Type & Year	Median (% Report ET FTEs)	25th Percentile	75th Percentile	TOTAL (growth from 2019)
ETs- Central (Fall 2019)	2 (79%)	1	3	**778**
ETs- Central (Fall 2021)	2 (84%)	1	4	**875** (+12%)
ETs- Local (Fall 2019)	3 (17%)	1	6	**281**
ETs- Local (Fall 2021)	3 (20%)	1	4	**435** (+55%)
ETs- Outsourced (Fall 2019)	2 (3%)	1	5	**26**
ETs- Outsourced (Fall 2021)	3 (4%)	1	8	**33** (+27%)
TOTAL (Fall 2019)	2 (82%)	1	3	**1,085**
TOTAL (Fall 2021)	2 (88%)	1	4	**1,343** (+24%)

© Eduventures Research and Quality Matters, 2022

Similar to the instructional designer data, educational technologists are common (82% of sample schools employed or had access to them in 2019), and ETs were, by far, the most commonly centrally-budgeted category. The median number of ET FTEs was two, the same as the ID median. The highest number of centrally budgeted ETs, as of Fall 2019, was 100. The locally-budgeted high was 70, and the outsourced high was 10. But the typical respondent reported zero in both the local and outsourced columns.

By Fall 2021, the total number of reported ET FTEs climbed 24%, somewhat faster than the ID lift of 20% over the same period. Atypical scale or changes at a handful of institutions aside, the underlying trend is similar between the two. Centrally-budgeted ETs grew more slowly than average (from a higher base). Outsourced ETs grew fastest from a small base. Schools with a low-online headcount in Fall 2019 grew ET FTEs faster than average (44%), as did public four-year schools (39%).

Chief online officers were slightly less able to rely on comprehensive institutional data to report ET numbers (70% versus 77% for instructional designers). An estimate was made by 23% of the sample (versus 14% for the ID data). The "educational technologist" role and title may be less standard across institutions, making reporting more difficult.

Opinions about the relative sufficiency of ET capacity to meet current and anticipated needs closely matched responses to the same question posed about instructional designers: The majority of online leaders express at least moderate concern. Compared to IDs, there was somewhat less concern about ET capacity and future needs.

Finally, COOs were asked about advisers and similar support roles (e.g., "counselors" and "coaches") serving online students. "Advisers" encompassed roles supporting both student recruitment and post-enrollment success. A lower proportion (71%) of online leaders counted online advisers (versus 87% and 82% for IDs and ETs respectively) in Fall 2019. But a higher total number of advisers were reported (over 2,200 FTEs, about 30-50% more than the number of ID and ET FTEs). Advisers work directly with students, whereas IDs and ETs liaise primarily with faculty and staff. The median number of advisers per school in 2019 was five. Table 5 breaks down advisers by source and time.

Table 5. Total of FTE Advisers Up 12% between 2019 and 2021
(Sample = 268)

ET Type & Year	Median (% Report Advisor FTEs)	25th Percentile	75th Percentile	TOTAL (growth from 2019)
Advisers - Central (Fall 2019)	4 (62%)	2	8	**1,291**
Advisers - Central (Fall 2021)	4 (59%)	1.5	10	**1,489** (+15%)
Advisers - Local (Fall 2019)	4 (28%)	2	10	**845**
Advisers - Local (Fall 2021)	5 (31%)	2	11	**914** (+8%)
Advisers - Outsourced (Fall 2019)	3 (5%)	2	6	**67**
Advisers - Outsourced (Fall 2021)	2 (7%)	1	5	**75** (+12%)
TOTAL (Fall 2019)	5 (71%)	2	11	**2,203**
TOTAL (Fall 2021)	6 (76%)	2	13	**2,478** (+12%)

© Eduventures Research and Quality Matters, 2022

Like IDs and ETs, most advisers are budgeted centrally by institutions. The typical school has zero locally-budgeted or outsourced advisers. Adviser FTEs grew through Fall 2021 (12%) but at a slower rate than IDs (20%) and ETs (24%). Greater adviser numbers pre-COVID help explain the difference. No doubt capable advising helped students navigate academics during the pandemic; but compared to ID and ET bandwidth, adviser capacity was arguably less fundamental to standing up emergency remote learning. Perhaps institutions were able to redeploy personnel into advising roles relatively easily, something that may have been challenging for more technical ID and ET positions. Centrally-budgeted advisers grew faster than

those budgeted locally or outsourced, despite a higher base. This may point to advisers as more logically a centrally-organized function, emphasizing equity of access among students.

Public two-year and four-year institutions reported the largest gains in adviser FTEs between Fall 2019 and 2021—up 20% and 16%, respectively (sample average = 12%). This is consistent with often larger institutions that may be more likely to rely on formal advisers to better manage scale and disruption. Private schools and those with low online enrollment posted the lowest adviser medians and slowest growth. Insofar as the "adviser" definition extended to student recruitment as well as post-enrollment support, it is not surprising that schools with lower online enrollment presented fewer staff in such roles.

Adviser numbers were least dependent on comprehensive institutional data: Only 49% of COOs relied on this source, compared to 70%+ for IDs and ETs. An estimate was made by 41% of the sample (versus less than 25% for IDs and ETs). A wider definition, range of roles, and title inconsistency made COO reporting about advisers more tentative, despite marked centralization.

Perceived sufficiency of adviser capacity resembles the COO take on the same question for IDs and ETs: About two-thirds express concern with respect to current needs (as of Fall 2021). Over 80% of online leaders are worried about adviser sufficiency in light of anticipated needs, also aligned with the level of concern about ID and ET numbers. There were no significant differences by sector or online enrollment scale.

Table 6 compares the total number of IDs, ETs, and advisers available to CHLOE 7 respondent institutions in Fall 2019 and Fall 2021.

**Table 6. Instructional Designers, Educational Technologists and Advisers: 2019 and 2021
(Sample = 266 – 268)**

| Staff Type & Year	% Report ID FTEs (median)	25th Percentile	75th Percentile	TOTAL (growth from 2019)
IDs - Fall 2019	87% (2)	1	5	**1,478**
IDs - Fall 2021	94% (3)	1	6	**1,772** (+20%)
ETs - Fall 2019	82% (2)	1	3	**1,085**
ETs - Fall 2021	88% (2)	1	4	**1,343** (+24%)
Advisors - Fall 2019	71% (5)	2	11	**2,203**
Advisors - Fall 2021	76% (6)	2	13	**2,478** (+12%)
Total – Fall 2019	9			**4766**
Total – Fall 2021	11			**5593** (+17%)
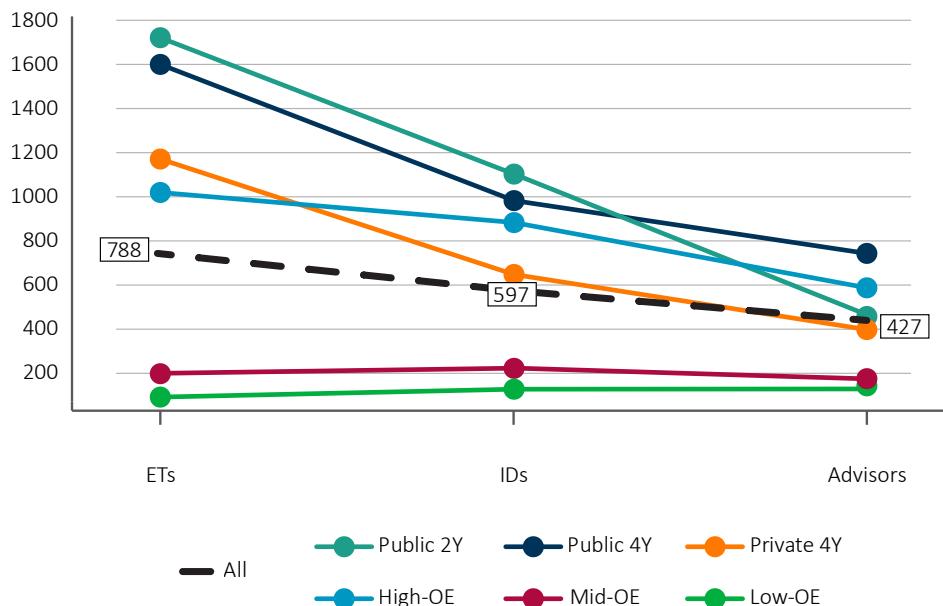
© Eduventures Research and Quality Matters, 2022

Table 6 underscores that IDs, ETs, and advisers are employed or otherwise available at most institutions but typically in small numbers. The pandemic fueled what was likely faster-than-average growth for all three roles but nowhere near the pace of "online" course deployment and enrollment momentum during

the crisis. This may point to wage and budget constraints, factors only made worse by the current rate of inflation.

Figure 10 shows the number of fully or partly online students per ID, ET, and adviser totals reported in the CHLOE 7 Survey. Fall 2019 IPEDS enrollment data were used as a proxy for underlying online learning scale, distinct from pandemic-induced emergency remote learning. For staffing, Fall 2021 figures were used, indicative of current institutional capacity post-pandemic.

**Figure 10. Ratios of Online Students to Online Staff
(Enrollment in 2019 to Staffing in 2021)**

© Eduventures Research and Quality Matters, 2022

How to read Figure 10? The lower the position on the y-axis, the greater the staff capacity per student. For example, for the CHLOE 7 sample as a whole, there were 788 online students (headcount) per ET, 597 per ID, and 427 per adviser.

Economies of scale are visible: Schools with 7,500+ fully or partly online students (high OE) exhibit much higher student-to-staff ratios than mid- and low-online enrollment schools. The gaps were most marked for ETs. By sector, differential priorities are also evident. Public two-year institutions, for example, report almost 1,800 online students per ET and 1,200 per ID, but average ratios for advisers. Private four-year schools present as most staff-intensive, with on average five times as many ETs per student as public four-year institutions and nine times as many as public two-year schools. Of course, insofar as IDs, ETs, and advisers also serve non-online students, the number of students per staff member is higher than the above numbers suggest.
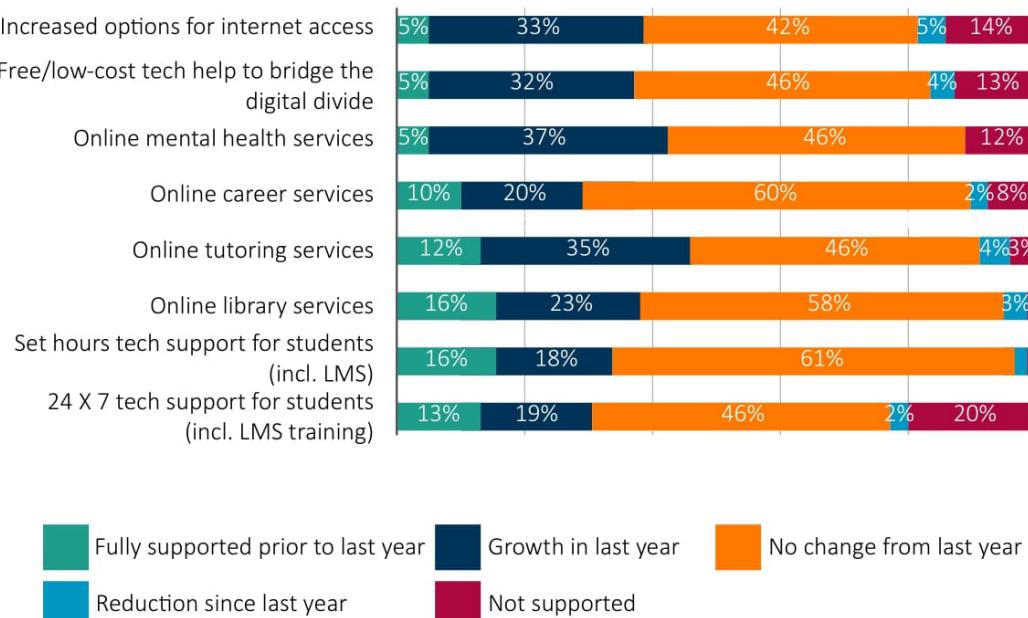
Chief online officer concern about ID, ET, and adviser capacity today and going forward and in light of COO predictions of a much bigger role for online learning as soon as 2025, suggests many schools are looking to scale up further. Is this realistic? Burgeoning hybrid and online demand may lead to more ID, ET, and adviser hires, but alternatives may also get more attention. If colleges cannot compete with private-sector wages, or the ID/ET pipeline fails to keep up with demand, COOs will need to rely more on course-design templates and automated advising. Growing faculty comfort and independence online may also be a viable means to manage suboptimal numbers of specialized staff. Figure 10 suggests that economies of scale are possible, particularly for IDs and ETs. The CHLOE 7 data offer a valuable baseline from which to track online learning staffing going forward.

V. STUDENT SUPPORT

Traditionally, higher education institutions have provided support to their students in a variety of areas. The impact of the pandemic was a catalyst for development of additional types of support and/or the expansion of how the institution delivered support in new ways to students who might not be able to access resources in person or according to an institutional schedule.

CHLOE 7 examined nine categories of student support and whether they are growing, stable, shrinking, or not supported. COOs were asked about the resource commitments, which included staffing, staff time, and third-party support.

**Figure 11. Resources Dedicated to Student Support
(Sample = 283)**
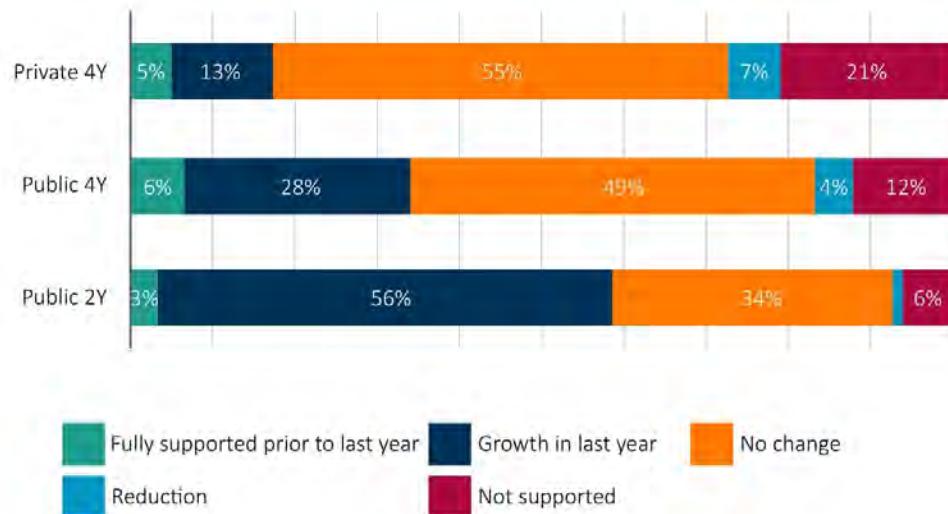
© Eduventures Research and Quality Matters, 2022

In all areas, COOs were most likely to report no change (about the same as last year) in resources for these services. However, a significant number (18-37%) of COOs did report growth in these support services for students. Given the impact of the pandemic on the health and well-being of students and their families, it is no surprise that online mental health services had the highest rate of growth at 37%. Online tutoring services, increased options for internet access to combat the digital divide, and free/low-cost technology to help combat the digital divide were also growth areas for additional resource commitments this past year. It should also be noted that a very small percentage (5% or less) of COOs reported reductions in support for these services.
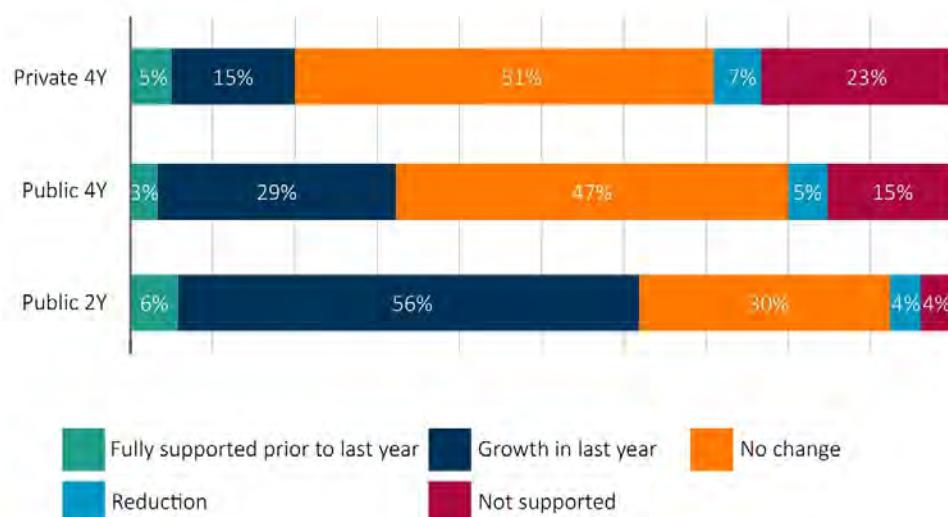
These findings were consistent across higher education sectors, with two exceptions. It seems that public two-year schools were more likely to report growth in free/low-cost technology to help combat the digital divide and increased options for internet access to combat the digital divide as indicated in the following charts (Figures 12 and 13). It is not surprising that public two-year institutions, with a long history of supporting students in their communities and a tradition of open enrollment, emphasized investments in these areas related to enhancing access.

**Figure 12. Investment in Student Technology to Shrink the Digital Divide
(Sample = 279)**
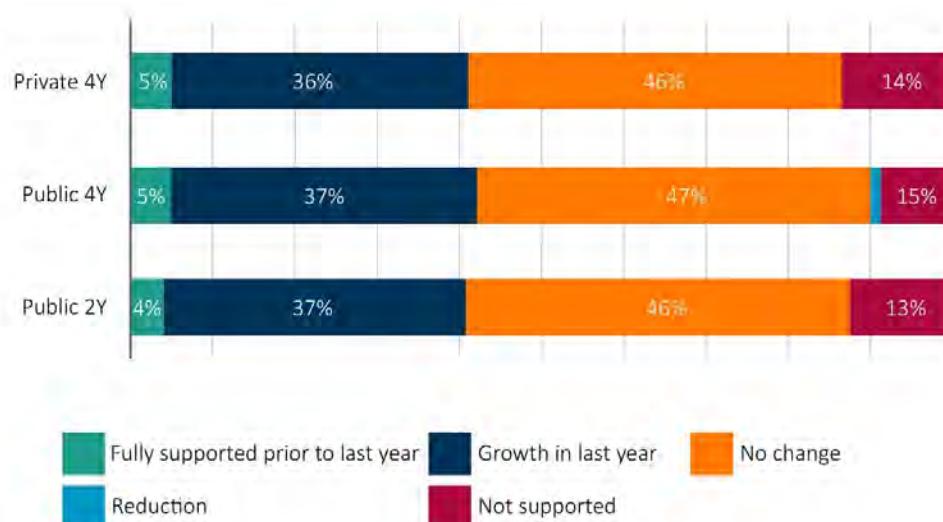
© Eduventures Research and Quality Matters, 2022

**Figure 13. Investment in Options for Student Internet Access
(Sample = 279)**

© Eduventures Research and Quality Matters, 2022

Looking at student support through the lens of online enrollment, there was consistency of responses across most of these service areas. In one case, there was a subtle difference. Not one of the larger (more than 7,500) enrollment institutions reported that they did not provide online mental health services (Figure 14).
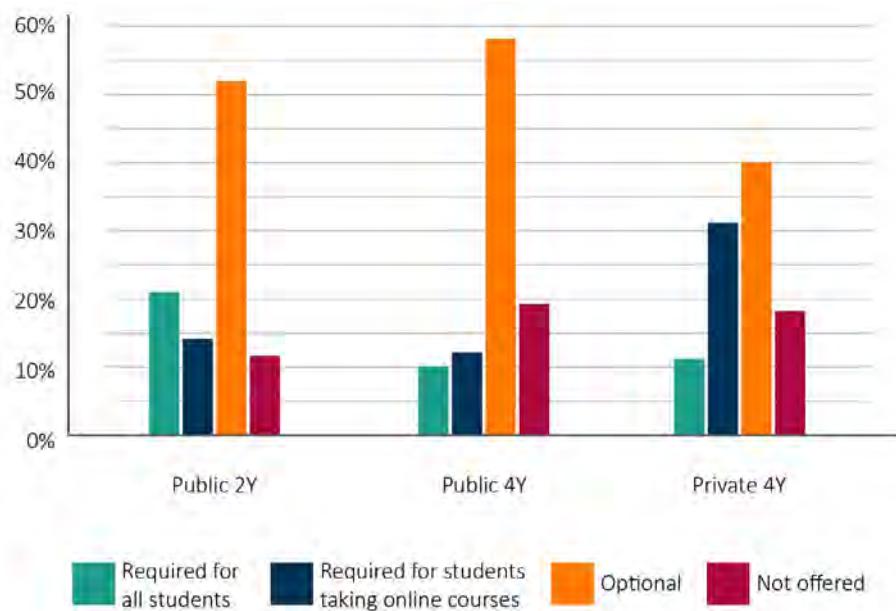
**Figure 14. Investment in Student Mental Health Services
(Sample = 279)**

© Eduventures Research and Quality Matters, 2022

CHLOE 7 also asked COOs about institutional efforts to support student readiness for online learning. The vast majority of schools (84%) provided stand-alone online student orientation, an online orientation module embedded in an online course (75%), and/or LMS/technology training (88%). However, fewer institutions made this a requirement. An optional approach was, by far, the most cited response (Figures 15-17). Reasons cited by COOs included difficulties with administrative oversight for required orientation, as well as potential pushback from campus-based students who might not feel that an online learning orientation was relevant to their needs.
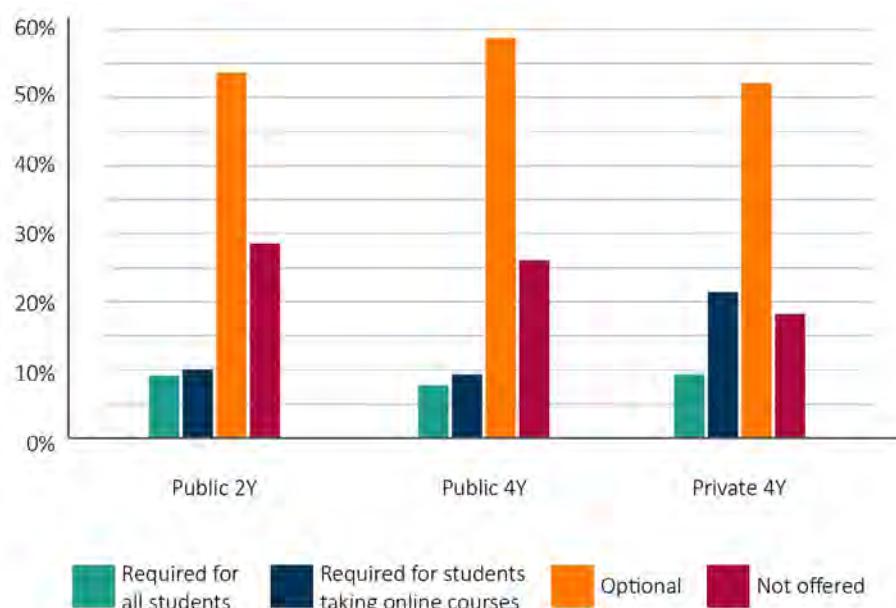
Exploring requirements to prepare students for online success based on the sector showed some variation. If we combine institutions that require online orientation of all students and all those taking online courses or programs, private four-year institutions were marginally more inclined to require these services compared to public two- and four-year institutions. Conversely, they were the least likely, overall, to make this support optional or not to provide it at all.

**Figure 15. Online Learning Stand-Alone Courses/Workshops
(Sample = 279)**
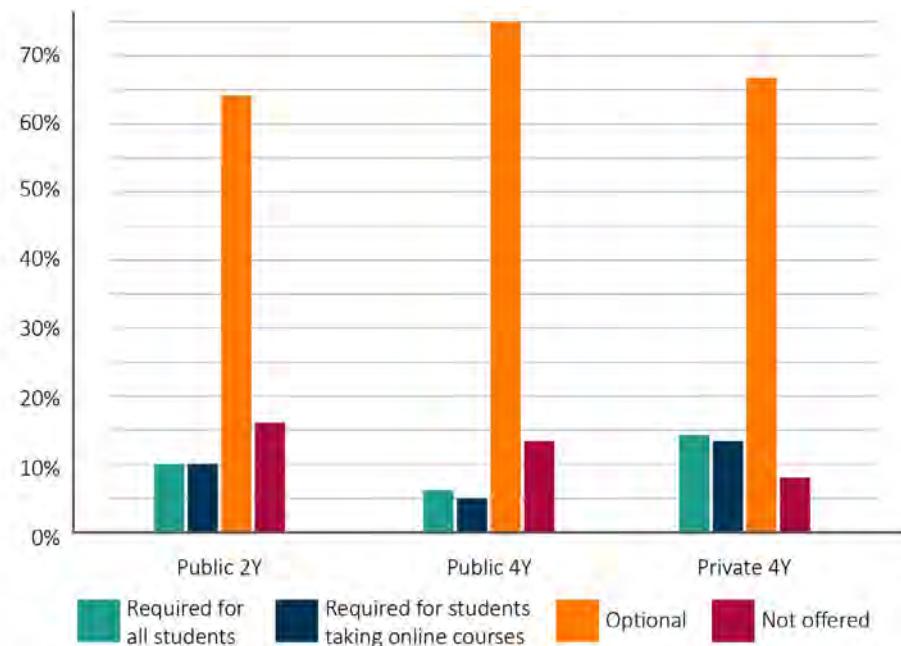
© Eduventures Research and Quality Matters, 2022

**Figure 16. Online Learning Modules Embedded in Online Courses
(Sample = 279)**

© Eduventures Research and Quality Matters, 2022

**Figure 17. Student Training Focused on Use of the LMS/Technology
(Sample = 279)**

© Eduventures Research and Quality Matters, 2022

Analyzing the data based on online enrollment did not reveal any major differences. The lower-enrollment institutions were slightly more inclined to require these services compared to the larger-enrollment schools, but the dominant approach across all online enrollment sizes was optional services for student readiness.
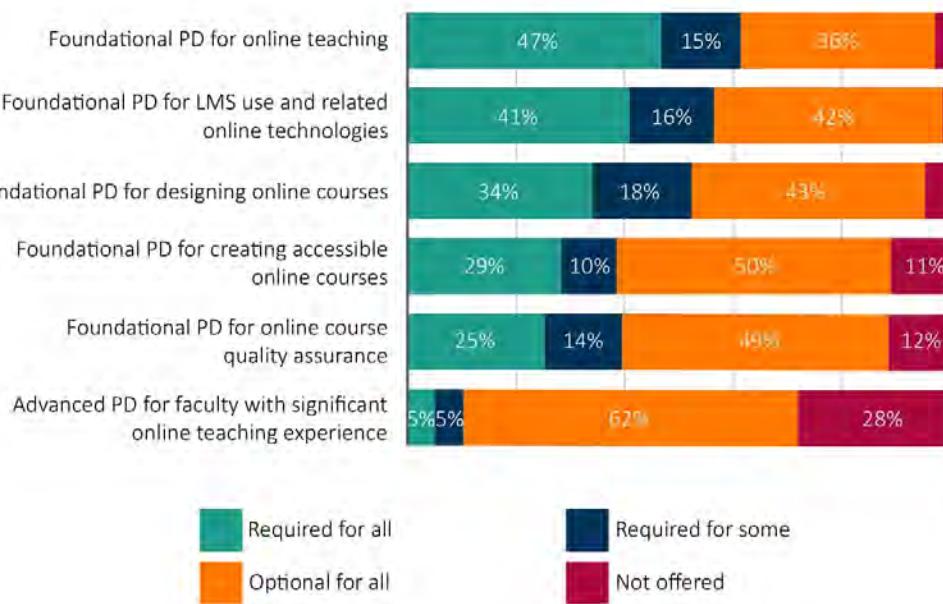
If institutions are committed to their plans for a transition to a more hybrid campus, as noted in the beginning of this report, they may need to reflect further on their approach to student services. With the ultimate goal of students being successful, it would seem prudent to ensure all students are able to navigate the new hybrid campus. A more comprehensive approach to what is offered, and requiring these student services, may be an important component of institutional strategies going forward.

VI. FACULTY DEVELOPMENT AND SUPPORT

Faculty Development Requirements Remain Relatively Stable

In 2021, CHLOE 6 reported that required faculty development for online teaching and learning increased after the pandemic began, and patterns established in 2020 seem to be holding steady for the time being. This year, COOs provided more detailed data for required professional development (PD), separating it into "required for all faculty" versus "required only for some faculty" (Figure 18).

**Figure 18: Faculty Professional Development (PD) for Online Learning: Content and Requirements
(Sample = 311)**

© Eduventures Research and Quality Matters, 2022

Nearly half (47%) of COOs reported that foundational professional development for online teaching was required for all faculty; 15% reported it was required only for some faculty; and 36% reported it as being optional. Only 3% did not offer any professional development for online teaching. Similarly, 41% required professional development for LMS/technology use for all faculty; 16% required it for some; 42% reported the training as optional; and 2% did not offer training in this area.

Faculty development for online course design showed a similar pattern, with 34% of reporting institutions requiring it for all faculty. Foundational professional development for online quality assurance (QA) was optional for nearly half (49%) of reporting institutions, while 25% required online QA training for all. Fourteen percent required it only for some faculty, and 12% reportedly did not offer QA training of any type. Although not a direct comparison, all four categories of online learning faculty development show a modest shift from "optional" to "required" in the past year; for example, CHLOE 6 reported that 46% of institutions had optional PD for online teaching compared to 43% in CHLOE 7.

This year, CHLOE 7 also inquired about faculty PD for creating accessible courses, as well as advanced training for faculty with significant online teaching experience. Half of COOs (49%) reported optional training for creating accessible courses. Twenty-five percent require it for all, 14% for some, and only 12% of reporting institutions do not offer accessibility training at all. A majority of COOs (62%) reported providing optional training at the advanced level for experienced online faculty. For all six PD categories, public four-year institutions are least likely to require faculty professional development, and the most likely to offer it as optional, following the trends noted in previous CHLOE surveys.

Written comments from chief online officers regarding faculty PD provided additional insights. Some COOs explained that they used the "required for some" option to reflect that adjunct faculty are not being required to attend training, or that only individual departments or colleges could mandate training. Other comments revealed that some faculty members are not required to engage with training because they do not teach online. Prior to the pandemic, this may have been seen as a more sensible policy, but in the ensuing post-pandemic era, most institutions now realize that faculty preparation is vital for future unknown emergencies. COOs also reported that now that many of their faculty members are experienced
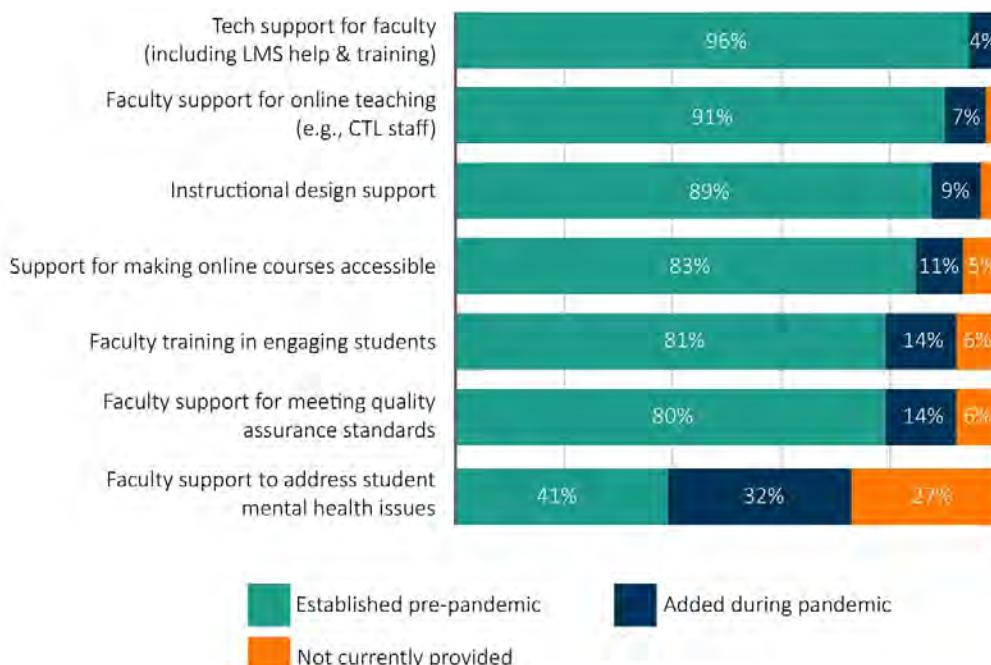
with online teaching, their institutions are requiring professional development only for new faculty. A few chief online officers pointed to a lack of policy related to faculty development or a lack of enforcement of existing policy, suggesting difficulties with policy setting and compliance in this area.

Faculty Supports Increased During the Pandemic

Perhaps because of issues such as those outlined above, institutions are endeavoring to support faculty in other ways, such as offering support for addressing student mental health and wellness, or support for meeting quality assurance standards. Nearly one-third (32%) of schools added student mental health support during the pandemic, whether from within the institution or through a third-party provider, while 41% had established support in this area prior to the pandemic. Whether available pre-pandemic or added during the pandemic, faculty support to address student mental health needs showed the largest growth overall, among all categories of support. A large majority (72%) of institutions reported an increase in this support area since 2020; 47% reported no change in the support provided and only 1% reported a reduction since 2020. However, about a quarter (27%) of COOs reported that their institution does not provide support in this area at all.

While 80% of reporting institutions had established support for meeting both QA standards and engaging online students prior to the pandemic, 14% added support during the pandemic, and only 6% currently do not provide support for either (Figure 19). Support for making online courses accessible was added by 11% of schools during the pandemic; 9% added instructional design support, and 7% added faculty support for online teaching. Technology and LMS support were reportedly already very well established by 91% of institutions prior to the pandemic—only 4% of schools added support in this area during the pandemic.
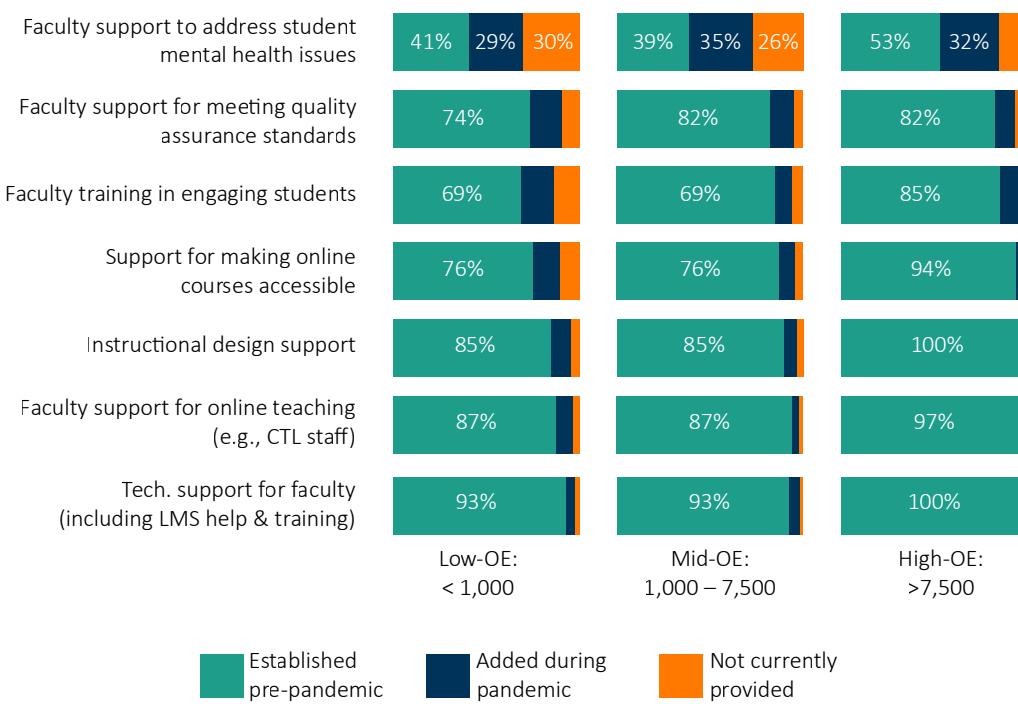
**Figure 19. Faculty Support: Pre-Pandemic Levels and Pandemic Increases
(Sample = 303)**

© Eduventures Research and Quality Matters, 2022

Across all support areas, the majority of institutions reported an increase in faculty support since 2020, with 46% reporting an increase in faculty support for meeting QA standards. Fifty-one percent reporting growth in support for making online courses accessible, for LMS/tech support, and for online teaching; 54% reporting increased support for engaging online students; 58% reporting growth in ID support; and the previously-reported large increase in faculty support for addressing student mental health issues (Figure 20).

Figure 20: Faculty Support: Pre-Pandemic Levels and Pandemic Additions by Low-OE, Mid-OE, High-OE (Sample = 289)

	Low-OE: < 1,000	Mid-OE: 1,000 – 7,500	High-OE: >7,500
Faculty support to address student mental health issues	41% / 29% / 30%	39% / 35% / 26%	53% / 32%
Faculty support for meeting quality assurance standards	74%	82%	82%
Faculty training in engaging students	69%	69%	85%
Support for making online courses accessible	76%	76%	94%
Instructional design support	85%	85%	100%
Faculty support for online teaching (e.g., CTL staff)	87%	87%	97%
Tech. support for faculty (including LMS help & training)	93%	93%	100%

Legend:
- ■ Established pre-pandemic
- ■ Added during pandemic
- ■ Not currently provided

© Eduventures Research and Quality Matters, 2022

Faculty support showed some interesting disparities when responses are broken down by size of online enrollment. In general, fewer institutions with less than 1,000 online students reported support for online faculty development prior to the pandemic, but those lacking these supports responded with greater than average investments during the pandemic. For example, 85% of low-online enrollment (low-OE) institutions reported they had ID support established pre-pandemic, versus 90% of mid-online enrollment (mid-OE) schools (1,000-7,500 online students), and 100% of high-online enrollment (high-OE) schools (more than 7,500 online students). Twelve percent of these low-OE institutions, however, added ID support during the pandemic, in contrast with 7% of mid-OE schools, leaving only 3% of each category not providing ID support. Faculty support for online teaching showed a near-identical picture. In facing a need to enhance faculty online capability across all sectors during the pandemic, low-OE schools had the largest gap to make up, and the data indicate that they did so.
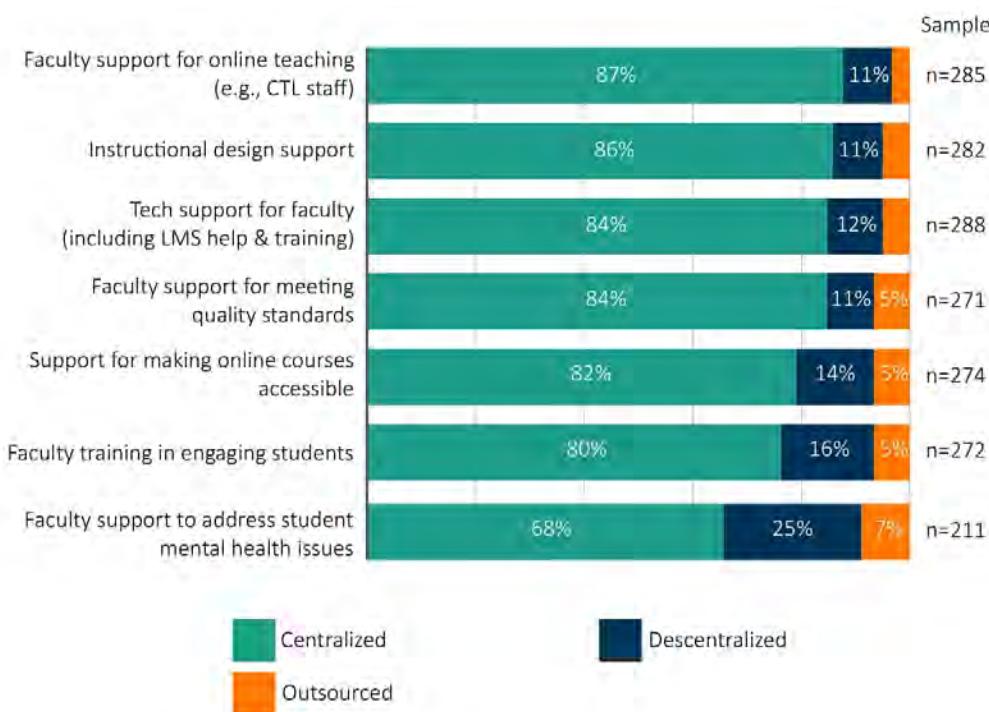
Low-online enrollment institutions are still lagging in some areas of faculty support, however. Ten percent of low-OE schools still do not provide faculty support for making online courses accessible, versus 3% of mid-OE institutions, and 0% of high-OE schools. Thirteen percent of low-OE schools do not provide faculty support in engaging online students, including student-to-student interaction, versus 3% of mid-OE schools and 0% of high-OE schools. Large increases made across all three enrollment categories were also seen in faculty support for meeting quality assurance standards (added during the pandemic by 18%

of low-OEs, 10% of mid-OEs, and 12% of high-OEs). In faculty support to address student mental health issues, an area in which high-, mid-, and low-OE institutions were seriously lacking at the start of the pandemic, mid-OE and high-OE schools more than matched the added investment in low-OE schools. (Twenty-nine percent of low-OEs added support during the pandemic, as did 35% of mid-OEs and 32% of high-OEs.)

For the relatively small number of institutions that do not provide certain support services, budget challenges were cited as the issue for four of the eight schools lacking ID support, four of the five schools that lacked faculty support for online teaching, and the single institution that reported having no technology support. Budget challenges were also the most common issue (47%) for the 17 institutions that had no support for faculty training in engaging online students. For the 18 institutions that indicated no faculty support for meeting quality assurance standards, most (56%) cited "other factors" beyond budget challenges or higher strategic priorities. Comments revealed difficulties with "defining quality," deciding who would review quality (and how), or gaining necessary approval(s) for establishing and evaluating online quality. Faculty support for student mental health was the most common growth area, but also with the largest disparity, with 80 institutions reporting no support in this area. Chief online officer comments revealed that some institutions were unable to find third-party mental health support providers, while many reported that they hadn't yet thought of adding faculty support for this area but should.

Chief online officers also reported adding specific technology, such as technology for campus classrooms that supported faculty members teaching HyFlex or multi-modal courses, web-conferencing software and support for synchronous teaching, and even increased technology support specifically for faculty who continue to teach from home. Other written responses indicated that some institutions focused on faculty mental health and well-being as well, and added new supports to combat stress and burnout. Many comments highlighted increased staffing for institutional teaching centers, as well as increased instructional designer (ID) staff. Comments also pointed to several institutions building on their recent online investments and initiatives by creating resource guides and instructional videos for faculty posting ID office hours, creating online knowledge banks, and more. All of these point to easing faculty access to just-in-time support for a variety of online learning needs.

Chief online officers were also asked to indicate the extent to which faculty support for online learning is centralized, decentralized, or outsourced. For all support areas, the majority of institutions reported a centralized approach; all areas were centralized at the 80% or greater level, with the exception of faculty support to address student mental health issues. COOs reported that this area of faculty support was 68% centralized (Figure 21). Faculty support for addressing student mental health showed the highest level of decentralization (25%), as well as the highest level of outsourcing (7%).
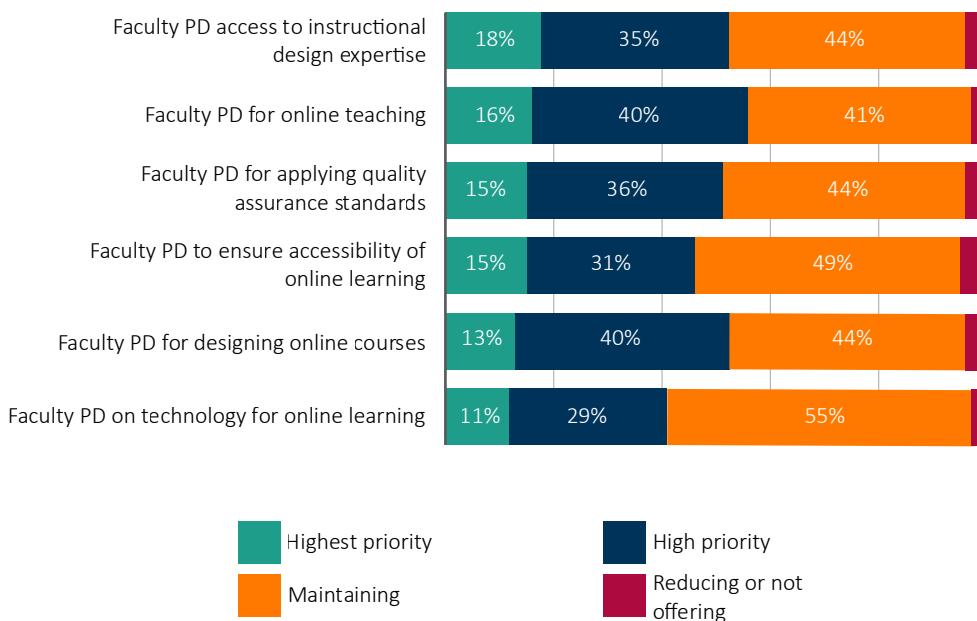
**Figure 21: The Majority of Faculty Support Services Are Centralized**

Sample

Faculty support for online teaching (e.g., CTL staff)	87% / 11%	n=285
Instructional design support	86% / 11%	n=282
Tech support for faculty (including LMS help & training)	84% / 12%	n=288
Faculty support for meeting quality standards	84% / 11% / 5%	n=271
Support for making online courses accessible	82% / 14% / 5%	n=274
Faculty training in engaging students	80% / 16% / 5%	n=272
Faculty support to address student mental health issues	68% / 25% / 7%	n=211

Centralized · Descentralized · Outsourced

© Eduventures Research and Quality Matters, 2022

Further Investment in Faculty Development is a High Priority

Chief online officers were asked, "Going forward, what is the level of investment for specific areas of faculty professional development, as reflected in budget, resource, and/or staff commitments?" (Figure 22). The majority of respondents (56%) rated faculty PD for online teaching as a high or highest priority for further investment. Fifty-three percent said the same for faculty development for online design and faculty access to instructional design expertise, and 51% ranked faculty PD for applying QA standards as a high or highest priority moving forward. A near-majority (49%) of institutions ranked faculty PD to ensure digital accessibility as a high or highest priority for further investment, and 40% reported the same for professional development on online learning technology. For the latter, it is likely that most institutions feel established in this area, and are looking to maintain services, rather than add. Regarding faculty PD to ensure accessibility, it is possible this is a slightly lower priority for faculty development due to outsourcing these needs to a third-party provider, or relying more on open educational resources (OER) that are already accessible.

**Figure 22: Most Faculty Development (PD) Areas Prioritized for Further Investment
(Sample = 289)**
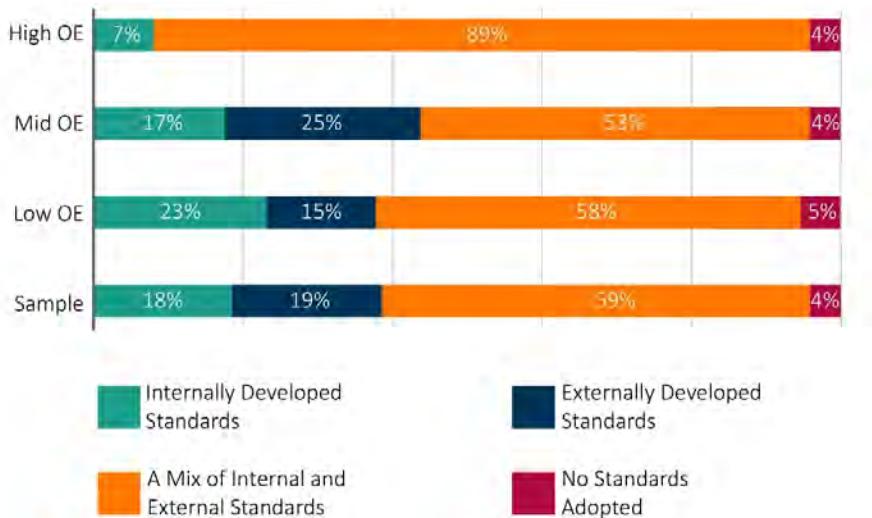
© Eduventures Research and Quality Matters, 2022

VII. QUALITY ASSURANCE

TREND QUESTION: Adoption and Evaluation of Online Quality Standards

Nearly all (96%) of chief online officers reported that their institution had adopted quality assurance (QA) standards for online courses and programs, and the majority (60%) used a mix of internally and externally developed standards (Figure 23).

**Figure 23. Source of Quality Assurance Standards by Low-OE, Mid-OE, High-OE
(Sample = 250)**
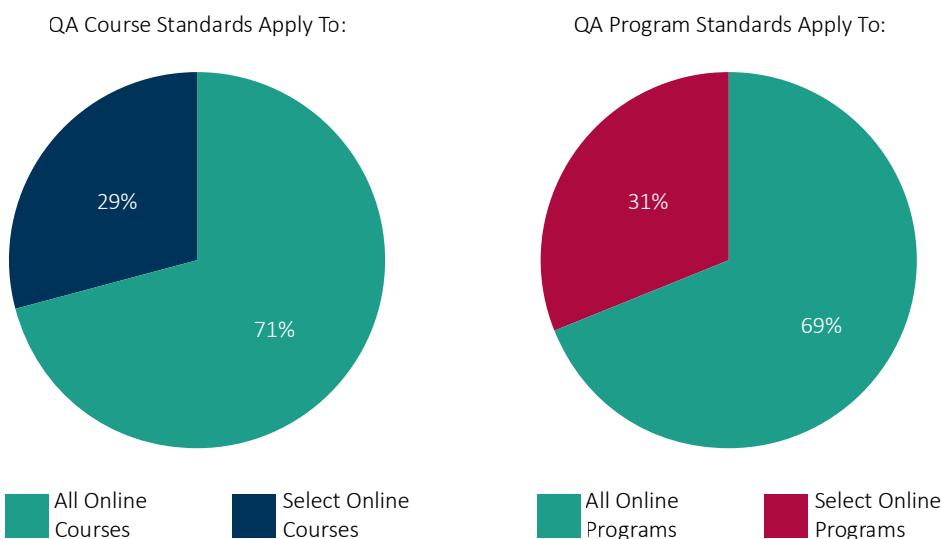
© Eduventures Research and Quality Matters, 2022

A minority (18%) of reporting institutions used solely internally-developed or externally-developed standards. This differed somewhat by level of online enrollment, however. A majority (89%) of high-OE schools have adopted quality standards that reflect a mix of internal and external development, as compared with mid-OE schools (53%) and low-OE schools (58%). None of the high-OE institutions used externally-developed standards exclusively. This likely reflects the heavier influence of online learning on institutional strategy and goals for high-online enrollment institutions—they may have institutional policies, stakeholder committees, and/or a greater degree of online experience that make it vital for institutional standards to be integrated with quality assurance standards sourced from outside the institution.

Regarding the application of QA standards, 71% of COOs surveyed report that QA standards apply to all online courses, and 69% reported applying QA program standards to all online programs (Figure 24). What does "apply" mean to chief online officers, however? Subsequent responses (discussed later in this section) revealed that "application" does not equal "evaluation." Therefore, it's most correct to think of institutions having (through internal creation, external adoption, or a combination) a set of quality assurance standards for courses and programs which are provided to faculty, but for which the courses and programs are largely not evaluated to determine if they've been met.
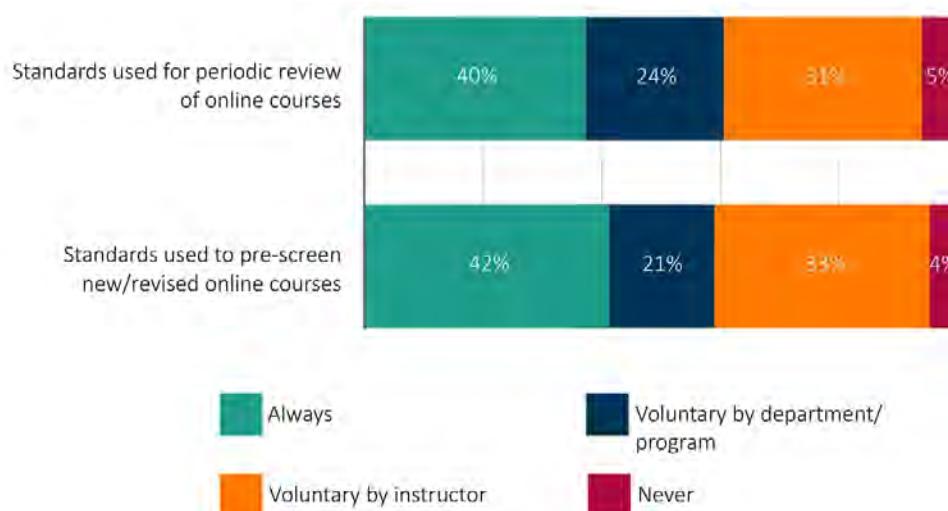
Figure 24. Quality Assurance Standards Apply to Majority of Online Courses and Programs (Sample = 249 Institutions)

© Eduventures Research and Quality Matters, 2022
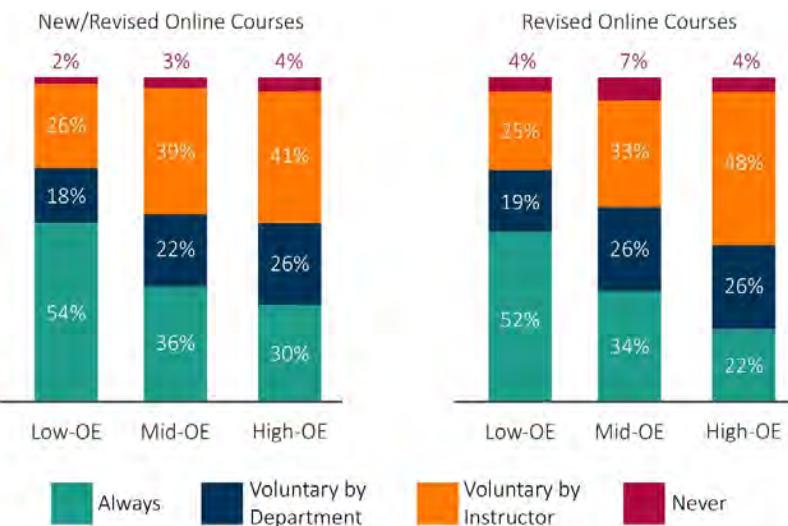
Slight differences were seen, however, when examined through the lens of online student enrollment. A large majority (79%) of low-OE institutions apply quality standards to all online courses, as compared with 67% of both mid-OE and high-OE institutions. This might simply reflect the greater ease of application to a small versus a large number of online courses, or an easier institutional path to adopting standards. Less dramatic differences were seen with online program standards, however, with 70% of low-OE schools reporting applying QA program standards to all online programs, as compared with 67% of both mid-OE and high-OE institutions.

However, as previously mentioned, the application of QA standards is different than the evaluation of whether those standards were actually met. Efforts to evaluate quality assurance were less robust. A minority (42%) reported always using their QA standards to evaluate new or heavily-revised online courses, and a similar amount (40%) reported using QA standards for periodic review of existing online courses. Instead, the majority of COOs expressed that evaluating quality was voluntary by either the instructor or by department/program (Figure 25).

**Figure 25. Policies for Conducting Quality Assurance Online Course Reviews
(Sample = 249)**

© Eduventures Research and Quality Matters, 2022
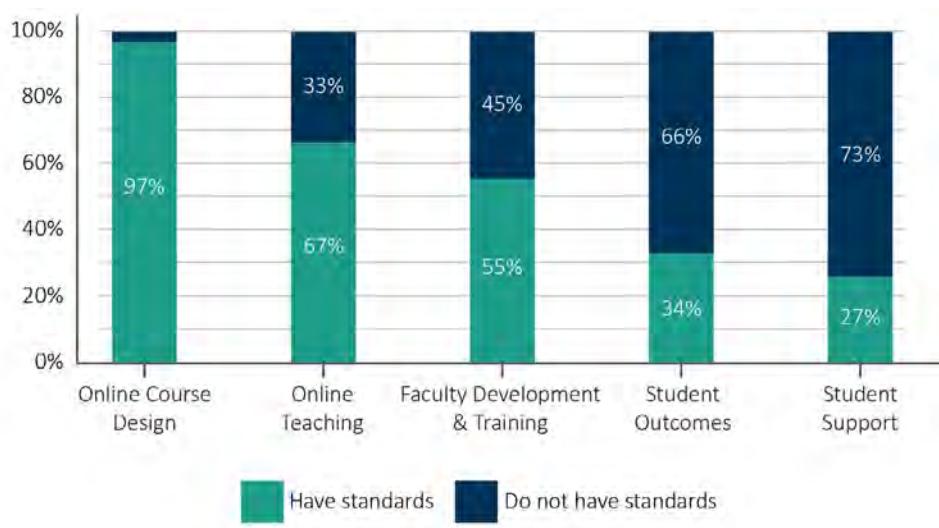
Yet again, however, there were differences apparent when looking at QA evaluation by level of online enrollment. A majority (54%) of low-OE institutions required QA evaluation for new or heavily revised online courses, compared with 36% of mid-OE and 30% of high-OE schools. Similarly, a majority (52%) of low-OE institutions required periodic evaluation of existing online courses, versus 34% of mid-OE and just 22% of high-OE schools (Figure 26). Again, this may point to institutional aspects that make QA evaluation either easier or more difficult. Reviewing a small number of online courses can be done with minimal staffing and fewer logistical hurdles, and faculty training to conduct peer reviews is easier to hold for smaller numbers of faculty. In short, reviewing online courses may simply be more achievable at institutions with lower online enrollment. However, this trend may also point to greater ease of establishing policies and processes in this area for low-OE schools, many of whom increased their online learning during the pandemic, when it was arguably easier to gain buy-in for QA practices.

**Figure 26. Policies for Conducting Online Course Reviews by Low-OE, Mid-OE, and High-OE Schools
(Sample = 238)**

© Eduventures Research and Quality Matters, 2022

Having quality standards for student outcomes and student support, however, trails behind other areas vital for online quality, such as course design, online teaching, or faculty development and training. The ranked order of reliance on different quality benchmarks tells us much about the ways schools define quality or judge the effectiveness and quality of online learning. While the majority of institutions reported having QA standards for online course design (97%), online teaching (67%), and faculty development (55%), only about a third of reporting institutions had QA standards for student learning outcomes (34%) or online student support (27%) (Figure 27). As with investments, etc., student support ranks lowest. This may reveal a newer area of concentration for higher education institutions: quality assurance of online learning achievement, as well as online student support services. Since the pandemic, CHLOE reports show a strong trend of demonstrated and/or planned increases in online student support, and it's reasonable to think that institutions will soon look to better evaluate the efficacy of these student-focused support efforts.

**Figure 27. Adoption of QA Standards for Students Lags Behind Other Areas of Quality
(Sample = 249)**

© Eduventures Research and Quality Matters, 2022

The fact that only a minority of institutions report having QA standards for online student outcomes (34%) and online student support (27%) may also be inherently linked to the low reported rates of requiring quality assurance evaluation in general. For example, nearly all institutions (97%) report adoption of online course design standards, yet, as previously shown in Figure 25, the majority of institutions do not require all courses to be evaluated to see if these standards have been met.

There can be several reasons for an institution to have quality assurance standards but not evaluate whether they've been met, including: lack of staff and/or faculty training or time to conduct the reviews, inability to gain buy-in from internal stakeholders on QA initiatives, lack of awareness of direct links between QA evaluations and accreditation efforts, and budget limitations. However, without evaluating whether adopted quality standards are met, there is no true quality assurance plan in place, which would lead to greater difficulty in evaluating student learning and support efforts. After all, if quality standards or goals for student success are not met, institutions would need to examine the possible causes, such as poor design, ineffective online teaching, or lack of institutional infrastructure or support. If institutions aren't evaluating those areas, however, identification and remediation of deficiencies would be difficult to say the least.

Looking ahead, however, if the COOs' projected increase in student demand for flexible online learning modalities holds true in full or in part, quality assurance will likely grow as a key differentiating factor among higher education institutions. Those who can deliver on their promise of quality learning, regardless of modality, and are able to include that information in their communication with prospective students, may reap dividends in the form of new student recruitment and increased public perceptions of quality.
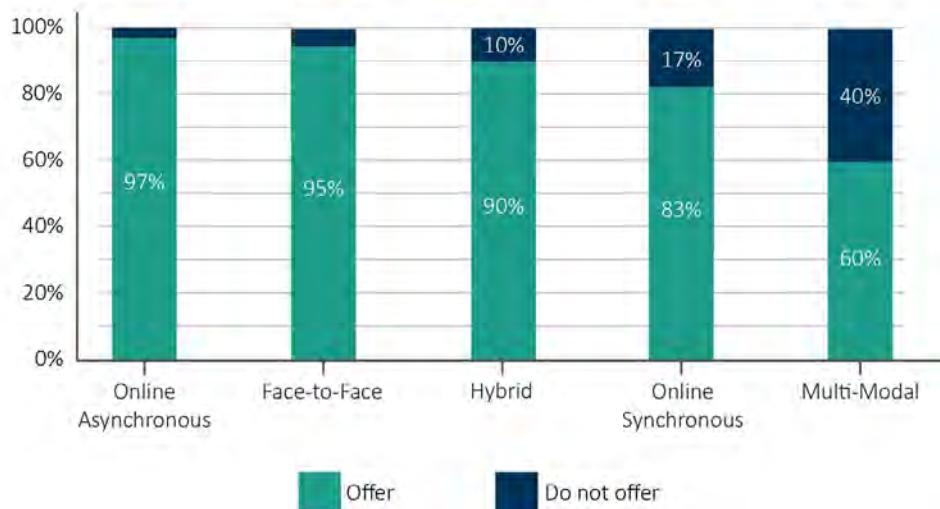
Quality Assurance for Different Course Modalities

The CHLOE 7 Survey aimed to explore quality assurance efforts for all teaching and learning modalities, including options that became more popular during the pandemic, such as synchronous and HyFlex. As institutions have various names and definitions for online modalities, below are the modality definitions provided to the COOs who completed the survey. The survey noted that "none of these modes refer to Emergency Remote courses. All (save F2F) refer to courses that were purposefully and intentionally designed for fully or partially online delivery. They may, however, refer to past ERL courses/programs that have now evolved into 'permanent' online/hybrid/multi-modal forms."

CHLOE 7 Online Modality Descriptions

- Online Asynchronous: There are no or few required on-campus or synchronous meetings. The course is conducted online in an asynchronous format.

- Online Synchronous: There are required synchronous meetings, and none or few required on-campus meetings. The course is conducted online via synchronous class sessions. Additional coursework/interaction may be in an online asynchronous format.

- Hybrid: A significant portion of the course takes place online with the remainder being face-to-face. The proportion between the two modalities may vary according to state guidelines, institutional policies, and/or instructor option. (Note: some institutions refer to this as "Blended.")

- Face-to-face: A classroom-based course with regularly-scheduled in-person meetings, where students and instructors are in the same physical space and at the same time. A F2F course can also sometimes be "web-enhanced," such as using an LMS as a content repository or gradebook.

- Multi-Modal: Courses that are taught in two or more modalities: (e.g., face-to-face and online [asynchronously and/or synchronously]). This includes HyFlex courses, where students can choose their mode of attendance for each class session.

Most institutions reported offering all modalities, though differences can be seen in Figure 28. Nearly all institutions reported offering online asynchronous courses (97%) and face-to-face courses (95%), as well as hybrid (90%). Online synchronous courses were re-popularized during the remote teaching spawned by the Emergency Remote Pivot, and it's highly likely that many remote courses were then revised and refined into purposefully-designed synchronous online courses. A high majority (83%) of institutions reported offering courses in the online synchronous modality. Multi-modal courses, which denote either sections of the same course taught in different modalities, or the HyFlex approach, where students can choose their modality of attendance for each class session, were offered by 60% of responding institutions, which is perhaps an early indicator that institutions are responding well to student requests for greater flexibility in modality and attendance options.
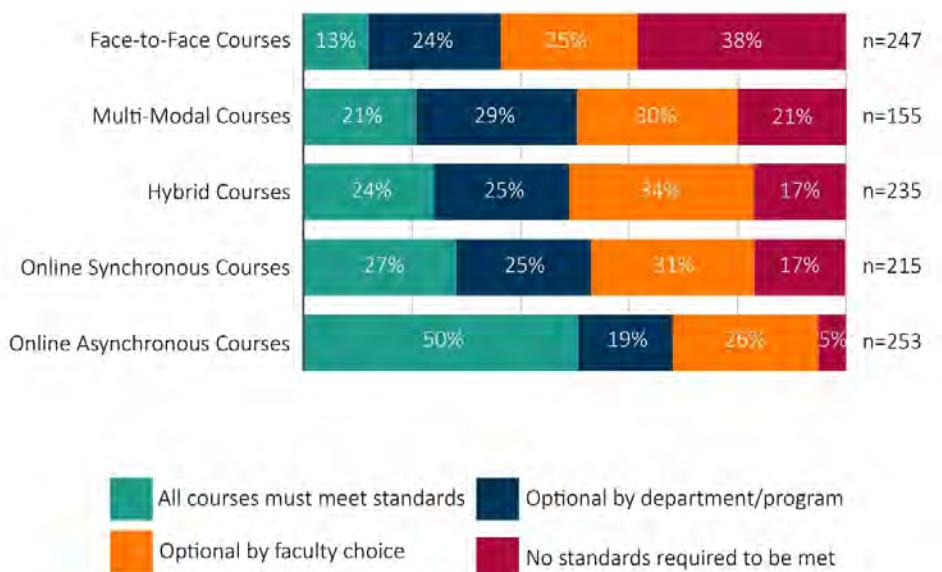
**Figure 28. Majority of Institutions Offer All Learning Modalities
(Sample = 249)**

© Eduventures Research and Quality Matters, 2022

However, similar to the Trend Question on Quality Assurance previously discussed, most modalities have quality standards, but courses are not required to be evaluated to determine if those standards have been met (Figure 29). For example, while only 5% of institutions reported not having QA standards specific to online asynchronous courses, only half of the institutions that do have such standards require that all their asynchronous courses meet those standards. Evaluation requirements were dramatically less for all other modalities: Only 27% of all online synchronous courses had to meet standards; 24% of all hybrid courses were required to meet standards; and 21% of multi-modal courses were required to meet QA standards. However, 17% of institutions reported having no standards for either online synchronous or hybrid courses, and 21% had no standards for multi-modal courses.

This was the first question that also asked about quality assurance for face-to-face (F2F) courses: only 62% of institutions reported having quality course standards for campus-based, F2F classes, and a mere 13% require that all F2F courses meet those standards. This stands in stark contrast to the 95% of institutions that have quality standards for asynchronous courses, and 50% of those institutions that require that asynchronous courses meet quality standards, as noted above. Institutions may not yet see the differences in evaluating F2F versus online quality, such as having to additionally evaluate digitally accessible, web-based organization and layout, as well as aspects that humanize online courses, such as presence and interaction. These differences are some key reasons why assuring online quality involves more than reviewing a syllabus or attending a single synchronous class session. Reticence to create the necessary processes and policies to evaluate course quality may hamper much-needed efforts to assure online quality for current and future students.
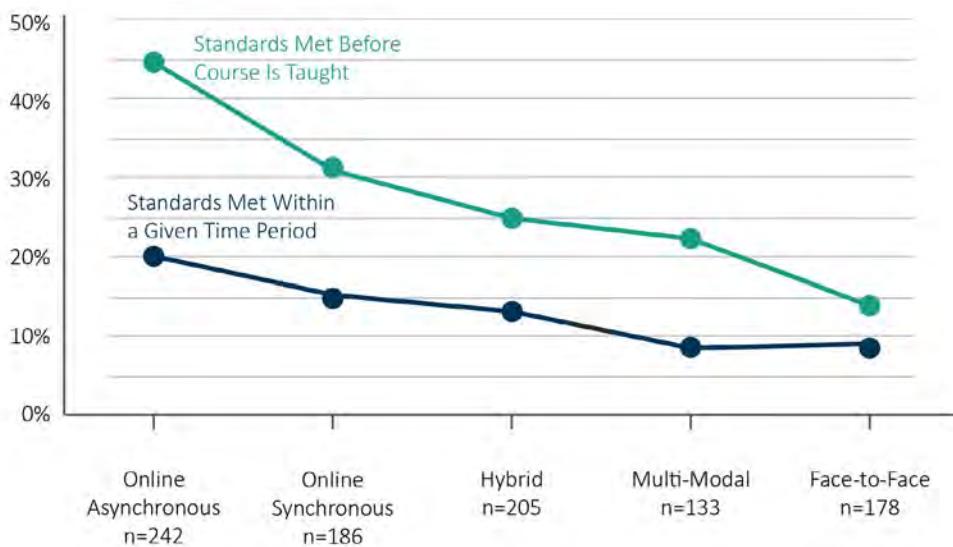
**Figure 29. Quality Assurance by Course Delivery Modality
(Sample size varies)**

© Eduventures Research and Quality Matters, 2022

Looking more deeply at QA evaluation timing and practices, COOs were then asked when courses were evaluated and by whom, for each of the five modalities shown in Figure 29. Asynchronous online courses were most likely (45%) to be evaluated before the course is taught, compared with other modalities; only 32% of synchronous, 26% of hybrid, 22% of multi-modal, and 14% of F2F courses required meeting QA standards before being offered to students. Asynchronous online courses were also the most likely (20%) to require that QA standards be met within a specific time period (such as after the course had been taught once or twice), compared with 15% of synchronous, 13% of hybrid, and 8% of both multi-modal and F2F (Figure 30).
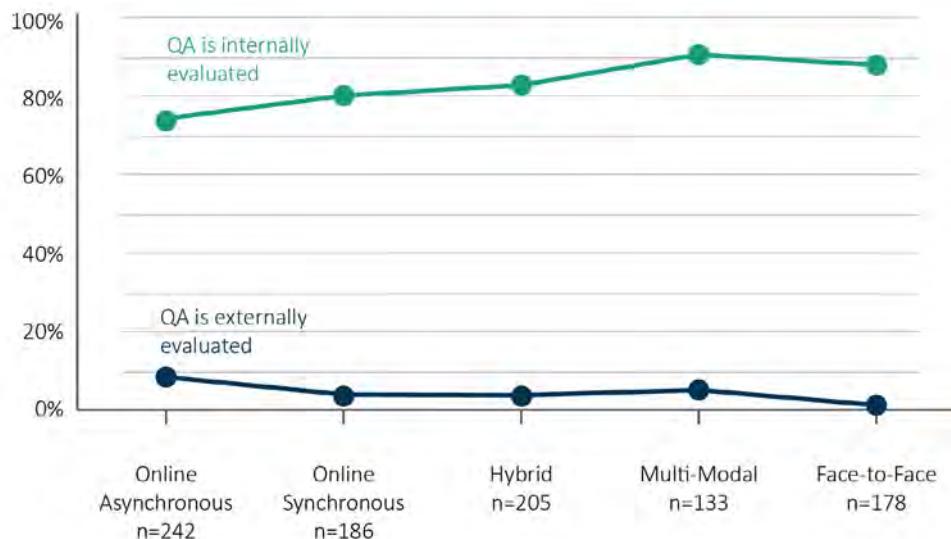
**Figure 30. Timing of QA Course Evaluation Varies by Modality
(Sample size varies)**

© Eduventures Research and Quality Matters, 2022

COOs were asked whether course quality was internally or externally evaluated, with some institutions reporting both types of evaluations (Figure 31). Overall, the majority of asynchronous (74%), synchronous (80%), hybrid (83%), multi-modal (93%), and F2F (89%) courses were reported to be evaluated internally, though the question did not ask about the specific process used or who carries out the evaluation. Asynchronous courses, however, were the most likely to be externally evaluated for quality (9%), versus just 3% of synchronous and hybrid, 4% of multi-modal, and 1% of F2F courses.

Figure 31: Few Institutions Are Conducting External QA Evaluations
(Sample size varies)
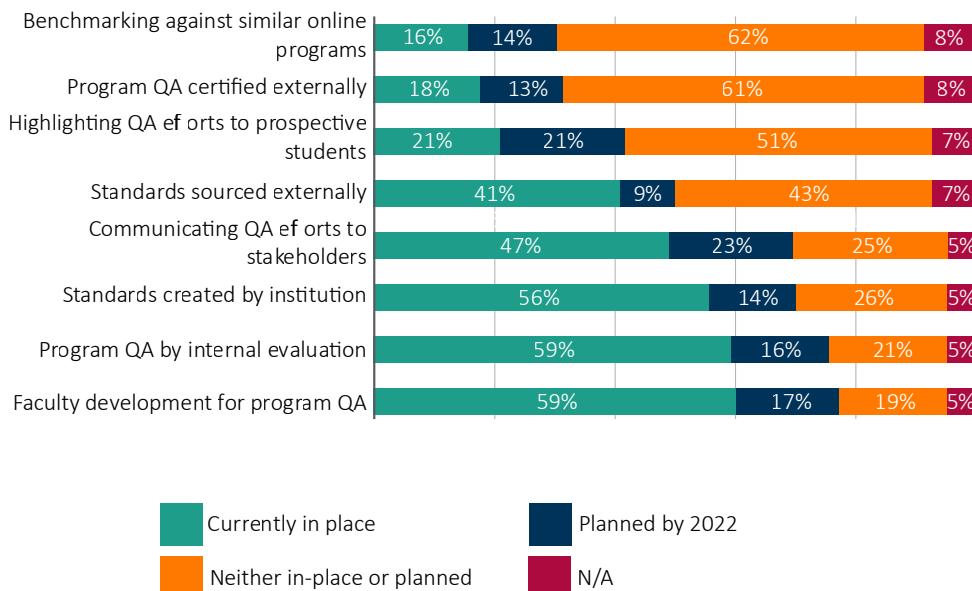
© Eduventures Research and Quality Matters, 2022

Quality Assurance for Online Programs

CHLOE 7 also examined quality assurance for online programs, asking chief online officers, "What online Quality Assurance activities/goals are either in-place or planned within the next year?" (Figure 32). Most institutions (59%) indicated that faculty development for program QA and internal evaluation program quality were currently in place, with 17% indicating plans to add the former by the end of this year, and 16% planning to add the latter. A slight majority (56%) indicated institutionally-created QA standards for online programs are already in place, while 24% of reporting institutions indicated they planned to create program standards this year. Most schools (62%), however, neither currently practice nor plan to conduct benchmarking with peer institutions against similar online programs.

Figure 32. Online Program Quality Assurance Efforts in Place or Planned
(Sample = 258)

Category	Currently in place	Planned by 2022	Neither in-place or planned	N/A
Benchmarking against similar online programs	16%	14%	62%	8%
Program QA certified externally	18%	13%	61%	8%
Highlighting QA efforts to prospective students	21%	21%	51%	7%
Standards sourced externally	41%	9%	43%	7%
Communicating QA efforts to stakeholders	47%	23%	25%	5%
Standards created by institution	56%	14%	26%	5%
Program QA by internal evaluation	59%	16%	21%	5%
Faculty development for program QA	59%	17%	19%	5%

Legend: Currently in place · Planned by 2022 · Neither in-place or planned · N/A

© Eduventures Research and Quality Matters, 2022

Communicating QA efforts to stakeholders stood out as having the greatest percentage (23%) of institutions indicating they planned to add this in 2022, with 47% indicating this was already in place, and 25% stating they had no such communication efforts and did not plan to create them this year. Highlighting QA efforts to prospective students showed a somewhat similar pattern, with 21% of schools indicating they planned to add this by 2022; however, only 21% of schools currently communicate these efforts to students. Communicating quality efforts to stakeholders, including current and prospective students, is an obvious and vital tool for reaching institutional enrollment goals, so why don't most institutions communicate these efforts? Perhaps there is a belief that students do not consider this kind of information when they make school, program, and individual course choices, but the potential to influence student attitudes may not have been sufficiently tested.

Similar to online course quality evaluation, most online programs appear to have QA standards, but do not require programs to be evaluated as meeting these standards. Without requiring specific quality assurance to be met, of course, all that can be communicated are the standards and related processes, but no evidence of actual assurance of a quality design or effective teaching. Just 18% of COOs reported that their online programs were externally certified, and only 13% planned to add that in 2022; the majority (61%) of COOs reported that external certification of program quality was neither in place nor planned, despite most institutions having (41%) or planning to have (9%) externally-sourced standards for online program quality.

Lastly, COOs reported whether their institution had data to demonstrate performance on several vital quality indicators for online programs (Figure 33). Most institutions reported complete or adequate data to evaluate several student-focused indicators, such as time to graduation (73%), cost of attendance (69%), student performance (64%), and student satisfaction (60%). However, less than a majority reported complete or adequate data to indicate performance in other areas, such as faculty training for online teaching (57%), program design (46%), student support (45%), or online faculty teaching efficacy (38%).

**Figure 33. Data Lacking on Many Facets of Online Program Quality Assurance
(Sample = 258)**

|	Complete data	Adequate data for need	Insufficient data
No data		Unsure	
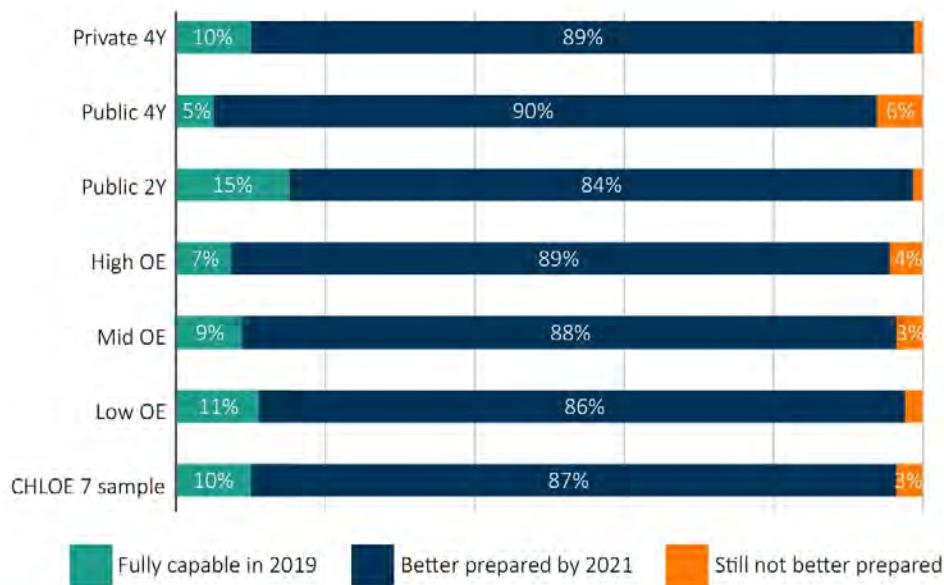
© Eduventures Research and Quality Matters, 2022

This is another indication that, while quality assurance remains an important part of online learning at most institutions, many schools are failing to collect all the necessary data to analyze the efficacy of their QA efforts. Moving forward, institutions would do well to increase efforts in this area, as QA cannot be reduced to quality-focused goals, with no metrics or evaluation to determine if those goals have been met. This pattern of not evaluating quality persists for both online courses and programs, despite public conversations and student concerns about online quality during the pandemic. However, institutions that focus on assuring quality, and communicating quality assurance to all stakeholders, may reap future rewards in terms of online enrollment.

VIII. PANDEMIC IMPACT

In the wake of the COVID-19 pandemic, chief online officers expressed overwhelming confidence in their institutions' ability to respond to any future crisis compelling campus closure (Figure 34). Ten percent expressed the view that their school had been fully prepared when the pandemic hit the U.S., but the vast majority (87%) attributed their readiness to improvements made in the past two years. Only a fraction (3%) expressed concern that their institution had not made needed changes.
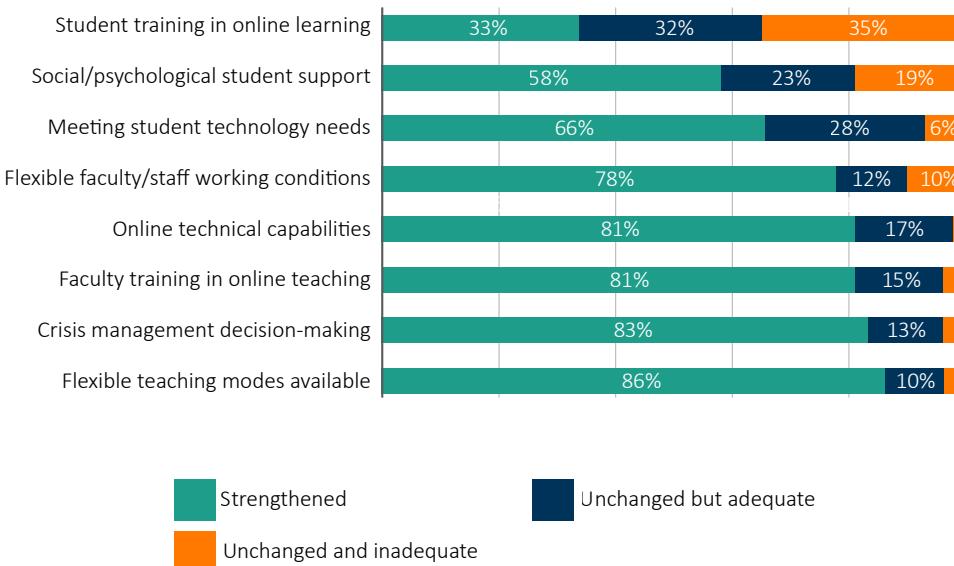
**Figure 34. COOs Believe Their Institutions Are Better Prepared Today for Future Campus Closures
(Sample = 248)**

© Eduventures Research and Quality Matters, 2022

There were no major differences by sector in COOs' confidence that they were prepared to respond effectively to possible future campus closures. A higher proportion of public two-year COOs (15%) than of any other sector by either institution type or online enrollment, expressed the view that their institutions had all the pieces in place at the outset of the pandemic. This judgment is consistent with previous CHLOE findings about the pioneering efforts of community colleges in implementing online learning. Similarly, the marginally greater number of COOs reporting lack of preparation (6%) in public four-year schools reflects the complexity of governance and consistency in this sector noted in CHLOE over the years.

We can gain some insight into the components of a successful overall online effort by looking at the aggregate investments made in each such area prior to and during the pandemic (Figure 35). The list of possible improvements is long, and institutions have, understandably, needed to focus on their areas of relative weakness and issues that have broad support within their particular environment. That said, more than four out of five schools used the past two years to strengthen their technical abilities to support online learning, expand and improve faculty professional development, invigorate their management practices to respond with agility to rapidly changing online learning demand, and support a wider variety of modes and formats incorporating distance learning.

**Figure 35. How Has Online Learning Been Strengthened Since Spring 2020?
(Sample = 248)**

	Strengthened	Unchanged but adequate	Unchanged and inadequate
Student training in online learning	33%	32%	35%
Social/psychological student support	58%	23%	19%
Meeting student technology needs	66%	28%	6%
Flexible faculty/staff working conditions	78%	12%	10%
Online technical capabilities	81%	17%	
Faculty training in online teaching	81%	15%	
Crisis management decision-making	83%	13%	
Flexible teaching modes available	86%	10%	

- Strengthened
- Unchanged but adequate
- Unchanged and inadequate

© Eduventures Research and Quality Matters, 2022

Nearly as many (78%) reported efforts to relieve pandemic pressure on faculty and staff by instituting greater flexibility on their working conditions (e.g., easing or removing restrictions on remote working). Somewhat fewer institutions (66%) focused on meeting student technology needs, but, given their claims of prior adequacy in this area (28%) the total effort nearly matched the areas noted above.

This was not the case in the two areas queried by the CHLOE Survey. Investment in the enhancement of online training for students was only reported by a third of COOs, and prior sufficiency in 32% of the remaining schools leaves more than a third (35%) reporting inadequate student training programs to meet current need. Social-psychological support for students is the other area that falls short of meeting recognized need. In this case, COOs in nearly a fifth of schools (19%) regard their programs to be inadequate.

In Figure 36, we can see that this pattern of investment in student training for online study bridges all sectors of higher education CHLOE has surveyed. Seventeen percent of low-, mid-, and high-online enrollment schools report inadequate student training programs, as do private, not-for-profit schools. The extremes are 11% inadequacy reported by public two-year institutions and 23% by public four-year institutions. Possible reasons for the relative lack of priority for this issue are discussed elsewhere in this report.

**Figure 36. Have Institutions Enhanced Student Training Since Spring 2020?
(Sample=248)**

	Enhanced/expanded	Unchanged but adequate	Unchanged and inadequate
High OE	54%	32%	17%
Mid OE	51%	33%	17%
Low OE	55%	28%	17%
Public 2Y	58%	31%	11%
Public 4Y	45%	32%	23%
Private 4Y	52%	31%	17%

© Eduventures Research and Quality Matters, 2022

It is too facile to conclude that students, meeting whose needs should be fundamental to institutions of higher education, are being short-changed, or constitute a lesser priority at many schools, but, clearly, the factors limiting institutional responses in these areas deserve fuller investigation.

IX. THE CHLOE 7 SAMPLE

Like prior CHLOE reports, the CHLOE 7 Report is based on an online survey of chief online officers at colleges and universities in the United States. The survey was fielded in January and February 2022.

The survey invitation was sent to the chief online officer 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 incidence 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 7 Survey invitation was sent to chief online officers at some 4,700 colleges and universities. A total of 311 responses were received (244 complete and 67 usable partial responses), for a response rate of 6.6%. During the pandemic, 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. Moreover, the CHLOE 7 Survey was similar in length to pre-pandemic iterations, compared to the shorter CHLOE 5 and (to a lesser extent) CHLOE 6 surveys.

Until CHLOE 6, the CHLOE team used only complete responses for analysis and reporting. 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 7 Survey, the CHLOE team decided to 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 7 sample. The report notes each question-specific response size.

The margin of error for the CHLOE 7 sample, allowing for question-specific sample variation between the mid-200s and low 300s, is 5-6% (95% confidence interval), depending on the question. The margin of error for CHLOE 4, pre-pandemic, was 5%. The CHLOE 7 sample closely resembles that of prior CHLOE surveys and the profile of U.S. higher education. Table 7 compares the CHLOE 7 sample to U.S. higher education institutions (degree-granting), overall enrollment, and online enrollment.

Table 7. The CHLOE 7 Sample vs. U.S. Higher Education

Sector	Public 2Y	Public 4Y	Private 4Y	For-Profit
Institutions	22%	18%	36%	21%
Total Enrollment*	27%	45%	22%	4%
Online Enrollment**	27%	45%	18%	10%
Fully Online Enrollment*	24%	33%	25%	18%
CHLOE 7 Sample	32%	34%	31%	2%
DIFFERENCE between CHLOE 7 Sample and Online Enrollment	+5 percentage points	-11 percentage points	+13 percentage points	-8 percentage points

Row totals exclude the small number of degree-granting institutions that fall outside these sectors.
*Undergraduate and graduate students combined (Fall 2021 for total enrollment and Fall 2019 for online enrollment).

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

Source: IPEDS 2019 and National Student Clearinghouse 2021 are the sources of the Institutional and enrollment data.

© Eduventures Research and Quality Matters, 2022

Representation depends on metric of choice. At the institutional level, the CHLOE 7 sample overcounts the proportion of public institutions, undercounts for-profits, and is close to the IPEDS figures for private four-year schools. Public four-year schools and for-profits look underrepresented in the CLHOE 7 sample when total and online enrollment ratios are considered. But if online enrollment is factored in, public four-year schools are overrepresented.

For comparison, the CHLOE 4 sample, conducted in 2019, counted 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 7 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 7 sample captures the state-of-play from the largest to the smallest institutional online operations (Table 8).

Table 8. The CHLOE 7 Sample by Online Student Headcount (IPEDS Fall 2019)

CHLOE 7 Sample	Large >7,500	Mid-Sized 1,000-7,500	Small <1,000	CHLOE 7 Sample
Schools by Number of Fully and Partially Online Students	36	157	116	Schools by Number of Fully and Partially Online Students
% of CHLOE 7 Sample	12%	50%	32%	% of CHLOE 7 Sample
Schools by Number of Fully Online Students	6	106	174	Schools by Number of Fully Online Students
% of CHLOE 7 Sample	1.9%	34%	56%	% of CHLOE 7 Sample
Schools by Number of Partially Online Students	13	136	135	Schools by Number of Partially Online Students
% of CHLOE 7 Sample	4.2%	44%	43%	% of CHLOE 7 Sample

Rows do not add up to 100% because they exclude a small proportion of CHLOE 7 respondents who have zero fully and/or partially online students.

Source: IPEDS Fall 2019 (avoiding the blurring of online and emergency remote learning in Fall 2020 and 2021).

© Eduventures Research and Quality Matters, 2022

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 but growing numbers. The CHLOE 7 sample features somewhat lower high and mid-sized ratios compared to prior CHLOE surveys, and a higher share of low- and zero-online enrollment schools. This is consistent with greater interest in online learning across a wider range of institutions exposed to the modality during the pandemic.

XI. ACKNOWLEDGEMENTS

Richard Garrett, Eduventures Research

Ron Legon, Quality Matters

Bethany Simunich, Quality Matters

Eric Fredericksen, The University of Rochester

The Members of the CHLOE Advisory Panel:

Jill Buban, Ph.D., VP & General Manager, EdAssist Solutions

Connie Johnson, Ed.D., Chief Academic Officer and Provost, Colorado Technical University

Andrea Jones-Davis, Executive Director, CourseGateway at EDUCAUSE

Chris LaBelle, Ph.D., Senior Director, Colorado State University Online, Colorado State University

Arletha McSwain, Ph.D., Director of Online Learning, Central State University (OH)

Tina Parscal, Ph.D., Associate Vice Chancellor for CCCOnline and Academic Affairs, Colorado Community College System

Jeff Seaman, Ph.D., Director, Bay View Analytics

Peter Shea, Ph.D., Associate Provost for Online Learning, SUNY – Albany

Alexandera (Sasha) Thackaberry, Ph.D., Vice President, Student and Academic Services, Pearson

Lori Williams, Ph.D., President/CEO, National Council for State Authorization Reciprocity Agreements (NC-SARA)

XVI. Sponsors

Platinum Sponsor

Gold Sponsors

Quality Matters (QM) is the global organization leading quality assurance in online and innovative digital teaching and learning environments. It provides a scalable quality assurance system for online and blended learning used within and across organizations. When you see QM Certification Marks on courses or programs, it means they have met QM Course Design Standards or QM Program Review Criteria in a rigorous review process.

For more information, visit us at qualitymatters.org

Eduventures® Research

Eduventures® Research for higher education leaders provides primary research, analysis, and advisory services to support decision-making throughout the student life cycle. Building on 20 years of success in working with education leaders, Eduventures provides forward-looking and actionable research based on proprietary market data and advisory services that support both strategic and operational decision-making. Our recommendations and personalized support enable clients to understand the top traits of leaders in critical disciplines and evaluate the opportunities presented by new technologies.

Eduventures research is available in Encoura, a data science and analytics technology platform that provides colleges and universities the information and capabilities required to create the data-enabled enrollment office of the future, today. More information on Encoura and Eduventures can be found at encoura.org.

Encoura, LLC, a wholly owned subsidiary of ACT, is an educational data science and research organization serving over 2,000 member institutions comprised of public and private colleges and universities across the nation. Since 1972, Encoura has been a leading provider of data, technology, and programs serving students, high school educators, colleges, and universities from its offices in Austin, TX and Boston, MA. These solutions represent the link between students making important life decisions and those providing the resources and information they need to succeed in their post-secondary educations and careers. For more information, visit encoura.org.