CHLOE 3

BEHIND THE NUMBERS

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THE CHANGING LANDSCAPE OF ONLINE EDUCATION, 2019
Quality Matters & Eduventures Survey of Chief Online Officers

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CHLOE 3: Behind the Numbers
The Changing Landscape of Online Education, 2019

INTRODUCTION

We are pleased to present CHLOE 3: *Behind the Numbers*, the third in this series of annual reports based on a survey of chief online officers from all sectors of U.S. higher education. As before, this project is a collaboration between Quality Matters, a leading U.S. quality assurance organization focused on online learning, and Eduventures Research, the research division of ACT | NRCCUA and a leading higher education research and advisory company. This year, we are delighted to be joined by Eric Fredericksen, Associate Vice President for Online Learning at the University of Rochester, whose research on online learning leaders will expand our coverage of chief online officers, among other contributions.

As before, this report and the survey on which it is based are premised on a belief that online learning is increasingly a mainstream activity in U.S. higher education, and, as such, deserves to be closely tracked in terms of its evolving practices, policies, prospects and impact. Respondents and readers who have been with us since the beginning will see both updates on issues we have been tracking over time as well as new and emerging themes. Responses to our questions and the effort to interpret the data have resulted in new questions and exposed areas that deserve further investigation. Feedback from the survey and prior reports also prompts us to follow up and clarify. Thus, we continue to refine our data and discover new issues in such areas as online teaching and learning, governance, quality assurance and accountability.

There are two features of this report that should be particularly highlighted. We believe these elements justify our subtitle, *Behind the Numbers*. One is more extensive quoting from the text responses of chief online officers regarding several issues on which attitudes and practices are divided. These quotes are intended to bring the range of opinion on such questions into sharper focus. The second new feature is the rollout of our developing profile of online learning models. These clusters of institutions in terms of online enrollment, institutional type and other characteristics are influenced in part by size and structure. While members of these various models drawn from our sample are far from rigidly uniform in their practices and plans, they arguably define the scope of the possible for *other* institutions that meet the basic definition of the model. As such, they may provide other schools a useful perspective on their current activities and strategic plans. We hope readers will react to both of these features.

As we complete the CHLOE 3 cycle, we are also at work developing CHLOE 4. Our plan is to continue broadening and deepening our coverage. We hope you will join us in these efforts by sending us your reactions to this report and encouraging the chief online officer at your institution to participate in the CHLOE 4 Survey.

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EXECUTIVE SUMMARY

In its third year the annual CHLOE survey grew to 280 chief online officer responses from 182 in the previous survey — a 54% increase — further expanding the range and variety of institutional responses and increasing the representativeness of the results. Compared to the most recent IPEDS data (2017), four-year private nonprofits were significantly overrepresented in the CHLOE sample and for-profits were underrepresented. As in the CHLOE 2 Report, CHLOE 3 defined large-enrollment institutions as having more than 7,500 fully and partly online students, mid-sized between 1,000 and 7,500 students, and low-enrollment under 1,000. Large-enrollment institutions were most likely to report fully online growth (84%), then mid-sized (60%) and then small (46%). Signs and implications of slowing growth overall are examined.

In every sector and enrollment range, the majority of respondents confirmed earlier CHLOE findings on the predominance of fully online courses in current inventories and projected development. With few exceptions, the same pattern was evident in the emphasis on fully online programs versus blended programs, although a majority of online students, both graduate and undergraduate mix online and on-ground courses in practice. Public two-year institutions are more focused on building courses than online or blended programs. The survey uncovered widespread interest in establishing or experimenting with alternative credentials, but relatively few institutions are investing substantially in this area.

The majority of online courses are overwhelmingly asynchronous, though a significant number include some required or optional face-to-face sessions. While some outliers are breaking the mold, the types of interaction — with materials, peers, faculty, and support staff — in a typical online course revealed consistency with a more traditional, classroom-based approach, across all sectors and models. A connection was found, however, between team development of courses and their deviation from the dominant pattern of student engagement. CHLOE 3 expands coverage of factors influencing the scope and role of instructional design specialists. Additional evidence is presented to support the finding in CHLOE 2 that required use of instructional designers and teams in course design has a positive impact on student performance.

Following an essay by Eric Fredericksen that summarizes what we have learned in his studies and the previous CHLOE reports about online learning leaders (the chief online officers), new findings are presented. These include tracking the growth of COO positions in the past decade and a detailed breakdown of the scope of COO responsibilities. CHLOE 3 also provides more institutional context for online learning management by identifying the spread of standing committees dedicated to online issues. More than half the CHLOE 3 institutions have created such committees, though their role is still formative and advisory in most cases.

To fill in the picture of quality assurance practices from the earlier CHLOE surveys, CHLOE 3 focuses on the *process* of integrating online learning quality assurance (QA) into the workings of the institution. Such matters as the sources of online QA standards, participation in QA reviews, and implementation of QA recommendations are explored. The development and implementation of faculty development standards is treated as a largely internal matter, whereas institutions are far more likely to reach out to other organizations and accrediting bodies to develop course and program quality standards. In all areas evaluated, results of quality assurance reviews are widely treated as advisory, rather than imperative. Institutions still rely primarily on internal data — retention and graduation rates and achievement of program objectives — to judge the effectiveness of their online programs. The two most commonly tracked post-graduation measures are employment (36%) and alumni feedback (31%), with less than a quarter of schools tracking other post-graduation evidence.

The cumulative results of three CHLOE surveys are enabling the identification of groups of institutions (i.e., models that share common characteristics and adopt similar practices, policies and strategies). The defining features and behaviors of five such online models are outlined in CHLOE 3 — Enterprise Institutions; Regional Public Institutions; Regional Private Institutions; Low-Enrollment Institutions; and Community Colleges. The models are compared with regard to the centralization of management, budget and support functions, pedagogy, breadth of online programs, trending online enrollment, competitive environment, and plans for growth, among other dimensions. The case is made that these models may help institutions better understand their place within the online learning movement and plan their future development.

THE CHLOE 3 SURVEY SAMPLE

The CHLOE 3 Survey (fielded in 2018) garnered 280 institutional responses, compared to 182 in CHLOE 2 (fielded in 2017) and 104 in CHLOE (fielded in 2016). By institutional type, the three samples break down as follows:

Table 1. Three Years of CHLOE

Year	Public 2Y	Public 4Y	Private 4Y	For-Profit	TOTAL
CHLOE	34	30	40	0	104
CHLOE 2	55	61	59	7	182
CHLOE 3	76	91	98	11	280*
% Increase CHLOE 2 vs. CHLOE 3	38%	49%	66%	57%	54%

The CHLOE 3 sample also included four private nonprofit two-year schools.

All four institutional types called out in Table 1 exhibited strong growth in the sample year-over-year. This lends weight to CHLOE findings and the goal is to continue to increase the sample in subsequent years. The for-profit sample remains modest in absolute terms.

There is growing but far from perfect alignment between the CHLOE sample and the distribution of U.S. higher education institutions, and that of fully and partially online students (Table 2).

Table 2. IPEDS vs. CHLOE 3

IPEDS vs. CHLOE	% Public 2Y	% Public 4Y	% Private 4Y	% For-Profit
IPEDS 2017 (number of institutions)	21%	16%	37%	26%
% of CHLOE 3 Sample	27%	33%	35%	4%
DIFFERENCE*	+6 percentage points	+17 percentage points	-2 percentage points	-22 percentage points
IPEDS 2017 (fully and partially online students)	28%	42%	18%	12%
% of CHLOE 3 Sample	27%	33%	35%	4%
DIFFERENCE*	-1 percentage point	-9 percentage points	+17 percentage points	-8 percentage points

"+" indicates overrepresentation in CHLOE 3 and "-" indicates underrepresentation in CHLOE 3

In terms of institutional numbers, the CHLOE 3 sample has about the right representation of private four-year schools. Public two-year institutions are somewhat overrepresented, and public four-year schools very overrepresented. On the other hand, for-profits are conspicuous by their relative absence.

The picture is different if online enrollment is considered. The public two-year school presence in the CHLOE 3 sample is almost identical to the share such institutions have of fully and partially online students. By contrast, public four-year and for-profit schools are under-represented in CHLOE 3, and private four-year schools are overrepresented. The negative for-profit gap is bigger if only fully online students are considered.

Public four-year schools are fewer in number but tend to enroll large numbers of students, not least online. Therefore, the CHLOE 3 sample, higher than the institutional ratio but lower than the online one, strikes a balance. The reverse is true for private four-year institutions with numerous smaller schools, most of which enroll relatively few online students. The for-profit institutional count is exaggerated by many branch campuses, although that number is much reduced from the sector's peak. For-profits have a limited presence among partially online students but are still prominent among the largest fully online institutions.

In summary, as the CHLOE sample has grown, representation has improved, and there are different ways representation might be judged. Chief online officers at institutions of all types, particularly public four-year and for-profit schools, are encouraged to complete future CHLOE surveys.

Past CHLOE reports employed different ways to classify respondents in terms of scale of online enrollment. The first report classified "large" operations as those with more than 2,500 fully online students, "mid-sized" as those with 500-2,500 and "small" as those with less than 500. The second report merged fully and partially online students and changed the categories to more than 7,500, 1,000-7,500, and less than 1,000.

There are pros and cons to both approaches. Important elements of online strategy or operations may vary between institutions that focus on fully online students as opposed to those who study partially online. Institutions that focus on both populations may also exhibit distinct strategic and operational characteristics. Some schools have integrated online operations, while others may have both a distinct online campus and online offerings organized by academic departments.

The present report maintains the CHLOE 2 categories but in places separates fully and partially online students. Table 3 classifies CHLOE 3 institutions on all three measures.

Table 3. The CHLOE 3 Sample by Online Student Headcount

CHLOE 3 Sample	Large >7,500	Mid-Sized 1,000-7,500	Small <1,000
Schools by Number of Fully Online Students	11	87	167
% of CHLOE 3 Sample	4%	33%	63%
Schools by Number of Partially Online Students	14	114	127
% of CHLOE 3 Sample	5%	45%	50%

CHLOE 3 Sample	Large >7,500	Mid-Sized 1,000-7,500	Small <1,000
Schools by Number of Fully and Partially Online Students	38	148	85
% of CHLOE 3 Sample	14%	53%	34%

Source: IPEDS fall 2017. A handful of CHLOE 3 respondents reported zero fully and partially online students to IPEDS for fall 2017. Not all sample schools enroll both fully and partially online students.

The average (mean) number of both fully and partially online students, fall 2017, for "large" schools was over 20,000, for "mid-sized" about 2,800, and for "small" a little over 400.

The CHLOE 3 Report uses online enrollment scale as one dimension of a number of online learning institutional models, concentrating on fully and partially online students combined. As the CHLOE project moves forward, different ways to define and capture online enrollment will remain under review.

ENROLLMENT TRENDS AND TYPES OF ONLINE LEARNING

Past CHLOE surveys explored the diversity beneath the "online learning" label, and CHLOE 3 sought to push the analysis further still. This section distinguishes between fully online courses and programs, and blended ones:

- Percent of courses that are fully online versus blended
- Fully online versus blended course enrollment
- Number of fully online versus blended programs
- Fully online versus blended course and program strategy

A later section looks at variations within online classes, in terms of pedagogies, technologies and assessment methods.

Figure 1 looks at the proportion of courses at sample institutions that are fully online or blended.

Fully online courses are most common, in relative terms, on the right side of the chart. More than one-fifth of CHLOE 3 schools report that more than 50% of their courses are online, but only 8% report a similar ratio for blended courses. The most common fully online categories are "more than 10%" (26% of respondents) and "more than 25%" (25% of respondents) of courses. The most common blended category is "less than 5%" (36% of respondents) of courses; but nearly 10% of the sample say more than half their courses are blended, and about a quarter categorize at least 25% of their courses this way.

Figure 1. More Online, Less Blended

CHLOE 3 Institutions - % of Courses That are Fully Online or Blended
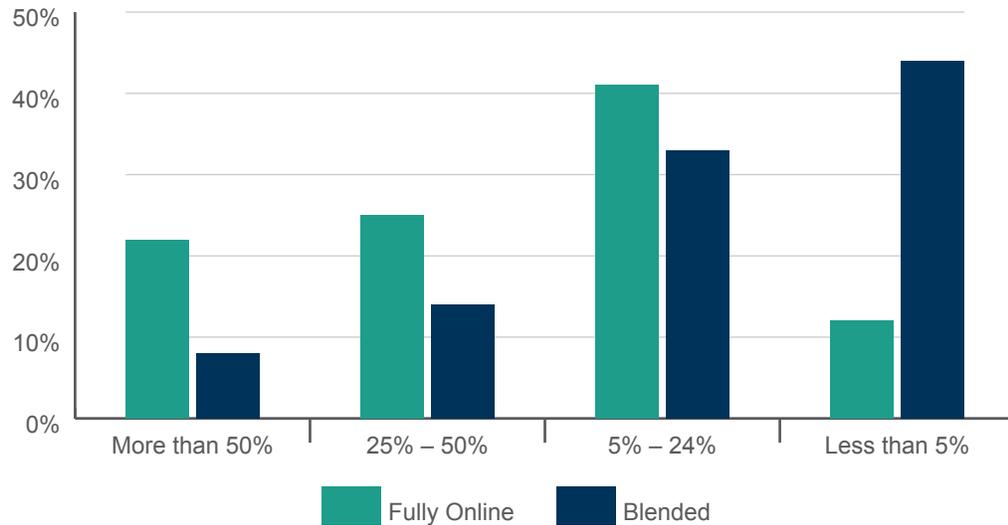
The fully online and fully blended enrollment scale looks quite different. The schools that reported 100% online courses had an average of 19,000 students, while those that said all of their courses are blended report an average of 5,000 fully online and blended students. Intensity of online course offerings, as a proportion of the total, is aligned with enrollment scale. The higher the online intensity, the higher the average online enrollment. For blended intensity, no such relationship is apparent. In combining online and in-person elements, blended courses are more difficult to scale up geographically.

Majority blended schools included associate, baccalaureate and master's institutions. One R1 institution classified itself as having more than 50% blended courses.

At a growing number of institutions, fully online and blended courses combined represent a majority of all courses offered.

How do recent enrollment growth rates compare between fully online and blended courses?

Figure 2. Fully Online Courses More Likely to Drive Enrollment Growth

**Growth Rates - Fully Online vs. Blended Course Enrollment
(Fall 2018 vs. 2017)**
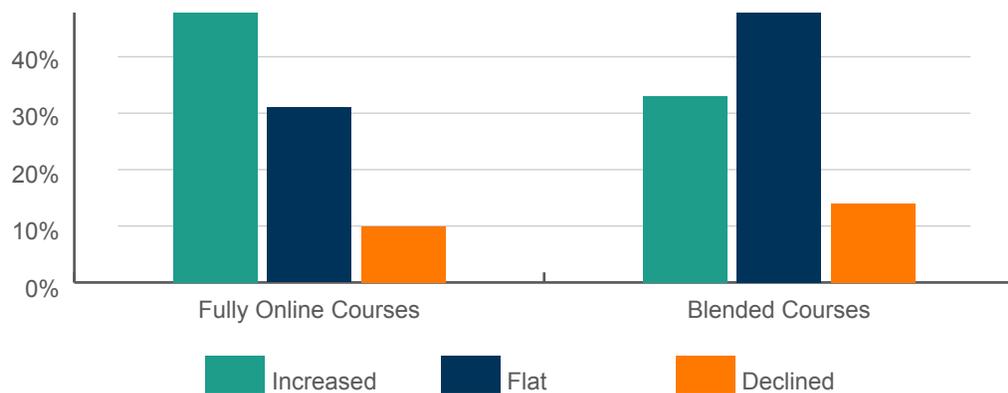
Not only are blended courses less common than fully online courses, blended courses are less likely to have experienced enrollment growth (spring 2018 vs. 2017). The majority of CHLOE 3 respondents said that fully online courses at their institutions had grown over that timeframe; about one-third said enrollment was flat and 10% pointed to a decline. The majority response for blended courses was flat enrollment. One-third cited growth and 14% noted a decline. Again, the geographical limitations of blended courses may inhibit enrollment growth.

The scale of online headcount impacts growth ratios. The "large" schools were much more likely to report fully online course enrollment growth – 84% of such schools did so – and blended course growth (47%). Figure 3 shows growth by enrollment category.

Figure 3. Biggest is Best?

Growth Rates – Fully Online vs. Blended Course Enrollment
(Fall 2018 vs. 2017) – by Size Category
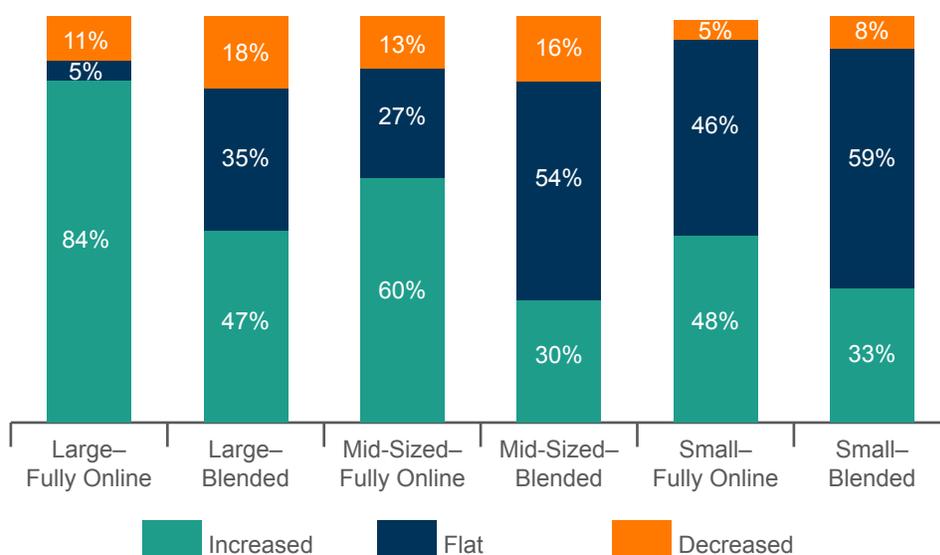
For fully online courses, chief online officers at the largest online enrollment institutions were most likely to report fully online course enrollment growth (84%), followed by mid-sized (60%), and then by small (46%). This suggests an increasingly crowded online market where schools with many online offerings and years of experience are more visible to consumers, and perhaps offer a superior online student experience. It may also be the case that smaller institutions have less desire to ramp up online enrollment above a certain scale.

Regardless of size, few CHLOE 3 respondents report fully online course enrollment decline. Blended course decline is also uncommon, but more prevalent.

What about specific growth rates? The median growth rate in fully online course enrollment between spring 2017 and 2018 was 10%, with a wide range, and the median decline was 4%. For blended courses, median growth was 8%, again with a wide range, and median decline was 11%. Compared to blended courses, fully online courses are more numerous, more likely to be growing in enrollment, and to grow enrollment at a faster rate. Any enrollment decline in fully online courses is, on average, less marked than blended course decline.

The CHLOE 3 Survey also asked about the number of fully online and blended programs per institution and program level (Figure 4).

Fully online programs outnumber blended ones at all levels save doctoral, where the latter holds a slim majority. The next smallest gap between online and blended program totals was at the bachelor's level, where blended amounted to 77% of the online total. At the associate, master's, and certificate levels, blended programs represented less than half the online total. The shorter length of these programs may help explain the dominance of fully online programs.

Figure 4. Number of Fully Online and Blended Programs by Level

CHLOE 3 Sample: Number of Fully Online and Blended Programs by Level
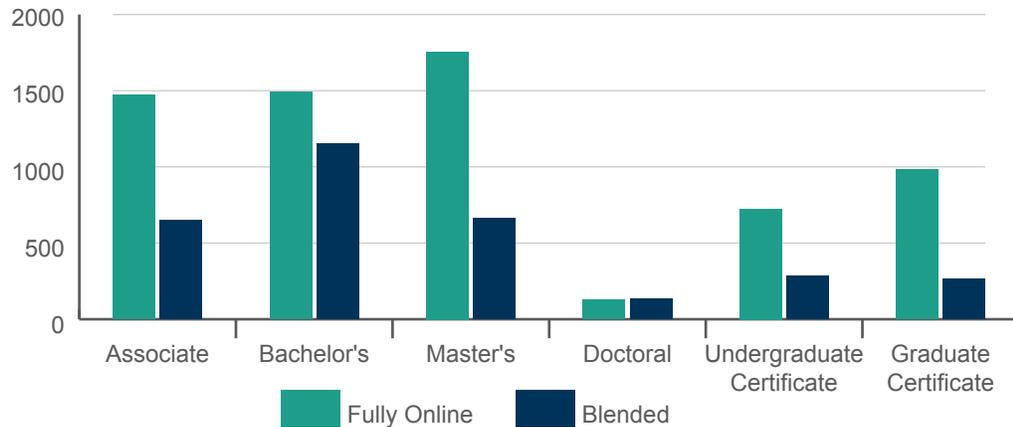
The most common fully online programs are at the master's level. All master's students, regardless of delivery mode, number no more than 2.5 million, compared to many more bachelor's students. This is a reminder of the mainstream character of online delivery at the master's level. About one-third of all master's students now study fully online, which is much higher than at any other degree level.

Finally, in this section, current institutional priorities, from the perspective of the chief online officer, are examined. CHLOE 3 respondents were asked whether their institution prioritized fully online or blended courses, and the same for programs (Figure 5).

Figure 5. Fully Online Rather Than Blended is the Priority for Most Schools

Which of the following best describes how your institution prioritizes *fully online* courses/programs versus *blended* courses/programs?
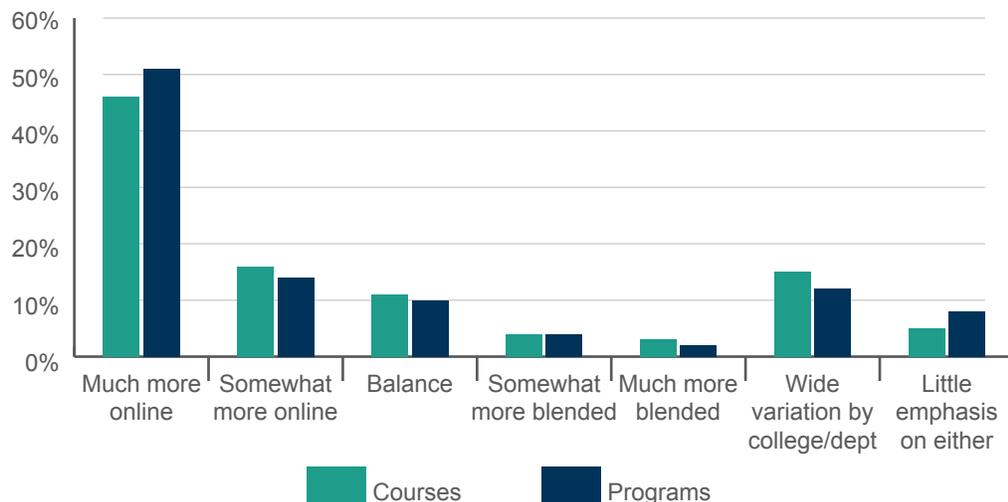
The strategic priority accorded to fully online courses and programs is striking. About half of CHLOE 3 respondents unequivocally cite fully online as the priority over blended. Together, about two-thirds of chief online officers say fully online courses and/or programs are at least somewhat more the priority. Very few respondents say blended courses or programs are the priority, consistent with the evidence above of relatively fewer blended courses and programs, and reduced likelihood and slower enrollment growth.

Only about 10% of CHLOE 3 respondents seek to balance fully online and blended courses and programs, and slightly more disavow any institutional strategy in this area, leaving such matters to academic departments.

The same questions were asked in the CHLOE 2 Survey. The results were similar, but devotion to fully online courses and programs is even more marked in the CHLOE 3 results. A larger sample lends weight to the latter and further cautions against any renewed interest in blended learning in response to, say, commodification in the fully online market, concerns about online completion rates, or a strategy to blend online and campus assets.

Program volume plans, both fully online and blended, were covered in CHLOE 3. Figure 6 compares plans.

Figure 6. Plans for More Online Programs

In the next 1-3 years, do you expect the number of online and/or blended programs at your institution to increase?
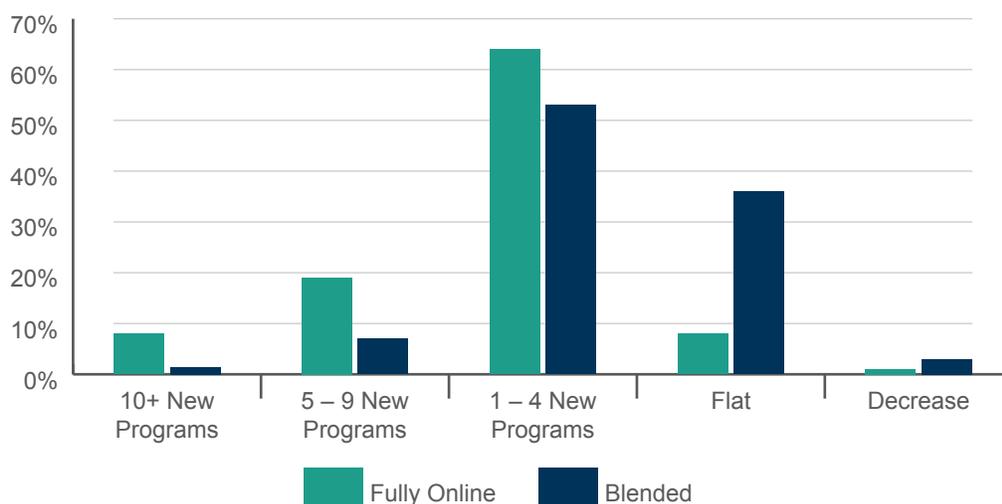
Fully online programs are already more numerous than blended ones and are associated with faster enrollment growth; and online courses are typically seen a higher priority for institutions than blended courses. Similarly new program plans also favor fully online. Almost 40% of CHLOE 3 respondents expect blended program numbers to remain flat or decline, compared to only 9% for fully online programs. Modest growth—one to four new programs—is the most common response for both fully online and blended, but stronger new program growth skews heavily toward the former.

Consistent with past years' findings, the biggest schools by online student headcount are most likely to anticipate adding new programs, and adding the most. Despite a higher fully online program base, only 5% of the large enrollment schools expect their fully online program numbers to stay the same or decrease, compared to 42% that said as much about their blended programs.

When asked about underlying goals, fully online program growth is strongly associated with plans to increase enrollment and revenue, and with perceived student and industry demand.

For the first time, the CHLOE 3 Survey asked chief online officers whether their institution employed a specific definition of blended learning for courses or programs. Only a small majority (54%) said yes. The survey then asked for more detail about definitions used.

Responses were varied to say the least. Some chief online officers said just 1% of online or face-to-face instruction is enough to define a course as blended. Others cited the longstanding 30-79% online teaching range used by the Online Learning Consortium. Anything below that is face-to-face, and anything above is online. A 20-80% range is a variation on this approach, as is 20-50%, 33-74%, 50-75% or 50-99%. A common definition of a blended course is 50% face-to-face teaching and 50% online. This implies that these institutions classify a course as face-to-face if the majority of teaching is conducted that way, and as online if that delivery mode is dominant, but this was not always clear.

Number of meetings on campus, rather than a portion of instructional time, is favored by some schools, or one class or session conducted online in an otherwise face-to-face course. Others said individual instructors decide how to classify a course.

A few respondents said definitions are more a matter of student choice. A course may be majority face-to-face one week, but majority online the next, when students are allowed to adjust their schedules and both versions of the course are run simultaneously.

Hybrid, rather than blended, is the preferred designation of some schools.

Most respondents just cited a blended range rather than specific versions of blended courses. Alternatives included one school that said three types of blended courses were currently on offer: one-third face-to-face and two-thirds online, 50/50 face-to-face and online, and two-thirds face-to-face and one-third online.

Definitions for blended programs were similarly diverse.

Perhaps blended learning has a branding problem. Hard to define, known by different names, and inconsistently applied across institutions, no one blend has risen to the top. Defined as a combination of face-to-face and online learning, blended learning struggles to assert its own identity.

CHLOE also asked to what extent institutions were invested in or experimenting with non-degree, non-credit or otherwise non-standard online courses and programs (e.g., MOOCs, degree alternatives, bootcamps), see Figure 7.

Figure 7. Little Major Investment, but Plenty of Experimentation and Interest

To what extent is your institution invested in or experimenting with non-degree, non-credit or otherwise non-standard online courses and programs (e.g., MOOCs, degree alternatives, bootcamps)?
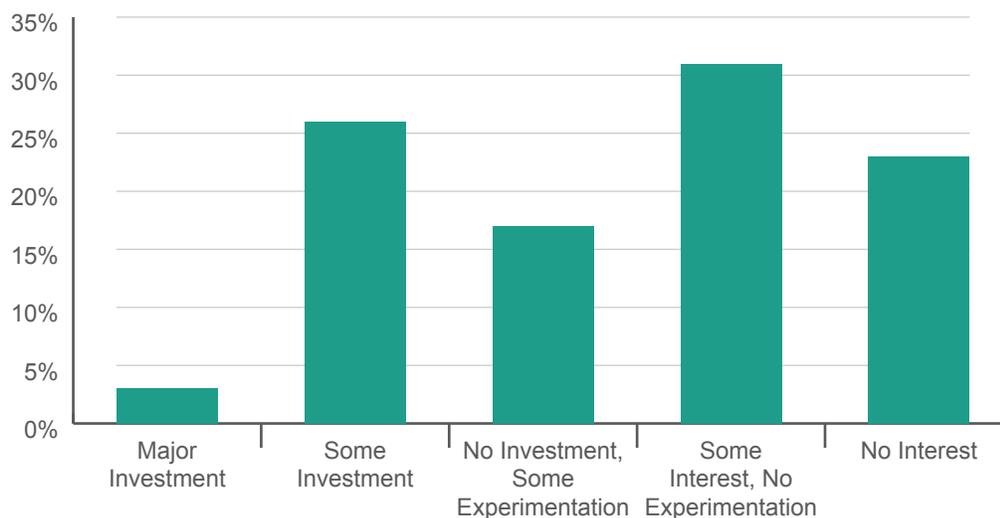
Very few CHLOE 3 respondents report having made a major investment in non-standard online offerings, as defined by this question, but a large minority note some investment or experimentation. Not surprisingly, schools with a larger online student headcount were more likely to cite investment.

Chief online officers were invited to provide further details of activity. Many did, resulting in a sense of range and variety rather than trends in a particular direction. Most activity was described as early-stage or prospective.

TEACHING AND LEARNING

The online versus blended distinction is one way of distinguishing between different forms of online learning. This section digs into what goes on in online courses, in terms of mode of delivery, pedagogical activities and different technologies.

A foundational matter is *how* online courses and programs are developed. This influences teaching and learning. Figure 8 reviews the primary or dominant online course development arrangement at CHLOE 3 institutions, by institutional type.

Figure 8. Systematization, Teams Drive Online Enrollment Scale?

Primary or Dominant Online Course Development Approach
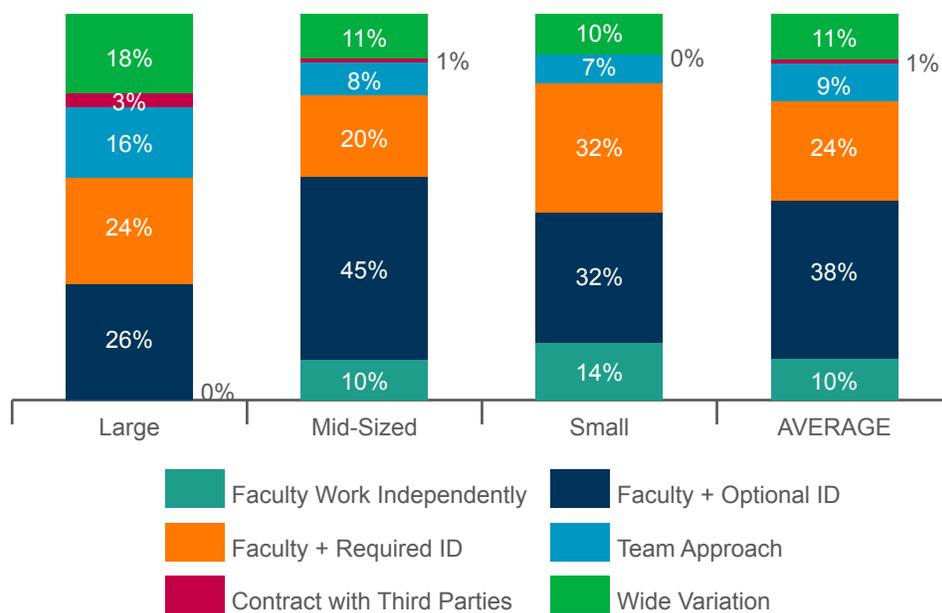
As with prior CHLOE surveys, typical institutional approaches to online course development are diverse. Faculty working independently is absent at schools with the largest online student headcount and is most common (14%) among schools with the smallest online student headcount. For all schools, faculty plus optional instructional design support is the most common arrangement. For the largest and smallest schools, in terms of online student headcount, matched or close behind is faculty plus required instructional design support. A team-based approach, where faculty are members of a larger, multifaceted course design team, is most visible at large online institutions (16%). Contracting out course design to third parties remains rare. About 11% of respondents say no course development approach is dominant. This lack of an approach is most pronounced at large enrollment institutions.

About 9% of respondents selected "other," but almost all may be allocated to one of the main options.

In summary, greater online enrollment scale is associated with more systematic and cooperative course development approaches, but there are cases where scale has been achieved with a more bottom-up approach. Some institutions with only modest online student numbers are pursuing a systematic approach to course development to help drive quality as well as scale, depending on goals and circumstances. As online spreads across such institutions, chief online officers face choices about continued adherence to a strict approach versus allowing alternatives and multiple approaches to emerge.

Now that the typical online course development process has been outlined, aspects of the online student experience can be considered.

A question asked in every CHLOE survey is the mix of asynchronous and synchronous online programs by institution. Figure 9 gives the results for CHLOE 3, by online enrollment scale.

Figure 9. Asynchronous is (Mainly) King

Asynchronous vs. Synchronous - % of Online Programs
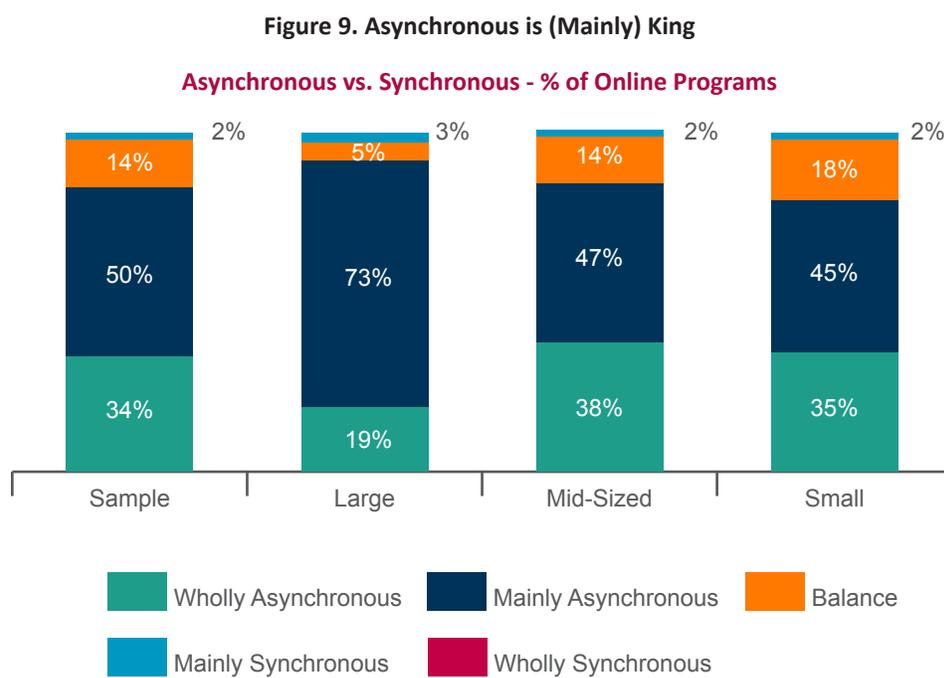
As in prior years, asynchronous delivery is the dominant approach, although the most common response is "mainly asynchronous," rather than "wholly asynchronous." At most institutions, online has evolved organically over time, with pockets of activity across the organization. Different departments, programs, and faculty have developed particular versions of online, and few chief online officers are in the business of compelling every online course to adhere to a common approach.

At institutions with a "large" number of fully or partially online students, which are often large enrollment institutions, this result is exaggerated: a greater percentage report "mainly asynchronous" and a smaller percentage report "wholly asynchronous" compared to the average. This indicates that larger institutions are most likely to embody a range of online modalities and approaches.

Not a single institution, despite the larger sample, indicated that "wholly synchronous" best characterizes fully online programming at their institution. This is the first time this has been the case over three years of CHLOE data. Commitment to synchronous delivery to any dominant extent has long been rare, and there is no sign of revived interest in synchronous as a means to differentiate in a crowded online market.

A balance between synchronous and asynchronous is the approach adopted by about one-seventh of the CHLOE 3 sample. The ratio diminishes in line with online enrollment scale, suggesting that significant use of synchronous delivery can inhibit online enrollment volume.

Generally speaking, forms of asynchronous delivery are seen to offer the best combination of student and faculty convenience, administrative efficiency, and scalability. There are no associations between asynchronous versus synchronous delivery and dominant online course development approach.

These findings set the scene for more detailed questions about online classrooms, asked for the first time in the CHLOE 3 Survey:

- Types of student interaction
- Student engagement measures and patterns
- Teaching and learning techniques and activities

On interaction, CHLOE 3 asked chief online officers to indicate, in a typical online course, approximately what proportion of student engagement in the course is with course materials, faculty, other students, and other staff (Figure 10).

Figure 10. Online Students Interact Most with Materials

In a typical online course offered by your institution, approximately what proportion of student engagement in the course falls into each of the following categories?
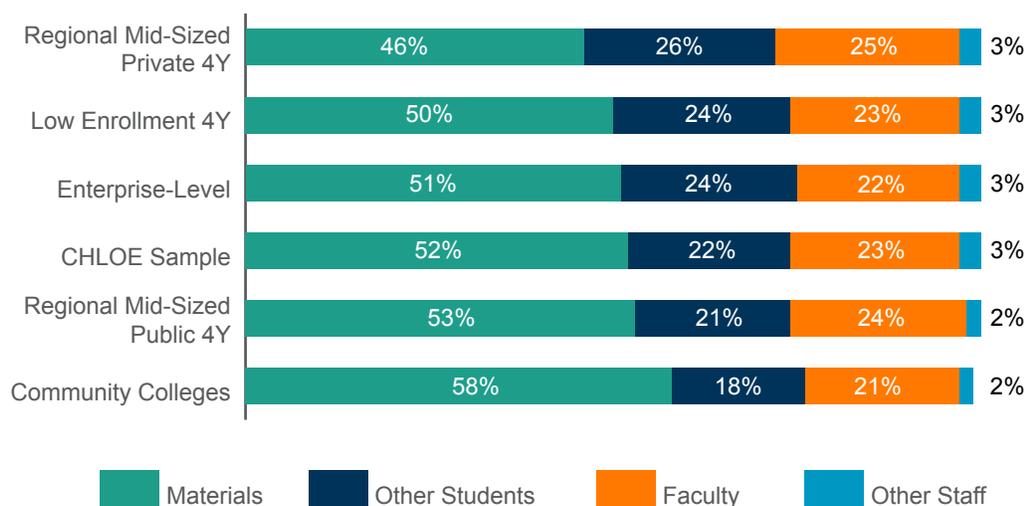
In a typical online course offered by your institution, approximately what proportion of student engagement in the course falls into each of the following categories?

The consistency of responses is striking. Regardless of institutional type, from "enterprise" schools to community colleges, roughly the same percentages were reported. The largest amount of student time in online courses is devoted to interaction with study materials, about one-quarter to one-fifth with other students, about the same ratio with faculty, and 2-3% with other kinds of staff (e.g., advisors, mentors).

The high materials ratio jibes with the asynchronous norm for online courses. In such courses, students spend considerable time working through readings and other materials, and condense their thinking in text-based discussion posts. Discussion threads can also be characterized as interaction between students and with faculty. Forms of live interaction, through audio or video, both one-to-one and group, are also relevant here.

The CHLOE 3 Survey did not define or give examples of what should count as "materials" versus interaction with faculty or other students. Such guidance is under consideration for the CHLOE 4 Survey.

Behind the averages, some institutions presented quite different ratios. The highest percentages for materials was 100%, implying an entirely self-paced experience. For "other students" interaction, the highest percentage was 80%. This suggests a peer-learning approach, with the faculty member in a supporting role. For faculty interaction, the top percentage was 70%, consistent with a more traditional, synchronous set-up. The "other staff" proportion climbed as high as 30% at an institution known for a personalized mentor approach.

These extremes serve as a reminder of the possibilities of online learning, and teaching and learning generally. Figure 11 shows the data by individual institution.

Figure 11. Online Students and Types of Interaction

In a typical online course offered by your institution, approximately what proportion of student engagement in the course falls into each of the following categories?
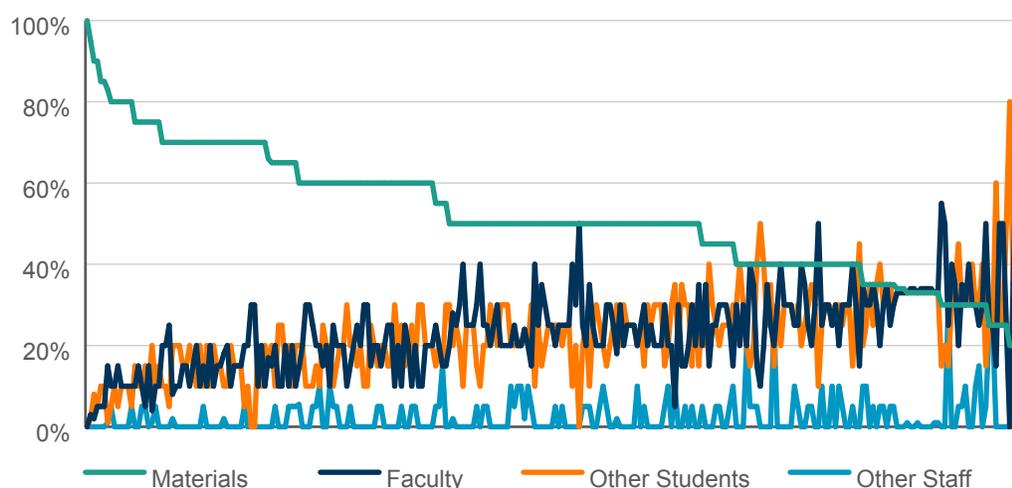
The majority of schools regard materials as the main thing with which students engage in an online course. But 35% provided a percentage below half. Only one CHLOE 3 respondent said online students do not interact with materials at all, implying an approach dedicated to class participation or practical application. Indeed, this is a performing arts school. About half the sample said interaction with faculty accounted for 20% or less of student course time. A bit more than half offered a similarly same low percentage for peer interaction.

In CHLOE 4, greater definition of the four types of engagement will help iron out any inconsistent reporting. Follow-up questions might illuminate why particular institutions structure their online courses in a certain way.

There is an interesting association between dominant online course development arrangements and interaction ratios. At institutions where faculty members design online courses independently, the materials interaction percentage is unusually high and is lowest at schools where a team-based design approach is primary. For the other three types of interaction – percentages are lowest at schools where online courses are designed by faculty independently, and highest at schools that engage in team-based design (Figure 12).

Figure 12. Online Course Design Shapes the Student Experience

In a typical online course offered by your institution, approximately what proportion of student engagement in the course falls into each of the following categories?

Dominant Online Course Development Approach
Faculty Work Independently

1.4%

17%
18%
64%

Dominant Online Course Development Approach
Faculty + Optional ID

2.2%

21%
23%
54%

Dominant Online Course Development Approach
Faculty + Required ID

3.1%

25%
25%
47%

Dominant Online Course Development Approach
Team-Based

4.6%

25%
26%
44%

Materials   Faculty   Peers   Other Staff
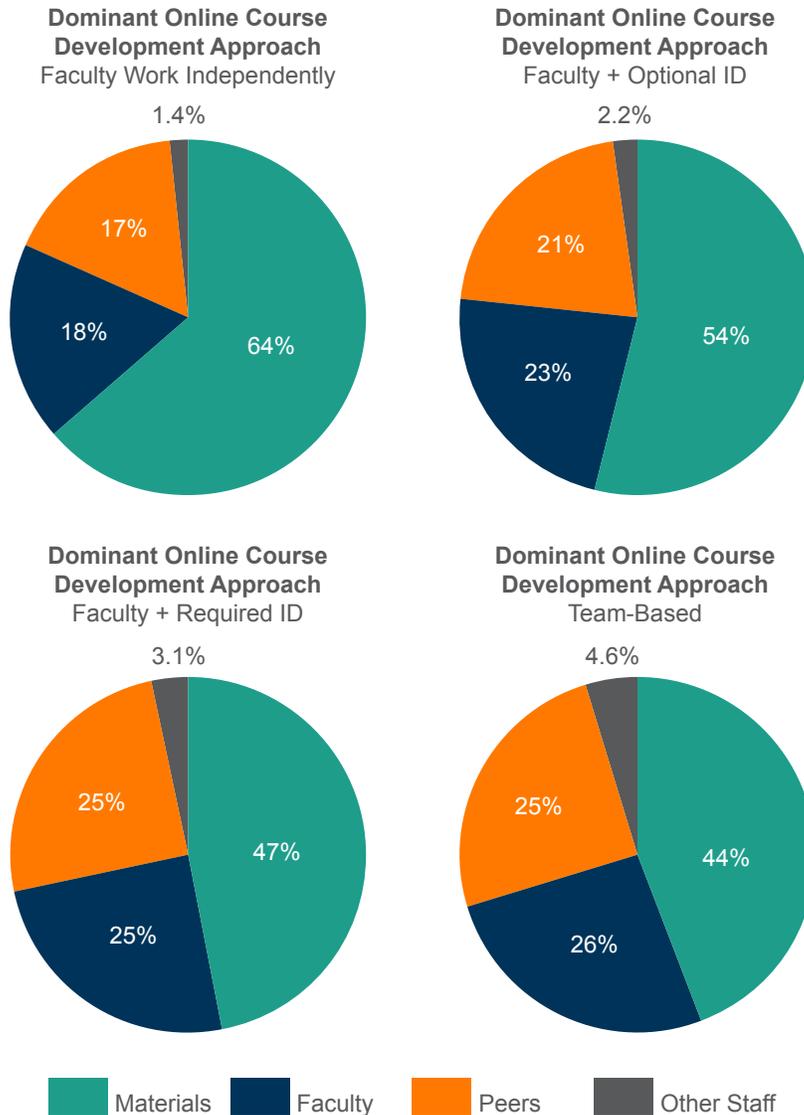
Figure 12 suggests a positive association between a team-based approach to online course design, leveraging the talents of various specialists alongside faculty, and a more well-rounded online student experience. Quantity and variety of student interaction in an online course says nothing about implementation and quality. Other things being equal, however, an online course composed of a range of experiences and engagements should result in a stronger online course.

Schools that invest in a systematic and multi-actor approach to online course design should reap the reward of higher quality courses. Insofar as higher quality courses translate into superior student retention and outcomes, the benefits to students and the institution should be manifold.

CHLOE 3 posed two further questions about the design of online courses. The first asked about measures of student engagement in online courses. Five options were provided:

- Frequency of discussion board participation
- Instructor evaluations
- Quality discussion board participation
- Student assignments
- Student course evaluations

Respondents were asked to rank these and could add their own measures (Figure 13).

Figure 13. Measuring Online Student Engagement

Rank order only those measures of student engagement below that are widely used in your fully online programs with #1 being the most used. Average Rank (1= highest)
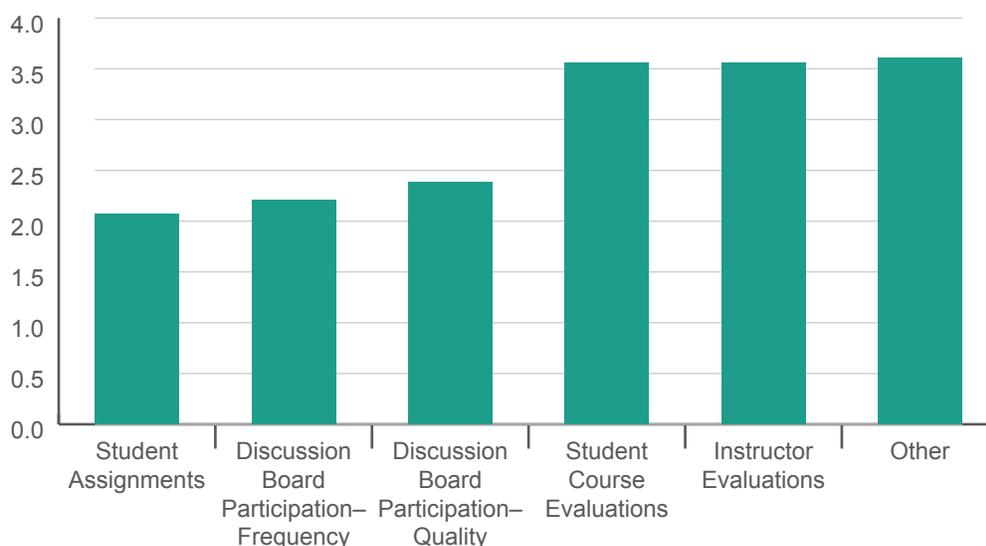
"Student assignments," an open-ended means of assessment that transcends delivery mode, emerged as the highest ranked. "Discussion board"-related measurement came next, with frequency of participation edging out quality. Formal course evaluation by students and qualitative evaluations by instructors were ranked much lower on average. Interestingly, institutions in the "large" online enrollment category were somewhat more likely to favor student assignments (ranked 1.91). This may reflect longer experience with assessment methods native to online learning, notably discussion boards, and a desire to give more weight to other assignments. The same was true for community colleges (ranked 1.81 for student assignments).

The first three engagement measures – to the left side of Figure 13 – were also most frequently cited. Only 23 CHLOE 3 respondents (8%) mentioned an alternative engagement measure. Most additional measures named belong under one of the pre-defined options (e.g., group assignments, student satisfaction survey). CHLOE 4 will endeavor to clarify this question to better direct responses. Genuine additions included learning management system (LMS) time-logs, mouse clicks, and peer assessment. A few respondents said they did not currently measure student engagement in online courses at all. Again, clearer wording may help next time.

The following question asked whether the COO's response to patterns of student interaction and engagement measures were consistent for all online courses across the institution. Seventy-three percent of respondents said that these responses were consistent across at least a large majority of their institution's online courses. Approximately 21% said consistency extended to about half of online courses, and 6% said less than half. Consistency rates were higher for schools with fewer than 1,000 online students and lower for those with more than 7,500.

What about use of different pedagogies and technologies in online courses? The CHLOE 3 Survey asked chief online officers to indicate the prevalence of 15 online and blended class tools and techniques at their institutions (Figure 14).

Figure 14. Traditional or Innovative?

Which of the following teaching and learning techniques and activities play a role in online and/or blended courses and programs at your institution?
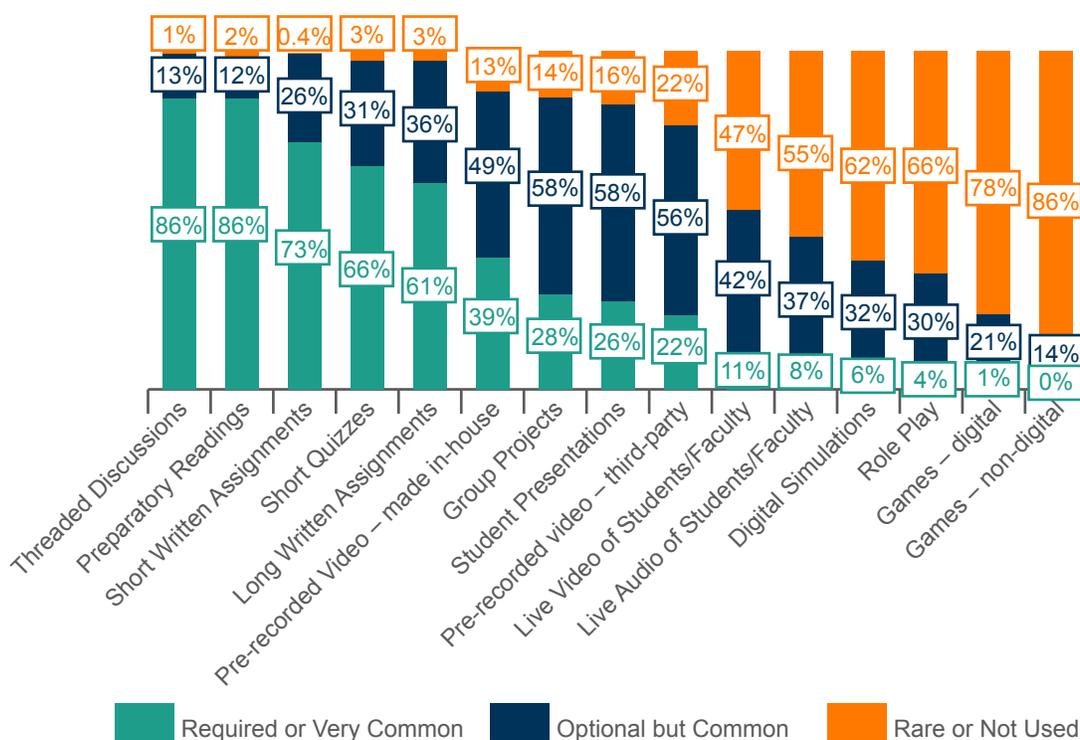
According to Figure 14, the most common online/blended learning techniques and activities are concerned with students as individuals and are largely conventional. Five of the top six most commonly used techniques and activities are likely things a student would engage with in isolation. The top of the list, threaded discussions, is interactive but asynchronous. Five of the top six are common in face-to-face classes, with the caveat that threaded discussions are an attempt to replicate in-person discussion by asynchronous means.

Techniques and activities that require group participation, live interaction, or atypical technology score much lower in terms of "required/very common" adoption. Only five techniques or activities are considered by chief online officers to be used rarely or not at all at their institutions. Two—digital simulation and digital games—have the potential to transcend in-person norms but remain prohibitively expensive and difficult to scale across an institution.

There were some differences by online enrollment scale. Larger and smaller online enrollment institutions were more likely to say a particular technique was "required or very common," compared to those with mid-sized online enrollment. This may reflect scattered experimentation at institutions in the early days of online learning development, and both breadth of activity and available resources at large enrollment institutions. Mid-sized schools may, on average, find themselves caught between the two: big enough to rationalize but too small to scale up innovation.

An association between a systematic and multi-actor approach to online course design and greater variety of techniques and activities employed in a typical online course was also visible. Chief online officers who say their institution pursued a team-based approach to online course design were much more likely to report that the use of instructional tools like live audio and video, digital simulations, and digital games were either required/very common or common but optional, compared to chief online officers where faculty develop most online courses independently. (See the section The Impact of Instructional Design for more perspectives on this topic.)

The final perspective on teaching and learning online is the role, if any, of in-person study as a complement. About 45% of chief online officers said that online courses at their institution required zero face-to-face sessions. Voluntary sessions were common at 18% of the sample, and occasional sessions are required at 14% of schools. The remaining 23% said practice varied widely by academic department. There were minimal differences by online enrollment size.

These results show increased adoption of fully online policies, fewer examples of required or voluntary in-person sessions, and less departmental variation—compared to past CHLOE findings (different samples aside).

To summarize CHLOE 3 findings on online teaching and learning, there is evidence of increased concentration, conservatism, and persistent diversity. Asynchronous approaches appear as dominant as ever, and face-to-face elements seem to be in retreat. Conventional course activities that favor individualized engagement remain the norm, for reasons of familiarity and practicality. Chief online officers are most likely to cite student-to-materials interaction as the dominant form of online engagement. Cutting-edge techniques, such as simulation and games, remain exceptional.

Beneath these common features, however, alternatives and exceptions persist, such as synchronous delivery, peer learning, mentoring, or role-play. There are positive associations between systematic and team-based approaches to online course design and development and both more balanced interaction in a typical online courses and greater use of live audio/video, digital simulations, and digital games. Mere use of a certain mix of interaction or particular tools is no guarantee of a quality online course. Nevertheless, on average, more well-rounded and multi-faceted online courses are likely to result in an enhanced student experience; and an institutionalized approach to course design and development is the best way to ensure such benefits are widespread and scalable.

Online learning both perpetuates and departs from pedagogic norms in higher education. Indeed this balance may be key to its success to date. Going forward, the question is whether and when institutions will move to new configurations of technology and pedagogy, driven by competition, technological breakthroughs or a push for greater student success. A related question is whether the future means more emphasis on fully online study, or new combinations of online and face-to-face, or both under different circumstances and for different audiences.

IMPACT OF INSTRUCTIONAL DESIGN

CHLOE 3 expanded on previous CHLOE findings related to reliance on instructional designers (ID) to support and supplement faculty online course design efforts. (See CHLOE 2: A Deeper Dive, pages 25-30.) The overall proportion of institutions that require ID support in online course development versus those in which it is either optional or absent did not change in the most recent survey. CHLOE 3 also confirmed CHLOE 2 findings regarding the positive impact of ID involvement on consistent use of online tools or student-to-student interaction.

In Figure 15, CHLOE 3 supplements these findings with evidence that a higher proportion of COOs at institutions that require ID use in online course development judge their fully online students as performing comparably to or better than on-ground students than claimed by COOs from institutions that do not require ID support (70% vs. 58%). Conversely, 12% or more COOs from institutions that do not require the use of ID expertise reported worse performance by online students than COOs from schools mandating ID involvement.

Figure 15. Online Student Performance vs. On-Ground Students With and Without Course Design Support
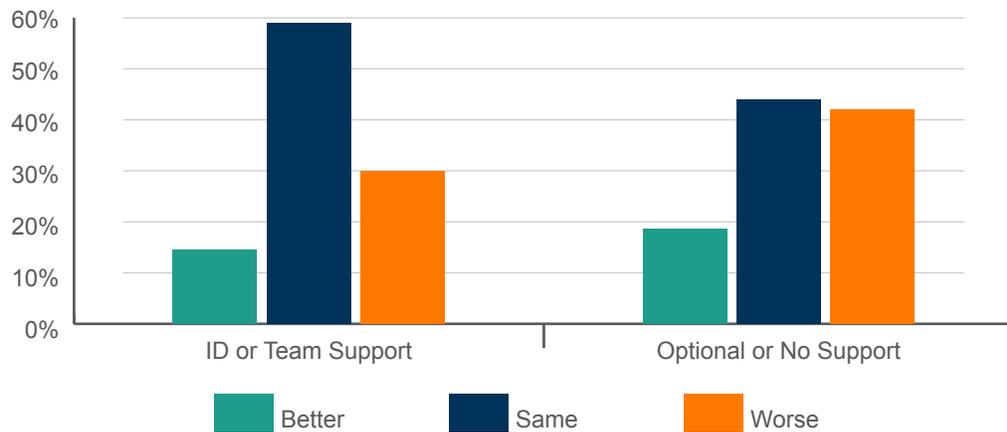
CHLOE 3 also provides more detail on the number of instructional designers employed by institutions in different sectors. In Figure 16, median numbers range from one full-time ID per institution at two-year public institutions (community colleges) to eight at Enterprise institutions, with little part-time augmentation.

Figure 16. Employment of Instructional Designers by Online Institution Type
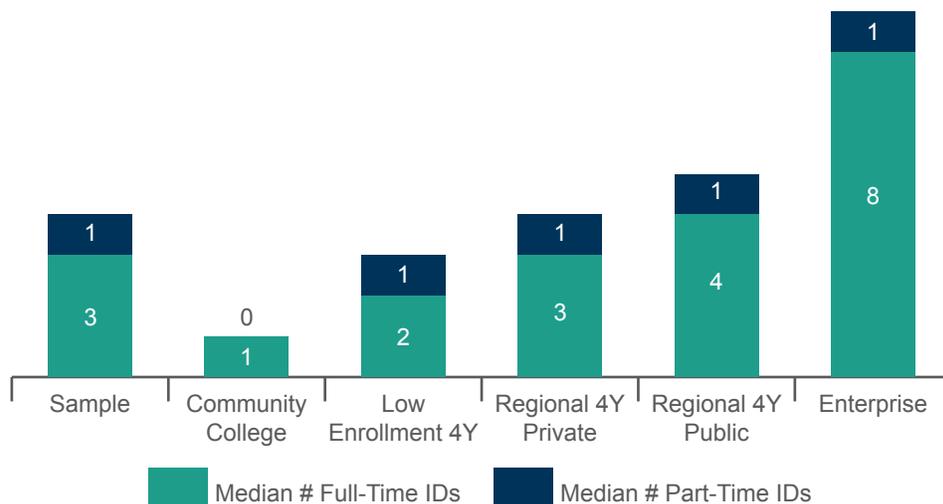
These staffing levels, when compared to the number of programs and courses to be supported, suggest that many institutions face severe challenges in providing ID support across their online curriculum. This factor provides a partial explanation of the absence of requirements for instructional design support for online course development in the majority of institutions (Figure 17).

Figure 17. Instructional Design Support – Required, Optional, Absent?

	No ID Support	Optional ID Support	Required ID Support	SME with Design Team	Outsourced to Third Parties	Wide Variation
Low Enrollment 4Y	11%	30%	35%	5%	1%	15%
Community College	22%	45%	15%	8%		3%
Regional 4Y Public	3%	50%	19%	6%		14%
Regional 4Y Private		48%	27%	12%		6%
Enterprise	3%	25%	25%	17%	3%	17%
Sample	10%	38%	24%	9%	1%	11%

In the CHLOE sample as a whole, nearly half of institutions report absent or optional instructional design support. This grows to more than half when the percentage reporting "wide variation" is added. Community colleges are least likely to require the involvement of instructional design sp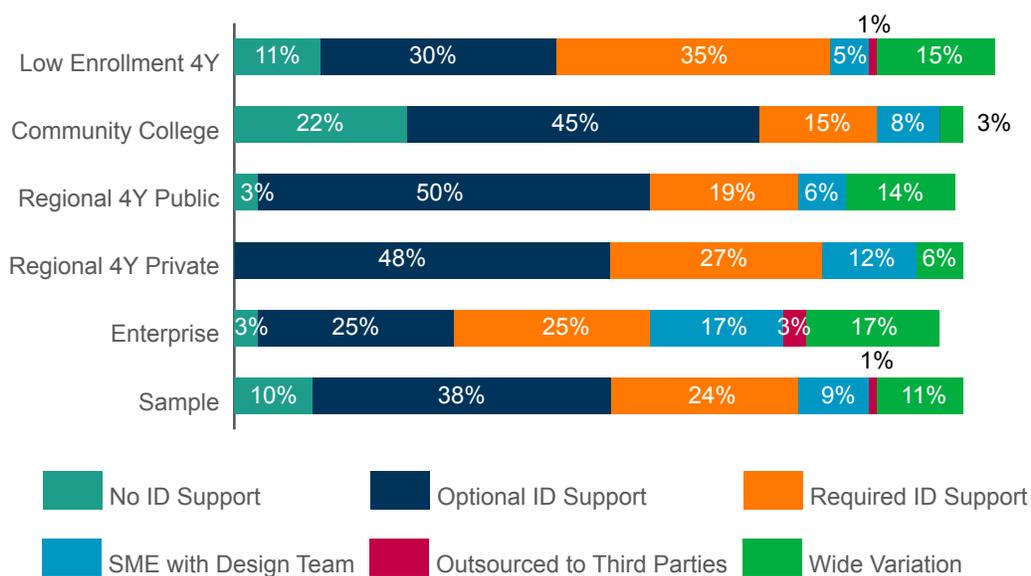ecialists in online course design, with 67% reporting absent or only optional design support. The comparable figure for enterprise programs is 28%, and other sectors range between these extremes.

A follow-up question asking chief online officers the reasons why instructional design support was voluntary, limited, or absent allowed multiple responses. The most common responses are shown in Figure 18.

As expected from the ID employment data, one of the most commonly cited reasons for not requiring faculty course developers' engagement with instructional designers is insufficient resources. Policies *requiring* the use of instructional design support or participation of both faculty and designers in teams obviously have financial implications for the institution, as do the absence of any such requirements. While cost is a constraint on investment in instructional design in all sectors, it is the dominant factor (cited in 68% of responses) only in the case of community colleges, most of which are perennially resource-challenged.

Faculty autonomy and academic freedom, however, emerges as an equal or greater concern in limiting or justifying the optional status of instructional design. In a small number of cases, these principles are indicated as controlled by in faculty contracts and collective bargaining agreements. In fact, if faculty autonomy and contractual limitations are combined, these factors as responsible for the lack of ID requirements.

Figure 18. Multiple Reasons Instructional Design Support is Absent or Optional

Legend:
- Faculty autonomy/academic freedom
- Contractual Restrictions
- Insufficient Resources
- Other

Category	Faculty autonomy/academic freedom	Contractual Restrictions	Insufficient Resources	Other
Enterprise	70%	10%	30%	30%
Regional 4Y Private	56%		50%	19%
Low Enrollment 4Y	63%	4%	50%	38%
Regional 4Y Public	68%	11%	47%	16%
Community College	55%	8%	68%	18%
Sample	58%	7%	58%	21%
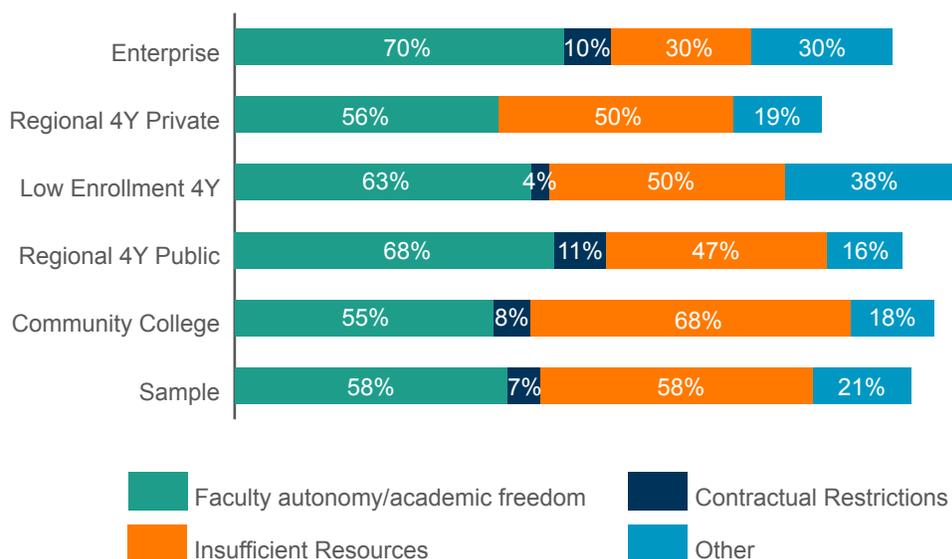
Text responses to questions about required use of instructional design support shed light on the range of attitudes toward this critical component of consistent, high-quality course design. Many responses cited the faculty culture at their institutions as a limiting factor. One writes, *"Lack of faculty buy-in [is] due to the customary practice of developing face-to-face without ID support."* More provocatively, another describes deep skepticism regarding the value of instructional design, citing the *"Institution-wide perspective that instructional design is just LMS button-pushing that could be done by student workers, if there was a budget for additional student workers for this task."*

Acknowledging faculty resistance, some respondents note a lack of leadership from the top or of sufficiently centralized control to implement online design requirements. *"Lack of administrative support combined with faculty apathy—everyone does what they want."* *"Lack of executive level support for a uniform and enforced model across the institution."*

Other respondents offered a more balanced view tracing the "cultural/historical" factors limiting the use of instructional design and ending on a positive note: *"Online course development began at the faculty/ program level—not from central distance learning (online). No instructional designer support [was] available in the beginning—later, when support was added, faculty were already creating online courses and many did not see the need for ID support. That does seem to be changing."* Internal tensions are apparent behind other responses, for example, citing a collective bargaining agreement: *"Poorly designed courses are their choice."*

Finally, many responding COOs indicated that although an instructional design requirement is currently lacking at their institution, they are on a path toward adding it: *"It just hasn't been the culture here. That is changing slowly."* *"We wish to make it mandatory but are transitioning from a purely optional (and limited) support model. Our goal is to have mandatory support over four years,"* and, from another, *"This will change in the very near future."*

Summing up, there seems to be growing acceptance that instructional design expertise can help to make online courses more effective, moving more institutions to create requirements in this area. More widespread adoption of ID requirements, however, faces some persistent headwinds. Cost is an ongoing constraint, and entrenched faculty attitudes skeptical of the validity of educational theory and resistant to surrendering any of their autonomy in the online or on-ground classroom will persist in many institutions, particularly those lacking centralized management of online activity.

ONLINE LEARNING GOVERNANCE

As Eric Fredericksen joins our team, we invite his reflections on the parallel efforts of the CHLOE project and his own studies on the question of online learning leadership, or, as characterized in prior CHLOE reports, the emergence of the chief online officer.

Building a Foundation for Studying Online Learning Leadership
By Eric E. Fredericksen

Background

In the mid-1990s, the offering of an online course from a college or university was not all that common. In the 25 years since then, the field of online education has evolved from a novel and unique idea to the mainstream, with approximately one out of three students in U.S. higher education taking at least one online course (Allen, Seaman, and Allen, 2018). Virtually all U.S. higher education institutions, across all sectors, have some online activity, and online enrollments continue to grow every year. There also has been a complementary level of attention to the field in the media, especially over the past five years. The visibility with executives, institutional leaders, and their governing boards has resulted in even more focus to online learning initiatives on our campuses. As a result, most institutions have created a position – or identified an individual to be on point – to lead their efforts often seen as vital to the future of the college or university. Despite all the strategic value associated with these endeavors, there has been a noted absence of any research about these positions, the individuals who fill them, and the overall leadership impact at the institution.

In recognition of this situation, the authors of this report responded by starting to explore this void about three years ago as did Fredericksen. While Quality Matters and Eduventures initially began this research on their own, they quickly connected these respective studies of online learning leaders, or, chief online officers, as they were designated in the CHLOE reports. While on the surface it seemed that the two studies were redundant, upon further detailed review we realized that they were complementary. Both were focused on leadership for online learning, but CHLOE (2017) and CHLOE 2 (2018) emphasized institutional approaches and quality activities, while "A National Study of Online Learning Leaders in U.S. Higher Education" (Fredericksen, 2017) and "A National Study of Online Learning Leaders in U.S. Community Colleges" (Fredericksen, 2018) centered on the position and the individuals in that role. Together they have provided a significant and solid foundation for future studies about leadership for online learning. We now have a baseline to build on.

A Challenge to the Studies

As noted in the initial journal articles by Fredericksen, a roadblock to conducting this research was that a list of these new leaders did not exist. Not knowing who to contact is quite a hurdle. Therefore, a substantial and prerequisite effort was to review, investigate, and scour the thousands of institutional web sites to identify the online learning leader. This was no small task as the presentation and content of the university web sites are unique. There is no single approach to how the position is organized or titled. Ultimately, this effort was successful and yielded 820 university leaders and 752 community college leaders for the studies by Fredericksen. These colleagues were contacted to provide feedback in three general areas: institutional context, the professional experience of the leader, and background information about the individual. It should be noted that this important dataset was merged with contact information used for the first two CHLOE surveys to enhance the accuracy of leaders receiving the CHLOE 3 Survey, as well as increasing the number of respondents.

Organizational Context

In the Fredericksen studies, it seemed crucial to understand the institutional context of the colleges and universities. This included basic characteristics such as public or private, Carnegie Classification, and total enrollment of the institution. How the school defined the scope of online learning was captured and, contrary to historical associations with distance education, most schools viewed online learning across all courses at the institution. Strategic goals at the universities were to "grow total institutional enrollments above existing levels," "promote instructional innovation," and "promote student engagement." At the community colleges, the top strategic goals were "enhance student retention" and "promote instructional innovation." Two of the top priorities and issues in both studies were reported as "faculty development and training" and "strategic planning for online learning." University leaders added "staffing for instructional design and faculty support" to their top-three list, while community college leaders added "providing student support."

When each school created the leadership position was another difference between the studies with more university positions in the past five to six years while the majority of community college positions have been in place longer. One interesting commonality was that approximately three out of four schools in both studies indicated that their initiatives in this area were a catalyst for organizational changes. There was also agreement in both studies in that the following units were unified under the online learning position: instructional design, faculty development and training, course design and multimedia development, learning management systems, online learning policy development, and academic/educational technology. It is noted that the operational or organizational responsibilities of the chief online officer, primary or co-responsibility, were also validated in CHLOE 2.

Professional Experience

The necessity to work effectively across a variety of constituent groups, specifically the faculty, underscored the need to learn more about the professional experience of these leaders in the Fredericksen studies. For example, did the position also include a faculty appointment? The answer was "yes" for half of the university leaders but only 31% of community college leaders. The studies also explored six areas of professional experience: face-to-face teaching, online teaching, management/leadership, educational research, instructional design, and IT. While it is understandable that there was some variation, in general, both studies reported that all of these skills were part of the background of the vast majority of online learning leaders. Given the requirement to collaborate with so many different units and groups at their institutions, this blend or combination of talents is essential for the leaders to be successful.

Background of the Individual

The third aspect of the Fredericksen studies focused on the background of the individual. This included gender, with an even 50/50 breakdown of university leaders, whereas 61% of community college leaders were female. The majority of individual leaders in both studies were at least 45 years old. Only 22% of university leaders and 27% of community college leaders were younger than 45. The majority of leaders in both studies have a significant amount of work experience in higher education with 65% of university leaders and 63% of community college leaders reporting at least 16 years. With regard to academic credentials, 62% of university leaders held a doctorate, but only 36% of community college leaders had earned that degree. A compelling case can be made about the value of the experience as a learner, so leaders were asked about whether they had been an online student. Sixty-five percent of

university leaders – and a remarkable 86% of community college leaders – had taken at least one online course (credit bearing). Thirteen percent of university leaders and a notable 34% of community college leaders had completed an online degree program.

An important attribute of the leadership position is the reporting relationship. The majority of leaders in the Fredericksen studies cited the provost or chief academic officer of the school or other senior academic leader (75% of university leaders and 61% of community college leaders). Very few, 3% to 5%, report to the chief information officer (CIO), validating the view that online learning is an academic endeavor, not an information technology (IT) function. This important point was also confirmed in CHLOE 2, which found that 69% of responding chief online officers report to the provost or chief academic officer. With respect to ongoing professional development and networking, we inquired about participation in online education organizations and associations. The top entities cited were Quality Matters (QM), the Online Learning Consortium (OLC), the League for Innovation, and the EDUCAUSE Learning Initiative (ELI).

Summary

We now have a baseline understanding of the leaders of online learning in U.S. higher education. Of course, not every individual is the same, but we can see a composite of very seasoned leaders with an essential blend of professional experience. We also have the institutional context for these leaders, which helps us understand the current state of this vital field that is so central now at our colleges and universities.

Lastly, a benefit of conducting the two Fredericksen studies, one with university leaders and one with community college leaders, affords us the ability to investigate what these leaders have in common and where they differ. A summary of these two dimensions is provided below.

University and Community College Online Learning Leaders Compared: Similarities and Differences

What do they have in common?

- Scope includes all courses for majority of institutions
- Online learning as a catalyst for organizational change
- The same six units/activities are unified in organization
- Reporting line through the provost or chief academic officer
- Faculty development and training the top priority
- Associate with OLC, QM, and ELI
- Years the individual has held this position
- Years of higher education experience
- Professional experience (some)
- Stay informed through peers and research

Where do they differ?

- University leaders more likely to have a faculty appointment
- University leaders more likely to hold doctoral degree
- Community college leaders more likely to have online student experience
- Community college leader positions have been in place longer
- Top goal of community college leaders is student retention and top goal for university leaders is growing enrollments

- Community colleges more likely to use service providers
- Community college leaders connected to state organizations
- University leaders more likely to stay informed through conferences and associations
- Gender – 61% female leaders in community colleges vs. 50% in universities

*Source: Fredericksen, 2018*

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Online Leadership and Governance: Recent Findings of the Expanded CHLOE Team

As online learning continues to expand and gain a permanent footing across higher education, it is not surprising that ad hoc arrangements, redefinition of existing administrative roles, and ambiguity persist at a significant percentage of institutions. Only five respondents out of 280, however, indicated that the chief online officer role did not exist at their institution, though another 15 to 20 indicated that the functions had been absorbed by an administrator with other duties and had no distinct title or office designation. Supplementary text responses in the survey indicate that fewer than 10% of institutions surveyed lack an individual who functions as their chief online officer.

Fifty-seven percent of COOs report that their position did not exist prior to their appointment, while 43% filled an existing post. The longest serving COO in our sample has held the position since 1995. The average length of service for our sample is nearly five years. Our sample indicates substantial recent growth in the number of COO positions – a trend we believe will continue in the coming years (Figure 19). Of 280 institutions, at least 110 such positions have been created since 2008. The actual number is likely higher, since we did not query whether any prior incumbents had been appointed to newly created posts in 2008 or later.

Figure 19. New Chief Online Officer Positions
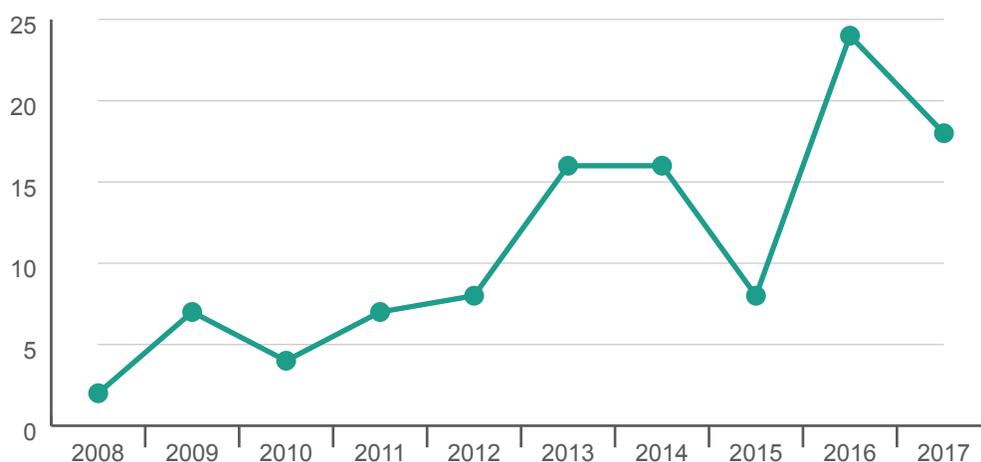
Sixty percent of COOs in the sample were appointed from within the institution, while 40% were recruited externally. Of those appointed from within, 72% came from the previous administration or technical support positions, 16% from faculty positions, and 12% were previously instructional designers. Of those recruited externally, almost 90% came from other administrative positions. Many hold faculty rank in addition to their administrative roles, but the survey did not attempt to establish the precise proportion.

Today, the great majority of COOs are aligned with academic administration. At least 71% of COOs in the sample report to an academic officer. The true percentage is somewhat higher, since at least some of the reported "director" titles undoubtedly fall under academic supervision. Only 8% report directly to the president, 7% to the chief continuing education officer, and 4% to the chief information officer. The remaining 10% list other officers who report directly or indirectly to the president or provost/chief academic officer.

COO Roles and Responsibilities

The CHLOE 2 Report examined the wide range of titles currently in use for administrators who function as chief online officers for their institutions (see CHLOE 2, pages 15-16). We concluded that this is a relatively recent and evolving position in the administrative hierarchy and that no common title has yet emerged. In CHLOE 3, the focus was on refining the most characteristic roles and responsibilities of this online leadership position.

In CHLOE 3, 90% or more of COOs report having either lead or share responsibility for the following online issues (% in parentheses indicates lead responsibility):

- Online Faculty Training (66% lead)
- Instructional Design for Online Courses (65%)
- Coordination with Academic Units (61%)
- Online Policy Development (58%)
- Online Quality Assurance (56%)
- Online Course Development (51%)
- Strategic Planning (43%)

Seventy-five percent or more of COOs report these additional responsibilities (% in parentheses indicates lead responsibility):

- External Representation (48%)
- Budgeting Online Functions (46%)
- LMS Support/Administration (46%)
- Regulatory Compliance (46%)
- Contracting with External Providers (41%)
- Orientation of Online Students (40%)
- Selection of LMS and Online Tools (39%)
- Data Gathering and Reporting (34%)
- Online Support Services (31%)
- Online Program Development (29%)
- Online Technical Support (27%)
- Accessibility (22%)

Shared Governance of Online Learning

More than 60% of reporting institutions indicate having one or more standing committees or councils dedicated to online learning issues (Figure 20). Their presence may reflect the impact of online learning on overall enrollment, revenue, and/or institutional mission. More study is needed to establish any cause-and-effect relationships. We can say, however, that these bodies are most common among community colleges (77%) and Enterprise Programs (72%) and least common among four-year, private non-profits (55%), and in public and private institutions with fewer than 1,000 online students (53%).

Figure 20. Institutions with One or More Online Committee(s) or Council(s)
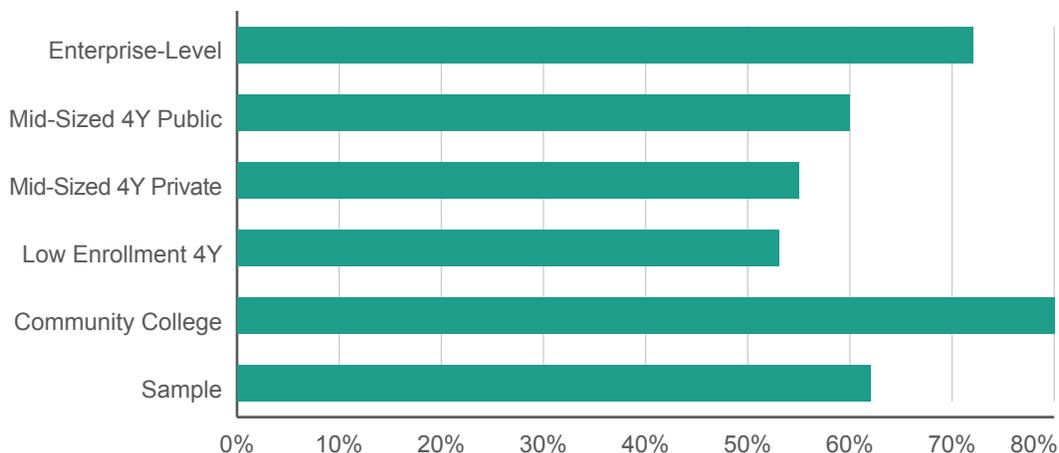
More than half of the remaining 38% of institutions report that existing institution-wide bodies with broader mandates handle online issues. For example, one respondent writes, *"Much of the strategic work happens at the Provost's council. There is a committee that organizes instructional design, academic technology, and faculty development. Many of the operational tasks are addressed by the team in the Graduate School and Continuing Education office."* Others report that constituent colleges, departments, or divisions within the institution address such issues: *"Currently there are various academic departments that have their own committees to discuss matters related to their own online courses and degree programs."*

Four respondents indicated that a dedicated committee was in the planning stages (e.g., *"No centralized committee yet, but we are planning to form one in the next year or so."*) One intriguing response reads, *"[An online committee] was disbanded over four years ago, [the] new president would like it back."* We believe that the trend toward establishing such bodies is likely to continue as mainstreaming affects an increasing number of institutions.

Follow-up questions focused on the title and role of the dedicated institution-wide online committees where they exist. While some have more generic titles, perhaps indicating a broader role than online learning, typical titles include such terms as: distance education, distance learning, eLearning, online, online learning, online program, and technology. The most common terms indicating the body's structure and scope are: committee, council, board, team, and advisory.

Most such committees (87%) include faculty members, 76% include the chief online officer, 72% include other administrators – deans, unit directors, etc. – and 19% include students as full members in most cases. Staff representatives are cited in many of the comments, prominently including instructional designers, technologists, and librarians. In 75% of cases, members are appointed by a senior institutional officer. Of those indicating the title of the appointing officer, 37 indicate the chief academic officer, 36 identify a subordinate academic officer or dean, 15 cite the COO, and 13 name the institution's president.

Chief online officers work closely with these bodies. The COO chairs or co-chairs the online committee or council 60% of the time, and serves as a member in one-third of the remaining cases. Several COOs report to their committees, and one COO respondent serves as its secretary. There are a significant number of cases (24%) in which the COO is not a member and has no clear relationship with an online committee or council. While this may not seem logical or efficient, possible reasons might include the weak or formative role of the current COO, incomplete restructuring to address the needs of online learning, competing jurisdictions within the institution, and other local conditions. No data was collected on this point.

The issues addressed by such committees closely parallel the chief online officer's responsibilities. In most cases, the role is advisory rather than determinative, as indicated in the list below by the low percentages that said their approval is required on the issues that come before these bodies most frequently:

- Setting Online Policies (22%)
- Strategic Planning for Online Learning (12%)
- Coordination Across Programs and Schools (7%)
- Technology Acquisition (5%)

While oversight of quality assurance measures was not included in our list of specific committee issues, it was cited as falling within committees' scope by a number of respondents. CHLOE will explore committee involvement in the online quality assurance process more fully in future surveys.

Mainstream online programs and the institutions that offer them recognize the distinctive needs of online learning for oversight and dedicated leadership. They are adding administrators and committees focused on coordinating online academic and support functions, policy, and long-term resource and strategic challenges. CHLOE data and other studies demonstrate that the number of institutions with chief online officers is increasing, year-by-year. We now have evidence that the establishment of dedicated committees is also becoming widespread, and we believe that their scope and influence is likely to continue to grow. Future CHLOE studies will continue to monitor these trends.

QUALITY ASSURANCE PROCESSES

The CHLOE 2 Report summarized findings on the quality assurance efforts at surveyed institutions in the following terms:

> *"The adoption of quality standards for online faculty development, course design, and program design, typically accompanied by training for faculty and staff, has become standard in the great majority of online programs. Quality benchmarks for student outcomes are almost as widely adopted ... We continue to see a lag in setting and applying quality standards to online support services ... On average, only about one-third of institutions in our sample are engaged in external evaluation of some or all of their online programs"* (CHLOE 2, page 3; see the CHLOE 2 Report and Appendices for detailed analysis).

Consistent with findings in the earlier CHLOE surveys, 85% of the CHLOE 3 respondents indicated that a quality assurance process was in place for one or more of the following five areas: online course design, program design, faculty development, support services, and student outcomes. While this percentage was also quite consistent among institution types, Enterprise Programs stood apart, with 94% reporting their implementation of quality assurance processes. (This and other distinctive QA practices by type and size of institution are examined more closely in the Online Learning Models section of this report.)

For further clarification, CHLOE 3 asked our 280-institution sample to indicate the source of their quality standards in each area. Multiple responses were permitted to indicate multiple sources – an option that most COOs chose. The results are summarized in Figure 21.

Figure 21. Sources of Quality Assurance Standards
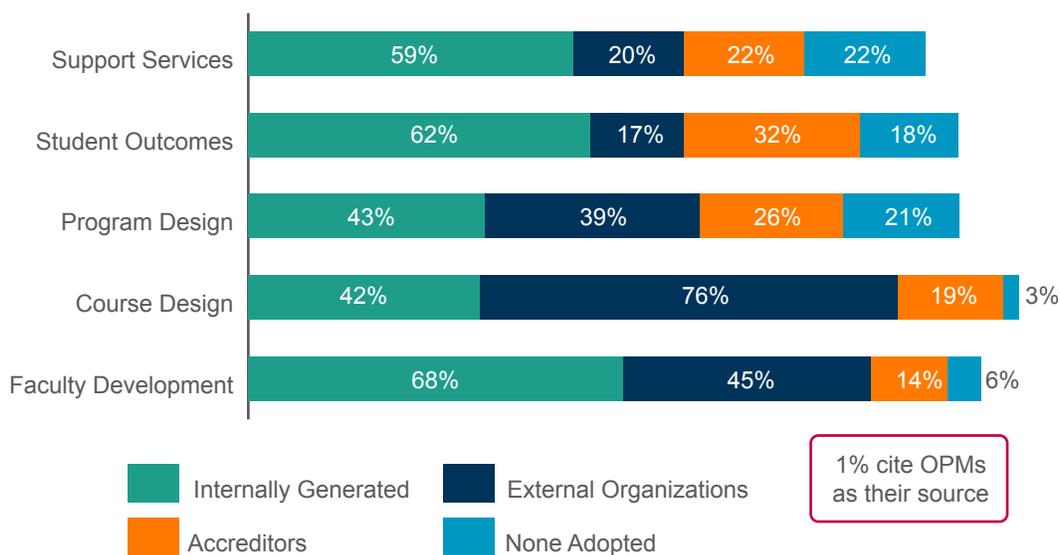
This level of commitment to quality assurance in the relatively young field of online learning is impressive, while still leaving room for substantial future growth. The "none adopted" column in the table above combines institutions that indicated that they did not have such a QA process in *any* of the listed areas with those who indicated that their institution had not adopted a quality assurance process *in a particular area*.

These results indicate that the implementation of quality standards has progressed substantially in institutions engaged in online education, with the deepest penetration in online course design. External organizations appear to have the greatest influence on course design standards and least on standards for student outcomes and support services. Accreditors' influence in defining online quality standards has been less than one might expect, ranging from 14% for faculty development to 32% for student outcomes. On the other hand, institutions appear most reliant on internally generated standards for faculty development, followed by student outcomes and support services.

If we break out the responses by online institution types (see the Models section of this report), greater differences within the sample are evident. In Table 4, we see these variations displayed for the adoption rate of standards promulgated by external organizations for each of five components of online quality surveyed.

A few observations are evident from this table. Enterprise Programs have been more ready to embrace externally generated standards than other sectors, and institutions with low or marginal online enrollment are least likely to adopt such standards.

Table 4. Adoption of Quality Standards Generated by an External Organization

Adoption of Quality Standards from External Organization	Course Design	Program Design	Faculty Development	Student Support Services	Student Outcomes
Enterprise	82%	47%	59%	32%	24%
Community College	85%	35%	55%	11%	16%
Regional 4Y Public	84%	55%	45%	35%	23%
CHLOE Sample	76%	39%	45%	20%	17%
Regional 4Y Private	86%	48%	55%	28%	24%
Low-Enrollment 4Y	63%	25%	32%	8%	5%

■ More than 10 percentage points above sample ■ More than 10 percentage points below sample

In Table 5, it is apparent that institutions of all types, in keeping with their fundamental role of setting faculty standards and monitoring faculty performance, look within to shape standards for faculty development. For online faculty, such standards might include requirements for training in online technology and pedagogy.

Table 5. Institutionally Generated Standards

Quality Standards Generated by the Institution	Course Design	Program Design	Faculty Development	Student Support Services	Student Outcomes
Enterprise	50%	59%	74%	62%	62%
Community College	35%	29%	74%	61%	65%
Regional 4Y Public	29%	33%	53%	48%	55%
CHLOE Sample	42%	39%	61%	59%	62%
Regional 4Y Private	48%	55%	62%	55%	59%
Low-Enrollment 4Y	42%	44%	66%	63%	63%

■ More than 10 percentage points above sample ■ More than 10 percentage points below sample

The prevalence of internally generated standards varies most widely in QA for online program design, with enterprise and mid-sized private programs substantially more proactive than the sample, and community colleges significantly less so. The evidence that less than 30% of community colleges internally generate quality standards for online program design is likely related to the lack of emphasis on complete, structured online degree programs in these institutions.

Also worth noting, Enterprise institutions appear to be the most proactive in setting quality standards for course and program design and faculty development. Given that these institutions also show the most frequent adoption of standards developed by external organizations in these areas, one is drawn to the conclusion that these institutions are likely more focused on visible quality assurance measures than are other sectors.

As noted earlier, the relatively lesser role of accrediting bodies in influencing online quality standards is somewhat surprising (see Table 6). It may indicate that, apart from their growing emphasis on student outcomes – including outcomes for online students – it would appear that the accreditors may be more focused on general principles and are not providing the specific criteria and benchmarks needed to create meaningful and measurable quality standards. Since organizations promulgating more specific standards and good practices for online programs make efforts to assure that their standards are consistent with regional accreditors' principles, the accreditors may be achieving their objectives indirectly through the institutional adoption of such organizations' standards.

Table 6. Adoption of Accreditor-Generated Standards

Adoption of Quality Standards from Accrediting Body	Course Design	Program Design	Faculty Development	Student Support Services	Student Outcomes
Enterprise	24%	38%	24%	35%	56%
Community College	19%	15%	13%	16%	16%
Regional 4Y Public	19%	26%	10%	29%	52%
CHLOE Sample	19%	26%	14%	22%	32%
Regional 4Y Private	21%	28%	17%	24%	48%
Low Enrollment	15%	27%	14%	19%	24%

■ More than 10 percentage points above sample   ■ More than 10 percentage points below sample

One observation is that, yet again, the Enterprise institutions seem to be leading the quality assurance movement, based on their greater attention to cues from the accrediting community in online program design, student support services, and student outcomes.

CHLOE 3 builds upon the earlier CHLOE reports that established the widespread adoption of quality standards by exploring more fully the nature of the quality assurance process. What triggers QA reviews? Who's in charge? Are the reviews internal, external, or some combination of the two? How are review findings implemented when change is recommended?

CHLOE 3 asked which units are responsible for training and promotion of quality standards. Table 7 summarizes the responses, including "other" responses, most of which fell into one of the four listed categories. The percentage of non-respondents varied significantly from one QA area to another, indicating that benchmarks for various indicators of online quality are at different levels of maturity (acceptance).

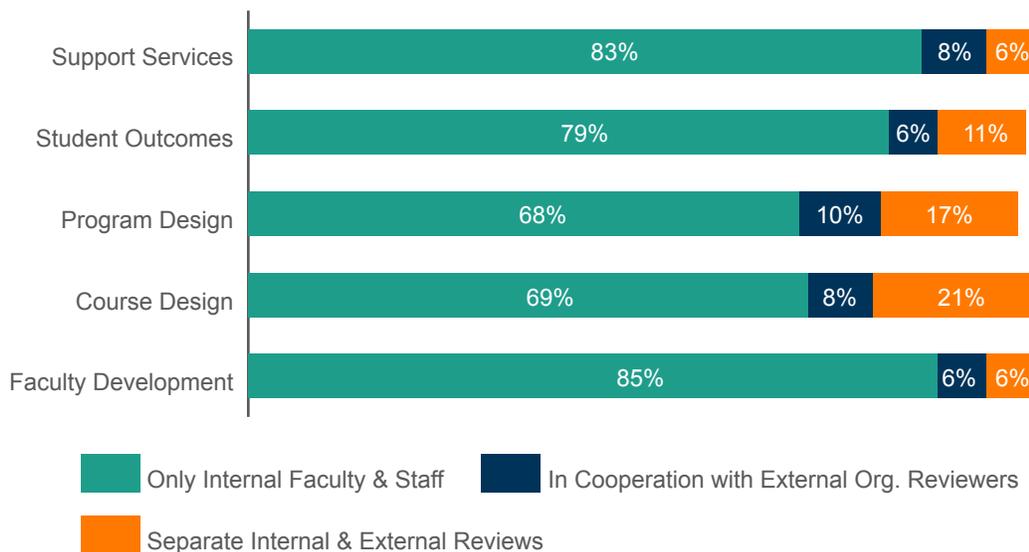**Table 7. Who Trains Faculty and Staff on Quality Assurance Standards and Practices?**

Units Responsible for QA Training	Central Online Learning Unit	Central Quality Assurance Unit	Academic Departments	Colleges or Divisions	Other	No QA Reviews in This Area
Course Design	57%	5%	10%	6%	6%	17%
Program Design	30%	3%	15%	17%	3%	32%
Faculty Development	59%	5%	5%	5%	6%	20%
Student Support Services	36%	4%	7%	10%	9%	33%
Student Outcomes	10%	3%	32%	21%	4%	30%

These findings highlight the role of a central online learning unit (typically under the direction of the chief online officer) in promoting quality standards, except those addressing student outcomes. This responsibility appears to fall mainly on academic departments and divisions/colleges. The minor role of central quality assurance units in contrast to online learning units is surprising in light of increases in institutional QA efforts in response to the expanding federal, state, and accreditation reporting requirements.

Seventy-nine percent of COOs report that QA reviews are carried out based on adopted standards. Responsibility for scheduling and monitoring these reviews tracks closely with the units tasked with training and advocacy, but, in most cases, institutional faculty and staff carry out the actual reviews. Based on responses from those institutions that conduct QA reviews on a regular basis, exclusively internal reviews predominate for faculty development, support services, and student outcomes, and only marginally less so for course and program design, as summarized in Figure 22.
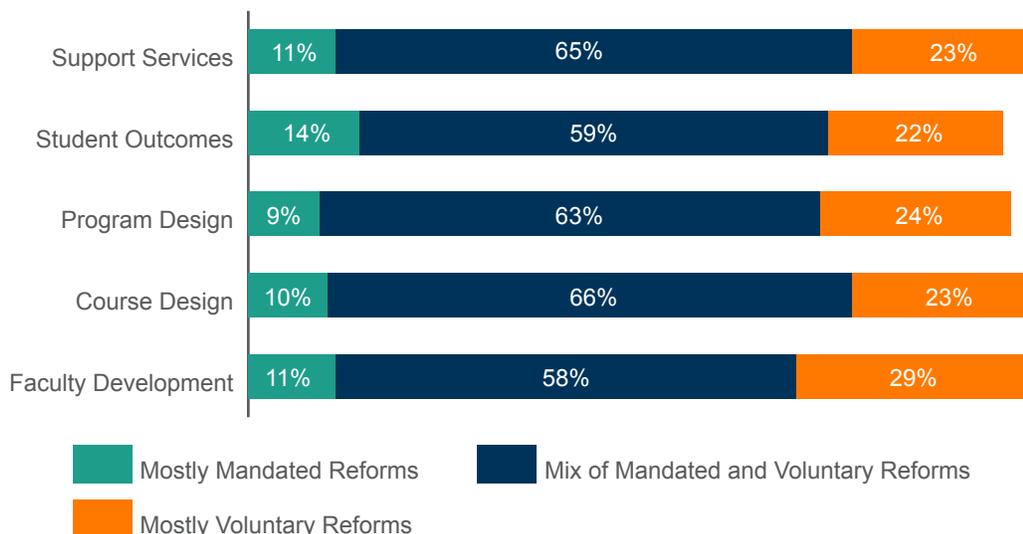
External review is widely understood to promote objectivity and introduce comparative standards and norms. Nonetheless, it is used by only a fraction of institutions carrying out QA reviews. Combining the last two columns in this table gives us an indication of how relatively infrequently external organizations and reviewers are called upon to carry out official QA reviews, either independently or in collaboration with an internal review process. The frequency of an external component to the QA process ranges from 12% of institutions carrying out faculty development reviews to 29% conducting course design reviews. These low percentages may reflect several factors: (1) Overall sensitivity (and resistance) to exposing institutional performance factors to voluntary external review and accepting external judgments; and (2) A paucity of trusted external review options that can be easily implemented and completed at an acceptable cost. Future CHLOE studies will examine this issue more closely.

Figure 22. Who Participates in Quality Assurance Reviews?

	Only Internal Faculty & Staff	In Cooperation with External Org. Reviewers	Separate Internal & External Reviews
Support Services	83%	8%	6%
Student Outcomes	79%	6%	11%
Program Design	68%	10%	17%
Course Design	69%	8%	21%
Faculty Development	85%	6%	6%

- Only Internal Faculty & Staff
- In Cooperation with External Org. Reviewers
- Separate Internal & External Reviews

Continuing to track the QA review process, once set in motion, CHLOE 3 asked what steps are taken to implement constructive feedback from completed reviews. Figure 23 indicates that only 9-14% of institutions in our sample that conduct QA reviews respond primarily by mandating changes based on review recommendations. A process mandating recommended changes would invest QA reviews with the greatest consequence but is likely to generate greater internal resistance, unless, perhaps, it is accompanied by a firm commitment of the resources needed (e.g., increased staffing, course redesign, etc.) to rectify any identified deficiencies.

Figure 23. How Are Quality Assurance Recommendations Implemented?

	Mostly Mandated Reforms	Mix of Mandated and Voluntary Reforms	Mostly Voluntary Reforms
Support Services	11%	65%	23%
Student Outcomes	14%	59%	22%
Program Design	9%	63%	24%
Course Design	10%	66%	23%
Faculty Development	11%	58%	29%

- Mostly Mandated Reforms
- Mix of Mandated and Voluntary Reforms
- Mostly Voluntary Reforms

Nearly two-thirds of institutions have adopted a process that combines review-based mandates with voluntary reforms and that, in practice, is likely to result in negotiated rather than mandated change. Some reforms may reflect review recommendations, but, by embedding them in a process that

encourages voluntary reforms as well, a degree of choice and autonomy is preserved for the faculty, staff, and mid-level managers needed to carry them out, including the flexibility to modify changes in light of available resources. These factors play an even greater role in the remaining quarter of reporting institutions that indicate reforms based on QA reviews are only voluntary – a stance that is most likely to reassure faculty and staff members that unpalatable reforms or reallocations of resources will not be imposed as a result of their engagement in a QA process.

OUTCOMES ACCOUNTABILITY

By far the most common and widely used benchmarks of student success employed to measure the effectiveness of fully online programs are retention and graduation rates (Table 8). These are consistently the measures cited most often by all types of institutions.

The second most-cited benchmark is student achievement of program objectives. We believe that, in most cases, grades are used as the measure of program objective achievement, though, in some cases, a summative evaluation of students by program occurs. The range of responses varies considerably by institution/online program type. At the high end, 72% of enterprise institutions in the CHLOE sample cite this benchmark, while only 48% of community colleges do so. Other groups fall between these extremes.

**Table 8. What Outcomes Do Institutions Track for Fully Online Students?**

Outcomes Measured for Fully Online Students	Large - Enterprise	Mid-Sized Public	Low Enrollment	Community Colleges	Private 4Y	Sample
Retention/ Graduation	78%	76%	78%	77%	81%	80%
Program Objectives	72%	53%	63%	48%	67%	59%
Post-Grad Employment	28%	31%	41%	28%	41%	36%
Alumni Feedback	39%	31%	34%	10%	38%	31%
Student Debt	36%	25%	21%	13%	21%	23%
Employer Feedback	22%	25%	21%	21%	19%	22%
Graduate Earnings	19%	22%	15%	18%	13%	17%
None of the Above	14%	11%	18%	20%	13%	14%

More than 10 percentage points above sample   More than 10 percentage points below sample

In the case of community colleges, the relatively low reliance on student achievement of online program objectives may reflect the lack of emphasis on developing and offering fully online programs. Future CHLOE surveys should pursue this issue further and ask respondents for a definition of "achievement of program objectives."

As indicated graphically in Figure 24, there is a sharp drop-off in the frequency with which other student outcomes measures are cited. For the entire sample, only post-graduation employment in a related field is cited by more than one-third of respondents (36%), followed by alumni feedback (31%). Less than one-quarter of respondents report any reliance on graduate debt, earnings data, or employer feedback.

Figure 24. External Outcomes Are Tracked by Less Than Half of Online Programs
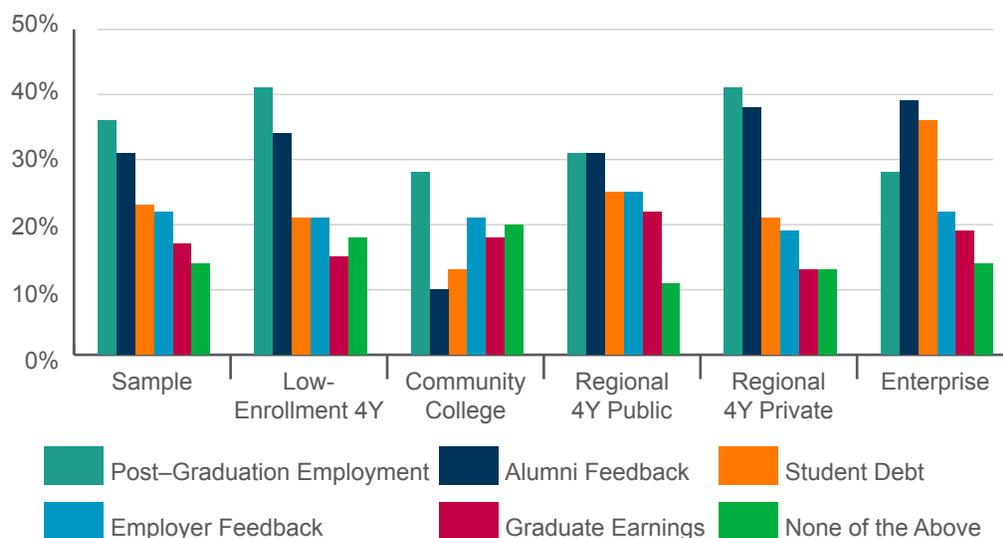
A possible explanation of the low percentages of institutions relying on these outcomes measures might be a lack of adequate data, but, in response to a question about the adequacy of available data, only 28% indicated a lack of employer feedback data, and less than one-quarter cited this issue in relation to debt (9%) and earnings data (17%). We are drawn to the conclusion that the majority of institutions are not focused on these outcomes measures and indicators of their students' success, nor are they being pressed by regulators, accreditors, and the general public to provide this kind of accountability.

CHLOE 3 asked chief online officers their conclusions about how the performance of fully online students at their institution compared to the performance of on-ground students, based on the two outcomes benchmarks on which they most rely: grades and retention/graduation rates in most cases. For the sample as a whole, 11% indicated that their fully online students performed better than campus students, while 35% indicated that they performed worse, with the majority (54%) judging their performance to be about the same. There were substantial differences by sector, however, as detailed in Figure 25.

CHLOE 3
BEHIND THE NUMBERS

Figure 25. COOs Compare Fully Online vs. On-Ground Student Performance
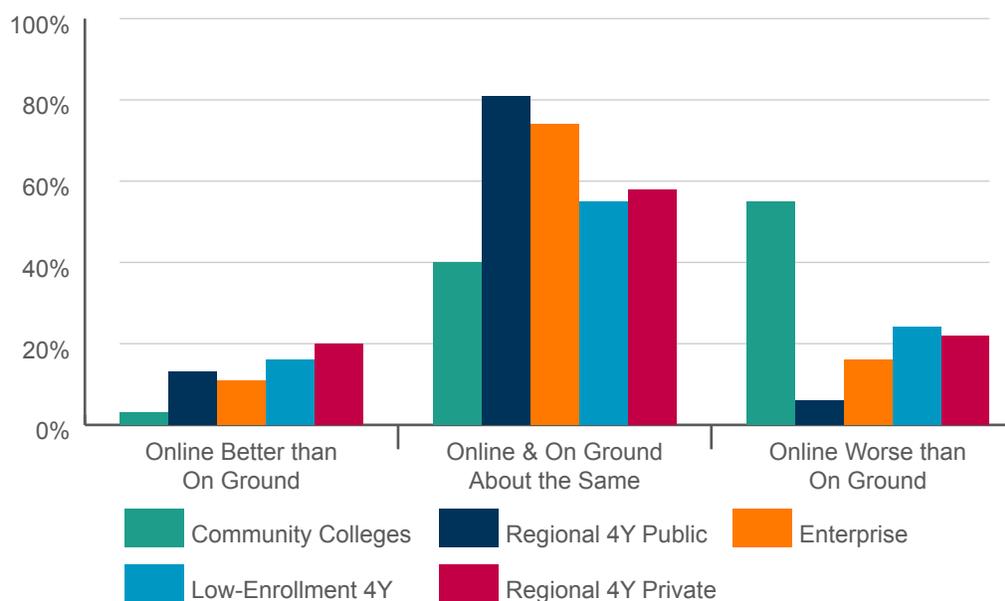
Most striking is the feedback from community colleges, with only 3% reporting superior online student performance, and 55% reporting worse online performance. Combining better and equivalent results for online students, 94% of regional, public four-year institutions reported that their fully online students performed as well or better than their on-ground peers, and the comparable number for enterprise institutions (85%) is also impressive. In contrast, only 43% of community colleges in the sample report this level of success with their fully online students. Such factors as differing online student characteristics, online program structure, pedagogy, and student support infrastructure may contribute to these disparate outcomes, but only 11% of respondents chose to answer the follow-up questions aimed at identifying the causes. Future CHLOE surveys will need to explore this issue more rigorously.

MODELS EMERGING FROM CHLOE DATA

As the CHLOE Survey expands, online program types are emerging from the data which segment our sample, including:

- **Control** – public, private nonprofit, and private for-profit
- **Degree level** – two-year, four-year, and post-baccalaureate
- **Online enrollment** – large (more than 7,500 fully and partly online students), mid-sized (1,000 - 7,500 online students), and small (less than 1,000 online students)

By cross-tabulating results for these sectors over a wide range of issues and several years of data, we are able to identify five groupings based on online enrollment size and control that share many other characteristics, and to designate them as online learning models. These include:

1. **Enterprise Institutions**
2. **Regional Public Institutions**
3. **Regional Private Institutions**

QUALITY MATTERS
QM

encoura
Eduventures Research

4. **Low-Enrollment Institutions**

5. **Community Colleges**

To merit designation as a model, the majority of institutions that fit its definition must be found to possess a number of other features in common involving online management, policy, pedagogy, accountability, and outcomes. No individual member of a model needs share all these features, but, if there are too many exceptions within the group, the prospective model loses its value in describing current practice or identifying trends.

While additional models are under consideration based on these principles, as a practical matter, no model is viable unless the number of institutions in the CHLOE sample is sufficient to justify statistical analysis. Current models range in size from 33 to 74 institutions, or at least 10% of the current sample:

1. Enterprise Institutions (36 in CHLOE 3 Sample)

Enterprise Institutions enroll more than 7,500 fully and partly online students. They may be two- or four-year public, private nonprofit, or for-profit institutions, but more than four out of five are public institutions. Enterprise Institutions in the CHLOE sample average 60 individual online degree and certificate programs, which is more than three times the number in other four-year institutions. Nearly 60% of Enterprise online degree and certificate programs are at the graduate level, but, on average, undergraduate students outnumber graduate students 4:1. Enterprise Programs recruit students nationally. About 8% of online Enterprise Institutions in our sample offer only online courses, but, on average, only 45% of Enterprise students are exclusively online, while 55% are taking a mix of on-ground and online courses at the institution.

Overall online enrollment growth for Enterprise institutions was 5.8%, from spring 2017 to spring 2018, but more than 14% reported some modest slippage in online enrollment (2.4%). For those reporting increased online enrollment, the increases ranged from 1% to 21%.

Some additional observations about Enterprise Institutions:

- Programs at this level are obliged to address the strategic and policy implications of long-term commitments to online learning because of dependence on their sizeable online enrollment.

- Another concomitant of their size and complexity is centralization of management and support functions.

- Continued programmatic and enrollment growth is a core strategic goal driven by the necessity to support their online infrastructure and hedge against increased competition and any demand fluctuations.

- Innovation in online learning tools and techniques is prevalent in this model, driven by the search for more efficiency and scalability, the desire to maintain a competitive edge, and the availability of a revenue stream to support ongoing investment in technology and training.

- Enterprise Programs are also likely to adopt robust and scalable policies and practices in course/program development, faculty regulation and compensation, outsourcing, and quality assurance.

2. Regional Four-Year Public Institutions (36 in CHLOE 3 Sample)

This model consists of mid-sized, four-year public institutions that enroll between 1,000 and 7,500 fully and partly online students. Flagship state universities are excluded from this group because, although they may share a number of characteristics with other institutions of similar size, commitment to honor their statewide mandate sets them apart from other state and locally supported public institutions. Schools in the Regional Four-Year Public Institution model offer an average of 18 online degree and certificate programs, with two out of three online programs at the graduate level. More than three-quarters of their

online students (77%), however, are undergraduate. On average, 69% of online students in this model are taking a mix of face-to-face and online courses while 31% are taking exclusively online courses.

Overall, fully online enrollment in this model increased by 7.3% from spring 2017 to spring 2018. Two institutions reported online enrollment declines of less than 1%. Thirty-one percent of institutions had stable online enrollment and nearly 64% had increases ranging from 1% to 40% (averaging 11.5%).

Additional characteristics of this model include:

- The highest level of success (of any model) with online students, with 94% indicating that their online students perform as well or better than on-ground students.

- Plans to add new online programs in the next few years are more aggressive than any other model except the Enterprise Programs, but growth may be less focused and coordinated than in other models.

- There is less evidence among institutions in this model of a consistent strategic approach to online learning; in fact, this model exhibits the greatest diversity of approaches to online learning. One-third stress online program development, but 22% stress individual courses, 17% report a balance between the two, and 27% acknowledge wide variation or neutrality within the institution. This suggests continued division regarding the role of online learning within the sector and likely also at the institutional level.

3. Regional Four-Year Private Nonprofit Institutions (33 in CHLOE 3 Sample)

Regional four-year private nonprofit institutions enroll between 1,000 and 7,500 fully and partly online students. While this group includes such widely different institutions as liberal arts colleges, religiously affiliated institutions, specialized institutions (e.g., business, technology, engineering, health professional, etc.), and others, the CHLOE sample does not contain a sufficient number in any of these sub-categories to consider separate models at this time, and they do share a number of common characteristics. Institutions in this model offer, on average, more than 18 online degree and certificate programs, with over 60% at the graduate level. These proportions are roughly matched by online enrollment, which averages 45% undergraduate and 55% graduate. On average, 58% of online students are enrolled exclusively in online courses, and 42% are taking online and on-ground courses at the same time.

Overall online enrollment growth for regional private institutions was 7.8% from spring 2017 to spring 2018. Two-thirds of institutions in this model reported year-over-year growth in online enrollment from spring 2017 to spring 2018, and 15% reported some decline in online enrollment. More than 14% reported some modest slippage in online enrollment averaging 2.4%. For those reporting increased online enrollment, the increases ranged from 1% to 27%.

Additional characteristics of this model include the following:

- A higher proportion of Regional Private Institutions report centralization of management and support services for online learning than any other model.

- This model is most strongly committed to a focus on fully online programs.

- The scale of plans to develop new fully online programs over the next several years keeps pace with the sample as a whole, but shows less than average interest in adding blended programs.

- Institutions in this model are more likely (45%) to be investing in developing alternative credentials than any except the Enterprise model.

- Programs in this model are more likely to track post-graduation employment, with 41% reporting attention to this benchmark.

- Nearly one-third of institutions in this model report that their online students perform more poorly

than on-ground students. With the exception of the Community College model, more COOs at Regional Private Programs conclude that, in general, their online students perform more poorly than on-ground students. This is particularly noteworthy because this model has the highest proportion of online graduate students, who are widely regarded as being more prepared for online study than undergraduates.

- Participation in quality assurance activities in this model falls slightly below the sample average.

4. Low-Enrollment Four-Year Public and Private Institutions (74 in CHLOE 3 Sample)

All four-year public and private nonprofit institutions with fewer than 1,000 fully and partly online students are included in this model. More than four out of five institutions in this model are private nonprofits. Institutions in this model offer an average of 16 online degree and certificate programs, with 44% at the graduate level. More than 72% of online students are enrolled in undergraduate programs and 27% are graduate students. Nearly 76% of their online students are mixing online and on-ground courses, and the remaining 24% are taking exclusively online courses. This model projects the least aggressive online program development plans of any sector over the next few years. Not surprisingly, the highest proportion of institutions in this model (78%) report lack of interest and investment in alternative credentials.

Overall online enrollment growth for low online enrollment institutions was 12% from spring 2017 to spring 2018. This represents extremely large percentage increases from a low 2017 base in a small number of institutions ranging as high as 100%, to 200%. Only 45% of the Low-Enrollment Programs reported any increase, with 49% reporting level online enrollment and 5% reporting declines.

Other observations about this model include the following:

- Continued debate over the value and role of online learning is probably most alive in this model, despite most institutions in this model reporting strong performance by their online students, with 84% claiming equal or better performance than on-ground students.

- Among four-year programs, this model shows the highest proportion of decentralized online management and, conversely, the lowest percentage of centralized management. This pattern may reflect the reality that online learning has not risen to the level of being a strategic priority for many institutions in this category.

- Members divide fairly equally between those emphasizing individual online course development (35%) and those focused on online program development (28%). High percentages also report a balance between the two or lack of any strategic direction. This pattern likely reflects continued ambivalence toward online learning and/or selective development of online options at the discretion of individual faculty members and departments.

- Low-Enrollment Programs report the lowest percentages of adoption and implementation of online quality assurance standards, overall.

5. Community and Technical Colleges (73 in CHLOE Sample)

This model is comprised of two-year public institutions with fewer than 7,500 fully and partly online students (Community College Programs). Two-year institutions with more than 7,500 online students are included in the Enterprise Program model. On average, 62% of online students are combining online and face-to-face courses, while only 38% are enrolled exclusively in online courses. All online students and programs are undergraduate. These programs report less concern about online competition than any other model but acknowledge the perennial threat of other local institutions, primarily four-year public programs. After more than a decade of online enrollment growth compensating for declining on-ground enrollment, in the past several years a growing percentage of community colleges reported declining

online enrollment as well. If this trend continues, it may foreshadow the limits of demand for online learning that other more recently maturing sectors are only beginning to experience.

Overall online enrollment growth for mid-sized and small two-year institutions averaged 6.3% from spring 2017 to spring 2018, but this growth was concentrated in the 55% of institutions reporting increased online enrollment. For those reporting increased online enrollment, the increases ranged from 1% to 27% (average 13.3%). Of the remainder, 31.5% reported stable enrollment, and 14% reported a decline in online enrollment ranging from 1 to 17% (average 5.3%).

Several additional characteristics of this model are as follows:

- As a group, these institutions have long engaged in forms of distance education to supplement on-ground programs and fulfill the instructional needs of their districts. Their migration from other forms of distance learning to internet-based online learning generally began earlier than that of other sectors but has always been constrained by limited resources to address technological needs and to incentivize faculty. Nevertheless, to take advantage of the convenience of online learning for the population they serve and the efficiencies offered by online delivery, they have pioneered online pedagogies, policies, and practices.

- While quality assurance activities have been limited by resource availability, this group affirms online pedagogical theory and quality assurance standards more than other models.

Why Models?

We believe that a focus on common practices among sub-groups of institutions delivering online courses and programs may prove of value to the online community at large in the following ways:

- A model with characteristics shared by many institutions serves to focus attention on the forces, conditions, values, and goals behind specific practices, policies, and strategies.

- Different models reveal alternative approaches to online learning. As such, they can delineate choices and alternate futures that online programs may wish to consider in their planning processes.

- Awareness of the characteristics of the model that it most closely matches can help an institution to understand the forces that are shaping its online experience; to benchmark its own practices, policies, and strategies; to consider steps to maximize its opportunities *within* the model; or to strategize on how to alter its practices and plans to move toward a different or aspirational model.

Contrasting Characteristics: Degrees of Centralization

While a trend toward centralizing resources, management, and support to meet the needs of online learning is a general tendency, there are significant differences among the models. Figures 26 and 27 plot these differences.

In Figure 26, combining different forms of centralization – control by a single unit within the institutions (e.g., a department or college), a completely separate entity, or separately accredited online institutions – indicates that nearly 70% of the CHLOE sample employs some form of centralization to serve the needs of online learning. All sectors and models follow this pattern to varying degrees. Low online enrollment institutions do so least often while four-year private nonprofits and enterprise institutions are most centralized.

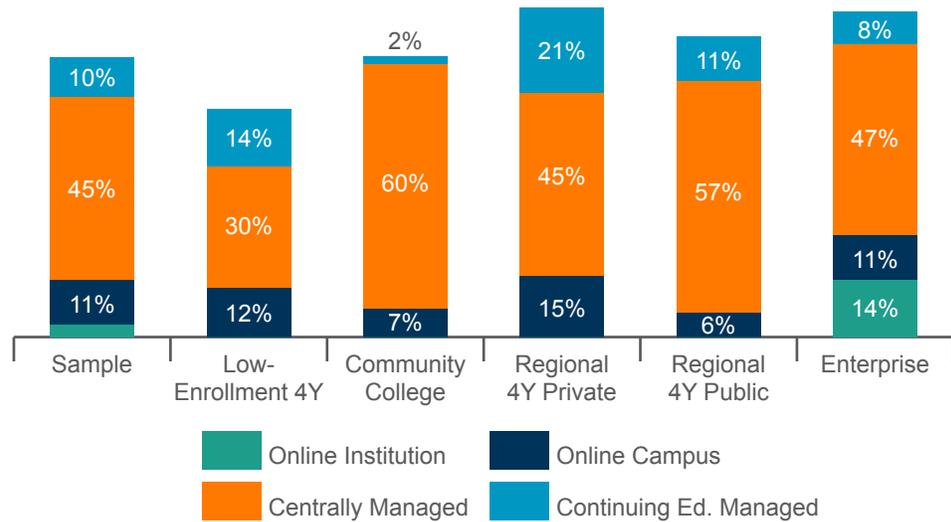**Figure 26. Forms of Centralized Management and Budgeting of Online Programs**

Figure 27 focuses on the centralization of support functions. Overall, the same pattern emerges, but the continued strong presence of distributed management of these services in community colleges and institutions with less than 1,000 online students underscores differences among the models. Again, CHLOE data points to the relatively high degree of centralization in mid-sized, four-year, private nonprofits, and enterprise institutions.

Figure 27. Degrees of Centralization of Online Support Functions
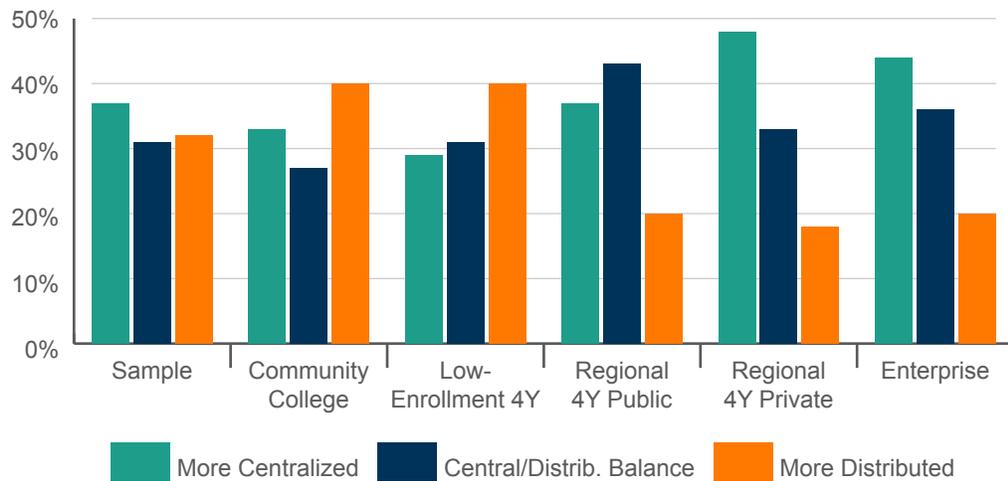
Contrasting Characteristics: Breadth of Online Program

The scope of online degree and certificate programs is a key characteristic of each model, as shown in Figure 28. Program breadth, which is related to institution type, shapes the challenge of delivering quality online education in a variety of ways, including priority setting for online program development and coordination of online program offerings. Program diversity by discipline, level, etc., also adds complexity to policies and practices affecting online learning and places added demands on the resources needed to adequately support the unique needs of different online programs.

Figure 28. Breadth of Online Program Differentiates Models

Legend:
- Associate Degrees
- Bachelor's Degrees
- Master's Degrees
- Doctoral Degrees
- Undergrad Certificates
- Graduate Certificates
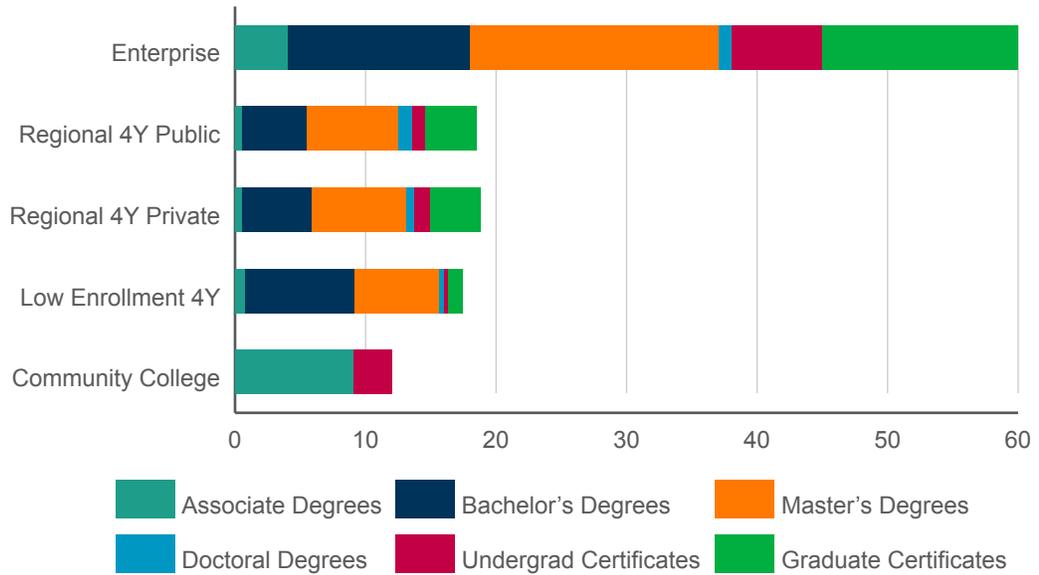
Contrasting Characteristics: Online Enrollment Trend

Recent enrollment trends also show significantly differential results by model, as indicated in Figure 29.

**Figure 29. Spring 2017 to Spring 2018 Fully Online Enrollment by Model**

Legend:
- Increased
- Remained the Same
- Decreased
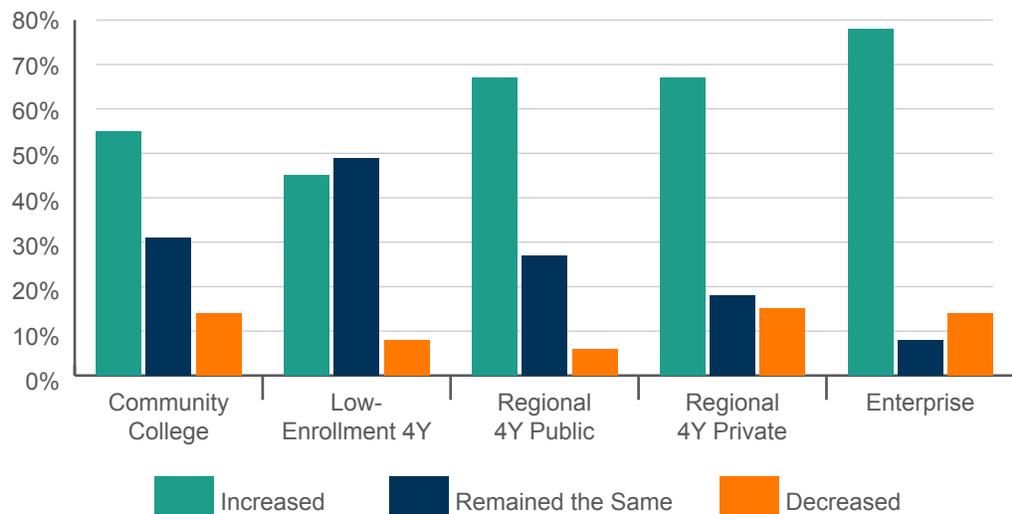
Interpretation of these results is discussed more fully in the section above on Enrollment Trends and Types of Online Learning.

All models project further programmatic growth in the next few years. Figure 30 displays the most conservative interpretation of the projections provided by the CHLOE 3 respondents (i.e., the bottom number in each range of projected new programs – 0, 1-4, 5-9 or 10 and above). Actual disparities

between models may be significantly greater, but CHLOE's collection of the data in ranges, rather than actual numbers of new programs, does not permit a more definitive projection.

Figure 30. New Programs Per Institution in 1-3 Years by Model (Low Estimate)
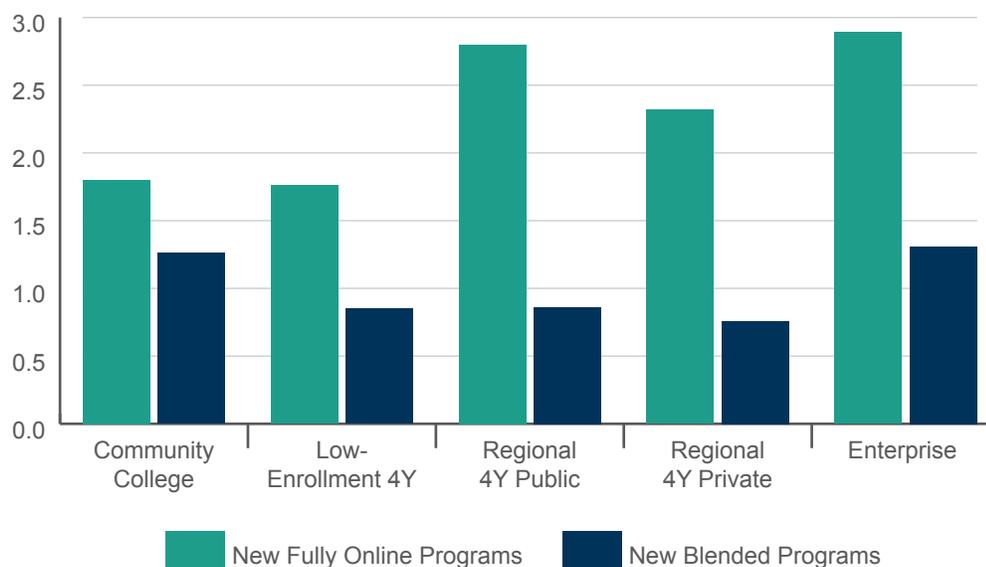
Despite the limits of our evidence, we can see from this Figure that most currently low-enrollment online programs do not appear intent on expanding choices and capacity to close the gap with mid-sized and Enterprise Programs. The relatively low projections by community colleges more likely reflect that they are already maxed out in terms of online program creation, within their limited degree authorization.

Contrasting Characteristics: Competitive Threats

The perception of their most serious competitive threats also varies by model. As summarized in Figure 31, most surveyed institutions agree that competition is increasing. Public institutions at all levels – Enterprise, Regional Public, Regional Private, and Community College Programs – see online programs from other public institutions as a main source of competition. Private nonprofits – most prevalent in the low-enrollment and regional private models – stand out as concerned about competition from online programs at other private institutions.

The models differ most sharply in identifying their primary competitors geographically (Figure 31). Schools in the community college model are most likely to cite online competition from nearby institutions. Regional public programs identify other institutions in the region as their primary competitors. Enterprise institutions that recruit online students nationally point to the competition from other institutions that also do so. The pattern breaks down in low-enrollment institutions (mostly private) and Regional Private Programs, which indicate more concern about nationally recruiting online programs than local and regional competitors.

Figure 31. Models Have Divergent Perceptions of Online Competition
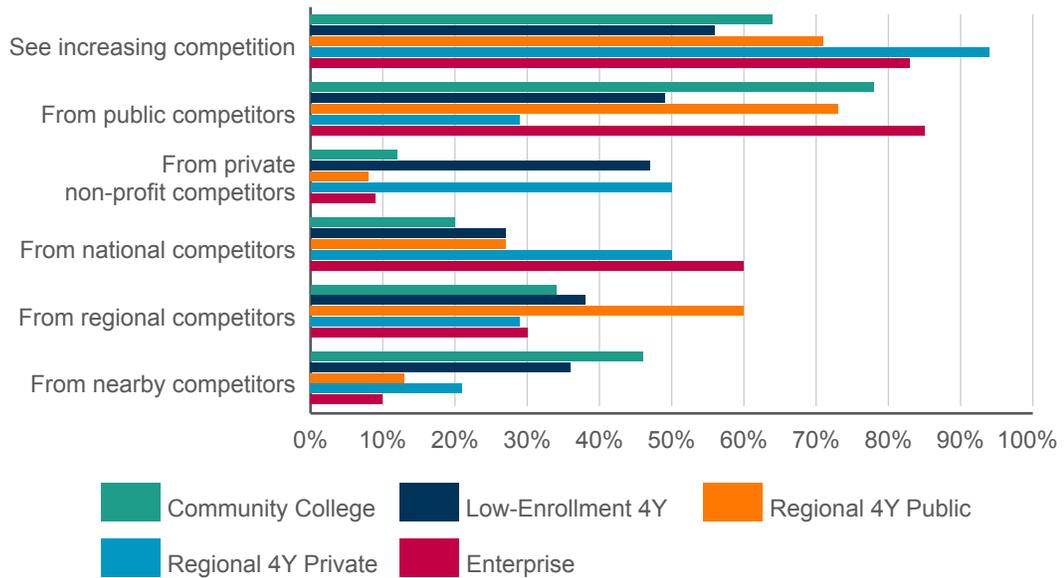

These perceptions reveal a great deal about the ways online programs and their host institutions see themselves as well as their competition. Such attitudes influence efforts to meet competitive challenges and affect online curricula, tuition rates, marketing efforts, etc. differentially by model. (See the Enrollment section of this report for further analysis.)

Contrasting Characteristics: Course/Program Development Priorities

Turning to online curriculum and pedagogy, we find that the majority of institutions in all models favor development of fully online courses over blended or hybrid courses, but the extent of this emphasis varies by model, as evident in Figure 32.

Figure 32. All Models Favor Fully Online Courses but by Differing Degrees
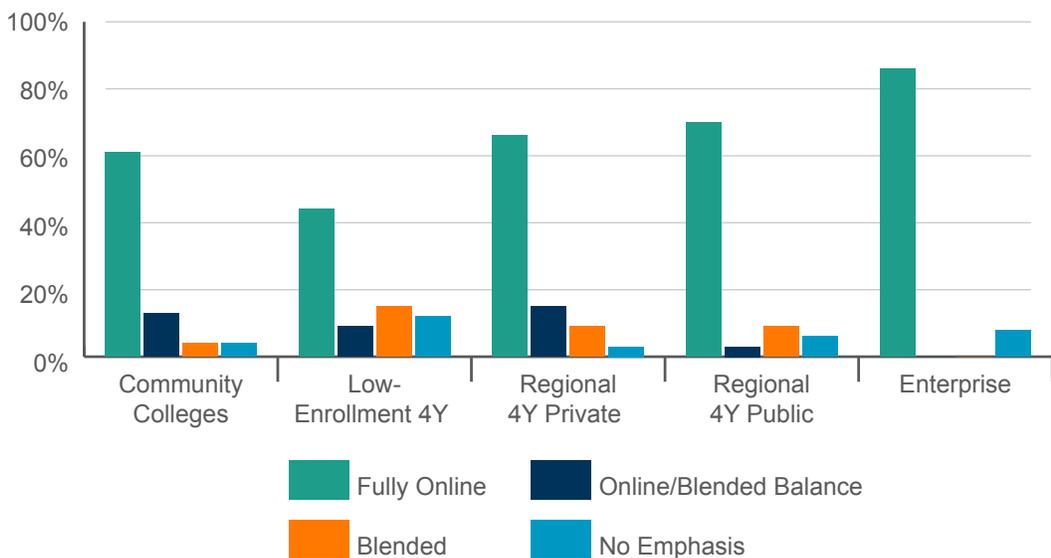
In Figure 33, major differences are also evident in the emphasis placed on either individual online course development or coordinated online program development. The priority given to course development in community colleges is understandable in light of their inability to offer programs beyond the associate degree level and their service to students who, in many cases, are not seeking to complete a two-year degree program but, rather, to acquire specific skills and coursework and move on. In contrast, the Enterprise institutions focus on building and retaining students in fully online degree and certificate programs and are not inclined to spend resources building courses that do not lead to program completion. The pattern for Regional Private institutions is quite similar to that of the Enterprise institutions, perhaps suggesting that a number of these institutions are positioning themselves for significant further growth.

Figure 33. Emphasis on Online Courses vs. Fully Online Programs
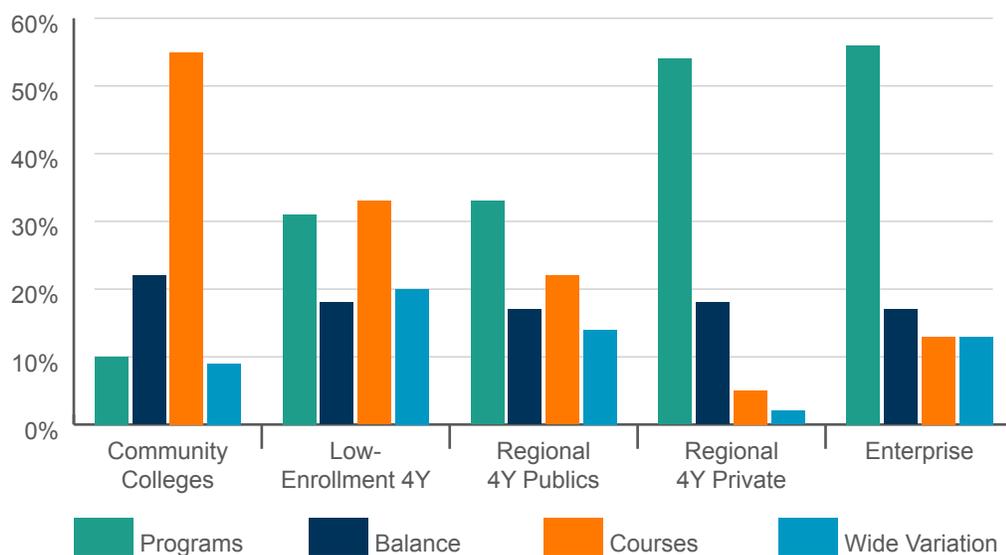
Low-Enrollment and Regional Public Programs seem split on this question, suggesting that there is no predominant online development strategy within these sectors. The relatively high percentage in these models reporting wide variation (20% in low-enrollment institutions) adds to this impression. Substantial numbers of institutions emphasize program development while similar numbers concentrate on supporting individual online courses or balance their efforts between the two, either by policy or from the lack of it.

Contrasting Characteristics: Student Outcomes

COO perceptions of online student performance compared to on-ground student performance also exhibit significant differences by model. The differences by model suggest the need to explore further the factors that may be influencing these outcomes, including different online student demographics and preparation levels *between* models, discrepant online and on-ground student characteristics within each model, student and faculty training for participation in online study, prevailing pedagogies, technical infrastructure, etc. While there is clearly room for further improvement, the CHLOE data suggest a hopeful picture overall.

As indicated in Figure 34, only community college COOs find that a majority of online students performed more poorly than on-ground students at their institutions. COOs at nearly one-third of Regional Private institutions also report poorer performance by online students. In contrast, COOs at Regional Public institutions estimate that 94% of online students were performing comparably to or better than their on-ground counterparts. Enterprise institution respondents reported that 85% of their online students also

met this performance level, compared to 75% for Low-Enrollment institutions. These are impressively high numbers that support claims of "no significant difference."

Figure 34. Chief Online Officer Perceptions of Online vs. On-Ground Student Results
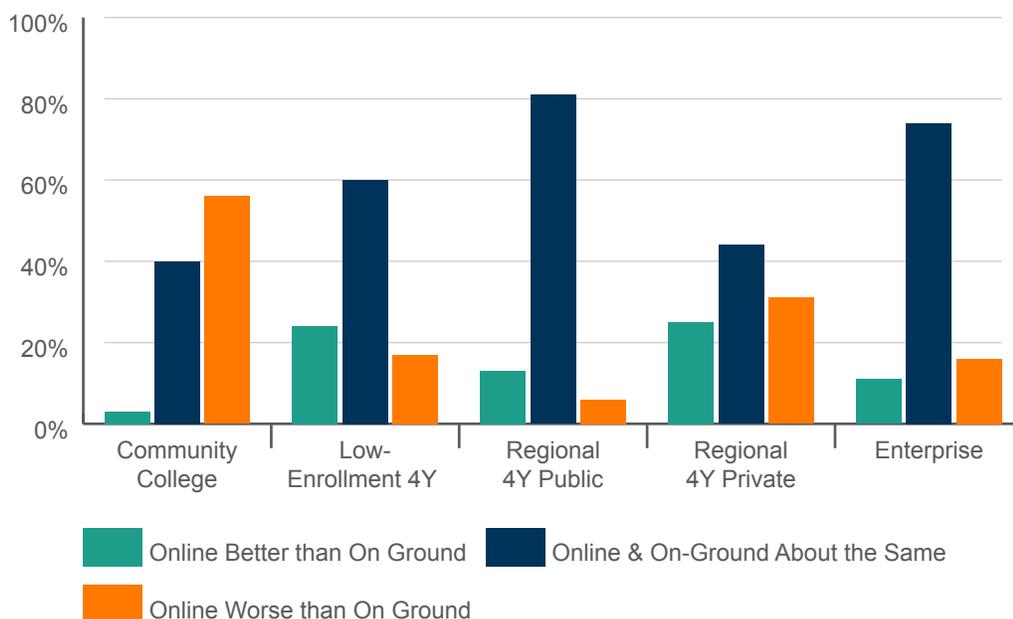
The varying results by model may indicate differences in admissions selectivity not only for online students but also for the on-ground population with which they are being compared. Differences in program size, pedagogy, and faculty composition may also contribute. Further analysis is needed before placing too much weight on these COO perceptions.

CHLOE will continue to track and refine our understanding of these models and what they can tell us about alternative approaches to building and maintaining successful online programs.

LOOKING AHEAD – THE CHLOE 4 SURVEY

In some areas where several consecutive CHLOE surveys have confirmed practices and trends, CHLOE 4 will take a break and focus on topics that warrant deeper investigation, are showing year-over-year change, or new topics that promise to broaden our understanding of online learning. Here is a list of topics under consideration for the CHLOE 4 Survey:

- The online learning/information technology interface and COO/CIO relationship
- The role of the COO in technology vetting and implementation
- The percentage of COO time on different issues
- The scope, staffing, funding, and centralization of online student support services
- Preparing faculty for online teaching
- Accessibility compliance and the COO role in advocacy and enforcement
- Online course length and accelerated programs
- Microcredentials – use, scale, and prospects

- Student authentication and remote exam proctoring

- Cross-institutional collaboration and outsourcing

- Revisiting online costs, revenue, and pricing

- Interviews with COOs on key issues

We urge readers to encourage the chief online officers at their institutions to participate in the CHLOE 4 Survey to ensure that it is broadly reflective of the U.S. online learning community. If you or your COO has been involved in prior CHLOE surveys, she, he, or you will be contacted to participate in CHLOE 4. If the appropriate person has not been involved in prior CHLOE surveys, or there has been a recent change of online learning leadership, please contact Barbra Burch (bburch@qualitymatters.org) to have the appropriate individual added to our list.

ACKNOWLEDGMENTS

Appendix

ENROLLMENT TRENDS

The appendix summarizes online enrollment trends in U.S. higher education. This is essential context for the CHLOE survey.

"Distance-Exclusive" student enrollment at U.S. colleges and universities has been tracked by the US Department for Education since 2012, at both the undergraduate and graduate level. "Distance-Exclusive" encompasses any form of distance learning, but it is safe to assume that the vast majority of it consists of fully online courses and programs. Students enrolled in "some" distance courses are also reported.

Overall enrollment in U.S. higher education has fallen since the recession-induced spike of 2008-2012. Numbers at for-profit schools and community colleges have been affected most negatively, and enrollment among older undergraduates is noticeably down. Four-year public and private nonprofit institutions have grown modestly, as has the number of graduate students.

Distance enrollment has increased every year since 2012, both at the undergraduate and the graduate level, meaning that online students account for a bigger proportion of the total.

Undergraduate

Table A1 shows enrollment at the undergraduate level by type of institution.

Table A1. "Distance-Exclusive" Undergraduate Enrollment in U.S. Higher Education 2012-17

Type of Institution	2012	2013	2014	2015	2016	2017	Growth 2012-2017	Growth 2016-2017
Public 4Y	366,675	398,616	445,303	474,105	545,646	590,022	61%	8%
Private 4Y	261,840	289,449	346,539	387,640	405,420	439,955	68%	9%
For-Profit 4Y	675,647	613,140	592,823	513,471	467,576	431,683	-36%	-8%
Public 2Y	657,117	662,821	690,151	717,537	708,887	743,835	13%	5%
Private 2Y	798	822	814	1,203	17,547	19,723	N/A	N/A

Type of Institution	2012	2013	2014	2015	2016	2017	Growth 2012-2017	Growth 2016-2017
For-Profit 2Y	21,681	19,322	21,600	10,514	10,035	10,214	-53%	2%
TOTAL (in millions)	1.98	1.98	2.10	2.10	2.16	2.24	13%	4%
Growth	-	<0.1%	5.6%	0.3%	2.4%	3.7%		

Source: analysis of IPEDS data. Fall enrollment for U.S., degree-granting, Title IV-eligible schools – 2017 is the most recent year available.

Table A1 tells a number of different stories. Overall, fully online undergraduate student numbers grew modestly over the period, up 13% in five years. Remember that total undergraduate enrollment fell during this time, particularly among older students—the very population most attracted to online learning. On average, compared to campus-based options, online programs were more successful in recruiting and retaining adult undergraduates.

While total online undergraduate enrollment grew 13% between 2012 and 2017, four-year public and private nonprofit enrollment jumped by more than 60%. Four-year for-profit schools slipped by one-third and two-year for-profits lost half their online undergraduates.

Historical for-profit dominance in the online market, out of proportion to the significance of for-profit schools in higher education as a whole, has steadily eroded as nonprofit schools have begun to normalize market share. The emergence of plentiful online offerings from nonprofits, all over the country, has dented the distinctiveness of for-profits that built a business claiming that most traditional institutions had little time for non-traditional students and online learning. Of course, some for-profits have collapsed or retreated in the face of federal, state and accreditor scrutiny of certain institutional practices and outcomes.

For-profit schools have experienced boom-and-bust cycles before. Some of today's most sophisticated for-profits have assumed institutional nonprofit status – alongside commercial operating agreements in some cases – but it is an open question whether the for-profit sector will revive at some point in the future, armed with new innovations. Distance enrollment growth at private two-year schools, and decline among their for-profit counterparts, is partly a function of for-profit conversions to nonprofit status.

At the undergraduate level, fully online programs have helped nonprofits enroll and retain more students in a challenging overall environment, but not all schools have grown online undergraduate enrollment every year. Over the period, among schools with at least 50 fully online undergraduates the prior year, about 60% saw positive enrollment growth the following year. A large minority saw enrollment decline. Median fully online undergraduate enrollment is about 400, rising slowly.

Table A2 shows the proportion of undergraduates reported as fully online by sector, in 2012 and 2017.

Table A2. "Distance Exclusive" Undergraduate Share by Sector

Sector	% of Undergraduates Fully Online (Fall 2012)	% of Undergraduates Fully Online (Fall 2017)
Public 4Y	5.5%	8.0%
Private 4Y	9.7%	15.9%
For-Profit 4Y	57.5%	66.1%
Public 2Y	9.6%	12.9%
Private 2Y	1.7%	36.5%
For-Profit 2Y	5.3%	4.3%
TOTAL	**11.1%**	**13.3%**

Source: analysis of IPEDS data.

Despite strong growth in fully online undergraduate headcount, such students still represent a small proportion of all undergraduates at nonprofit, four-year schools. The same is true for public, two-year institutions. A majority of for-profit, four-year undergraduates study fully online, and this ratio has grown despite the decline in for-profit online enrollment. For-profits are becoming more dependent on a delivery mode where they are rapidly losing share.

At over 13% fully online in 2017, Eduventures and Quality Matters estimate that fully online students account for 15% of undergraduates today.

The higher 2017 percentages for private, two- and four-year schools are due, in part, to the conversion of a number of for-profit schools to nonprofit status over the period. Examples includes Keiser University, Herzing University, Independence University, and the surviving colleges under the former Corinthian Colleges, now part of Zenith Education. Such transfers somewhat overstate private, nonprofit fully online undergraduate enrollment, and for-profit enrollment decline. This is especially the case at the two-year level. Additional conversions, post 2017 – notably Grand Canyon University- will show up in future data.

"Some distance" enrollment is larger than "fully distance." In Fall 2017, over 3.27 million undergraduates took at least one online course but were not studying fully online. That is 19% of all undergraduates – up from 14% in 2012. Growth in "some distance" was up 7% between 2016 and 2017 compared to less than 4% for "fully distance." Public two- and four-year institutions are most visible in the "some" online category, reporting 20% and 24% of undergraduates under this heading. For most undergraduates, institutions may view blended learning rather than fully online as the best fit.

Graduate

Trends at the graduate level resemble undergraduate developments but with some important differences. There are blurred lines between traditional and non-traditional graduate students, making age a less useful marker. The majority of graduate students are over the age of 25 on entry, and many combine study with employment and family.

Despite a stronger economy, graduate enrollment overall has continued to grow, if more slowly than during and immediately after the Great Recession. The steady shift of peak undergraduate enrollment—driven by the largest high school graduating class in U.S. history in 2009—to the graduate level is also a factor.

Online learning plays a much more significant role in graduate education, compared to undergraduate. Table 4 shows "Distance-Exclusive" graduate enrollment over time.

Table A3. "Distance-Exclusive" Graduate Enrollment in U.S. Higher Education 2012-17

Graduate	2012	2013	2014	2015	2016	2017	Growth 2012-2017	Growth 2016-2017
Public 4Y	208,334	221,585	242,551	265,277	291,578	323,909	55%	11.1%
Private 4Y	204,790	229,823	257,196	279,779	305,653	328,731	61%	7.6%
For-Profit 4Y	226,014	225,672	225,424	223,812	221,344	216,068	-4.4%	-2.4%
TOTAL	639,138	677,080	725,171	768,868	818,575	868,708	36%	6.1%
Growth	-	5.9%	7.1%	6.0%	6.5%	6.1%		

Source: Eduventures analysis of IPEDS data.

As at the undergraduate level, nonprofit schools, both public and private, made big gains in recent years online. For-profits, however, have avoided the loss they suffered among undergraduates, holding the line on graduate enrollment. Many of the best-regarded for-profit schools have a sizeable graduate portfolio. In 2012, the three sectors were more-or-less even in terms of market share. By 2016, private schools had edged into the lead with a 38% share, publics with 37%, and for-profits slipping to 25%.

Online growth has outpaced graduate enrollment growth overall. Looking at the total number of graduate students, numbers actually fell between 2010 and 2013 and then grew by 1% or less each year until 2016, before falling slightly in 2017. Fully online graduate students average more than 6% annual growth.

Median fully online graduate enrollment is about 300 students, rising slowly. As at the undergraduate level, in any year over the period, about 60% of schools reporting at least 50 fully online graduate students one year recorded positive growth the following year. This is a caution that far from all schools grow their online student body every year, and a significant minority record decline.

Table A4 shows the proportion of graduate students reported as fully online by sector in 2012 and 2017.

Table A4. "Distance-Exclusive" Graduate Students – Share by Sector

Sector	% of Graduate Students Fully Online (Fall 2012)	% of Graduate Students Fully Online (Fall 2017)
Public 4Y	14.8%	22.2%
Private 4Y	17.0%	25.5%
For-Profit 4Y	76.5%	84.2%
TOTAL	**22.0%**	**28.9%**

Source: analysis of IPEDS data.

Fully online students are mainstream in all three sectors, with almost all for-profit graduate students studying online. Altogether, almost 29% of all graduate students were fully online in 2017, a market share that Eduventures estimates is at 30% or more in 2019.

"Some online" students—defined in federal data as taking one or more fully distance courses but short of an entirely online experience—are much less significant at the graduate level, compared to undergraduate. The "some online" market share was 7.5% in 2012, rising to 9.1% in 2017. This is one-third of the fully online graduate headcount, with slower growth. The highest "some online" ratio is 10% at public four-year schools.

Graduate students are, by definition: successful academically, older, and many value the convenience of online study when juggling work and family. When also factoring in the short length of the master's degree—the most common graduate program—fully online study is often a good fit. By contrast, many undergraduates may welcome the flexibility of online study but struggle over the course of a lengthy bachelor's degree—the most common undergraduate program. For undergraduates, "some online" may be a useful hybrid. This explains why "some online" enrollment is much higher than fully online at the undergraduate level.

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