



# Online Education and Its Growing Importance

growing segments of higher education in the U.S. — and demand continues to rise (Seaman, Allen, & Seaman, 2018; Ginder, Kelly-Reid, & Mann, 2019). Today, it has been more than two decades since the launch of the first online degree programs, and in recent years the number of online programs available and student enrollment in them has grown dramatically alongside consumer awareness and employer acceptance of online offerings.

nline education is one of the fastest

As higher education institutions seek to meet the needs of today's contemporary students and leverage the capabilities of new technologies, online educational delivery has also become a top academic priority that is central to the strategies of many colleges and universities. A 2019 national survey of college and university chief academic officers (CAOs) produced by Inside Higher Ed and Gallup found that 83% planned to increase their emphasis on growing

online programs and offerings (Lederman, 2019). In addition, this survey found that online education is a greater priority for academic investment: 56% of CAOs agreed or strongly agreed that they planned to "allocate major funds" to online programs in 2019 — up from 46% four years prior.

Despite the growing importance of and demand for online study, it is only in the last few years that better data on the scale and scope of online learning in the U.S. has become available — through the efforts of government, researchers, and other parties.

The goal of this report is to review and synthesize the latest research to provide a high-level overview of the current state of the online education market — including its size and character; the characteristics of online students; what is known about the quality of online educational outcomes; and the perspectives of employers, among other key dynamics.

#### An Important Definitional and Data Note

Many core sources of data on online education – in particular, the definitive statistics collected by the U.S. Department of Education – are framed around "distance education," a somewhat archaic term that has its origins in correspondence study, but that is today essentially synonymous with fully online education. Thus, for analytical purposes this report equates the term distance education with "online education." Our discussion of online education here also focuses on students who study *exclusively or principally online* ("online students"), whereas a broader trend in higher education and the focus of many data sources is also on traditional on-campus students who take online courses as part of their experience. The discussion here is also focused on the universe of accredited college and university programs eligible for federal financial aid (Title IV). Finally, it is important to note that due to customary delays in data collection, publication, and the nature of academic research, the latest statistics and sources available in 2019 often date from 2016-2018. Overall, the goal here is to synthesize these sources to describe the most up-to-date ("2019") view of the market possible, making clear any important distinctions and dates in the course of the text and citations.

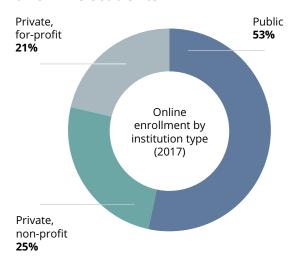
## The Online Education Landscape

Based on the most recent data available from the U.S. Department of Education, there were more than 3.1 million students enrolled in fully online education as of Fall 2017 (the most recent data available) — and this represented 15% of all students enrolled in U.S. colleges and universities (Ginder, Kelly-Reid, & Mann, 2019).

As illustrated in the graphic below, the largest share of these students were enrolled in undergraduate programs at four-year (1.46 million) and two-year institutions (774,000), in addition to 869,000 students at the graduate level. This reflects the overall popularity of online bachelor's degrees — but it is also worth noting that as a share of all students enrolled in any type of graduate-level program in the U.S., 29% of them are studying fully online. At two-year institutions, it is more common for students to pursue some online courses as part of their studies than to study fully online (Ginder, Kelly-Reid & Mann, 2019; Legon, Garrett, & Fredericksen, 2019).

FIGURE 2:

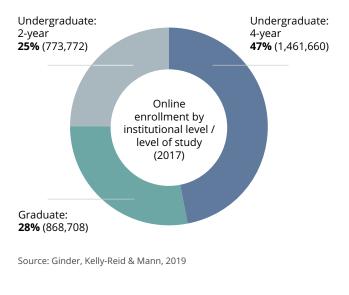
# Public Colleges Enroll Majority of Online Students



Source: Ginder, Kelly-Reid & Mann, 2019

FIGURE 1:

#### Who Studies Online and Where



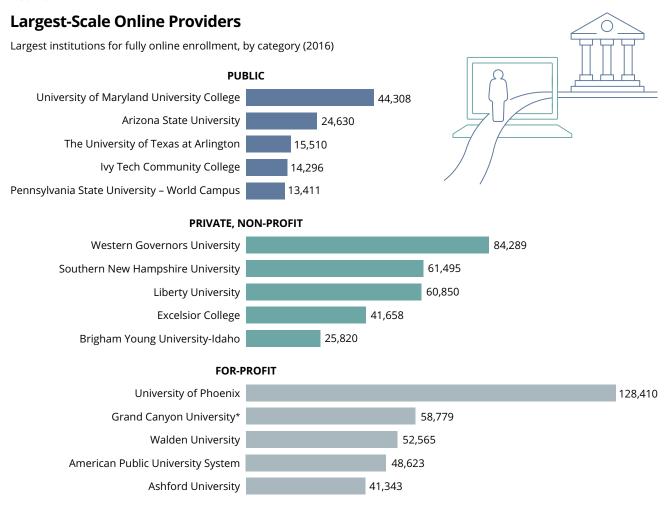
Fully online enrollment in graduate-level programs has been growing at a faster rate, with a 6.1% increase from 2016 to 2017, compared to a 3.7% increase at the undergraduate level, according to U.S. Department of Education data (Ginder et al., 2019; Ginder, Kelly-Reid, & Mann, 2017).

Public institutions — such as state colleges and universities — are the most active in enrolling online students, with a 53% share of all online students. Private, non-profit institutions enroll 25% of the total, and for-profit institutions another 21%.

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3.1 million students study fully online. Enrollment in fully online programs has been growing at 4% annual rate - greatly outpacing higher education in the U.S. overall.

FIGURE 3:



Source: Seaman, Allen, & Seaman, 2018

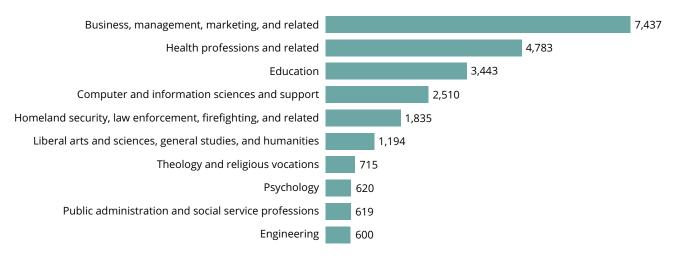
A decade ago, the term "online university" was often synonymous with online education programs – but there are relatively few exclusively online universities, and the vast majority (87%) of online enrollment is in traditional institutions that also offer on-campus programs (Ginder et al., 2019). Indeed, much of the growth in online program offerings and the credibility of online learning as a delivery model has been driven by some of the most well-known colleges and universities in the country embracing it over the last decade. At the same time, the higher-education institutions with the largest scale online enrollment are not surprisingly those with a long heritage of focusing on online learning. These top providers in terms of their student count include forprofit institutions such as the University of Phoenix and Grand Canyon University\*; private, non-profit universities such as Western Governors University, Liberty University, and Southern New Hampshire University; and public universities such as University of Maryland University College and Arizona State University (Seaman, Allen, & Seaman, 2018).

A recent analysis of U.S. Department of Education data by Di Xu and Ying Xu (2019) usefully reported on how many exclusively online programs are available in a given subject area. This found that the most common online program offerings are in business, health, education, and computer science (academic disciplines that notably also command a large share of all higher education enrollment including on-campus programs). These top four subject areas alone account for more than 60% of all exclusively online programs offered by U.S. colleges

<sup>\*</sup>Grand Canyon University has since converted to a non-profit institution.

## **Most Common Online Program: Business**

Most commonly offered online programs by subject area (2016) – Top 10



Source: Xu and Xu, 2019

and universities — reflecting the clear professional orientation of most online students and programs.

In terms of the delivery model and technology utilized, online education takes many forms. Historically, most online courses have been built around "asynchronous" delivery — in which students interact and access materials independent of a specific time. This is often through pre-recorded video, interactive discussion forums, group projects, and offline readings. According to a recent survey of online learning officers from nearly 300 colleges and universities, this is the case today at most institutions (Legon, Garrett, & Fredericksen, 2019) — and this approach helps to make online programs accessible and flexible for busy working adults. At the same time, live/realtime ("synchronous") faculty and student interaction through video-based online conferencing platforms is increasingly common, and has long been woven into many online programs.

Most online education programs include meaningful interaction with faculty and feedback from them. This is different from more self-paced massively open online courses (MOOCs), which have risen in popularity in recent years (Shah, 2019).

The vast majority of college and universities' online education programming and enrollment is focused on degree programs, although certificate programs (both forcredit or non-credit) and new types of microcredentials are an increasingly popular but still small segment of the overall market (Selingo, 2017; Gallagher, 2019).

## A Profile of Online Students

Nationally representative surveys and demographic analyses of online students are fairly rare, but recently released U.S. Department of Education data provides a useful profile of online students at the undergraduate level. This analysis (Campbell & Wescott, 2019) found that there is a strong correlation between part-time study and studying online — and that at the undergraduate level, women are more likely to be pursuing fully online programs (12%) compared to men (9%).

In addition, the older the student, the more likely they are to be pursuing a fully online program: for example, among all undergraduate students age 30-39 in American higher education, nearly one-quarter (23%) are pursuing a fully online program, six times the rate of traditionally-aged undergraduates. Additionally, students who are working full-time are more likely to be online students (Campbell & Wescott, 2019). Confirming these patterns, U.S. News & World Report — which maintains a database and rankings of hundreds of online programs — reported based on its own data that the average age of an online bachelor's degree student is 32, and that 84% of online students at the bachelor's level are currently employed (Friedman, 2017).

These characteristics of online learners are consistent at the graduate level as well, as indicated by other data sources. For example, a 2016 analysis by Gallup (Busteed and Rodkin, 2016) found that individuals who had earned a graduate degree through mostly online study were more likely to be employed full-time and to have children.

A large-scale national survey by higher education enrollment consulting firm Ruffalo Noel Levitz (2017) reported that when making a decision to enroll, online learners are most motivated by factors such as convenience, work schedule, and flexible pacing. Many other surveys have found that online students are motivated to pursue postsecondary education primarily for career-related reasons — for example, transitioning to a new field, updating skills, or earning a promotion (Clinefelter, Aslanian, & Magda, 2019).

The geography of where online students reside relative to the institution that they are enrolled in is an underappreciated dynamic. Despite distance not

Online students tend to be working adults who are often pursuing education for career-related reasons.

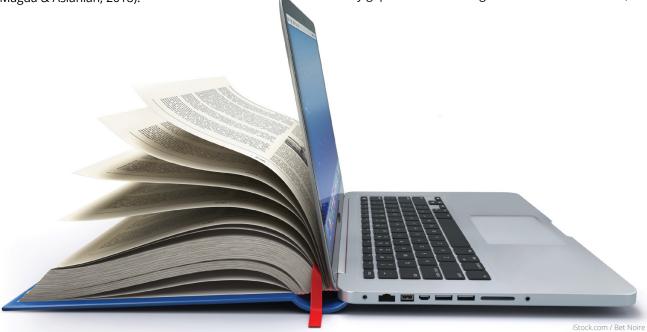
> being a limitation on online students' options, most students who study fully online (56%) enroll in an institution within their home state - and this share has been growing over time, according to analysis by Seaman, Allen, and Seaman (2018). This is more often the case with public institutions — which as discussed earlier, enroll the largest share of online students and often focus their recruitment on their local community. Similarly, Clinefelter et al. (2019) found in their survey of current and prospective online students that more than 67% enroll at an institution located within 50 miles of their home. A similarly high share of online students visit their institution's campus at least once a year (Magda & Aslanian, 2018).

## Online Education **Quality and Outcomes**

Perhaps surprisingly, the empirical research base related to quality and outcomes in online education is still relatively immature (Bailey, Vaduganathan, Henry, Laverdiere, & Pugliese, 2018; Esfijani, 2018; Wu, 2015). Generally, a longstanding body of historical research has found that student outcomes for online education are comparable to traditional classroom study (Russell, 1999; Bernard, Abrami, Lou, Wade, Wozney, Wallet, Fiset, & Huang, 2004; Means, Toyama, Murphy, Bakia, & Jones, 2009).

One of the more recent authoritative reviews of the empirical literature on the quality of online learning outcomes was published in 2015 by Wu (2015) of research organization Ithaka S&R, which has specialized in conducting studies on developments in online learning. Building on earlier research, Wu (2015) looked across twelve studies published since 2013, noting that the most rigorous studies found that students taking online or hybrid courses generally performed about as well as students in identical traditional, face-to-face courses. Yet, one of Wu's principal conclusions from this analysis was that there was a lack of methodologically rigorous empirical research comparing online education directly to traditional modes of study and identifying the impact on student outcomes (Wu, 2015).

A recent literature review by Esfijani (2018) focused on how online education quality is defined and measured: this analysis synthesized numerous recent studies and concluded — similar to Wu (2015) — that there are still many gaps in our knowledge about online education,



especially in terms of output- and outcome-oriented quality measures. Esfijani (2018) notes that based on the available research, defining "quality" in online education varies widely depending on different stakeholders' perspectives — and might often center on faculty performance, student support, or retention rates.

As the online learning field grows and matures, many colleges and universities are becoming more attentive to adopting quality standards specific to online education, as documented by Legon, Garrett, & Fredericksen (2019) in their third annual study of online education strategies and practices at a sample of hundreds of institutions. These online education quality standards are often focused on course and program design, faculty professional development, and online student outcomes. It is important to note that online programs are typically governed by the same college and university policies and protocols and external accreditation standards as traditional programs - but many institutions are adding additional layers of quality assurance for this newer modality. Still, it is clear that there is room for developing understanding and measurement related to online education outcomes, as a majority (54%) of online education academic leaders report that they believe their online students perform about the same on primary benchmarks (e.g. grades and retention rates) — and 11% suggested that online students perform better on these metrics — but 35% indicated worse performance (Legon, Garrett, & Fredericksen, 2019).

According to a large-scale national survey from online students tend to have a significantly greater level of satisfaction with their educational experience (73%) compared to oncampus students

One other notable recent study on online education student outcomes was published by a team of researchers from the Boston Consulting Group and Arizona State University in 2018 (Bailey, Vaduganathan, Henry, Laverdiere, & Pugliese, 2018). This undertaking was grounded in the authors' brief review of 24 prior studies published between 2010 and 2016. They found — like Wu (2015) and others — that in many cases the available research shows

no meaningful difference in students' academic performance between online and traditional courses, and mixed impacts in other cases. Bailey et al. (2018) also concluded that there is a need for additional, more rigorous academic research on this topic.

The focus of Bailey et al.'s (2018) own primary research and analysis was a rich, case-study-based analysis of online learning implementations at six institutions (including for example Arizona State University and Houston Community College), across not just fully online programs, but also a variety of online course and blended delivery implementations. This data-driven analysis concluded that online delivery models can deliver student learning outcomes comparable to — and in some situations better than — traditional classroom study.

#### **Student Satisfaction**

Another important perspective to consider on the question of online education quality is evidence of student satisfaction — another area with generally limited data, but a few large-scale national studies to turn to.

Ruffalo Noel Levitz's (2018) *National Student Satisfaction and Priorities Report* draws on a unique and significant sample of more than 125,000 online learners across 175 participating institutions. In this analysis, of all subgroups of students, online learners report the highest rates of satisfaction with their educational experience (73%) — a pattern that has been consistent over a number of years of this national survey. Students studying primarily online are also much more likely to report satisfaction with their educational experience when compared to primarily on-campus students (53%). Similarly, online learners are most likely to re-enroll at the same institution if they had to make the choice over again (Ruffalo Noel Levitz, 2018).

In addition, Busteed & Rodkins's (2016) analysis of Gallup national survey data found that life and career outcomes for graduate degree holders who took most of their courses online (compared to graduate students who studied only on campus) were equivalent in terms of their rates of being employed and achieving professional/managerial job status — as well as their interest in their work and valuing their degree's contribution to their professional success.

As online education continues to grow, developing a better understanding of student outcomes and benefits remains a key opportunity for future research.

# Growing Employer Acceptance of Online Credentials

As demand for online programs has grown, employers' perception of the quality of credentials earned through online study has often been a key question. A number of years ago, an online degree was a novel product offering that was often associated with start-up, forprofit universities (Gallagher, 2016). Especially since traditional colleges and universities have embraced online degree programs, credentials earned online have come to be increasingly recognized as on par with — and subject to the same standards and quality assurance as — traditional, on-campus programs.

Although longitudinal studies from both academic and industry perspectives have been limited and not always directly comparable, there is a strong case that employers' attitudes toward online credentials have improved steadily over time, from an initial minority to now a majority who see online credentials as equivalent to or in some cases better than oncampus study.

In 2010, a national poll of corporate human resources leaders by the Society for Human Resource Management (SHRM) reported that only 34% viewed

FIGURE 5:

## Online vs. Traditional Credentials: Employer Perception



- No difference credentials earned online are generally equivalent to those completed in-person
- Credentials earned online are generally lower quality than those completed in-person
- Credentials earned online are generally higher quality than those completed in-person

Source: Gallagher, 2018

an online degree favorably (Society for Human Resource Management, 2010). In 2013, Northeastern University's national polling with FTI Consulting found that 40% of business executives viewed an online degree as similar in quality to one earned traditionally. By 2014, this had risen to 48% (Northeastern University & FTI Consulting, 2014).

61% of HR leaders believe that credentials earned online are generally equal in quality to those completed in-person-a substantial increase compared to a few years ago.

Today — according to Northeastern University's most recent national survey of HR leaders, which had a particular focus on the value of online credentials — a solid majority (61%) of HR leaders believe that credentials earned online are generally equal in quality to those completed in-person (Gallagher, 2018). Importantly, this phrasing was purposefully inclusive of all types of online credentials — principally degrees, but also including certificates.

These evolving perceptions of quality have been driven by the growth of HR leaders' own direct experience with credentials earned online. With millions of online degree graduates entering the market in recent years, the degrees are common in the hiring process: 71% of HR leaders reported that they have personally hired someone with a degree or credential completed online (Gallagher, 2018). In addition, many HR leaders have completed their own degrees online, or have recommended or managed programs in which their employees pursue online study. Further, hiring leaders recognize that there is most often no distinction or way to determine the difference between a degree earned online or on-campus.

All of this said, it is important to recognize that while the historical stigma is fading along with the newness of online credentials, a share of HR leaders still believe that online credentials are not fully comparable to those earned traditionally. The corporate community's ongoing deepening of experience with online learning is likely to continue to increase the more positive perception of quality, alongside better data on educational outcomes.

## Conclusion:

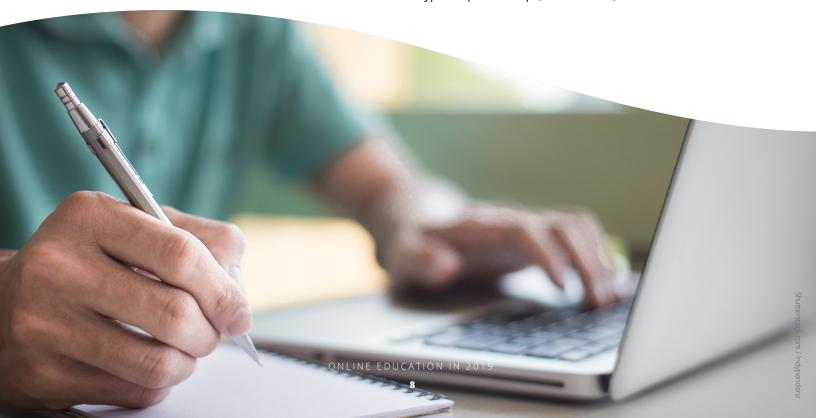
# An Evolving Marketplace Characterized by Blending Delivery, New Approaches to Credentialing, and Greater Integration with the World of Work

The online education field, while maturing, is still relatively young. Looking ahead, online delivery is poised to continue to claim a larger share of all higher education activity. Fully online programs and courses will certainly be a key driver of this evolution — but it is also important to note the growing trend of blending online and on-campus study, as online education becomes more central to many colleges' and universities' overall strategies and operations (Seaman, Allen, & Seaman, 2018; Legon, Garrett, & Frederickson, 2019). Blurring the boundaries between online and traditional delivery is also a model that can have strong learning outcomes (Means et al., 2009) and is valued by employers (Gallagher, 2018).

Another key trend to monitor is the development of new types of credential programs beyond traditional degrees. These include various types of certificates and microcredentials as online degree programs are increasingly evolving into shorter and more modular forms (Gallagher, 2016). Many colleges and universities are growing their portfolio of shorterform online offerings, in response to workforce demands, student interest, and pressures related to the cost, value, and accessibility of college degrees (Selingo, 2017).

Finally, online education is central to many institutions' efforts to respond to the changing needs of the workforce and to meet the demand for skillsoriented learning and more employable graduates (Stokes, 2015). Indeed, job outcomes are the primary motivation why Americans pursue higher education (Gallup, 2018) — and career-related motivations are paramount for online students. When employers are surveyed about what priorities they would recommend universities focus on to create the online credentials with the greatest utility, hiring leaders emphasize the opportunity for greater integration between education and the world of work (Gallagher, 2018). This includes building real-world projects and work engagements into the curriculum; the provision of academic credit for experience and on-the-job learning; and more industry validation of curriculum.

The coming greater integration of online learning with the world of work; the development of new types of credentials that stretch beyond online degrees; and the continued combination of online learning with on-campus study are just some of the important horizons for online education in the 2020s. Realizing these opportunities — and continuing to scale online programs and deliver quality outcomes — will benefit from and require greater cooperation between academia, industry, and government; as well as new types of partnerships, investments, and resources.



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