



Online Higher Education

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Summary

Distance education (primarily through online programs) is a growing mode of learning in higher education. As of fall 2019,¹ [7.25 million](#) students were taking at least one distance-education course, and 3.44 million students were enrolled exclusively in distance education. Despite the rapid development of internet-based technologies in the 1990s, online education struggled to grow within the regulatory and statutory framework of the Higher Education Act until the mid-2000s. Today, within the context of a pandemic, online education is an increasing mode of delivery. The growth of online education is not without its concerns, however, with the emergence of third-party companies offering for-profit software and management solutions, and with increasing questions of access and quality.

History of Distance Education

The [origins of distance education](#) stretch back to the early eighteenth century, when correspondence courses were introduced. Correspondence courses allowed students who lived in areas without an institution of higher education to enroll in postsecondary learning and receive their lessons via the postal service. Students were able to submit their work for feedback, again, via mail. These courses offered slow, limited interaction between student and teacher and required the student to largely teach themselves. These courses increased in popularity as the postal service's reach expanded, and the Industrial Revolution led to the need for a more qualified workforce. The second generation of distance education was ushered in by the introduction of radio and television, expanding educational opportunities for more students but still lacking direct interaction with the instructor. With the widespread use of the internet in the 1990s, a new generation of distance education was born: online education. While today's version of online education often bears little resemblance to correspondence courses, the law—and access to federal financial aid—only differentiated between the two recently.

[Correspondence courses](#) were first able to receive federal aid dollars in the aftermath of World War II with the passage of the G.I. Bill, which provided direct federal education benefits to veterans. Beneficiaries were able to attend campus-based institutions or participate in correspondence courses, which at that point were unregulated. Over the ensuing decades, institutions offering correspondence courses proliferated, leading to rampant fraud and abuse as start-ups vied to take advantage of this new source of revenue. Investigations by Congress and the Department of Veterans Affairs found many of these programs did not lead to credentials or meaningful employment for many, and that many of these institutions solely relied on federal funding to exist.

¹ Due to the rise in online courses during the COVID-19 pandemic, we report the 2019 figure here.

The [Higher Education Act of 1965](#) sought to provide resources to both students and institutions to improve the quality of and access to higher education, while attempting to prevent some of the abuses stemming from predatory correspondence courses. Title IV of the HEA introduced and, in some cases, expanded federally funded programs for higher education by extending federal grant and loan aid to more students. Programs that had been accessible only to veterans or those studying topics relevant to national security were now available to a much larger portion of the population. Rather than specifically forbid correspondence courses from receiving Title IV aid, the law stated that programs must lead to “gainful employment in a recognized occupation” to receive Title IV aid to ensure federal aid was used exclusively to pay for meaningful credentials that could lead to employment.² With this protection in place, correspondence schools were able to gain access to federal aid dollars beyond servicemember and veteran education benefits, including Pell Grants, beginning in 1972.

By the 1980s, fraud and abuse was again rampant within Title IV programs, particularly among institutions offering print-based correspondence courses. Given that correspondence schools could receive Title IV aid, enrollment at these schools increased rapidly, aided by marketing schemes that portrayed these courses as innovative and flexible for students, despite the fact that many provided a low-quality education.³

A series of laws expanded the Department of Education’s (ED’s) oversight power over correspondence schools, culminating in the [Higher Education Amendments of 1992](#). This reauthorization refined institutional eligibility for Title IV programs to prohibit institutions that offer more than 50% of their courses via correspondence or that enroll more than 50% of their students via correspondence from receiving Title IV dollars (the “50% rules”). The law also codified that to be eligible for federal financial aid, students enrolled in correspondence courses at a Title IV-eligible institution must be in a program leading to a degree. These amendments removed Title IV eligibility from most correspondence schools.

Later, widespread use of the internet brought up new questions about the appropriateness of the correspondence restrictions. One of the first institutions to offer online education was the University of Phoenix, a for-profit institution, in 1989.⁴ Their relative success encouraged other institutions, including non-profits, to offer their own online programs. As internet-based distance education courses gained popularity in the mid- to late-1990s, the full implications of the 1992 amendments materialized. The internet allowed distance education to be interactive; distance education no longer had to be the self-taught, one-sided affair of correspondence courses. Online education allowed students and instructors to engage with each other, while providing students with flexibility that most campus-based programs did not. However, under the HEA, online courses were treated as if they were correspondence courses.⁵ That meant that institutions were not permitted to offer more than 50% of their courses online or enroll greater than 50% of their students in online courses.

² For additional information on the “gainful employment” regulation, please see our [Gainful Employment Memo](#).

³ See [Whitman \(2018\)](#).

⁴ [Kentnor \(2015\)](#) provides a complete history of the emergence of online education.

⁵ [Whitman \(2018\)](#) provides a regulatory breakdown of early online education.

In the [Higher Education Amendments of 1998](#), Congress authorized the Distance Education Demonstration Program (DEDP) to “test the quality and viability of expanded distance education programs,” help determine the appropriate statutory and regulatory approach to expand access to these programs, and determine the appropriate level of Title IV support for students enrolled in them.⁶ The DEDP allowed ED to grant institutions access to Title IV aid for programs previously ineligible, largely due to the 50% rules, in order to test the viability of online distance education programs before incorporating changes into statute.

The DEDP began in 1999 with 15 participants, growing to 24 by the end of the program in 2005.⁷ All participants received waivers from the 50% rules and the 30-week minimum academic calendar rule. These two rules were primarily responsible for limiting online education’s participation in federal financial aid. Participating institutions also received waivers from other Title IV rules to help facilitate disbursement of funds to qualifying students. These waivers included cost of attendance rules; while the law allowed for living expenses to be factored into cost of attendance calculations for in-person students, it did not allow living expenses to be factored in for distance learning students. Participating institutions received a waiver from this rule.

By the end of the demonstration program, ED reported that distance education, and the ability to receive Title IV aid, did expand students’ access to higher education. The DEDP found no relationship between enrollment in online education courses and an institution’s cohort default rate—the percentage of students defaulting on their federal student loans—leading ED to determine that these online courses were of sufficient quality.⁸ ED also found that the rules for disbursing federal student aid were inadequate for the types of students who were participating in distance education—the idea of students attending full-time for two semesters per year was not holding true for most students participating in distance education. As a result, the Higher Education Reconciliation Act of 2005, passed as part of the [Deficit Reduction Act of 2005](#), removed the 50% rules for distance education, while keeping those rules in place for correspondence courses.

In the next reauthorization of the Higher Education Act, the [Higher Education Opportunity Act \(HEOA\) of 2008](#), Congress created a definition of distance education, using language from the DEDP final report. This definition differentiated distance education from correspondence courses, requiring distance education courses to have “regular and substantive” interaction between students and the instructor, synchronously or asynchronously. Additionally, accreditors now needed to show that their accreditation model could adequately evaluate an institution’s distance education program, though it did not require separate accreditation standards for these programs. These changes helped usher in the current era of online education.

⁶ Because ED’s page on the DEDP has been discontinued, see the Congressional Research Service Report on the program by [Kuenzi et al. \(2005\)](#) for applicant and funding data.

⁷ See [Kuenzi et al. \(2005\)](#).

⁸ See [Kuenzi et al. \(2005\)](#) for an overview of the original DEDP report.

Table 1: HEOA of 2008 Definition of Distance Education

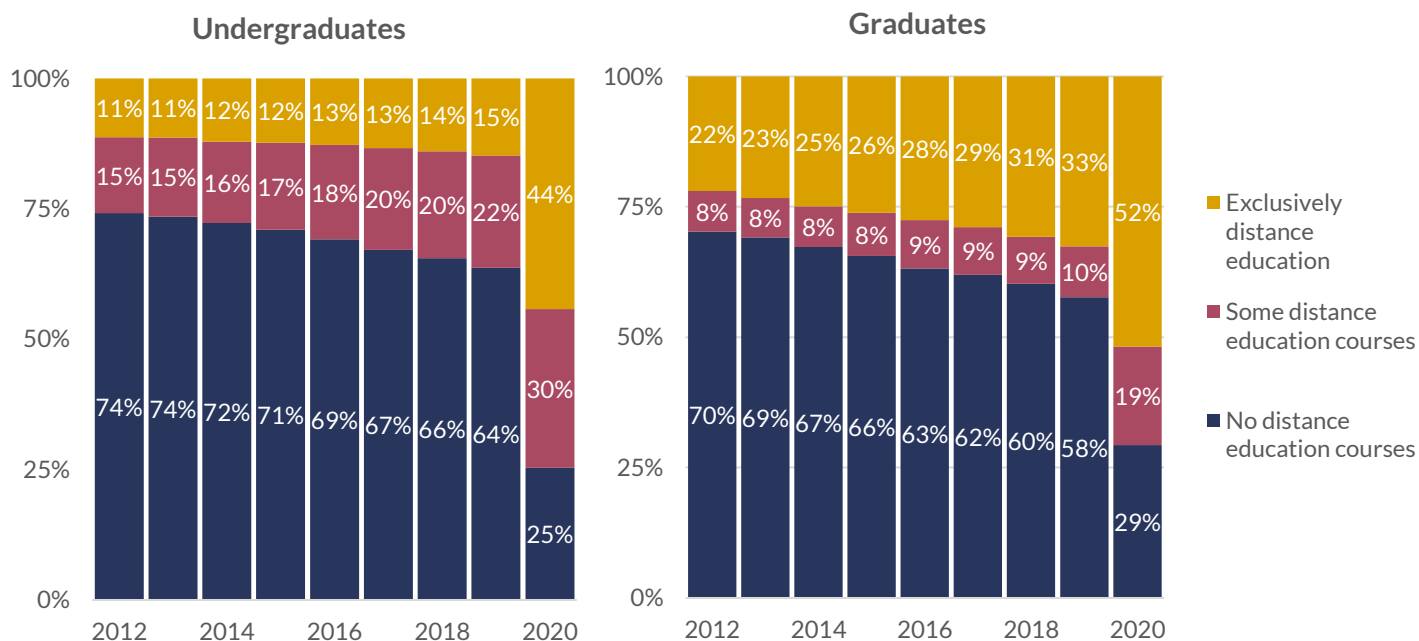
(19) DISTANCE EDUCATION.—	
(A) IN GENERAL.—	Except as otherwise provided, the term ‘distance education’ means education that uses one or more of the technologies described in subparagraph (B)—
(i)	to deliver instruction to students who are separated from the instructor; and
(ii)	to support regular and substantive interaction between the students and the instructor, synchronously or asynchronously.
(B) INCLUSIONS.—	For the purposes of subparagraph (A), the technologies used may include—
(i)	the Internet;
(ii)	one-way and two-way transmissions through open broadcast, closed circuit, cable, microwave, broadband lines, fiber optics, satellite, or wireless communications devices;
(iii)	audio conferencing; or
(iv)	video cassettes, DVDs, and CD-ROMs, if the cassettes, DVDs, or CD-ROMs are used in a course in conjunction with any of the technologies listed in clauses (i) through (iii)

Source: [HEOA of 2008](#)

Online Education Today

Online education underwent a period of rapid change following the passage of the HEOA. Institutions were now able to offer online-only programs, and enrollment in those programs skyrocketed. In 2003, before the removal of the 50% cap, fewer than 50,000 students were enrolled exclusively online. In less than a decade, the 50,000 enrolled exclusively online grew to 2.6 million (12.8% of all students) by 2012. In 2019, prior to the growth as a result of the COVID-19 pandemic, 7.3 million students (37% of all students) were enrolled in at least one online course, and 3.5 million (17.5% of all students) were enrolled exclusively online. Online growth differed by student level, with post-baccalaureate students being twice as likely to enroll exclusively online as undergraduate students. Figure 1 shows the share of students enrolled in online courses over time for undergraduate and graduate students.

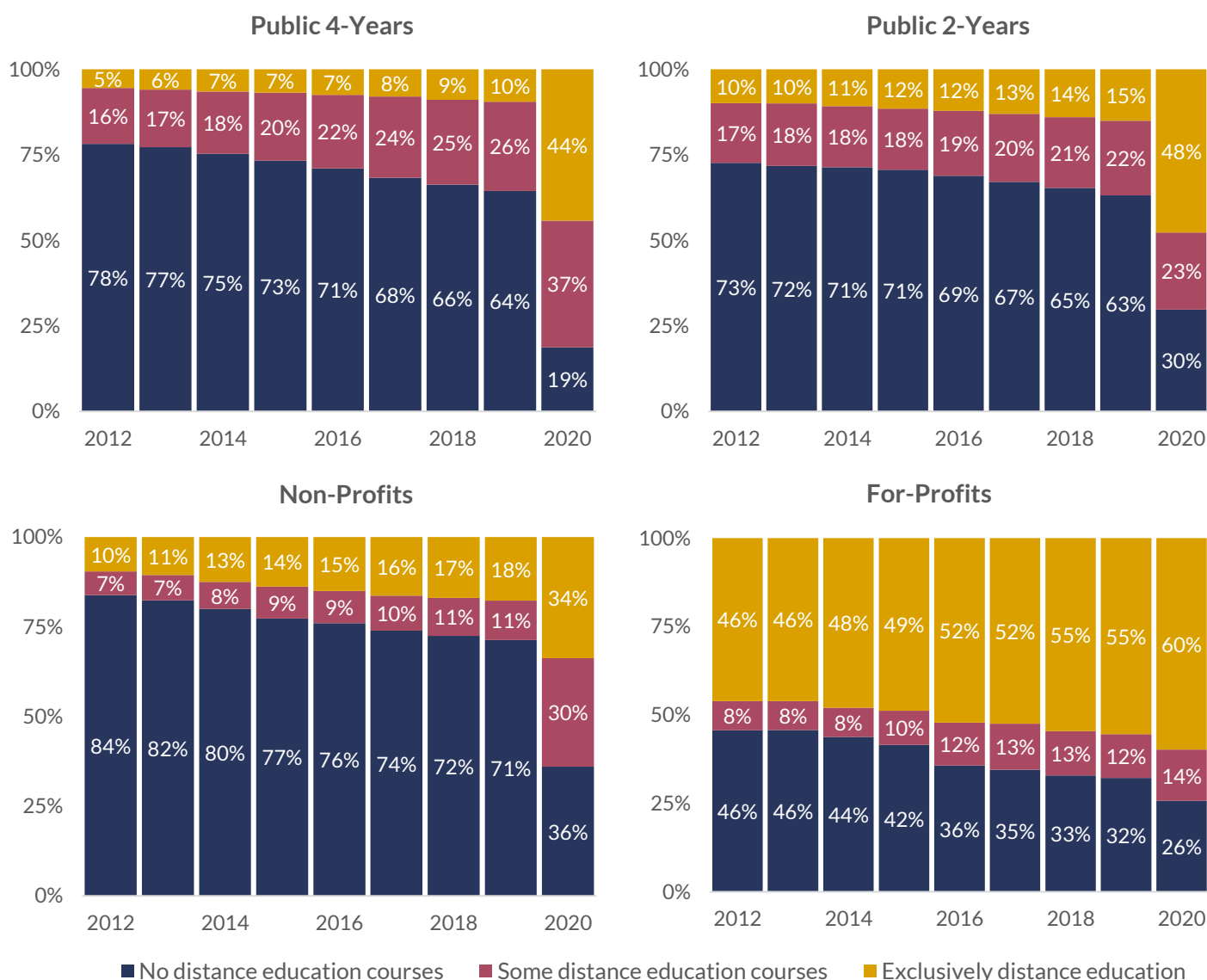
Figure 1: Distance education enrollment by student level



Source: NCES Digest of Education Statistics, Table 311.35, 2013-2021.

Online enrollment differs significantly by institutional sector, with for-profit institutions having exclusively online enrollments nearly four to five times larger than public two-year, public four-year, and private non-profit institutions. In fall 2019, 420,805 undergraduate students at for-profit institutions were enrolled exclusively online (55% of all undergraduates at for-profit institutions). In comparison, 10% of undergraduates at public four-year institutions, 15% of undergraduates at public two-year institutions, and 18% of undergraduates at private non-profit institutions were enrolled exclusively online. Figure 2 shows the change over time of online enrollment for undergraduate students by sector. Though all sectors have been increasing their online presence, the rate of growth for for-profit institutions also considerably outpaces the other sectors.

Figure 2: Distance education enrollment by institutional type



Source: NCES Digest of Education Statistics, Table 311.35, 2013-2021.

With the growth of online education, access to higher education expanded to students beyond recent high school graduates seeking the traditional residential experience. In the 2015–16 academic year, [students who enrolled in online education](#) were more likely to be independent students, over the age of 24, enrolled part-time, student veterans, student parents, working full-time, or enrolled at a for-profit institution. For example, while 35% of dependent students took at least one online course, 58% of independents with dependents and 55% of independents without dependents took at least one online course. Fifty-four percent of students over the age of 40 took an online course, while only 38% of traditional-aged college students (19–23 years old) did. Furthermore, 42% of nonmilitary students enrolled in online courses, while 53% of veterans and 57% of active military members did. Online education has also grown with the advent of Massive Open Online Courses (MOOCs), which are designed to be asynchronous and for large student populations to participate at their own pace. Figure 2 provides a description of MOOCs and their current data.

Table 2: Description of MOOCs

Emergence of Massive Open Online Courses (MOOCs)

In the years following the passage of the HEOA, a new type of distance education emerged: Massive Open Online Courses (MOOCs). MOOCs differ from traditional online courses in that they are designed for large numbers of students to participate. These courses are typically free and do not offer course credit. In recent years, for-profit platforms have dominated the MOOC space, though some non-profit institutions have been incorporating MOOCs into their regular course offerings. A [2019 study](#) of the largest MOOCs (covering 5.63 million learners worldwide) showed that most users have already completed a postsecondary credential and primarily enroll in courses because of interest in the course content. The study also found that completion rates are low, averaging 3.13% for all students, though this rate is 46% among students who paid for verified courses. Because the profile of students enrolling in MOOCs varies from traditional online learners, further research into their effectiveness is warranted.

Beyond enrollment and demographic data, little data is available for online learners; institutions are not required to separately report outcomes of online learners from traditional learners. Still, some data points exist. Among first-time full-time students at all four-year institutions, 64% [graduate](#) with a bachelor’s degree within six years of first enrolling. Only 14% of first-time full-time students at four-year predominantly online institutions [graduate](#) with a bachelor’s degree within six years. Only 4% of learners who attend a public four-year predominantly online institution graduate within six years, while 28% of learners who attend a non-profit four-year predominantly online institution and 13% who attend a for-profit four-year predominantly online institution do so. Completion rates for exclusively online learners outside of predominantly online institutions do not exist.

Current Issues in Online Education

Despite the increased popularity and growth of online education, several current issues require the attention of higher education leaders and policymakers. Ongoing regulation, the impact of the COVID-19 pandemic, disparities in outcomes and access to online education, the predominance of online education at for-profit institutions, the influence of online program managers (OPMs), and the increasing mergers of predominantly online for-profit institutions with public university systems are all impacting the future of online education.

Regulation

Regulations aimed at preserving quality and limiting fraud and abuse in online education have focused on “regular and substantive” interaction between student and instructor, as well as state authorization for online education providers. In the HEOA, Congress highlighted “regular and substantive interaction” between students and instructors as the key factor differentiating online education from correspondence courses—yet provided no definition of the term. In a 2014 [Dear Colleague letter](#) on direct assessment in competency-based education, ED offered clarification on “regular and substantive interaction” that applied to online education as well, stating that it cannot be “wholly optional or initiated primarily by the student” and that instructors must “meet accrediting agency standards for providing instruction in the subject matter being discussed.”

However, institutions continued to seek clarity from ED. While audits from the Office of the Inspector General (OIG) found [institutions](#) and [accreditors](#) in violation of the “regular and substantive interaction” provision, it was not until 2018 that the Trump Administration sought to define this term. This 2020 [Distance Education and Innovation](#) rule defines both “regular” and “substantive” interaction between students and instructors at the course level. For a course to include “regular and substantive interaction,” it must provide the student ample opportunity to substantively interact with an instructor (or instructors) who meets accrediting agency standards, monitors the student’s engagement and performance, and provides scheduled opportunities for interaction with the student as needed on the basis of that monitoring. The course must also include two of the following five activities: direct instruction, direct assessment, answering questions about the course materials, group discussions on course content, or “other instructional activities approved by the institution’s accrediting agency.” The rule, published in September 2020, went into effect July 1, 2021.

State authorization for online higher education providers governs another key regulation overseeing online education. In order for an institution to be eligible to receive Title IV funding, it must be authorized by a state to offer postsecondary education, be accredited by an approved accrediting agency, and meet ED requirements.⁹ Given that the internet allowed institutions to offer postsecondary education across state lines, many states and institutions entered into voluntary agreements, most notably the State Authorization Reciprocity Agreement organized by the National Council for State Authorization Reciprocity Agreements (NC-SARA), in which states agree to a national set of state authorization principles, rather than implementing and enforcing their own standards. Under NC-SARA, institutions are required to be approved only in the state where they are headquartered, and other states accept that state’s oversight of the school.

However, NC-SARA meant that states were unable to enforce their own laws (such as tuition refund policies for schools that close) against institutions of higher education enrolling their residents. The Obama Administration, concerned that the bar had been lowered for oversight of online programs, sought to define “state authorization” for distance education. The resulting rule stated that institutions must be authorized in every state in which they enroll students, if required by that state, in order to offer distance education there, and they must provide online students with a course of action to address complaints. It also stated that these intra-state agreements could not prohibit states from enforcing their own higher education laws. The rule briefly went into effect in May 2019.

The Trump Administration convened a [rulemaking](#) in 2019 alongside the proposed changes to regular and substantive interaction to rewrite the rule on state authorization for online programs. The rule ultimately preserves the bulk of voluntary state authorization agreements that arose in the absence of federal law, including prohibiting states from enforcing their own higher education-specific regulations. The rule went into effect on July 1, 2020.

⁹ For additional information, see our memo on [State Authorization](#).

COVID-19

As a result of the COVID-19 pandemic in early 2020, thousands of students—even those at institutions that were only campus-based—were forced into online coursework. Of 3,000 institutions tracked by the College Crisis Initiative,¹⁰ 96% shifted in-person courses online for the spring 2020 semester. Sixty-five percent of these tracked institutions remained online for the fall 2020 semester, with 68% of these institutions being fully online or primarily online. Primarily online institutions fared better than primarily in-person institutions during the pandemic. While undergraduate enrollment across all sectors decreased by 4.4.% for the fall 2020 semester, undergraduate enrollment at primarily online institutions *increased* by 4.9%. Graduate enrollment across all sectors increased 2.9% overall for the fall 2020 semester, but increased by 9.7% at primarily online institutions. For more information on COVID-19 and higher education, see our [COVID-19 primer](#).

Given the severity of the COVID-19 outbreak, the timing in the academic calendar of the outbreak, and the speed at which institutions shifted toward online courses, many institutions did not have the technological infrastructure or resources for faculty to appropriately shift all courses online in spring 2020 or do so in a way that maximized student learning. Students were caught off guard as well. Many students, particularly low-income and rural students, faced challenges with internet access or technology needs. Ninety percent of students surveyed in May 2020, when the pandemic began to affect the U.S. in earnest, reported being concerned about the shift to online education, and 24% dropped at least one course as a result. The transition to online affected students' satisfaction with their courses, with 87% reporting being “very satisfied” or “somewhat satisfied” with their courses prior to the shift and only 59% reporting that after the shift. Fifty-seven percent of students reported that online courses did a worse job at keeping them interested in the course content than the in-person course.

Disparities in Access and Outcomes

Online education offers an opportunity to provide access to higher education for students, but access disparities do remain. In order to review online course materials, stream recorded lectures, and attend video conferences, students must have access to a reliable internet connection. Nationwide, 19 million people, 6% of the country, lack access to broadband internet services at an acceptable threshold speed. Nearly 15 million of these people live in rural areas.¹¹

With regard to students' outcomes, research has shown that online students receive lower grades than students enrolled in the same course in person, and are more likely to withdraw from courses and less likely to graduate.¹² One causal study found that students who are academically underprepared or in need of remedial education, as well as Black and Hispanic students, fared worse in online education than other learners.¹³ Frequent counseling for students, relationship-building and frequent feedback between instructors and students, and rigorous professional development for faculty all improve reports of student satisfaction and may improve student outcomes.

¹⁰ See [C2i \(2020\)](#).

¹¹ According to the Federal Communication Commission's [2021 Broadband Report](#).

¹² See the systematic review by [Cellini \(2021\)](#).

¹³ See [Figlio et al. \(2013\)](#).

For-Profit Institutions

In the years following the removal of the 50% rules, both the number of for-profit institutions and the number of online-only for-profit institutions have expanded. While the availability of these programs has increased access to higher education, they have not necessarily increased completion rates for students. [Completion rates](#) at for-profit institutions lag behind those of both public and private non-profit institutions, with 63% of students earning a bachelor's degree within six years at public institutions, 68% at private non-profits, and 29% at for-profit institutions in 2020. Because students enrolled exclusively online are disproportionately enrolled at for-profit institutions, these rates indicate potentially worse outcomes for online students as a whole compared to in-person. Across all sectors of higher education, 15% of undergraduates were enrolled exclusively online in fall 2019, but 55% of undergraduates enrolled at for-profit institutions were enrolled exclusively online in fall 2019.

Online Program Managers

Many campus-based institutions are seeking to develop or expand online courses and online degree programs, but often find they lack the technological, pedagogical, and financial resources to quickly and effectively implement these programs. Instead, institutions may contract with technology companies to access a learning management system for online programs, or with online program managers (OPMs)—third-party contractors that institutions hire to develop, implement, and oversee online education programs, and that also offer services like recruiting. OPMs manage the institution's online program, often in exchange for a percentage of tuition revenue from students who enroll. The OPM-managed program is offered under the banner of the institution.¹⁴ In 2019, through Freedom of Information Act requests, The Century Foundation found 79 large public institutions had partnered with for-profit companies to manage some or all of their online course delivery.¹⁵

Critics are concerned that these for-profit companies are offering credentials under the banner of an accredited institution, and that the outsourcing of much of the program design and development to the OPM, rather than being led by the institution itself, leads to uneven and possibly lesser quality than one would expect from the main institution. Critics also argue that this payment model violates a federal ban on “incentive compensation,” or paying employees or contractors based on the number of students they enroll, though a [2011 Dear Colleague letter](#) permits institutions to pay OPMs for recruiting services, as long as they are a part of a larger “bundled services” package and as long as the OPM is unaffiliated with the institution.

Advocates for OPMs highlight their expertise in developing online programs, the ability for institutions to quickly offer in-demand programs, and the opportunity for institutions to avoid lengthy, costly development of new online programs in favor of upfront costs being borne by the OPM. In light of the COVID-19 pandemic and the shift toward online education, 51 institutions in the U.S. [signed](#) a contract with an OPM between January and June of 2020, more than two-thirds of the OPM contracts signed in 2019.¹⁶

While many institutions partner with OPMs to provide online degree programs, a newer trend has been “spinning off” OPM companies from institutions. For instance, Grand Canyon University split into an institution and a for-profit online program services provider, and the institution entered into a long-term,

¹⁴ For a regulatory overview of OPMs, see our memo on [Incentive Compensation](#).

¹⁵ See [Hall & Dudley \(2019\)](#).

¹⁶ See [Schwartz \(2020\)](#).

favorable contract with the service provider as part of the arrangement. In other cases, public university systems have acquired for-profit, primarily online institutions. Recent examples include the University of Arizona’s [acquisition](#) of Ashford University (which spun off from its parent company, Zovio, and entered into a contract with Zovio for continued services) and Purdue University’s [acquisition](#) of Kaplan University. The University of Phoenix, the largest online university in the country, was [nearly purchased](#) by the University of Arkansas, which would have significantly altered the distance education landscape. This purchase failed to gain trustee board approval by one vote.

These acquisitions enable universities to quickly acquire new students and the infrastructure necessary to scale online learning at their institutions. The acquired institution is typically rebranded—in these examples, to the University of Arizona Global Campus and Purdue Global—and students enroll and complete their coursework, with their credential being provided by the newly formed entity. Opponents fear that the attachment of a public university to these former for-profit institutions lends credibility to programs with inferior outcomes and confuses prospective students, and that the public university will not provide adequate resources to improve the outcomes of these new students.¹⁷ Supporters cite increased access to higher education and improved online education infrastructure for a wider range of students.

Conclusion

Online education has expanded access to higher education to new populations of students and has grown rapidly over the last two decades. Issues such as access to internet connections, completion rates, the impact of the COVID-19 pandemic, state authorization rules, and regulations related to “regular and substantive interaction” will continue to shape the online education environment. The Higher Education Act is due for reauthorization and may serve again as the vehicle for legislation governing online education.

¹⁷ See [Busta \(2019\)](#) and [Carey \(2019\)](#).

Sources

1. Busta, H. (2019, September 12). A look inside public universities' OPM contracts. Higher Ed Dive. Retrieved from <https://www.highereddive.com/news/a-look-inside-public-universities-opm-contracts/562763/>.
2. C2i. (2020). The College Crisis Initiative. Davidson College. Retrieved from <https://collegecrisis.org/>.
3. Carey, K. (2019, April 1). The Creeping Capitalist Takeover of Higher Education. HuffPost. Retrieved from <https://www.huffpost.com/highline/article/capitalist-takeover-college/>.
4. Cellini, S. R. (2021). How Does Virtual Learning Impact Students in Higher Education? Brookings. Retrieved from <https://www.brookings.edu/blog/brown-center-chalkboard/2021/08/13/how-does-virtual-learning-impact-students-in-higher-education/>.
5. ERIC Development Team. (n.d). The U.S. Department of Education and Student Financial Aid for Distance Education: An Update. Retrieved from <https://files.eric.ed.gov/fulltext/ED457762.pdf>.
6. Figlio, D., Rush, M., & Yin, L. (2013). Is It Live or Is It Internet? Experimental Estimates of the Effects of Online Instruction on Student Learning. *Journal of Labor Economics* 31(4). Retrieved from <https://doi.org/10.1086/669930>.
7. Hall, S. & Dudley, T. (2019). Dear Colleges: Take Control of Your Online Courses. The Century Foundation. Retrieved from <https://tcf.org/content/report/dear-colleges-take-control-online-courses/>.
8. Harting, K. and Erthal, M. (2005) History of Distance Learning. Information Technology. *Learning and Performance Journal*, 23, 35–44.
9. Kentnor, H. (2015). Distance Education and the Evolution of Online Learning in the United States. *Curriculum and Teaching Dialogue* 17(1 & 2). Retrieved from https://digitalcommons.du.edu/cgi/viewcontent.cgi?article=1026&context=law_facpub.
10. Kuenzi, J. J., Skinner, R. R., & Smole, D. P. (2005). Distance Education and Title IV of the Higher Education Act: Policy, Practice, and Reauthorization. Congressional Research Service RL32490. Retrieved from https://digital.library.unt.edu/ark:/67531/metadc812392/m2/1/high_res_d/RL32490_2005Jan21.pdf.
11. National Student Clearinghouse Research Center. (2020, November 12). COVID-19: Stay Informed with the Latest Enrollment Information: National Student Clearinghouse Research Center's Monthly Update on Higher Education Enrollment. Retrieved from <https://nscresearchcenter.org/stay-informed/>.
12. New America. (n.d). Regular and Substantive Interaction in Distance Education Programs. Retrieved from https://s3.amazonaws.com/newamericadotorg/documents/RS_Issue_Paper_HBvefq2.pdf.
13. Protopsaltis, S. & Baum, S. (2019, January). Does Online Education Live Up to its Promise? A Look at the Evidence and Implications for Federal Policy. Retrieved from https://www.urban.org/sites/default/files/publication/101762/Does%20Online%20Education%20Live%20Up%20To%20Its%20Promise%20a%20Look%20at%20The%20Evidence_0.pdf.

14. Schwartz, N. (2020, October 20). Colleges look to OPMs as pandemic intensifies shift online. Higher Ed Dive. Retrieved from <https://www.highereddive.com/news/colleges-look-to-opms-as-pandemic-intensifies-shift-online/586831/>.
15. Siemens, G., Gašević, D., & Dawson, S. (2015, February). Preparing for the Digital University: A Review of the History and Current State of Distance, Blended, and Online Learning. Retrieved from https://research.monash.edu/files/256525723/256524746_oa.pdf.
16. U.S. Department of Education. (2020, September 2). Distance Education and Innovation: A Rule by the Education Department. Retrieved from <https://www.federalregister.gov/documents/2020/09/02/2020-18636/distance-education-and-innovation>.
17. U.S. Department of Education. (2019, January). Enrollment and Employees in Postsecondary Institutions, Fall 2017; and Financial Statistics and Academic Libraries, Fiscal Year 2017. Retrieved from <https://nces.ed.gov/pubs2019/2019021REV.pdf>.
18. U.S. Department of Education. (2019, January). Profile of Undergraduate Students: Attendance, Distance and Remedial Education, Degree Program and Field of Study, Demographics, Financial Aid, Financial Literacy, Employment, and Military Status: 2015-16. Retrieved from <https://nces.ed.gov/pubs2019/2019467.pdf>.
19. Whitman, D. (2018). The Cautionary Tale of Correspondence Schools. New America. Retrieved from https://d1y8sb8igg2f8e.cloudfront.net/documents/The_Cautionary_Tale_of_Correspondence_Schools_2018-12-10_132917.pdf.
20. Xu, D. & Xu, Y. (2019, March). The Promises and Limits of Online Higher Education: Understanding How Distance Education Affects Access, Cost, and Quality. Retrieved from <https://files.eric.ed.gov/fulltext/ED596296.pdf>.

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