

RESEARCH REPORT



# Higher Education Current Times and Outlook

“In Accelerated Disruption, With Many Ways to Learn”



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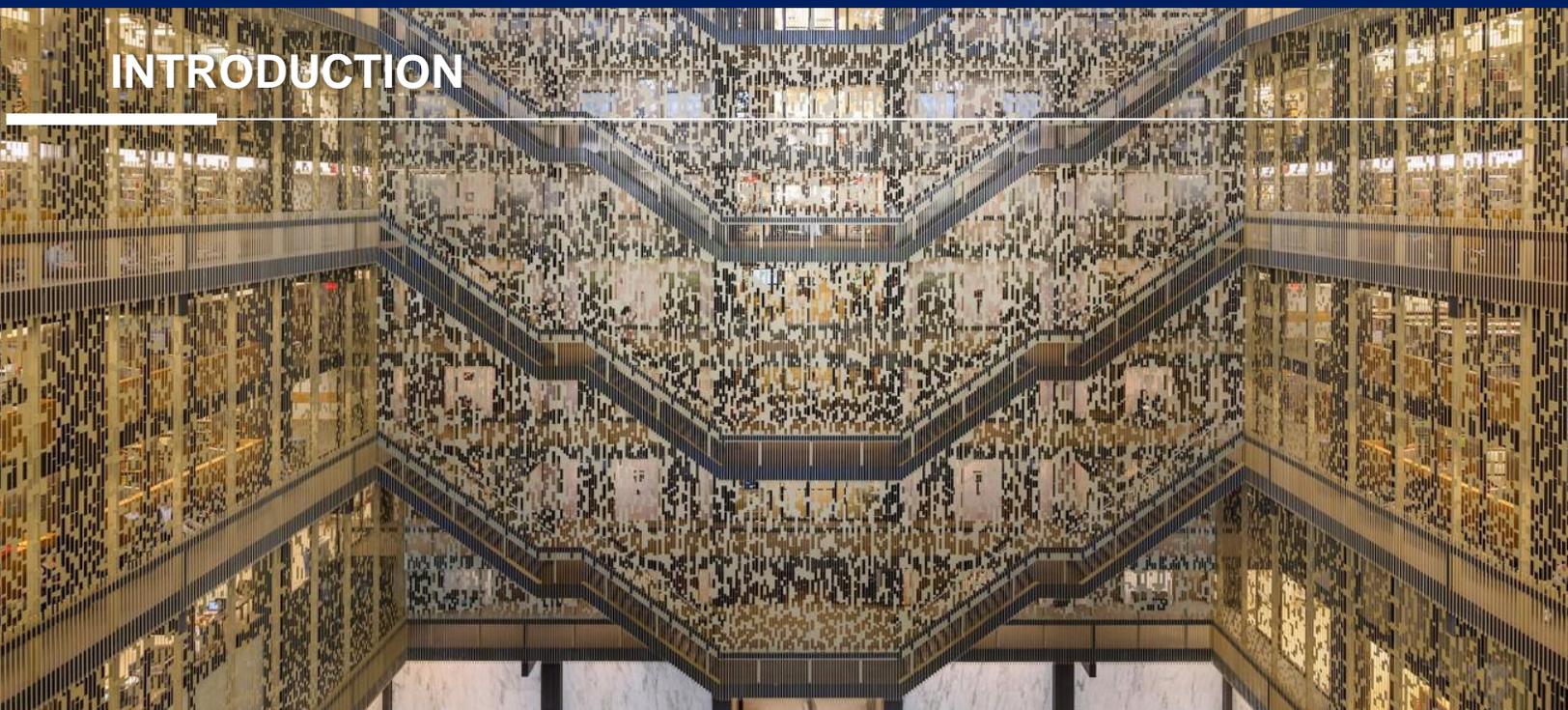
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# INTRODUCTION



## OVERVIEW

The multi trillion-dollar higher education industry has been evolving and transforming itself in recent years due to external pressure from demographic changes, technology evolution, and funding concerns. Traditional higher education is being upended by massive open online courses that offer certificates and degrees for a fraction of the cost. Universities and colleges are being squeezed by increasing costs and decreasing funding, leading to the increasing enrollment of full tuition international students. Technology is evolving and enhancing online learning to the detriment of the costly on-campus education model. These and other factors were already challenging educational institutions, even before the outbreak of COVID-19 and it's only accelerated since.

Scholars and academics such as NYU Stern's, Scott Gallagher, believe that in the future, many middle and lower tier universities could close or face consolidation in the face of online classes and students increasingly unwilling to pay high fees for uncertain returns on investment. His suggestions even go further, where he sees consolidation and joint ventures between technology companies such as Google, Microsoft and leading research universities. Recent studies also show that students and parents are realizing that high tuition costs are not being reflected in overall quality of teaching or experience. Outstanding student loans now stand at over \$1.6 trillion in the USA and given ongoing tuition inflation, price-sensitive students are looking elsewhere to learn.

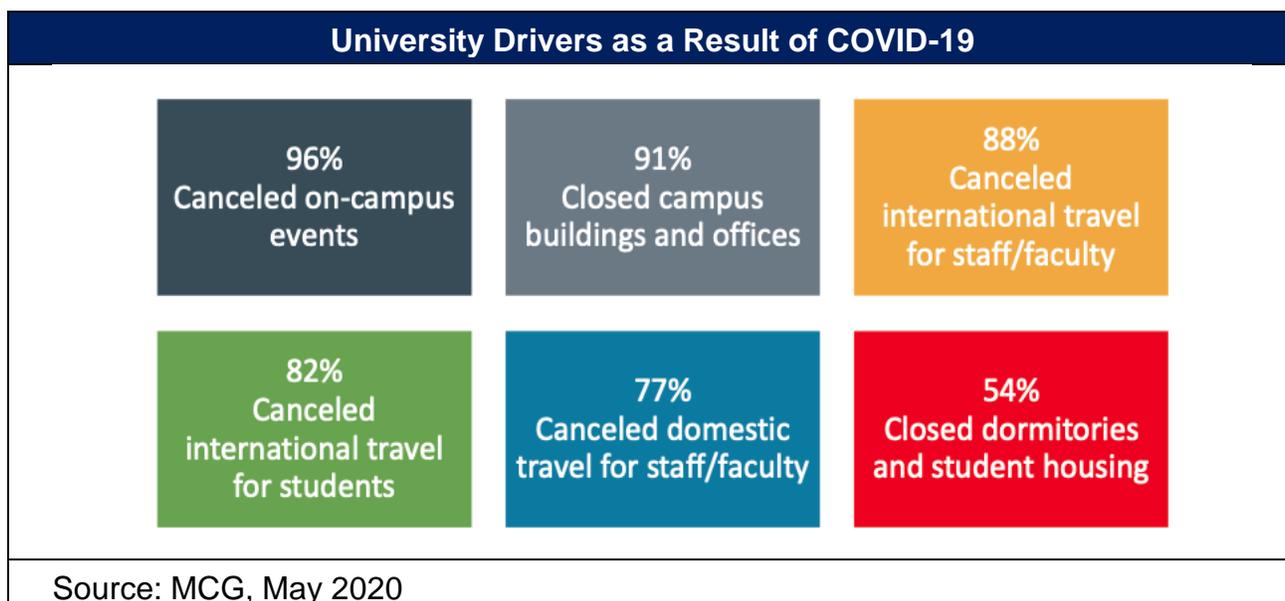
In the face of expensive up-front tuition costs, new institutions like the Lambda School have sprung up that offer education in exchange for a percentage of future income. Other options include a multitude of massive open online courses ("MOOCs") such as edX or Coursera. MOOCs that allow enhanced customization of learning and are beginning to offer degrees and

certificates in exchange for completion of online learning. Coursera for example offers credential certificates from private firms like Google and IBM, as well as from top rated private schools like Stanford, Duke, and Yale. The expansion of MOOCs and their affordability, additional degrees and certificates, and online learning ability have the potential to seriously undermine both for-profit and mid-to-lower tier colleges and universities.

Higher education is also rapidly globalizing. While traditional universities have in the past been constrained by their campus location, this is no longer the case. Many top universities are opening up global locations abroad to cater to more local needs and expand study abroad opportunities. International students too are playing an increasingly important role for western universities. Schools are increasingly searching for additional income channels to stave off demographic declines across much of the OECD as well as domestic income stagnation that has put higher education out of reach for many households. Chinese, Indian, and other international students have become a force to contend with as they increasingly travel abroad in search of educational opportunities and make up the larger portions of campus populations.

## COVID-19

The COVID-19 Pandemic has had far reaching economic and social consequences, also for higher education and the education sector in general, negatively impacting the stability of economics and markets, in both developed and developing countries. With economies largely shut down due to the COVID-19 lockdown, the education sector is facing numerous hurdles for the remainder of 2020 and beyond.



COVID-19 has put higher education providers across the world on alert, and if on-campus classes can't be resumed in fall 2020, they could be under even greater pressure. The financial impact on institutions from the loss of auxiliary revenue from housing and dining fees, and parking fees; as well as revenues from athletics, theater, and other events, is highly material for many. If global travel restrictions are prolonged, or the imminent recession diminishes foreign students' financial means, then some students could opt to study or work in their home countries instead. A fall 2020 with significantly fewer international students, as well as lower domestic enrollments, will overall cause serious operational pressures across the educational industry.

## EDUCATION MARKET OVERVIEW



### INTRODUCTION

Institutions in this industry provide instruction and training to students enrolled in elementary through high schools, colleges and universities, and training centers that offer industrial, professional, and vocational programs. Institutions include public, private, and nonprofit as well as for-profit businesses.

The modern era has generally seen education dominated by schools in North America and Western Europe. However, schools and institutions in Asia and elsewhere are beginning to flex themselves as major players in the sector. COVID-19 has accelerated important trends in recent years which might redefine the future of the industry. Traditional universities are under pressure from emerging technologies, the for-profit sector in the USA is experiencing heavy regulation and looking to foreign markets to boost demand, high tuition fees are encouraging new payment plans and products to cope with student loans, and international students are making up an ever larger share of student bodies.

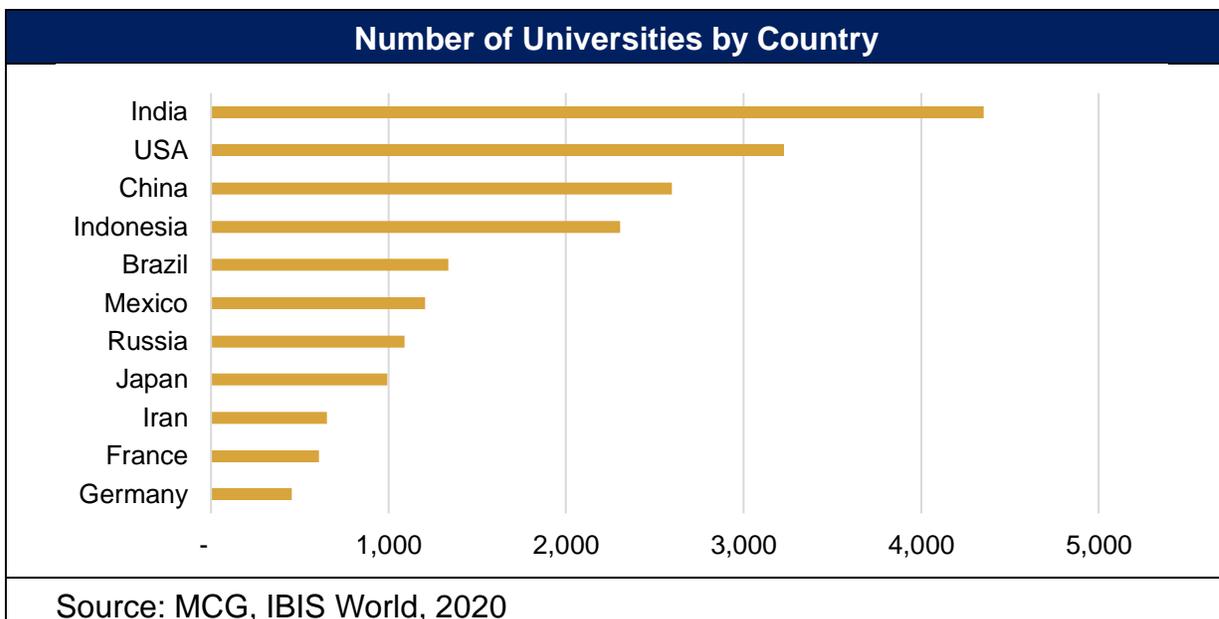
The education industry operates in a few major segments across broad geographies: Universities and Colleges, for-profit institutions, vocational education, and other educational services. Players include centuries-old universities to multi-billion dollar for-profit education corporations to smaller supplemental tutoring services.

### MARKET SEGMENTATION

#### Traditional Research Universities

The Colleges and Universities industry includes public and private nonprofit colleges and universities that offer academic courses and grant baccalaureate or graduate degrees. Over the

five years to 2020, strengthened job markets and better employment prospects have hindered industry demand, causing high school graduates to enter the workforce and forgo postsecondary education. Constant tuition inflation is also squeezing lower and middle-class families. University tuition inflation has outpaced wage growth since the 1990s.



Over the five years to 2025, demand for higher education is expected to rebound as the job market is expected to contract. As competition in the job market is anticipated to be tougher, discouraged job seekers will likely choose to pursue higher education to make themselves more competitive in the job market. However, industry operators are expected to endure higher competition from massive open online course services, which may pull students away from traditional universities by offering low-cost education and degree certificates. Nonetheless, government funding and private donations are both expected to increase over the next five years, making higher education more affordable to a greater number of students. International student numbers are also expected to continue to grow in both the US and UK markets, bringing in additional channels of revenue.

### For-Profit Institutions

In recent years, for-profit universities have increasingly come under scrutiny for their marketing tactics and admissions standards. Critics point to the large proportion of student loan defaults among industry operators and an abnormally high drop-out rate compared with that of traditional colleges. Furthermore, the industry is largely sustained by federal student loans. Based on data from the National Center for Education Statistics (“NCES”), for-profit university students only represent an estimated 4.4% of total college enrollment in 2017, yet they use about one-quarter of the total allotment of US federal financial aid. Operators receive up to 90.0% of their revenue from student tuition, which is largely funded through US federal Title IV financial aid programs. These criticisms have led to investigations by the US Government Accountability Office (“GAO”) and widespread requests for increased industry regulation. Additionally, bad press has caused

many operators to lose their accreditation. As a result of these factors, industry revenue declined at an annualized rate of 3.7% to \$14.3 billion over the five years to 2019, and an increase of 3.9% following 2019 thereafter.

Over the past five years, the expansion of internet data capacity has enabled services such as video streaming and cloud data storage to easily used by the average user. The low cost of internet services has supported this trend because servers are usually the only fixed cost for internet-based services. Consequently, many industry external players have captured this opportunity by operating as online-based education providers. These operators deliver academic courses and syllabus online through websites, video streaming and recorded video, enabling them to save on overhead costs and reach a larger pool of students. Therefore, these services have been favored by an increasing number of students who wish to study remotely, causing these services to emerge as external competitors with industry operators. To the detriment of the industry, the percentage of services conducted online has expanded significantly at an annualized rate of 11.8% over the five years to 2019, subsequently depressing the for-profit education industry revenue growth.

## **Vocational Education**

Over the past five years, industry revenue has been negatively influenced by large government cutbacks, which coincided with high levels of demand for vocational and technical training, resulting in industry players suffering from supply-side problems.

The five-year period has been characterized by a major skills shortage in the United Kingdom, as identified by the UK Commission for Employment and Skills in 2015. In response to this shortage, the government began to direct funds towards vocational training in areas most needed by UK businesses. One example is the implementation of the Apprenticeship Levy in April 2017, which was expected to fund three million apprenticeships by 2020. However, the levy has so far not had the desired effect, with apprenticeship declining over the period. Over the five years from 2019-20, industry revenue for vocational education is projected to contract at a compound annual rate of 1.5%.

The recent prioritization of vocational education indicates a change in the structure of the UK education system, moving towards an increase in support for vocational and technical apprenticeships and training. In the 2017 Autumn Budget, plans to invest £500 million a year in changing how technical education is taught were announced. A further £400 million increase in further education funding was announced in the 2019 Spending Review. The Department for Education is also expected to announce a new category of higher technical qualifications as demand for those who are highly skilled in technical areas is anticipated to rise in line with the needs of the economy. However, the number of people aged between 16 and 25 is forecast to fall over the short term, before increasing marginally towards the end of the period. As this age group represents the industry's main demographic, demand is likely to come under pressure.

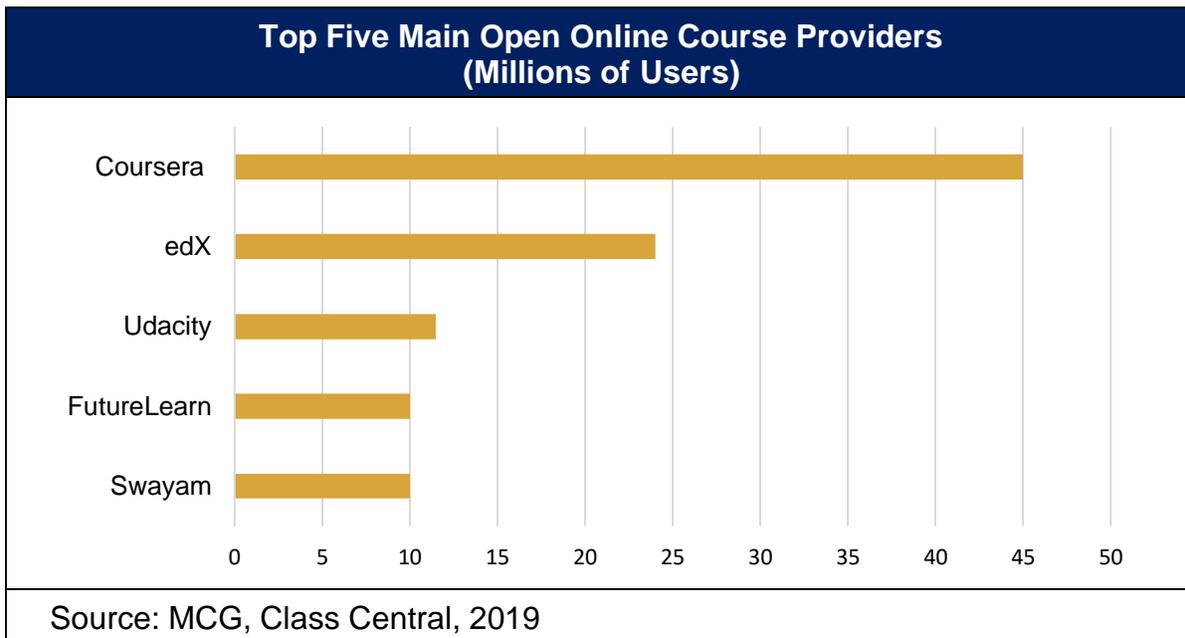
## OTHER EDUCATIONAL SERVICES

Many of these other educational services are provided by organizations that vary from staple primary and secondary education providers, to others that are much more discretionary in nature, such as one-time or regular business coaching and tutoring services. A lot of these services are usually supplemental teaching for students to perform well in a certain area of expertise, whether it be a particular language or a sport. Operators in this sector have benefited from increases in per capita disposable income and an increasing number of high earning households as consumers have become more willing to pay for private education and discretionary educational programs to help students perform better in a specific skill.

Amid the outbreak of COVID-19, disposable income levels are anticipated to drop and with rising unemployment, limiting discretionary spending. This mainly affects the smaller subsectors, such as sports coaching and language instruction, as they are more discretionary than primary, secondary and postsecondary education. As a result, 2020 growth seems slightly more subdued than previous years.

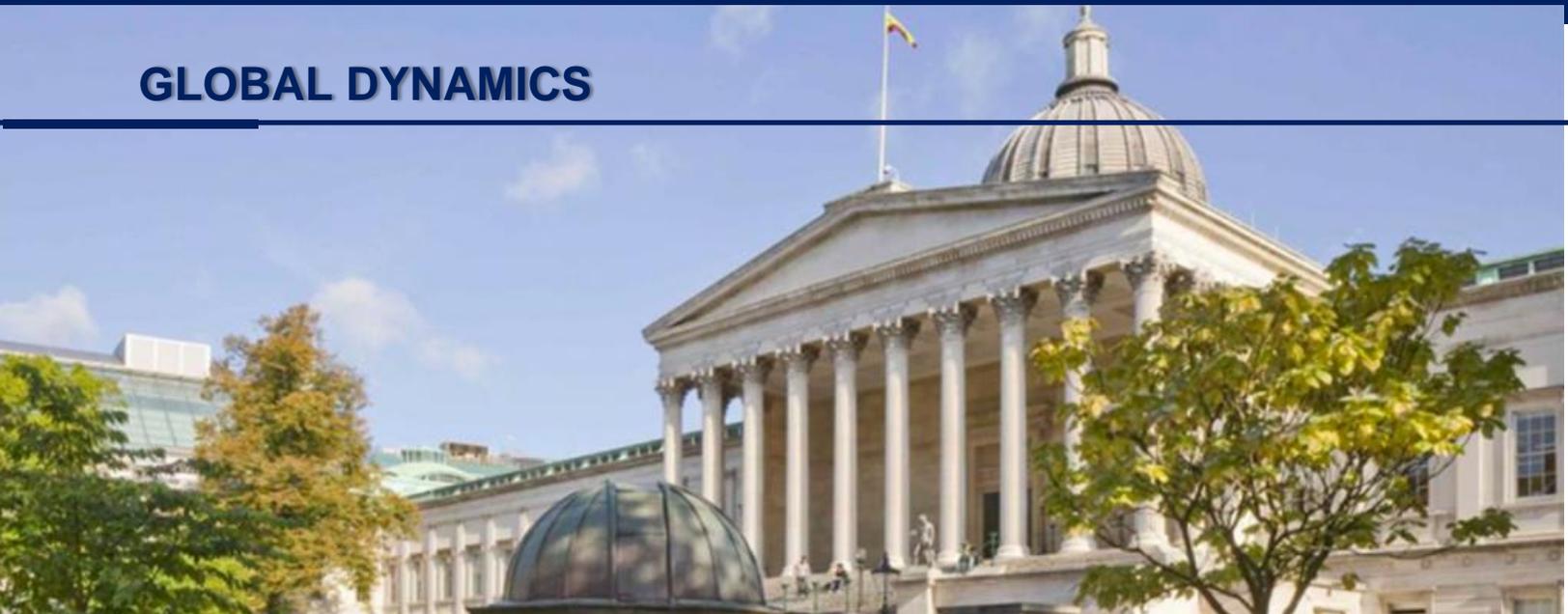
Trends in the domestic economy, consumer demographics and government funding have a significant influence on this particular sector's performance. Over the five years to 2020, per capita disposable income and consumer spending, which have increased at annualized rates of 1.6% and 1.2%, respectively, have pushed consumers to enroll in discretionary education programs such as sports camps and art classes for the majority of the five-year period. Additionally, increases in government funding for primary and secondary education and colleges have driven revenue growth for many of these other educational service providers.

However, the proliferation of online, oftentimes free, e-learning platforms may pose a serious threat these more-discretionary subsectors. Business certification and IT-focused online learning platforms as listed below often are much less time consuming and more accessible. These online platforms also have the advantage of being backed by accredited universities such as Wharton Business School, Booth Business School in offering for example, financial modelling class at lower rates through Udemy than a private one-on-one or group tutoring session.



Nonetheless, over the five years to 2025, the other educational sector is still anticipated to continue growing at a similar rate as the previous five-year period. While threatened by e-learning platforms, younger children that are not as tech savvy are much likely to still rely on these supplemental tutoring courses. Much more specialized tutoring that requires physical monitoring or practical training such as driving or arts are additionally harder to replicate through these self-learning online courses. Thus, increases in school-aged children, steady enrollment growth, higher per capita disposable income and an expansion of government funding are expected to continue to boost sector revenue. As a result, the global other educational sector is estimated to increase at an annualized rate of 1.2% over the five years to 2025, totaling just over \$1.7 trillion.

## GLOBAL DYNAMICS



### INTRODUCTION

The world of higher education is increasingly globalized. US and UK universities are opening foreign university centers across emerging markets looking to tap into local demand while at the same time, the population of international students is growing and looking to study away from their home countries.

On a global level there are a number of trends that have been developing over the past few years and are expected to continue developing and accelerating in a post COVID-19 landscape. While these trends impact institutions and universities on a localized level, the trends reflected here are more international and global in nature. Western universities are in the process of expanding their online presence to not only reach additional domestic consumers, but to appeal to global students as well. With OECD population growth largely stalling or reversing, western universities are also accepting increasing numbers of foreign students not only for their tuition, but to replace spots that aren't being filled due to aging populations and lower birthrates. Overall, while universities are physically bound by their buildings and campuses, they are globalizing quickly and adapting to changing market conditions.

### MARKET DYNAMICS

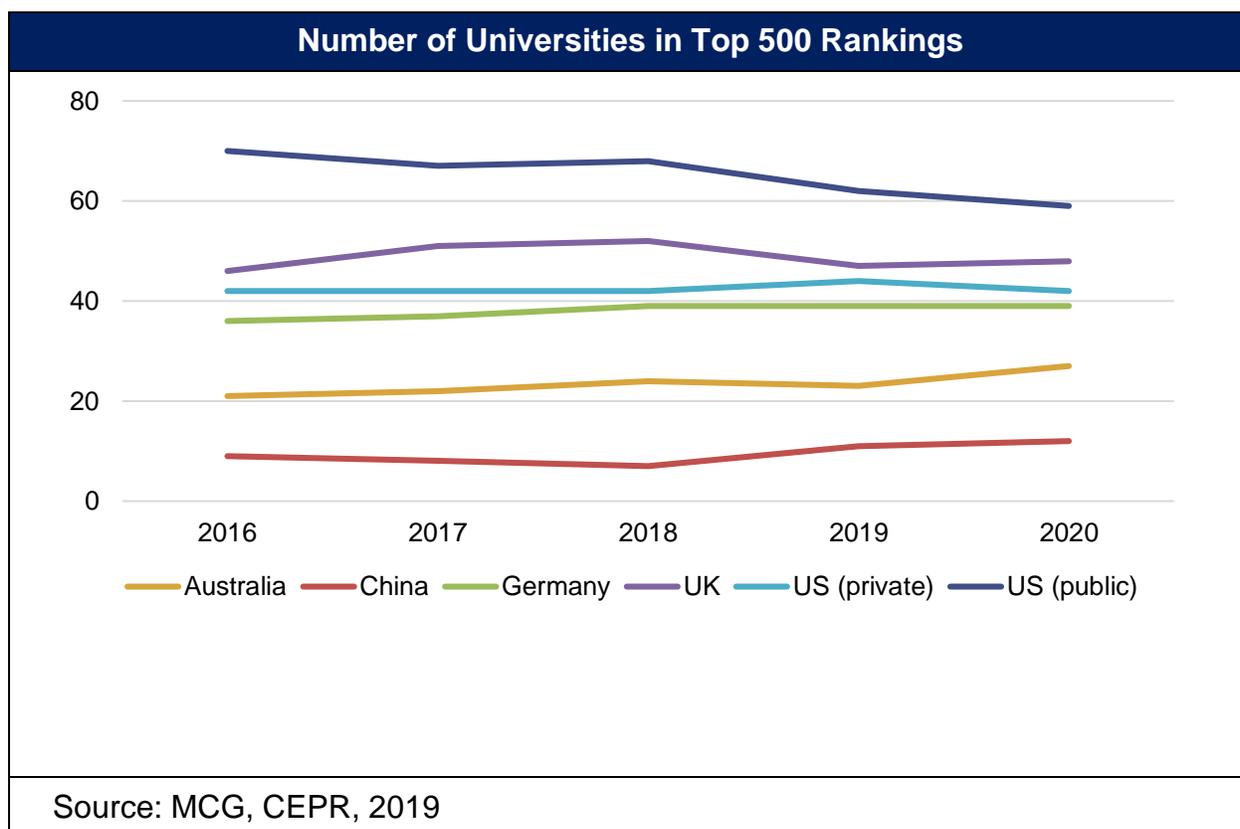
#### **US and UK universities are still leading, but for how much longer?**

Growing competition in the new global knowledge-based economy is accompanied by an international brain race in higher education, particularly in science, technology, engineering, and math (“STEM”) fields. In the midst of an international brain race, global university rankings became more visible and affect government policies in higher education. Particularly, policymakers in China, Japan, and South Korea, where their research universities were viewed

as key driving forces of economic development, focused on improving the performance of their respective higher education systems as measured by international university rankings. Using American or other Western top-tier research universities as benchmarks, those Asian countries are making strategic investment in higher education with STEM priorities towards the goal of building or adding more of their own world-class universities.

Global university rankings have been long dominated by US and UK institutions but in recent years, universities and colleges in other countries have been rising in international rankings. Schools in Canada, Australia, Germany, China, and Japan have risen in recent years at the expense of schools in the UK and the US.

While many UK institutions' falls since last year are small, there is a consistent downward trend. In 2016, 34 UK universities featured in the top 200 (compared with 28 this year), of which 26 have since declined – largely due to universities in other countries improving at a faster rate.



Studies have also shown that UK universities' funding levels have been outpaced by other major higher education systems. The average amount of institutional income per academic at the 48 UK universities in the top 400 is \$497,000, an increase of just 6.5 per cent since 2016.

The equivalent figure in Germany is \$1.21 million, a rise of 38 per cent during the same period, while in China it is \$1.47 million, an increase of 57.1 per cent. Even US public universities in the top 400 have fared better, with their average income rising 12.5 per cent to \$995,000 – although the funding levels of state institutions in the top 200 dropped by 5 per cent.

## **Big Technology and the Global Democratization of Higher Education**

Technology companies have been busy building their businesses overseas and as a consequence, have boosted the ability to build remote learning around the world. Facebook in 2013 began a project called Internet.org. The project has since been mothballed, some of the reasoning for the cancelled project stemmed from Facebook CEO Mark Zuckerberg's comment "that a kid in India could potentially go online and learn all of math." Facebook has since launched a service in India, Myanmar, and other countries called Free Basics allowing users free access to a limited number of sites. However, because of the monopolization of sites, Free Basics has been criticized and, in some countries, were banned. Google and others are also working on their own plans to democratize the internet and make it accessible across the world. Included in many of the free internet plans is virtual access to education and learning making this service particularly important for the spread of education in the developing world.

The Vodafone Foundation and others have also started working on mobile online education with its Instant Classroom. The Instant Classroom comes equipped with a laptop, 25 tablets pre-loaded with educational software, a projector, a speaker and a hotspot modem with 3G connectivity. The Classroom can be charged as a single unit from one power source in 6-8 hours, after which it can be used in a for an entire day without access to electricity. There are other technology ideas to improve education around the world including ideas like Mindspark, a reading aid that promotes literacy, and onebillion, a software that aims to entirely replace teachers.

Higher education in particular is adapting to technology specifically with courses and programs like Coursera or Harvard and MIT owned EDX. Both platforms allow online learning and are degree issuing. Last year Coursera raised \$103 million in a Series E funding round led by the Australia-based education investment firm SEEK, a new investor with the company. Coursera will use the funds to improve its platform and tap into more international markets, in particular governments that want to upskill their workforce. Coursera CEO Jeff Maggioncalda envisions to "bring the top universities in the world to their populations [and] give everybody access to a much, much better education."

## **International Student Migration Trends are Changing**

Students have traditionally been drawn to the US and UK for studies but evolving visa complications and the rise of non-US/UK universities in global rankings are shaping the educational mobility of foreign students. Australia, New Zealand, Germany, and Canada have seen surges of international students in the past decade owing much of the increase to the relaxed student and work visas for incoming foreign students and increased quality of teaching.

Seismic shifts in the global socio-political and socio-economic landscape in recent years have also had a profound effect on international student mobility in higher education, a world that not two decades ago still seemed resilient to disruptive change. Rising nationalist rhetoric and anti-immigration policies in the UK and US have led to declining international enrollments in these former destination favorites.

Meanwhile, massive investments in higher education in countries across Asia such as China, South Korea and Singapore have led to their institutions' dramatic rise in global league tables, threatening Western dominance. Exploding appetite for overseas study among Latin Americans, as well as the rise of lower-middle-income countries such as India, Nigeria and Vietnam, meanwhile, are adding new dimensions to the ebb and flow of international student mobility.

# THE U.S STILL A MAJOR MARKET



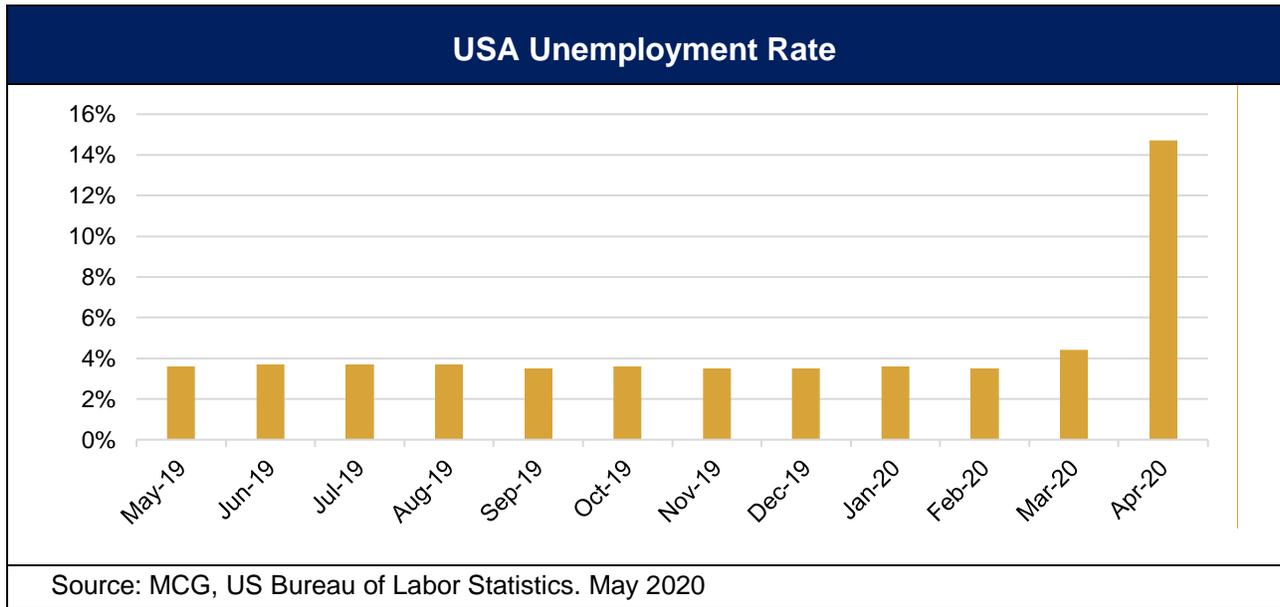
## BACKGROUND

### Introduction

Over the past five years, strengthened job markets and better employment prospects have hindered industry demand, causing high school graduates to enter the workforce and forgo postsecondary education. Increasing costs associated with higher education have also deterred possible customers. COVID-19 has substantially changed the outlook and volatility for the sector as unemployment has risen and economies have largely shutdown forcing both students and educators to rethink their options.

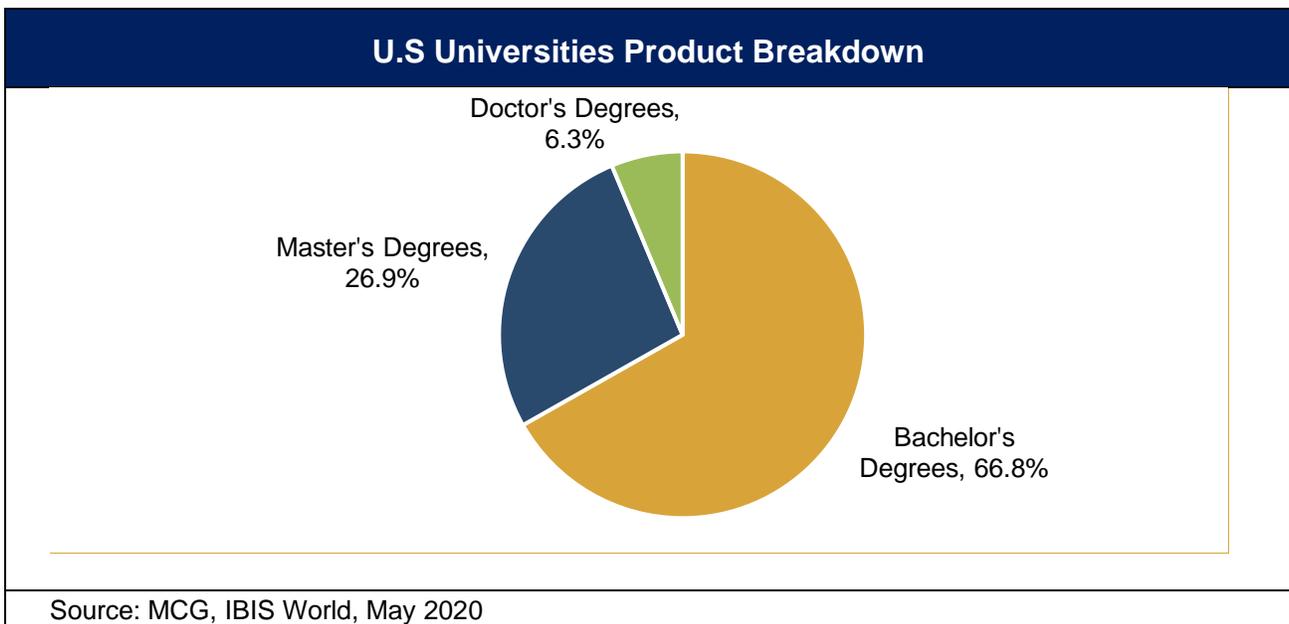
The next five years to 2025 however, demand for higher education is expected to rebound as the job market is expected to contract. As competition in the job market is anticipated to be tougher, discouraged job seekers will likely choose to pursue higher education to make themselves more competitive in the job market.

However, industry operators are expected to endure higher competition from massive open online course services, which may pull students away from traditional universities by offering low-cost education. Nonetheless, government funding and private donations are both expected to increase over the next five years, making higher education more affordable to a greater number of students.



## US Private and Public Universities

Up until recently, industry demand has been pressured by an improving job market, encouraging college students to forgo higher education and enter the workforce instead. Moreover, consistent tuition increases over the past years have discouraged financially constrained students from attending college. Universities are also struggling to cope with stagnant incomes that can't continue to cope with spiraling education costs. Not to mention the overall aging and population growth stagnation in OECD countries.



Since 2015, stable economic growth has caused the national unemployment rate to decline from its recessionary peak, and this growth cycle of the economy was expected to continue through 2020, leading to a low unemployment rate in 2020. However, due to COVID-19, unemployment has suddenly risen, and job stability and growth are being questioned as various lockdown programs were being introduced. The increase in unemployment should improve demand for educational industry services.

The education market in the United States is characterized by multiple operators and a plethora of selection from potential customers. According to Federal Student Aid, US student loan debt has reached \$1.6 trillion in 2020. A vibrant job market has largely encouraged those with financial constraints to avoid student loans and join the workforce to make a living. Even though many universities have tried to grant financial aid and scholarships to more students, the number of qualified students only accounts for a minor share of total college students. Besides tuition fees, the majority of public and private nonprofit universities rely on state funding, private donations and endowments for revenue, helping them to maintain a stable profit margin. As a result, industry profit has increased over the past five years.

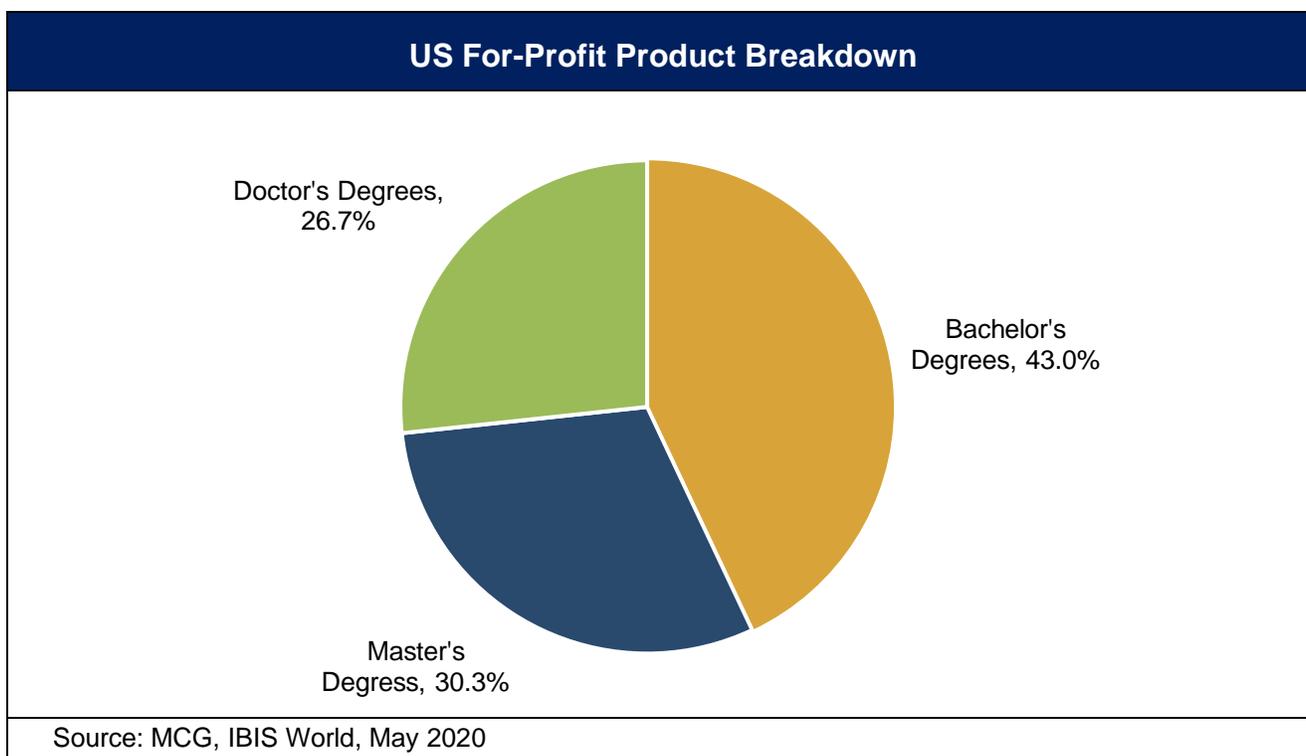
Both state governments and the federal government provide an estimated 40.0% of total funding for postsecondary education each, while almost all of their contributions come from budget appropriations for the funding of their respective public schools. Specifically, state and local government funding is largely driven by college enrollment while total federal grants usually target research done by professors and graduate students. However, many colleges and universities have experienced extremely volatile revenue and profit over the past five years, largely due to fluctuations in funding from government and private entities.

While increases in personal income bolster private contributions as alumni are able to make more generous donations, the equity market's strong performance over the past five years has more than ever supported growth in donations, grants and endowment. Nevertheless, despite increases in government funding and endowments, many institutions have raised tuition fees over the past five years because revenue growth has fallen short of rises in expenses. According to 2019 data from the National Center for Education Statistics, four-year public institutions increased tuition fees at an annualized rate of 1.9% between 2015 and 2018, whereas four-year nonprofit private institutions raised tuition at an annualized rate of 3.1% during the same period. However, rising tuition fees have not placed as much of a substantial amount of pressure on the demand for higher education.

While some US public universities to an extent are buffered from headwinds by government budgets and allocations, they aren't totally immune to the tailwinds in the sector. Private Universities on the other hand will be worried about the accelerating disruption being caused by COVID-19 with online classes, a smaller campus presence, and rising tuition costs. Scott Galloway of NYU Stern estimates that in the near future, hundreds of universities will shutdown, because students will recognize they aren't worth the very high tuition fees when for a fraction of the cost they can study online at an equal or better peer university. COVID-19 is only accelerating that realization.

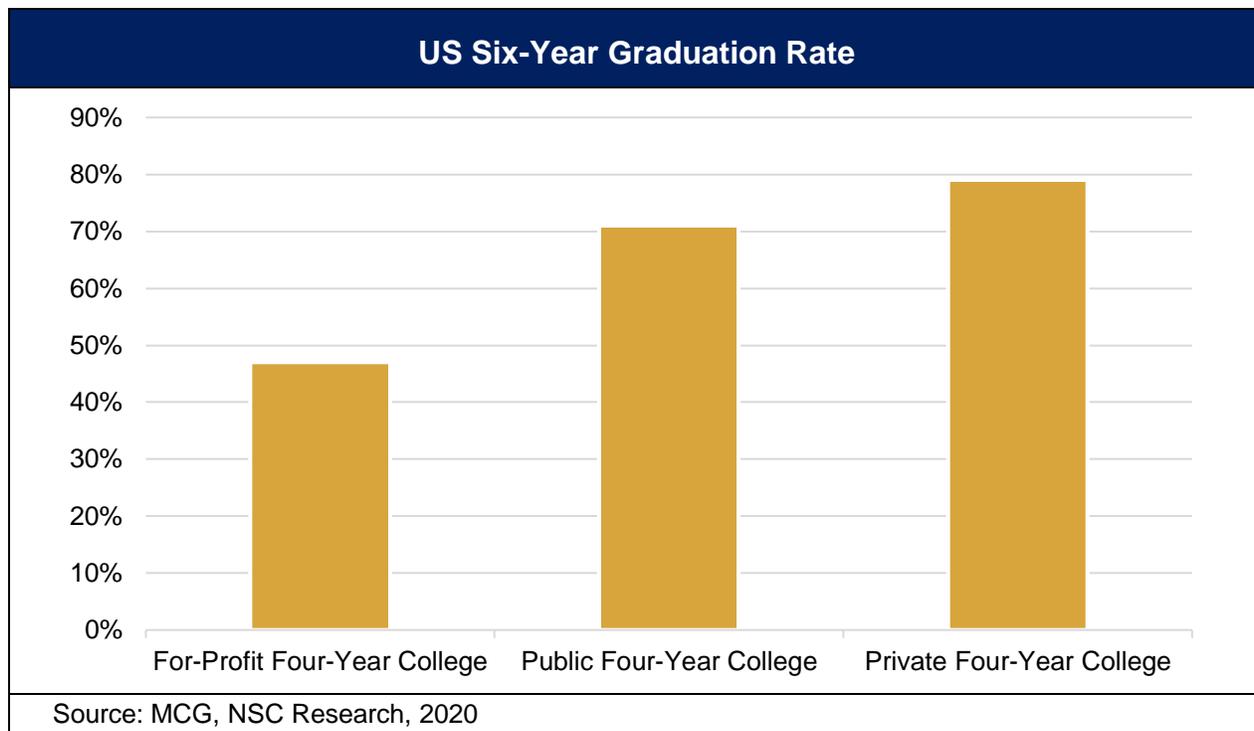
## US For-Profit Institutions

Over the five years to 2019, industry revenue has experienced a significant decline as operators have endured lawsuits and negative press for providing less-than-adequate education to students. Moreover, demand for industry services fell as the unemployment rate decreased, encouraging many students to pursue full-time employment instead of enrolling in industry courses. Consequently, enrollment in industry institutions has plummeted and industry revenue is estimated to fall at an annualized rate of 3.7% over the five years to 2019 to \$14.3 billion; however, revenue is projected to increase 3.9% in 2019 alone.



Critics of for-profit universities typically point to high student loan default rates, questionable marketing techniques and low admissions standards. Additionally, many students have had problems finding gainful employment upon graduation, causing many to question the quality of education provided by for-profit universities. Such criticisms over for-profit universities have caught the attention of the Obama administration, which started to investigate a series of for-profit universities starting in 2016. The increase in regulation and termination of accreditation has caused many of the industry's largest operators to close its doors over the five years to 2019. Overall, negative publicity, mounting regulation and substantial improvements in the US labor market have caused enrollment in for-profit universities to drop over the past five years, limiting revenue from tuition and other student-related income. Despite the enrollment plunge, industry

profit margins have improved as key operating expenses such as wages have decreased at a faster rate than revenue during the five-year period to 2020.



Moving forward, as the national unemployment rate is forecasted to increase, alongside with anticipated rises in the high school retention rate and per capita disposable income, industry revenue could possibly rebound at a modest pace over the four years to 2024. Moreover, the recently proposed elimination of the Gainful Employment is expected to revive the For-Profit Universities industry in the years to come. The Gainful Employment Rule required schools to provide students with an education adequate enough for them to pay back their education loans. Overall, industry revenue is projected to increase at an annualized rate of 0.5% to \$14.7 billion over the five years to 2024.

## U.S MARKET DYNAMICS

Drivers of different market sectors within American higher education remain largely separate. However, customer goals are all the same: to improve life satisfaction, improve future career prospects, and achieve a higher salary. Public and private universities tend to cater towards younger demographics more willing to give up current earnings potential for the hope of improved future prospects. For-profit institution customers tend to cater to those who are older in age, work part-time or full time, and are part of minority ethnicities.

## U.S Private and Public Universities

The affordability of a college education has a significant influence on demand for the industry. Tuition costs and household income determine affordability, and higher tuition typically decreases demand for postsecondary education. On an individual basis, a person's ability to forgo or endure reduced income from paid employment can influence the decision to go to school. This is particularly true of mature students that are returning to school after participation in the workforce. Per capita disposable income has increase over the five years to 2020, while the national unemployment has experienced a significant decline during this same period, both of which indicate that US consumers have more money to spend on higher education. However, it can lead to a reversal effect in the case of increases in tuition and school fees. As the cost of higher education is perceived to increase, college students will likely be encouraged to enter the workforce to seize employment opportunities.

In some cases, scholarships, grants and other financial aid can offset tuition expenses. This assistance is typically provided by an individual institution, but state and federal governments also offer significant financial aid to certain students in hopes of fostering a well-educated population. The majority of federal and state government aid is direct toward students from low-income households. However, this assistance is rarely a blank check, and very few US students experience a truly free college education. In fact, nearly 70.0% of federal student aid comes in the form of student loans, while just 30.0% comes from federal grants that do not have to be repaid, according to a 2019 data from the National Center for Education Statistics. Additionally, overall growth in government funding for universities has fallen behind the increase in universities' expenses, which has caused many schools to increase the cost of tuition. This trend has weakened demand for industry services over the past five years.

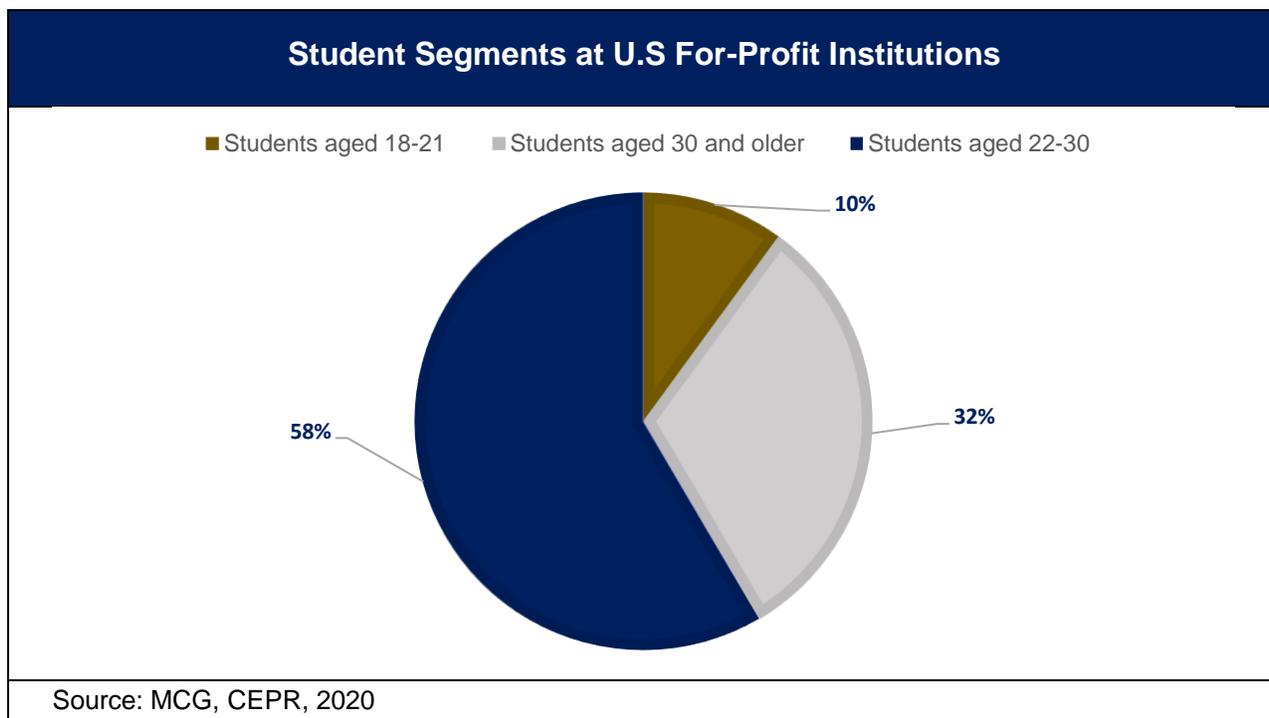
Demand for colleges and universities is also affected by the growth and age distribution of the US population. Given that higher education is a relatively costly endeavor that involves significant expenses of both time and money, most students choose to pursue higher education at a young age, as this gives students more time to benefit from their degree and, most likely, pay back their debts. Therefore, as the median age of the US population continues to increase over the coming years, college-aged students will likely begin to represent a shrinking portion of the overall population. As millennial college students are incrementally replaced by students in less populous demographics, demand for higher education services may subsequently suffer.

Lastly, demand for universities and colleges is inversely affected by the job market. Strengthened job market encourages college students to forgo higher education to persuade job opportunities. Conversely, when the unemployment rate is high, college students are discouraged to enter the workforce as the chance to land into a job is low. Thus, demand for universities and colleges is countercyclical with the overall economic performance.

## US For-Profit Institutions

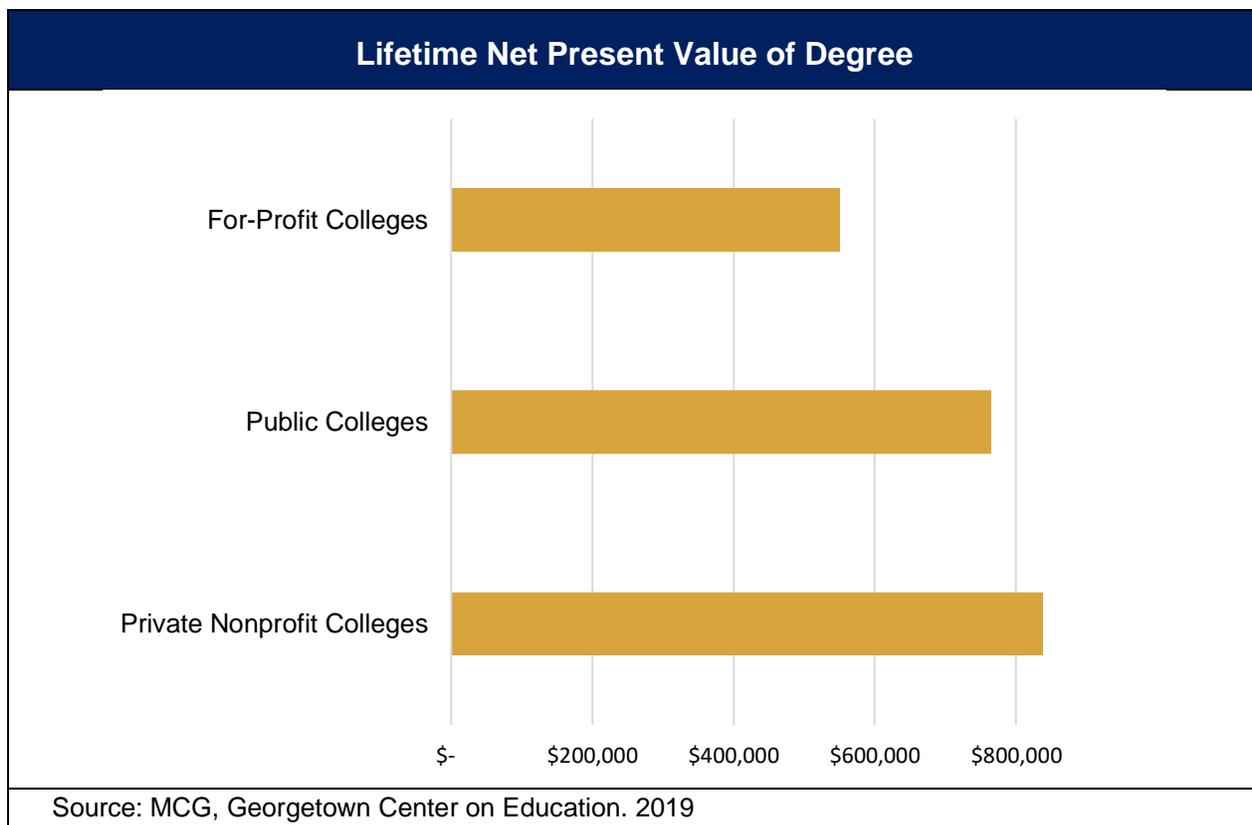
Perceptions regarding the value of higher education often weigh heavily on demand. Personal and community perceptions of the value of higher education to improve employment opportunities, satisfy academic and social needs affect demand for courses. Recently, some for-profit universities have experienced a decline in demand due to poor press regarding the high cost versus the potential payout of a degree from a for-profit institution.

The availability of alternatives also affects demand for this industry. Total demand for postsecondary education often surpasses the amount provided by traditional colleges. This trend has a direct influence on demand for for-profit universities. Over the past decade, it has become harder to gain admission into private not-for-profit and public schools as more people graduate from high school. The rising number of high school graduates has caused traditional colleges to become increasingly selective. Consequently, people seeking a college education have sought alternatives, such as those provided by the For-Profit Universities industry.



Similarly, flexibility has caused industry demand to generally increase. For-profit colleges have pioneered distance education via online courses. The flexibility provided by online courses has enabled the industry to market their services to people who have not been historically targeted by traditional colleges. In addition to full-time workers, the industry has been able to attract students who do not live near a physical campus. Though the explosion of online courses has caused some critics to question the quality of services, distance education has been a defining characteristic and demand driver for for-profit universities over the past five years.

The labor market is also extremely important to demand for this industry. During periods of high unemployment, high school students are more likely to continue directly on to college and workers who have been laid off often return to school. This factor helped boost demand during the recession and recovery period, causing many operators to experience significant revenue growth. However, as the economy is on an upward trajectory, unemployment, in effect declines significantly, causing demand for industry service to fall.



The affordability of a college education also has a significant effect on industry demand. Affordability is determined by tuition costs and the level of household income. Schools become more marketable to students by offering financial aid because tuition expenses can be offset by loans, Pell Grants and other aids, such as scholarships. Access to federal financial aid programs, such as Title IV funds, is especially important for this industry. A school must be accredited to be eligible for these programs. Federal loans are the industry's lifeblood, as schools are permitted to generate 90% of their revenue from Title IV funds. Any changes in federal aid regulation could have significant repercussions for the industry over the next five years.

Government regulation can affect industry demand as well. For instance, enrollment spiked after the abolishment of the 50/50 Rule, which stated that no more than half of a school's enrollment could be taking courses strictly online. Over the next five years, government regulation, such as the removal of Gainful Employment Rule, is expected to bolster demand for this industry.

However, schools are expected to experience increased accountability over students defaulting on their loans, causing many schools to change marketing and recruitment techniques.

## Other Education Services

The remaining education services comprises largely of vocational and other supplemental education services that require a much more specialized technical or career-oriented coursework relating to the student's career path. Demand for these other educational services is similarly determined primarily by population demographics and several other macroeconomic figures, including per capita disposable income, consumer spending and households earning over \$100,000 annually, and for certain parts of the sector, time spent on sports and leisure. Over the five years to 2020, overall growth in per capita disposable income, government funding for primary and secondary education and universities contributed to the sector's success. Moreover, as more individuals enter the school-age population, which typically includes individuals aged five to 18 for primary and secondary schools and those aged 18 to 23 for postsecondary schools, demand for sector services increased.

Macroeconomic trends in the labor market can have significant effects on overall demand for sector operators. Many individuals pursuing further education or taking specific courses have to forgo or endure reduced income from paid employment. For example, the national unemployment rate has declined over the majority of the past five years, encouraging many potential consumers to pursue full-time employment instead of continuing their education or pursuing discretionary educational options, such as language instruction and fine arts courses. Additionally, many operators are sensitive to changes in the level of government funding, both for education and creative arts, as a large part of revenue is generated through government funding at the local, state and federal level. Furthermore, rising per capita disposable income and increasing corporate profit oftentimes benefit operators. Businesses are more likely to hire external operators, such as business coaches for additional lessons, if corporate profit is strong and there is extra money to spend. Additionally, high corporate profit enables companies to expand into foreign markets, which typically leads to an increase in language instruction services. Increases in time and leisure also benefit operators that provide discretionary goods because many of the services provided by these operators are geared toward individuals pursuing a personal skill or hobby.

Per capita disposable income determines an individual's ability to purchase discretionary goods and services. When per capita income declines, consumers limit purchases to only essential items and more affordable alternatives, such as free online courses. Conversely, as per capita disposable income increase, US consumers are more willing to pay for private schools, postsecondary institutions and similarly, other discretionary educational services. Per capita disposable income is expected to decrease in 2020, posing a potential threat for the industry.

The price of educational services, which affects all subindustries besides public schools, is a major driver of demand. A rise in tuition fees or an increase in cost oftentimes result in reduced demand for the services provided by educational service operators. For example, if tuition rates rise for postsecondary education options, individuals might opt to enter the workforce rather than

accumulate debt. Additionally, some operators offer discretionary educational options, such as tutoring, sports coaching, business coaching and fine arts courses. As a result, if the cost increases, consumers will be less willing to pay for these programs as they are not completely necessary.

The Educational Services sector comprises 13 subsectors; however, just under 95% of industry revenue is earned through five industries, which are public schools, private schools, community colleges, colleges and universities and for-profit universities. Due to the nature of the industries, they are subject to a variety of government regulations and receive funding at the local, state and federal level. Typically, as government regulation increases, these educational institutions receive more government funding. Due to the dominance of these five industries, any increase in regulation or funding benefits the education sector as a whole.

Public schools are entirely funded by specific local, state and federal governments. Funds are directed to schools based on enrollment numbers, available programs, facility needs and student demographics. Over the five years to 2020, government funding for primary and secondary education increased an annualized 1.6%, reaching \$670.1 billion in 2020. Economic growth during the five-year period boosted tax revenue for all levels of government and there have been sizable increases in government spending since 2015. Additionally, while private schools do not receive direct government funding, they receive indirect assistance through the compulsory education requirement. Typically, children aged five to 18 are required to be educated, whether it is through home-schooling, public or private school. Therefore, as the number of K-12 students increased an annualized 0.1% over the five years to 2020, all primary and secondary schools have benefited. Public and private schools alone account for over an estimated 54.5% of sector revenue in 2020.

## TRENDS

Leaders of U.S. universities and colleges are navigating a challenging economic environment. Revenues from enrollment, government, and other sources have fallen, leading many institutions to raise tuition to unsustainable levels and putting a number of the weakest schools at risk of failing. Meanwhile, the return on investment of a degree is increasingly subject to debate. After years of low graduation levels and high unemployment rates for those students who do complete college, the spotlight has shifted firmly toward improving outcomes.

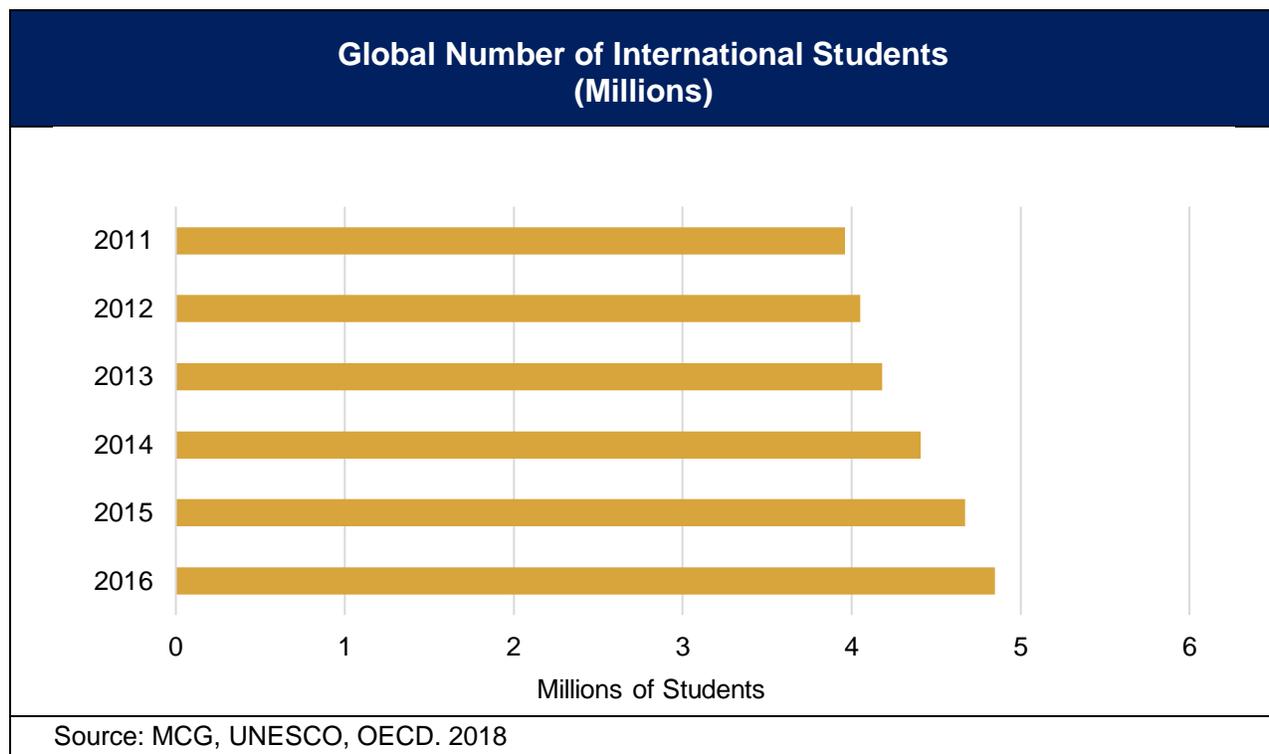
Higher education is also set to undergo fundamental changes. Courses are increasingly available from massive open online courses where content creators are partnering with schools like NYU, Columbia, MIT and Harvard to offer degrees and course certificates. The ease of availability, price relative to traditional education, and online format will continue to challenge industry incumbents. The online format in particular is being aggressively expanded as students are working from home and are unable to attend in-person classes during the COVID-19 pandemic. The new delivery system could eventually upend many lower-tier private non-profit and for-profit school models as price sensitive consumers move away from traditional institutions. Lastly, the demographics of education are set to evolve in the coming future. With traditional private and public university tuition increasingly out of reach for many households,

new schools such as the Lambda school founded by Peter Thiel are promising no tuition payments, but instead want a percentage of future salary gained. These new funding and payment ideas could help democratize and lower costs associated with higher education.

### International Students

According to 2019 data from the Institute of International Education (“IIE”), the number of international students enrolled in US bachelor’s and graduate degree programs is estimated to have grown at an annualized rate of 3.5% between 2015 and 2019. IIE recorded 974,481 foreign students pursuing industry-relevant degrees at US institutions during the 2018-19 academic year, increasing 0.9% compared with the previous academic year.

During that same academic year, the leading countries of origin were China, India and South Korea. Among these three countries, the number of students from India has experienced the strongest growth with a 2.9% as compared with the previous year. In contrast, enrollments from South Korea posted a marked decline of 4.2% during the same period. China and India have the most students studying in the United States, with 369,548 and 202,014 students in the 2018-19 academic year, respectively.



In 2017, the IIE estimated that international students contributed more than \$42 billion to the US economy, primarily through tuition and living expenses. Moreover, according to the IIE, 57% of international students receive the majority of their funds from sources outside the United States, such as personal and family wealth. This figure is expected to increase over the coming years as many institutions continue to raise tuition costs while government entities further concentrate financial assistance on domestic students.

According to IIE data, California, New York and Texas were the most common destinations for international students during the 2018-19 school year, with New York University alone hosting 19,605 industry-relevant international students during this period.

## **Online Education as a Viable Alternative**

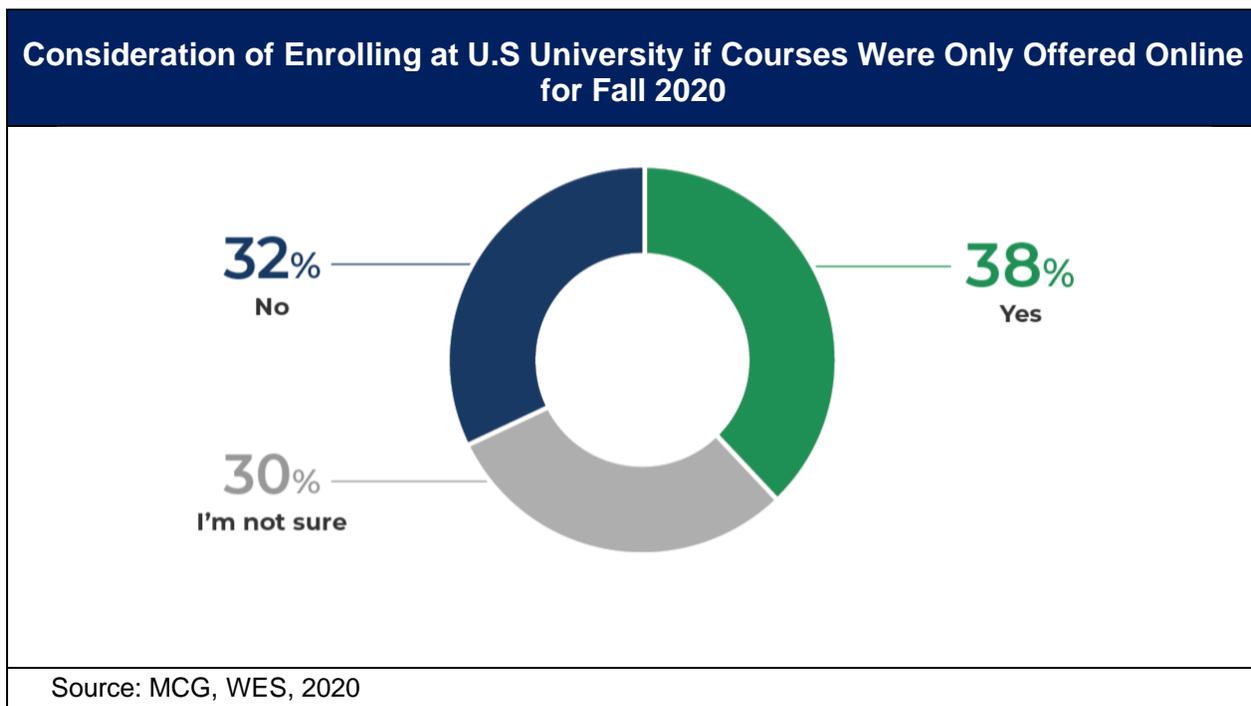
At the same time, alternatives to traditional methods of on-campus instruction are increasingly being explored by university administrators, including the use of video conferencing and computer networks. These elements are commonly implemented for distance education purposes and for students that wish to complete higher education courses off-campus. For example, these advances can reduce the costs of education by limiting the travel and accommodation expenses of people living in remote areas. Moreover, online education enables universities and colleges to increase class sizes without requiring more teachers or buildings, achieving significant cost savings for institutions.

However, online education could also pose a threat to traditional colleges. For example, Coursera, a start-up founded by two Stanford University computer science professors, offers over 2,700 online courses from over 150 accredited university partners; Coursera also has over 25.0 million users worldwide. While all courses on Coursera are free, students can opt to pay a small fee to receive a certification proving that they have completed the specific course. There are many other Massive Open Online Courses (“MOOCs”) that offer similar services, such as edX and Udacity Inc.

The ultimate effect that MOOCs will likely have on traditional universities is currently unknown. It may be that services, such as Coursera, will pull students away from traditional universities by offering free and low-cost education services. However, many of the services received at traditional universities simply cannot transfer over to online courses, keeping the negative effects of MOOCs low. Additionally, the spread of free online courses will likely increase interest in academic institutions and research, which may increase enrollment in universities and benefits industry revenue. It is still too early to know the long-term effects that MOOCs will have on traditional colleges and universities.

Given the uncertainties as to how long the pandemic will be contained, growing numbers of institutions are shifting to online education beyond the summer. As of May 2020, 7% of institutions have announced that they will deliver education online in the upcoming fall semester. Another 28% of Higher Education Institutions (“HEIs”), including major international host institutions like Columbia University and the University of Southern California, are still deciding or are considering other options, including blended learning. For international students unable

to travel, distance learning will likely be more common: 52% of 234 U.S. HEIs polled in a recent survey by the Institute of International Education stated that they would provide online options for international students in the fall.



Some observers have suggested that the rapid global shift toward distance learning may provide HEIs with a golden opportunity to reach more students overseas with online programs. Former U.K. higher education minister Jo Johnson, for instance, thinks that British universities will be able to increase overseas enrollments from lower “income groups in Asia and Africa where young people do not necessarily want the full-fat, high-cost, three- to four-year program living in an English-speaking country.”

However, while there’s certainly the potential to reach more students in untapped overseas markets with distance education programs, there are doubts about how popular online options will actually be for international students, especially among students already enrolled in degree programs. Fully 32% of international students surveyed by World Education Service said that they would not continue their studies in online mode, while another 30% were undecided. This finding mirrors the sentiment of domestic students: 33% of prospective U.S. students polled in May said that they would “defer or cancel their fall semester if schools go totally online.”

There are technical issues to consider as well. Several universities have reported difficulties delivering learning content to students in China because of internet censorship and the inaccessibility of popular online platforms. What’s more, it will be difficult to offer online programs

at the same price as full-fledged on-campus programs, so the revenues of major host institutions would be at risk either way if education were to be delivered wholly online on a prolonged basis.

It remains an open question whether online education will help retain international students in the long run. While some students will certainly be put off by paying hefty fees for an international online education, some institutions and countries may stand to benefit. As one Canadian immigration policy analyst has noted, “international students who wish to eventually apply for Canadian immigration will want to capitalize on the opportunity to complete a portion of their studies in their countries of origin, while still being able to access the same benefits (the work permits) had they been required to physically study in Canada. The cost to study in Canada will decline for them, since they will not have to incur additional living expenses at the outset of their Canadian education.”

## **Regulation in US Higher Education**

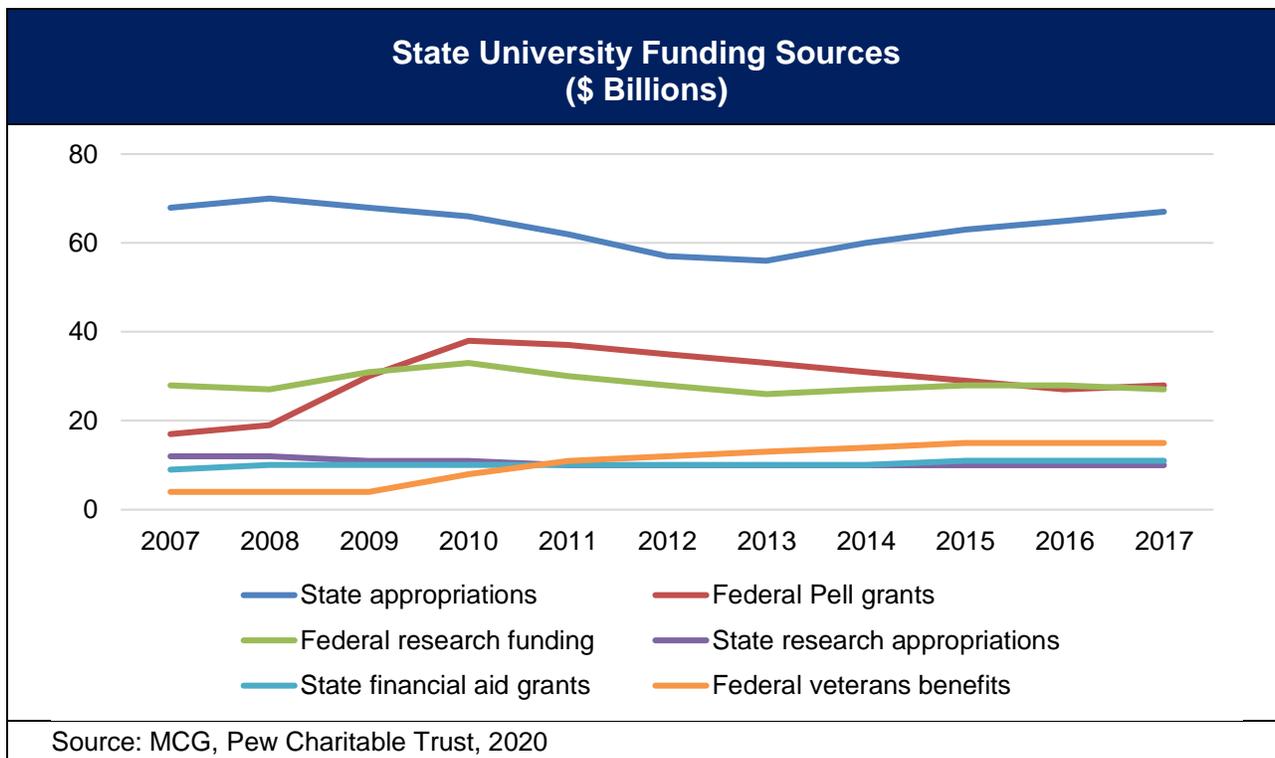
The federal government attempts to improve the quality of higher education by funding research, offering student financial aid and disseminating knowledge about teaching and learning. Virtually all laws authorizing federal assistance to institutions stipulate that these institutions meet minimum licensing and accreditation standards. Many postsecondary institutions are also voluntary members of privately operated accrediting agencies, which periodically review the standards and practices of their membership. This reaccreditation typically occurs every five years. The Higher Education Opportunity Act of 2008 also requires each institution in the Title IV program to post net education cost estimations online based on a student's individual circumstances. While many federal regulations have succeeded in making college more affordable and more accessible for an increasingly diverse array of students, government mandates can also pose a significant cost to higher education institutions.

There is a growing debate in the US, as to whether wealthy universities with substantial endowments should continue to receive tax exemptions. The US Senate Finance Committee has considered various proposals to increase tax revenue from higher education institutions, including limits on tax-free tuition benefits that institutions give their employees, taxes on endowments and possible tuition price controls.

## **Funding and Tuition**

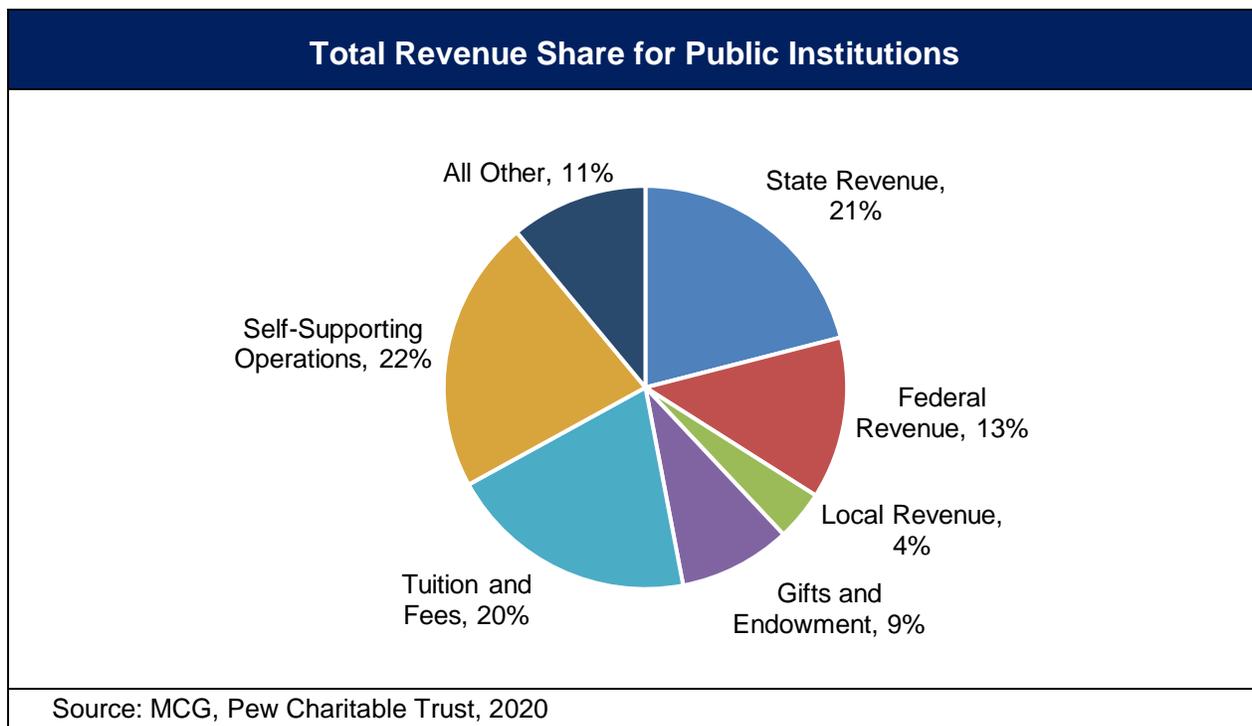
States and the federal government have long provided substantial financial support for higher education, but in recent years, their respective levels of contribution have shifted significantly. Historically, states provided a far greater share of assistance to postsecondary institutions and students than the federal government did: In 1990 state per student funding was almost 140% more than that of the federal government. However, over the past two decades and particularly since the Great Recession, spending across levels of government converged as state investments declined, particularly in general purpose support for institutions, and federal ones grew, largely driven by increases in the need-based Pell Grant financial aid program. As a

result, the gap has narrowed considerably, and state funding per student in 2015 was only 12% above federal levels.



This swing in federal and state funding has altered the level of public support directed to students and institutions and how higher education dollars flow. Although federal and state governments have overlapping policy goals, such as increasing access to postsecondary education and supporting research, they channel their resources into the higher education system in different ways.

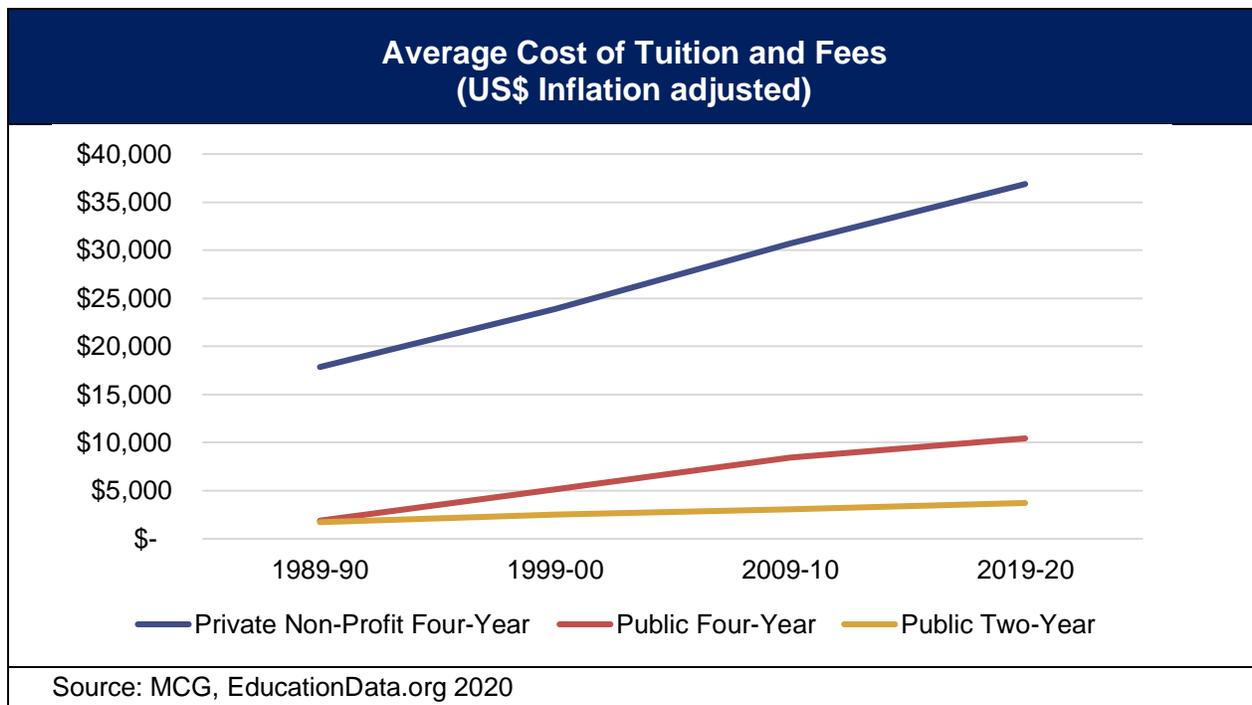
The federal government mainly provides financial assistance to individual students and specific research projects, while states primarily pay for the general operations of public institutions. Federal and state funding, together, continue to make up a substantial share of public college and university budgets, at 34% of public schools' total revenue in 2017.



Private Not-For-Profit Universities on the other hand have an altogether different funding mix compared to public Universities due to the lack of overall funding from both federal and state governments. While private universities can access federal and state funding for research purposes, the majority of their funding comes from their endowments. Most of these endowment funds are subject to restrictions that donors stipulate and that institutions must legally uphold. Endowment funds are managed to provide a permanent source of income to help support the teaching, research, and engagement programs of institutions. The interest/earnings on the base gifts provide revenue to help advance the universities’ missions. Since endowments are a permanent source of funding, the funds must be managed for perpetuity to ensure the gifts provide support for future operating activities.

While public attention focuses primarily on the relatively small number of colleges and universities with large endowments, most colleges and universities have only modest endowments or none at all. Although some public universities’ endowments rank among the largest, most public institutions have only nominal endowments or none at all (although they may receive significant state subsidies, which typically are not available to private colleges and universities). As of 2019, 53% of four- and two-year private nonprofit colleges and universities had endowments of less than \$10 million. The median endowment at private colleges and

universities is roughly \$7.9 million, which at a typical spending rate of about 4% to 5% would support an annual expenditure of between \$316,000 and \$340,000. Of the nation’s approximately 4,000 public and private nonprofit colleges and universities, only 657—or about 16% —had endowments over \$50 million. Only 62 institutions (1.6% of all colleges and universities) had endowments exceeding \$1 billion. Of these, 46 were private and 16 were public. This means that in low earning times, many private universities cannot afford to be shut down and that prolonged shut down can affect future viability.



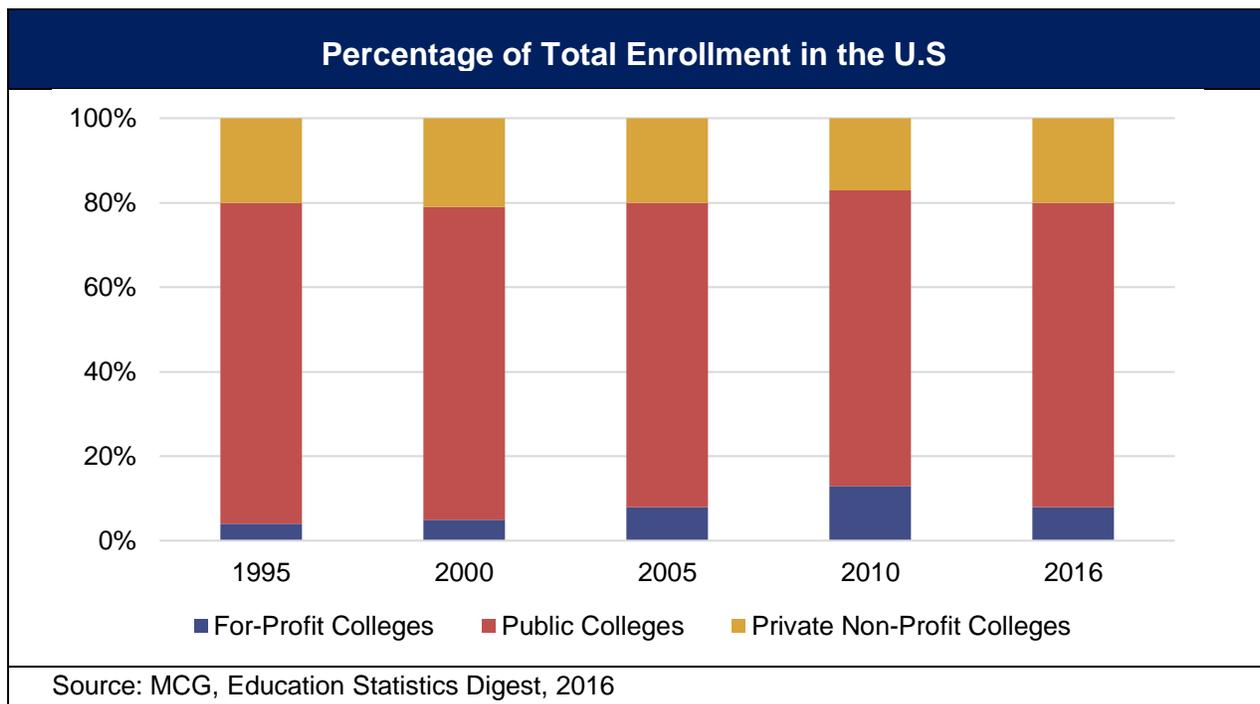
For private universities, whatever is not covered by endowment support is covered by fees on students in the form of tuition. Many small private schools charge significantly more than public institutions and given the current market environment and transfer to online classes, students and parents may begin to question whether that investment is worth it.

Finally, there are newer trends emerging from Silicon Valley related to tuition and payment schemes. Lambda School, a new online institution with backing from Peter Thiel, Y Combinator, and other VCs is offering a percentage of future income model for students in the form of an income share agreement. At Lambda, students pay nothing upfront. But they are required to pay 17% of their salary to Lambda for two years if they get a job that pays more than \$50,000. If they don’t get a job, or their salary is lower, they pay nothing. Payments are capped at \$30,000, so a highly paid student isn’t penalized for success, and if a student loses a job, the payments pause. This new type of model has the potential to totally overhaul the current expensive form of higher education.

## Trends in For-Profit Institutions

Over the past few years, the Trump administration has made efforts to revive the industry. In August 2018, Education Secretary Betsy DeVos reversed the regulations aimed at for-profit universities under the Obama administration. The new regulation, which was implemented in July 2019, removes the Gainful Employment Rule. Instead, the Department of Education will publish information regarding median debts and median earnings at all program levels of all universities and colleges, rather than just for-profit universities. This move is expected to benefit the For-Profit Universities industry as they will no longer be held accountable for the low performance and job prospects of their students. Moreover, DeVos announced the restoration of the Accrediting Council for Independent Colleges and Schools. This accreditation agency has provided accreditation to a large number of colleges and universities that mainly operate as for-profit status. The termination of this accreditor has damaged the industry over the five years to 2019 as it caused a large number of for-profit universities to lose access to federal aid. However, with the restoration of this accreditor, industry revenue is expected to increase at an annualized rate of 0.5% to \$14.7 billion over the five years to 2024.

While the industry's primary market will continue to be nontraditional students, a greater variety of student demographics is expected to emerge over the next five years. For instance, the number and type of degrees offered are expected to grow as more people consider for-profit universities for graduate and postgraduate education.



Furthermore, as more traditional four-year colleges begin offering online courses, the resulting price-based competition will likely place additional downward pressure on industry revenue growth. For example, Stanford University and the Massachusetts Institute of Technology have recently started putting coursework online free of charge.

Similarly, start-ups that provide a platform for universities to offer online courses, such as Coursera, edX and Udacity Inc., are expected to continue gaining traction, siphoning students from for-profit universities. Consequently, as domestic competition becomes more intense, operators will seek overseas for growth opportunities. However, international growth is expected to intensify over the coming years as higher education becomes increasingly globalized and online courses broaden the reach of US for-profit schools.

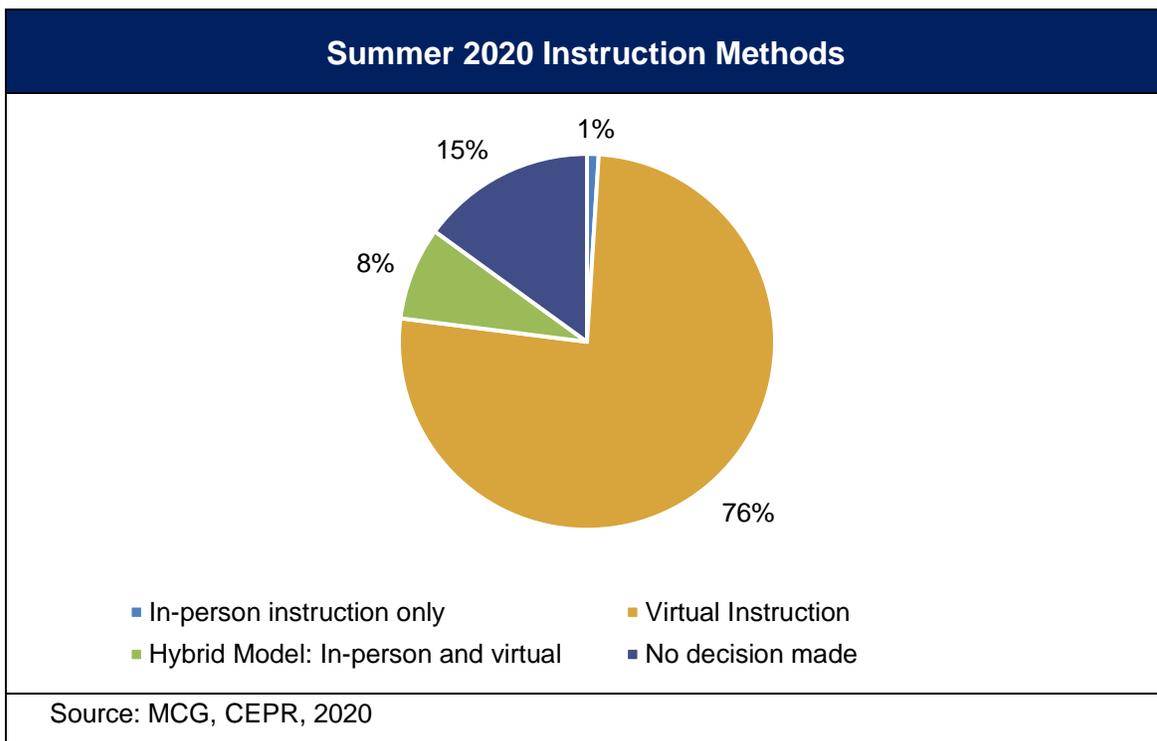
## OUTLOOK

Over the next five years, the overall number of establishments in the Educational Services sector is expected to rise. Some operators, such as for-profit universities, will struggle to keep their doors open due to increasing competition from not-for-profit four-year colleges and universities, as well as community colleges. However, the majority of operators provide services on a localized level and therefore will continue to expand to untapped markets.

Furthermore, population increases, specifically the number of K-12 students and individuals aged 18 to 23, have forced school systems at all levels to expand to meet increased demand. As a result, the number of educational service locations is expected to increase at an annualized rate of 2.6% to total just under 1.4 million establishments.

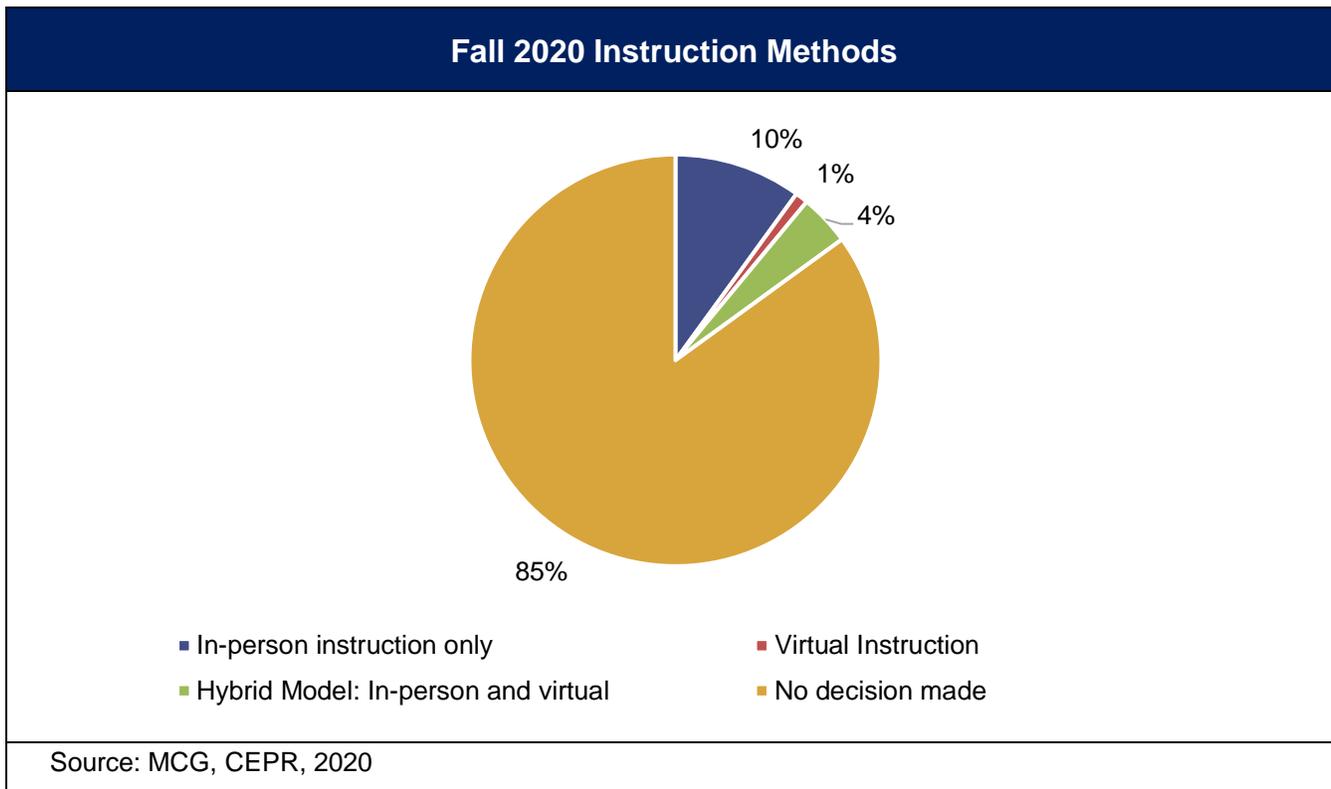
Due to the nature of the industry, employees, for the most part, cannot be replaced by other operators because many subindustries require employees to be highly educated and experienced. Additionally, while online courses are increasing, they will likely never fully replace employees because the majority of services provided by the sector are conducted on a face-to-face basis. As a result, sector employment has increased at an annualized rate of 1.5% to just over 13.3 million individuals.

## Instruction Methods



The Trump administration’s plans to suspend the Optional Practical Training (“OPT”) program are also detrimental to the US education industry. While other countries are weighing options to attract more international students, including by expanding access to employment, the Trump administration’s policies won’t help the U.S. hold on to its global share of the international student market, which has already declined by an estimated 6% since the beginning of the century.

Independent of possible visa restrictions, the current unemployment rate of close to 15% and the prospect of a protracted economic crisis mean that the U.S. will lose part of its sheen as a destination for students interested in employment and possibly immigration after graduation.



## US Private and Public Universities

Since the labor market is expected to shrink over the next five years, it will likely encourage many individuals to enter or stay in schools. Combined with a higher high school retention rate, college enrollment is expected to accelerate over the next five years. Moreover, the growth of online education will likely enable colleges to offer services to a higher number of nontraditional students at lower costs. These courses may increase interest in industry institutions, boosting enrollment and revenue.

Additionally, state and local appropriations are poised to grow as the unemployment rate is low and the government recovers lost tax revenue. Government funding for universities must expand because college attendance will likely continue to grow in the near future, increasing at an annualized rate of 1.2% over the five years to 2025.

While international student enrollment is expected to rise over the next five years as US institutions are extremely competitive on a global scale, the COVID-19 pandemic in 2020 is expected to pressure industry revenue generated from international students. As Chinese and South Korean students account for a large share of international students in the United States, the outbreak spread in these countries have limited the number of potential students attending colleges in the United States in 2020.

Therefore, to combat the current challenges, US universities and colleges will likely make education more accessible to international students by expanding their use of distance education technologies, developing links with other colleges across the world and improving their marketing efforts. In turn, online education will likely enable industry operators to increase enrollment without major facility expansions.

### **Costs and Competition**

Moving forward, continued tuition increases will likely make it more difficult for some students to pursue higher education. While the federal government has taken steps to increase student loan availability, the rising cost of a traditional four-year college will likely cause some students to choose more affordable options. As a result, this industry will experience increased competition from community colleges and trade schools. The federal government has taken measures to support these institutions. In 2015, the Obama administration created a committee to organize legislation to make the first two years of community college free for all US students. As of September 2018, this bill has not yet been voted on by either chamber of Congress. However, in 2017, 2018 and 2019, the House of Representatives introduced new versions of America's College Promise Act. Despite America's College Promise Act not yet in place, the University of Southern California has announced to offer students from families with an annual household income of less than \$80,000 to attend the university for free, going into effect for the fall 2020 and spring 2021 semesters.

Nevertheless, competition from community colleges will likely remain moderate as traditional colleges and universities dominate the higher education market. Furthermore, since many students transfer to a four- year institution after having completed two years at a community college, lower tuition for community colleges may ultimately result in higher demand for industry institutions. As a result of these factors, the number of industry-relevant colleges and universities will likely increase an annualized 1% to 2,075 enterprises over the five years to 2025.

### **Labor and International Student Changes**

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### **Budget Cuts and New Technology**

Though industry institutions operate on a nonprofit basis, colleges and universities will likely continue to cut costs to bolster the long-term sustainability of higher education. Universities are expected to merge redundant departments and courses to reduce administrative costs. The number of tenure-track positions, which typically have higher salaries, will also likely be reduced. Instead, industry institutions will likely continue to hire part-time lecturers and non-tenured professors at lower wages. Overall, industry employment is projected to increase an annualized 1.1% to 3.1 million workers over the five years to 2025. Additionally, the transition to relatively inexpensive forms of labor is expected to bolster industry profit over the coming years.

Industry institutions are also expected to further implement online education programs to lower costs and compete with community colleges and for-profit universities. Online education reduces costs because classrooms are not required and a small number of professors can instruct a substantial number of students. Additionally, by increasing the number of courses available online, universities will likely be able to reach new markets.

Similarly, start-ups that provide a platform for universities to offer online courses will likely continue to gain traction over the coming years. While some massive open online course (“MOOC”) services may pull students away from traditional universities by offering free and low-cost education services, there are many benefits received at traditional universities that are not transferable to online education services. This includes access to professors, contact with peers and accreditation from an established institution. These factors limit direct competition between industry institutions and MOOC services. Consequently, while MOOCs and similar online education services will likely make higher education more accessible, they are not expected to significantly reduce demand for industry services.

### **Opportunities on the Horizon**

In an increasingly digitized world and with the disruption in higher education brought about by COVID-19, many universities may be seeing the sun set on their future prospects. International students alone will not be able to fill the gap in funding for private US universities. New upstarts mentioned earlier such as Lambda School, and Big Tech entrants into massive open online courses, will add pressure to the already burdened private university sector. Some will be able

to weather the storm and emerge even more powerful, but for many others this disruption could prove to be the beginning of the end. Professor Scott Galloway and others “predicts hundreds, if not thousands, of brick-and-mortar universities will go out of business and those that remain will have student bodies composed primarily of the children of the well-to-do” in the coming years. Universities that would otherwise face closing but are able to adapt to the new marketplace will reap outsized benefits.

## US For-Profit Institutions

Under new regulations of the Trump administration, industry demand is expected to rebound over the next five years. As industry operators were infamous for poor academic standards and fraudulent tactics over the past five years, the new moves are expected to help lessen the bad publicity that industry operators have endured. The Department of Education has instead strived to provide transparent and complete information regarding employment prospects and program costs at all higher education providers, helping students to make better enrollment decisions. This new regulation is expected to make all postsecondary institutions accountable for their students' employment, not just for-profit institutions.

To the benefit of the industry, a variety of macroeconomic conditions are expected to bolster the industry's performance over the next five years. For instance, the high school retention rate is expected to increase at an annualized rate of 0.2% over the five years to 2024, resulting in a greater number of high school graduates pursuing postsecondary education. Additionally, the job market is expected to contract over the next five years as the unemployment rate is expected to increase at an annualized rate of 3.7%, bolstering demand for higher education. As students anticipate difficulty in finding employment opportunities, they will likely enroll in colleges to better prepare themselves before entering the job market. As a college degree is believed to make individuals more competitive in the job market, demand for industry services is expected to increase accordingly. As a result of these conditions, student enrollments are expected to increase at an annualized rate of 1.6% over the next five years.

Nevertheless, the number of industry enterprises is forecast to continue declining at an annualized rate of 3% to 219 institutions over the five years to 2024. At the same time, the proliferation of online courses is expected to force many institutions to reduce their workforces, causing total industry employment to decline at an expected annualized rate of 1% to 109,765 employees over the next five years. Moving forward, many industry operators will rely more on online courses to cut costs and expand into new geographic markets, which is expected to lift industry profit margins, measured as earnings before interest and taxes, to reach 9.5% of revenue in 2024.

As domestic competition becomes more intense, operators will seek overseas for growth opportunities. However, international growth is expected to intensify over the coming years as higher education becomes increasingly globalized and online courses broaden the reach of US for-profit schools.

## Other Education Services

Over the last five years to 2020, per capita disposable income have been increasing at an annualized rate of 1.1%. Boosts in per capita disposable income during the majority of the period have enabled consumers to make more discretionary purchases, leading consumer spending to rise an annualized 1.2% during the period. Moreover, higher income levels also enable consumers to opt for costlier options, such as going to a four-year postsecondary institution rather than community college. Additionally, households earning more than \$100,000 annually and increases in income levels and consumer spending overall have enabled individuals and alumni to make larger donations to schools and other educational programs. Many of the services provided by sector operators are discretionary, such as tutoring services, sports camps and art classes, and therefore are directly tied to disposable income levels. Additionally, increases in corporate profit have increased businesses' likelihood of providing business courses and certification and IT classes for their employees. In 2020, profit is anticipated to account for 7% of sector revenue, marking an increase from 6.8% in 2015. Profit is driven by tuition, wages paid to staff, broader macroeconomic factors, enrollment and, in some cases, federal funding.

## INDUSTRY PLAYERS

### Colleges and Universities

The Colleges and Universities industry is estimated to account for 35% of sector revenue in 2020. This industry includes public and private not-for-profit universities and colleges that offer academic courses and grant baccalaureate or graduate degrees. The requirement for admission is a high school diploma or equivalent academic training; however, the admissions process varies from school to school. Typically, instruction is provided on a physical campus, although online education is increasing in popularity. Growing high school retention rates have contributed to increasing demand for four-year college education. Furthermore, according to US news data, tuition prices among public National Universities increased by 63% between the 2008-2009 school year and the 2019-2020 school year. Rising tuition rates and increasing enrollment has led to strong growth in the industry, and as a result, the industry's share of sector revenue has increased during the five-year period.

Within colleges and universities there are private and public institutions. Both operate similarly in product offering but are funded and generate revenue in very different ways. Public universities are largely funded by the government and are therefore able to offer lower tuition to students. Private universities do not get government support apart from research grants and must operate from earnings on endowments, donations from alumni, and tuition billed to students. The need to generate funds to cover costs forces private institutions to be aggressive in marketing, fund-raising, and tuition hikes, but also leaves them vulnerable to market shocks.

## Private Schools

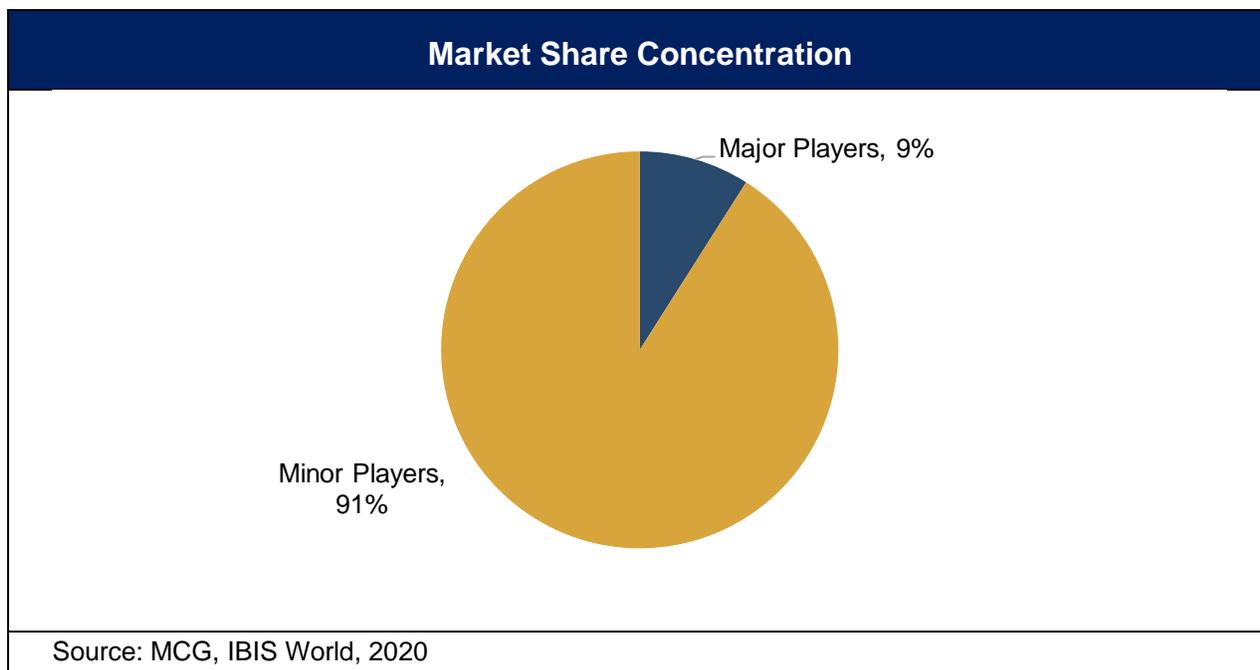
The Private Schools industry include primary (kindergarten through sixth grade) and secondary (seventh through 12th grade) educational institutions that are predominantly funded through tuition fees and other private sources. These institutions may receive indirect government funding through special programs, and these sources of income account for a small percentage of industry revenue. This industry is estimated to account for 5.6% of sector revenue in 2020, a projected increase from 4.9% in 2015. While this industry does not account for a large percentage of industry revenue, it has increased over the five years to 2020. Increasing disposable income and growth in the percentage of households earning more than \$100,000 annually have enabled consumers to afford the industry's rising tuition rates. The share of sector revenue from Private Schools is anticipated to increase in the next five years as the federal government has discussed voucher programs, which would give private schools federal funding.

## Community Colleges

The Community Colleges industry is the fourth-largest industry within the sector. This industry consists of public, private nonprofit and for-profit community colleges; however, it does not include trade and technical schools or business certification and IT schools. These postsecondary institutions offer college transfer courses and programs, general education programs and occupational programs. Community colleges typically give out associate degrees, certificates or diplomas below the baccalaureate level. Additionally, revenue is heavily reliant on funding from state governments. As a result, industry growth has been restricted by state budget deficits and shifting fiscal priorities. Furthermore, four- year private and public colleges and universities have been taking away market share as enrollment in those institutions increased at a faster pace than enrollment in community colleges. Consequently, community colleges' share of revenue has decreased and is estimated to account for 4.2% of the sector in 2020.

## US For-Profit Institutions

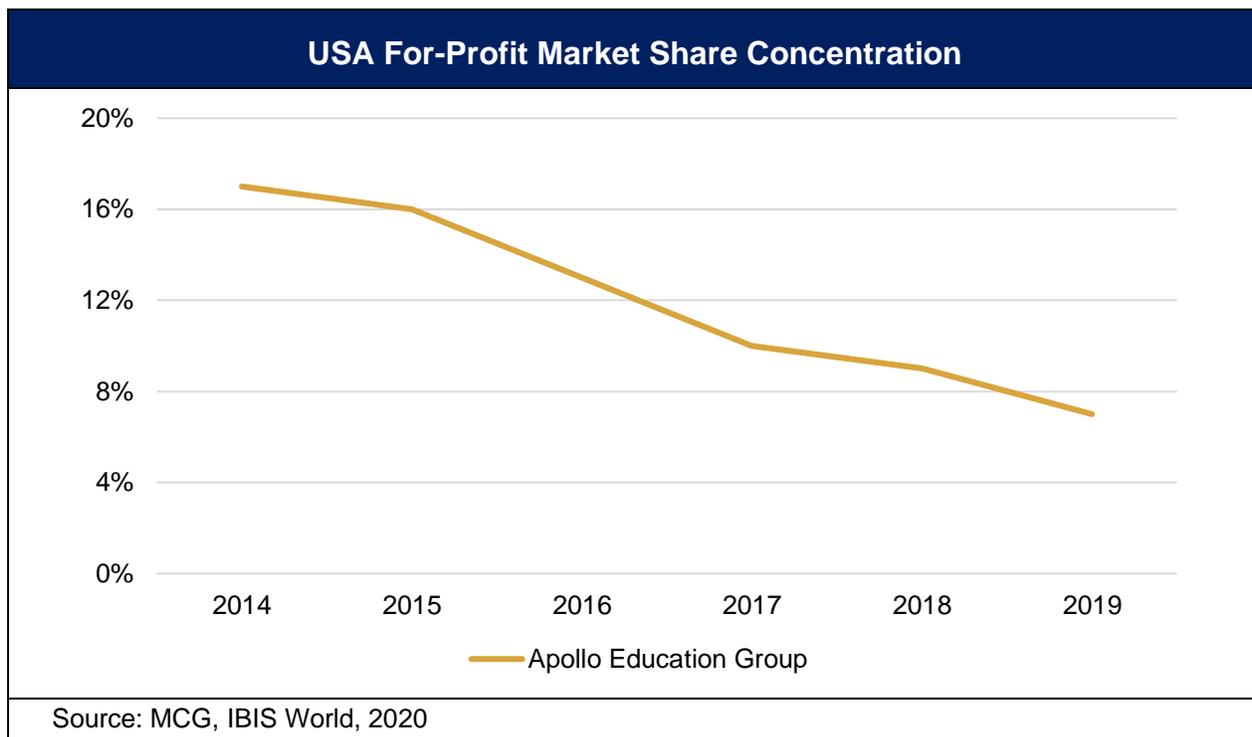
For-Profit Universities include colleges and universities that offer academic coursework at the associate, baccalaureate or graduate levels on a for-profit basis. Unorthodox instructional settings, such as the workplace, the home, training facilities, TV, internet or other electronic or long-distance methods, are more commonplace compared with not-for-profit colleges and universities. This industry has experienced significant declines due to public accusations that its educational offerings are inadequate, measured by high loan default rates and lack of gainful employment upon graduation. This has caused increased public and government scrutiny. Additionally, due to strong economic growth and declining unemployment, individuals opted to join the workforce instead of enrolling in for-profit universities. As a result, this industry's share of sector revenue has decreased from 1.7% in 2015 to 0.9% in 2020.



The following provides some trends and data by some larger for-profit education companies.

**Apollo Education Group Inc.**

Founded in 1973, Apollo Education Group Inc. is one of the largest private for-profit education providers in the world. The Arizona-based company has several wholly owned subsidiaries, including the University of Phoenix (“UOPX”), Apollo Global, the Institute for Professional Development and the College for Financial Planning Institutes Corporation. Apollo offers undergraduate, graduate, professional development and other nondegree educational programs and services, online and on-campus both domestically and abroad. UOPX is Apollo's most well-known brand and the company's primary source of revenue. In 2016, UOPX generated 78.0% of the company's For-Profit Universities industry-relevant revenue and enrolled an estimated 140,000 students. As of fiscal 2016 (year-end August), Apollo employed 28,000 full-time employees across nine different countries. The company participates in the industry through the operations of the University of Phoenix. The company became private in 2017 after it was acquired by the Vistria Group LLC and funds affiliated with Apollo Global Management LLC for \$1.1 billion.



Apollo has expanded its global footprint over the five years to 2019 by acquiring several higher education operators abroad. In May 2014, Apollo acquired an 81.0% consolidated interest in Milpark Education, which is a provider of education and training to adult learners in South Africa. During the current period, two of its schools: the College of Financial Planning in 2017 and Carnegie Learning in 2018. Moreover, declining profitability has also led to the closure of The Iron Yard and Western International University in 2017 and 2019, respectively.

**Adtalem Global Education Inc.**

Adtalem Global Education Inc. formerly known as DeVry Education Group (“DeVry”), is the parent organization of several for-profit universities, including Chamberlain University and Ross University. However, in December 2017, Adtalem agreed to sell DeVry University to Cogswell Education LLC.

Though Adtalem has fared better than many other for-profit institutions during the five-year period to 2019, it has still suffered from declining enrollment rates. Moreover, similar to the Apollo Education Group Inc., Adtalem has been subject to increased public scrutiny and investigation regarding its admission and graduation practices. Due to the high degree of price competition within the industry, Adtalem has been largely unable to raise tuition rates to offset the negative effects of declining student enrollment. To focus its strategy to become a professional education

provider, the company sold Carrington University and Adtalem Educational to Brazil in December 2018 and October 2019, respectively. Overall, the company's industry-relevant revenue is expected to reach \$683.4 million in 2019.

### **Career Education Corporation**

Established in 1994, the Career Education Corporation (“CEC”) is a private, for-profit education provider that offers a wide range of academic courses through the University Group, including the American InterContinental University and Colorado Technical University. The major disciplines offered at the company's campuses include visual communication and design technologies, information technology, business studies, culinary arts and health education. As of 2018, the company employed 4,244 full and part-time workers, including 137 part-time student employees. Similar to other large for-profit institutions, CEC's enrollment levels have been dropping alongside ongoing public concern for the For-Profit Universities industry's integrity. In fiscal 2018, CEC enrolled an estimated 34,400 students, down from total enrollment of 34,700 students in 2017.

In 2014, the company received inquiries from the Attorney Generals of more than 14 states. The inquiries were civil investigative demands or subpoenas which related to the investigation of whether CEC complied with certain state consumer protection laws, and focused on CEC's practices relating to the recruitment of students, graduate placement statistics, graduate certification and licensing results and student lending activities.

### **Zovio Inc.**

Over the five years to 2019, San Diego-based Bridgepoint Education Inc., formerly known as Zovio Inc, has struggled to maintain positive growth. The company participates in the For-Profit Universities industry through its most- famous school, the University of Ashford. Though nearly all of the company's students study exclusively online, Bridgepoint also has traditional campuses in Clinton, IA, and Colorado Springs, CO.

As of 2018, the company employs 200 full-time faculty members and 2,620 adjunct faculty members, in addition to 1,970 non-faculty staff. In 2018, bachelor's, master's and doctoral enrollment accounted for 77.6%, 15.2% and 1.9% of Bridgepoint's total enrollment, respectively, while students pursuing associate degrees and certificates accounted for the remaining 5.3% of enrollment. The decision to change its name to Bridgepoint reflects Zovio's efforts to cope with declining enrollment in recent years by shifting its focus to technology education. In 2019 alone, the company acquired TutorMe.com Inc., an online tutor service, and Fullstack Academy Inc., a coding boot-camp provider in cybersecurity and internet development.

During the five-year period to 2019, Zovio has experienced a substantial decline in enrollment rates and the company has also been investigated by the Department of Education for its

marketing tactics. In 2018, Zovio enrolled 38,153 students, down from 40,730 students in 2017. In October 2019, Zovio announced its plan to transform Ashford University to a non-profit institution. Nevertheless, the plan has endured regulatory challenges from the Department of Education as it requires Zovio to pay \$103.0 million (which is equivalent to 25.0% of Title IV funding that Ashford University received in 2018). Consequently, once the Ashford University is officially converted to non-profit, it will mark an exit of Zovio from the For-Profit Universities industry. In 2019, Zovio's industry-relevant revenue is projected to total \$408.8 million in 2019.

## Other Educational Services Players

The remainder of the Educational Services sector is composed primarily of supplemental learning services. The largest of these subsectors is other schools and instruction, which includes fine arts schools, sports coaching, language instruction, tutoring and driving schools. These industries are primarily driven by macroeconomic trends, including per capita disposable income and consumer spending. When consumers have more money on hand, they are more likely to pay for these educational options. Some of these institutions, such as fine arts schools or sports coaching, provide education and training for some individuals who are trying to pursue a profession in that specific field. However, language instruction programs, tutoring and driving programs are relatively discretionary. Business coaching, Business Certification & IT Schools, Trade and Technical Schools and Testing & Educational Support make up the remainder of the sector. These industries, along with other schools and instruction, experience competition from online platforms and postsecondary institutions that are increasingly offering more specialized courses, such as advanced art classes and language courses.

For the most part, all individual industries that comprise the Educational Services sector exhibit a low market share concentration as all are relatively fragmented and serve a localized area. Additionally, revenue for the Educational Services sector is anticipated to reach \$1.6 trillion in 2020, comprising just under an estimated 1.3 million operators over the year. As a result, market share concentration is extremely low, with the five largest operators anticipated to generate just under 4.0% of sector revenue.

Educational service providers are dispersed across the United States because every state has mandatory education requirements. As a result, public and private primary and secondary education providers operate on a localized basis and generally follow closely population concentration trends. Postsecondary schools are spread across the country to gain access to a broad range of individuals, both in urban and rural settings. Furthermore, there are so many options for postsecondary schools and various different degrees an individual can pursue. As a result, there is an expansive amount of higher education institutions, with some specializing in specific degrees due to high demand for higher education. Additionally, new educational service platforms emerge every year, and it is uncommon for institutions to exit the market since most educational operators are not driven by profit and can continue to operate despite budget problems. Consolidations in the sector are also infrequent because operators typically value their own academic culture, tradition and independence and are typically unwilling to merge with

another institution. As a result, market share concentration within the sector has historically remained low and has not changed significantly over the past five years.

### **Spring Education Group**

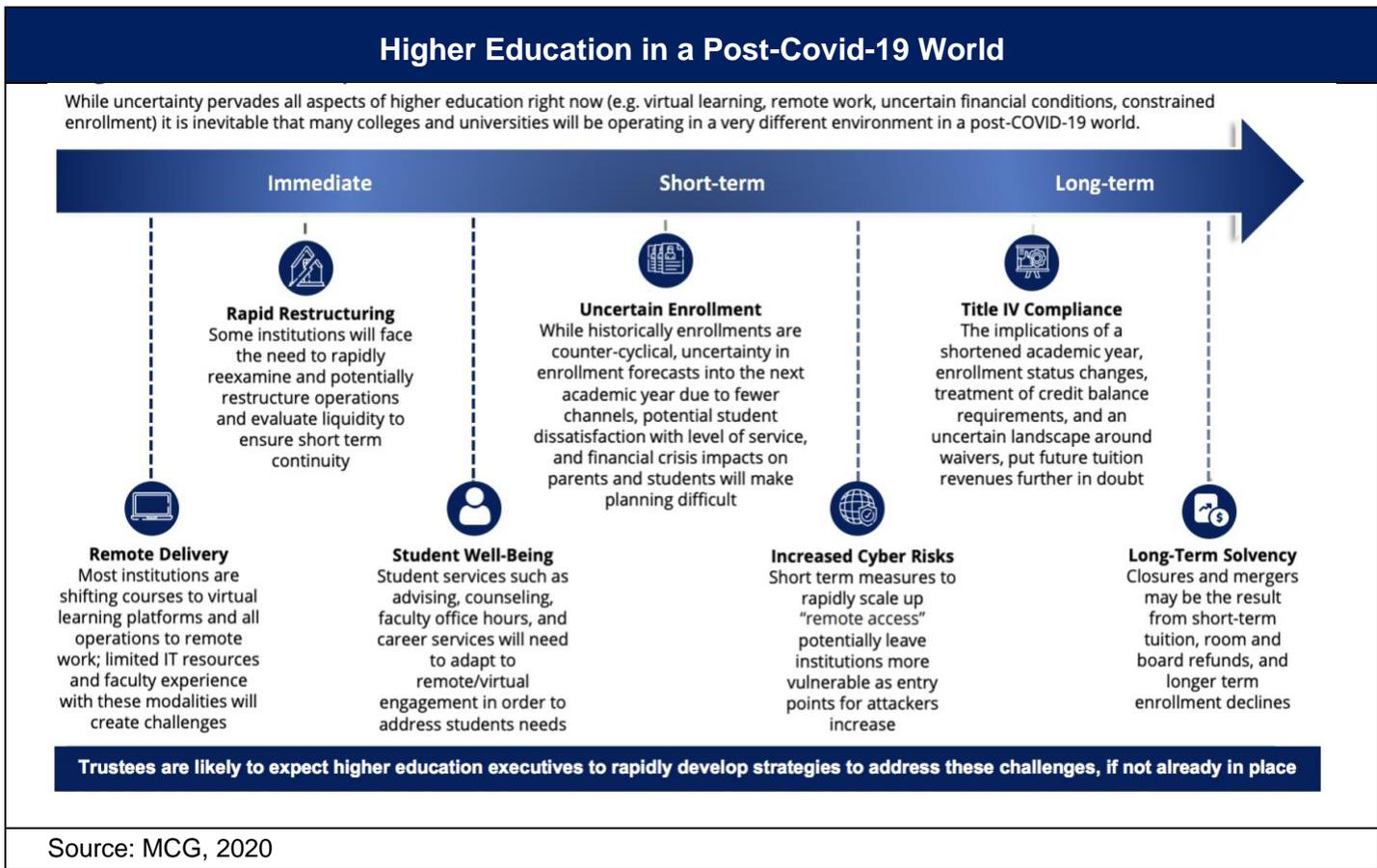
Spring Education Group is a nonsectarian, for-profit provider of private education, founded in July 2018 and headquartered in Saratoga, CA. The member schools include BASIS Independent Schools, Stratford School, LePort Montessori and Nobel Learning Communities. Among their member schools, Nobel Learning Communities (“NLCI”) is the largest share with over 200 private schools across 18 states and the District of Columbia. The company offers educational instruction for students in kindergarten through 12th grade, though its primary focus is preschools, elementary and middle schools.

Over the five years to 2020, Spring Education Group's revenue is anticipated to increase an annualized 10.5%, reaching \$544.2 million in 2020, accounting for less than 0.1% of sector revenue. Between 2015 and 2017, NCLI revenue is reported as industry-relevant, but Spring Education Group is reported as industry-relevant revenue between 2018 and 2020, since the acquisition occurred in 2018. As a result, industry-relevant company revenue increased by an estimated 41.8% in 2018 alone as a result of the unification of four premier private school providers. Additionally, operating profit is estimated to increase 56.5% in 2018 alone, reaching \$34.6 million in 2020. Spring Education Group is likely going to continue to expand their presence through opening more schools under current brands, as well as through acquisitions of other private school networks. Currently, the majority of schools operating under Spring Education Group have transitioned to distanced learning amid the outbreak of COVID-19.

## **POST COVID-19**

### **Overview**

The outbreak of COVID-19 has had a large influence on the majority of operators as they have been forced to transition to distanced learning amid shelter in place and social distancing orders. The majority of primary, secondary and postsecondary schools have closed and transitioned all of their students to online classes for the remainder of the school year. Many operators have had to provide students with Wi-Fi enabled devices to ensure equal education opportunities during this unprecedented time, contributing to a slight uptick in capital expenses. Other operators in more discretionary subsectors, such as Sports Coaching and Fine Arts Schools have had a more difficult time during the pandemic as many individuals are cutting back on discretionary spending as economic uncertainty builds. Therefore, COVID-19 is affecting industries differently.

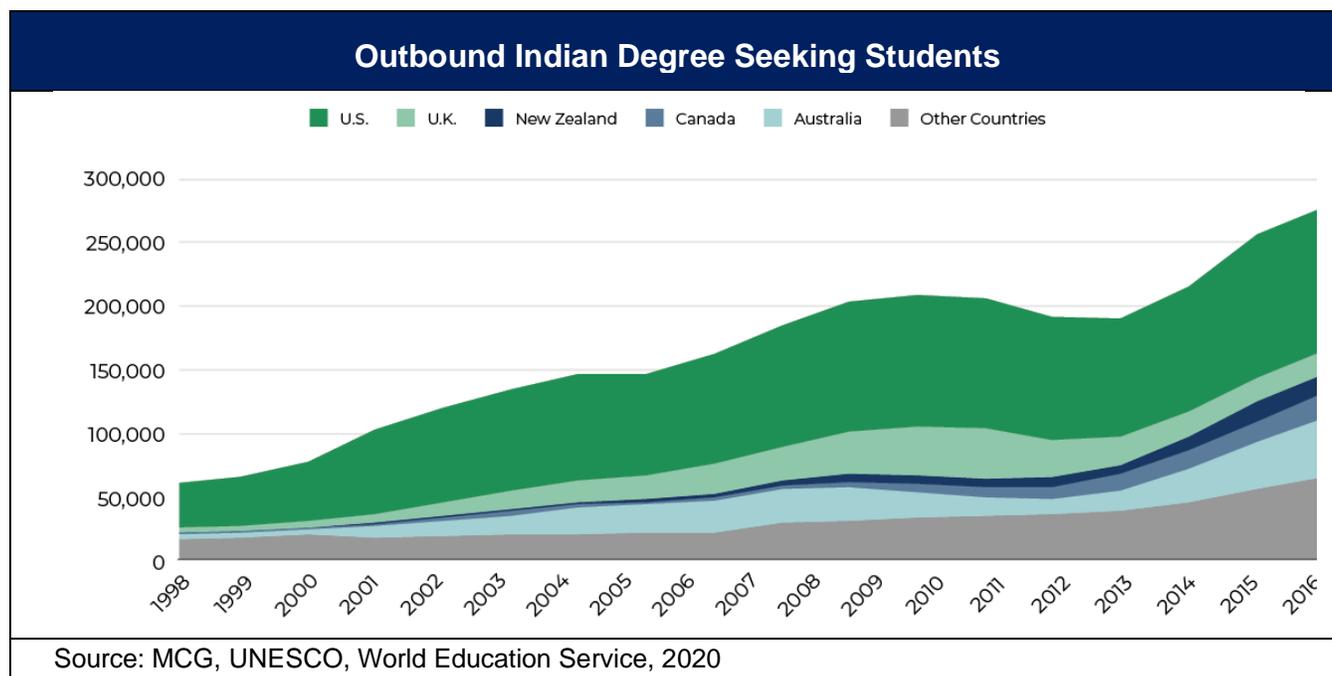


S&P Global project that the U.S. GDP will contract by 5.3% in 2020. Although we expect the economy will begin to recover in the second half of 2020, we anticipate that the recovery will be gradual and will be constrained by some form of continued social distancing as fears persist over the continued spread of COVID-19.

U.S. higher education providers are under pressure, and if on-campus classes can't be resumed in fall 2020, could be under greater pressure. The financial impact on institutions from the loss of auxiliary revenue from housing and dining fees, and parking fees; as well as revenues from athletics, theater, and other events, is material for many. For schools with health care systems, lost revenue from cancelled elective surgical procedures could also be significant. The recently passed CARES Act will provide some budgetary relief to higher education institutions; however, despite this aid, we expect to see stressed operating budgets, the scope of which will ultimately be determined by the magnitude of lost revenues, the duration of the pandemic, fall 2020 mode of instruction, and ultimately depressed enrollment figures.

Colleges and universities have reacted rapidly to the challenges presented by the pandemic. They have moved classes online to adhere to social-distancing rules, adjusted admission policies to accommodate disruptions to high school exams and suspended academic

conferences and travel. At the same time, many have implemented material expense cuts, including deferring capital expenditures, and imposing furloughs and layoffs, in some cases, with plans to continue to ramp up cost containment under various fall scenarios. Many colleges and universities have disclosed estimates of 2020 budget shortfalls, despite the inclusion of CARES stimulus funds. We expect that the colleges and universities we rate will face an unprecedented level of operating stress and tightened liquidity, which will worsen the longer and deeper the pandemic lasts. For fiscal 2020, and likely fiscal 2021, we believe margins will be further compressed and will be negative at some institutions, potentially weighing on their financial performance assessments. In our view, the credit pressures colleges and universities face will grow the longer campuses remain largely virtual or are governed by social-distancing rules.



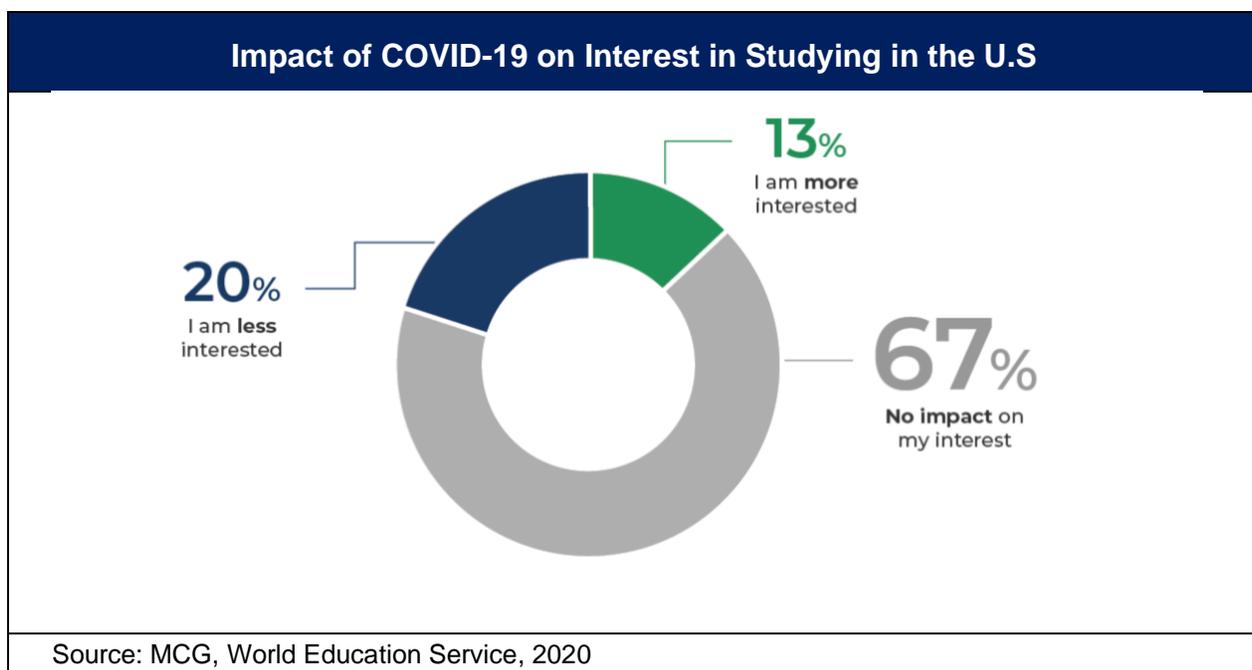
For public institutions, while almost all major revenue sources described above are under pressure, we also expect that most states will make cuts to higher education funding. While public colleges and universities have benefited from annual increases in state operating appropriations for several years now, funding for higher education still remains below pre-recession levels in certain states, and some schools are still coping with the lingering effects of funding cuts on their finances. While the impact from the pandemic and the current recession will vary greatly by state, for some schools, it could mean significant reductions in state funding. Even though the majority of public universities rely on net tuition revenue for a greater percentage of their overall budget than state funds, these state appropriations still make up a considerable portion of schools' operating budgets, and strain on these resources can have major negative impacts.

Many states are facing a structural gap in fiscal 2020, and while a few have already withheld funds from higher education institutions for the remainder of the fiscal year (including New Jersey and Missouri), we believe the risk of state funding cuts and delays is much greater in fiscal 2021. At the same time, most U.S. colleges and universities depend on endowments and fundraising for a significant portion of revenues, and declining investment performance and endowment market values along with weaker fundraising results could negatively affect the sector.

### Effects on International Students

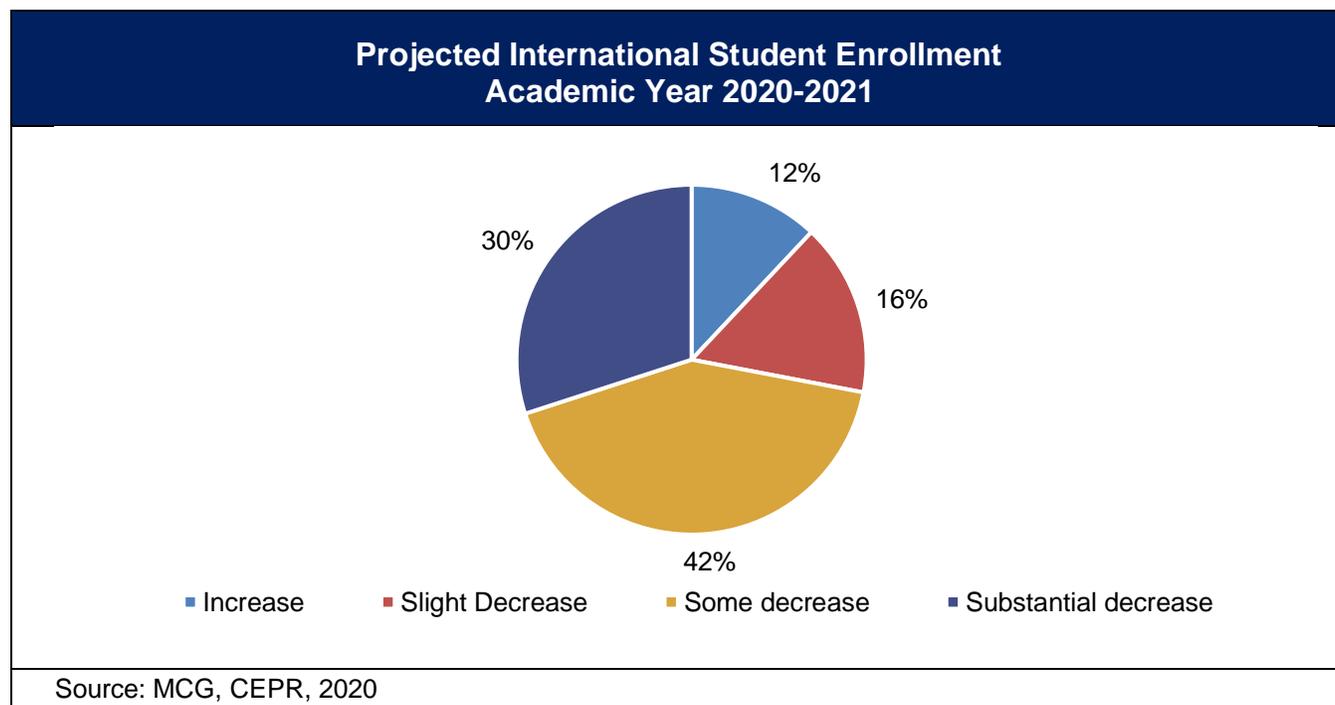
The fallout from the COVID-19 pandemic for Higher Education Institutions (“HEIs”) in the United States will likely be pronounced and protracted. Institutions that are financially dependent on international students will be particularly affected, given the disease’s broad and indeterminate impact on global mobility. Even if international air travel fully resumed this summer, and most universities reopened for on-campus instruction by the fall semester, it remains an open question at what point international students will feel confident enough to pursue education in the country that’s currently the global epicenter of the pandemic. The severity of the COVID-19 outbreak in the U.S. makes a speedy recovery of international student mobility to the U.S. increasingly unlikely.

If global travel restrictions are prolonged, or the imminent recession diminishes foreign students’ financial means, then some could opt to study or work in their home countries instead. A fall 2020 with significantly fewer international students, as well as lower domestic enrollments overall, will cause serious operational pressures.



While conditions for international mobility to the U.S. could hardly be worse, academic institutions may find solace in the fact that 67% of the students surveyed by WES are still generally interested in studying stateside, while 13% are even more interested in doing so. This finding inspires some hope that the long-term impact of the crisis on international enrollments in the U.S. may be less apocalyptic than feared.

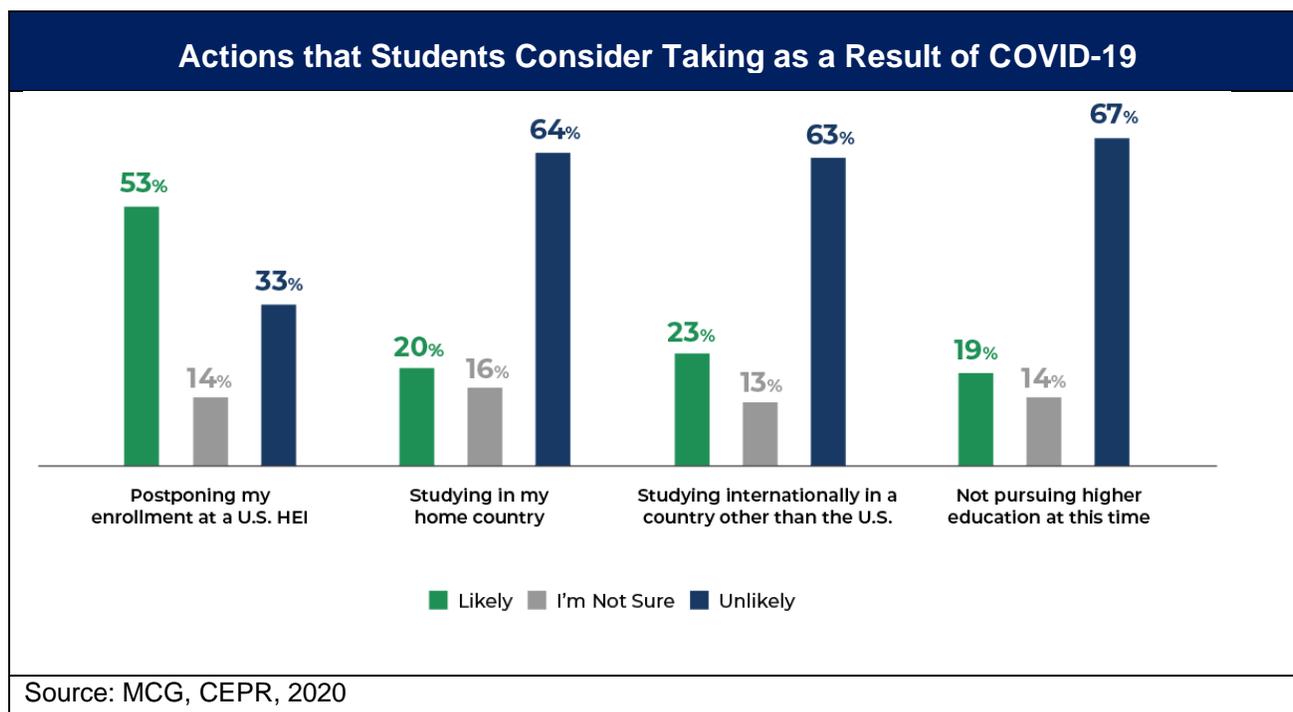
But much will depend on the duration of the crisis. The longer it lasts, the more international students will change their plans. Longitudinal surveys of international students in different countries over the past few months show a decreasing appetite for pursuing education abroad. Even if the U.S. could retain three quarters or more of its international student body over the next few semesters, the crisis could be existential for some institutions. The ripple effects for U.S. society at large could be destructive as well: According to NAFSA, three U.S. jobs are created or supported for every seven enrolled international student in the following sectors: higher education, accommodation, dining, retail, transportation, telecommunications and health insurance.



One positive takeaway is that many international students seem to view the coronavirus pandemic as a temporary phenomenon. A slight majority of 53% of respondents who intended to study in the U.S. before the pandemic plan to merely postpone their studies, rather than scrap their plans altogether or study at home or in another country. The fact that 23% of respondents

are likely to study in a different country, however, should serve as a warning to U.S. institutions. Countries that bring pandemic spread under control the earliest will almost certainly have an advantage in recruiting mobile students once international mobility sputters back into gear.

The Australian government, for instance, currently plans to exempt international students from travel restrictions and allow them to return to Australia as early as July—a scenario that seems out of reach in the U.S. at this point. Similarly, observers believe that New Zealand, a country which has effectively contained the pandemic, will have “a real opportunity to become more desirable as a destination for foreign students” because of the crisis.



Given the catastrophic economic outlook for countries globally, some observers have suggested that it will take international student mobility five years to recover from the pandemic. While that forecast appears overly pessimistic, it’s all but certain that fewer students will head abroad for the foreseeable future as incomes and public scholarships dry up. Students from lower middle-income countries like India, Bangladesh, and Vietnam—all top sending countries of students to the U.S.—may opt for less expensive study destinations that are closer to home, such as China, Malaysia, or South Korea. International branch campuses and transnational programs that allow students to obtain an international education without travel may become more popular.

## UK: A LOT OF HISTORY

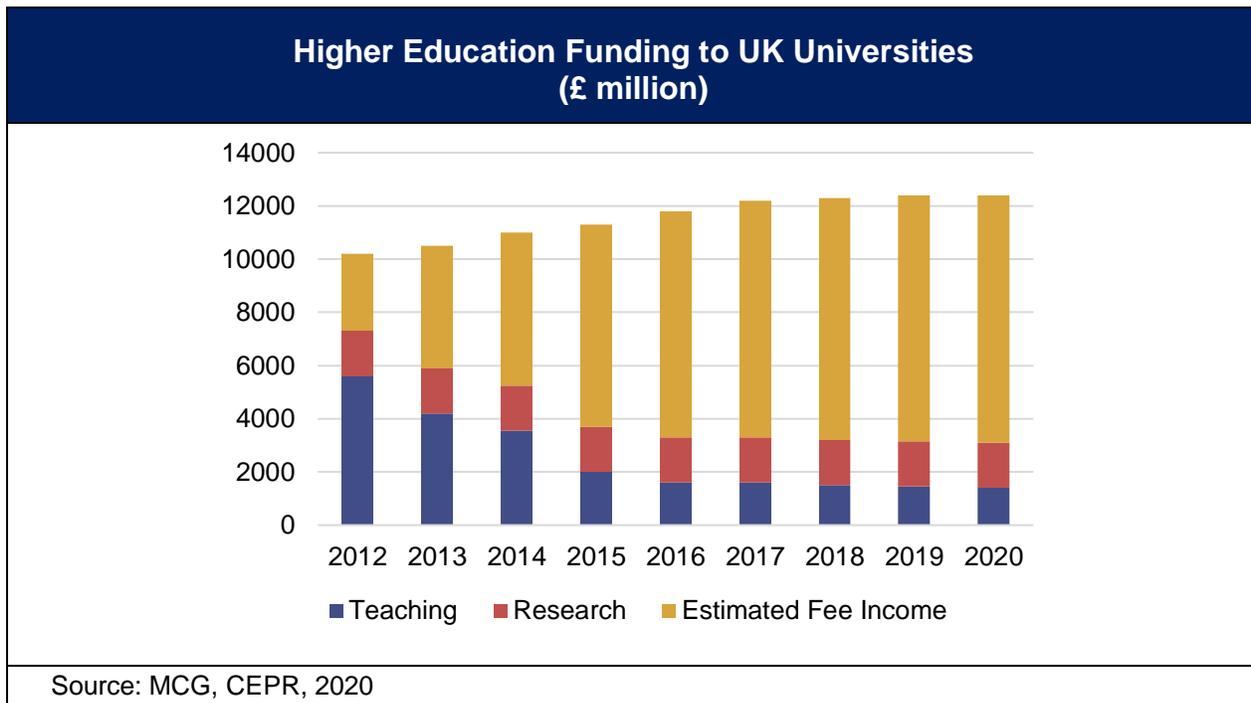


### BACKGROUND

#### Introduction

Over the past five years, enrollment and foreign student numbers have boosted the UK university sector in spite of Brexit uncertainties. However, more recently, the fallout from Brexit and the recent outbreak of COVID-19 have substantially changed the outlook and volatility for the sector as unemployment has risen and the British economy has largely closed—forcing the sector to reconsider its options.

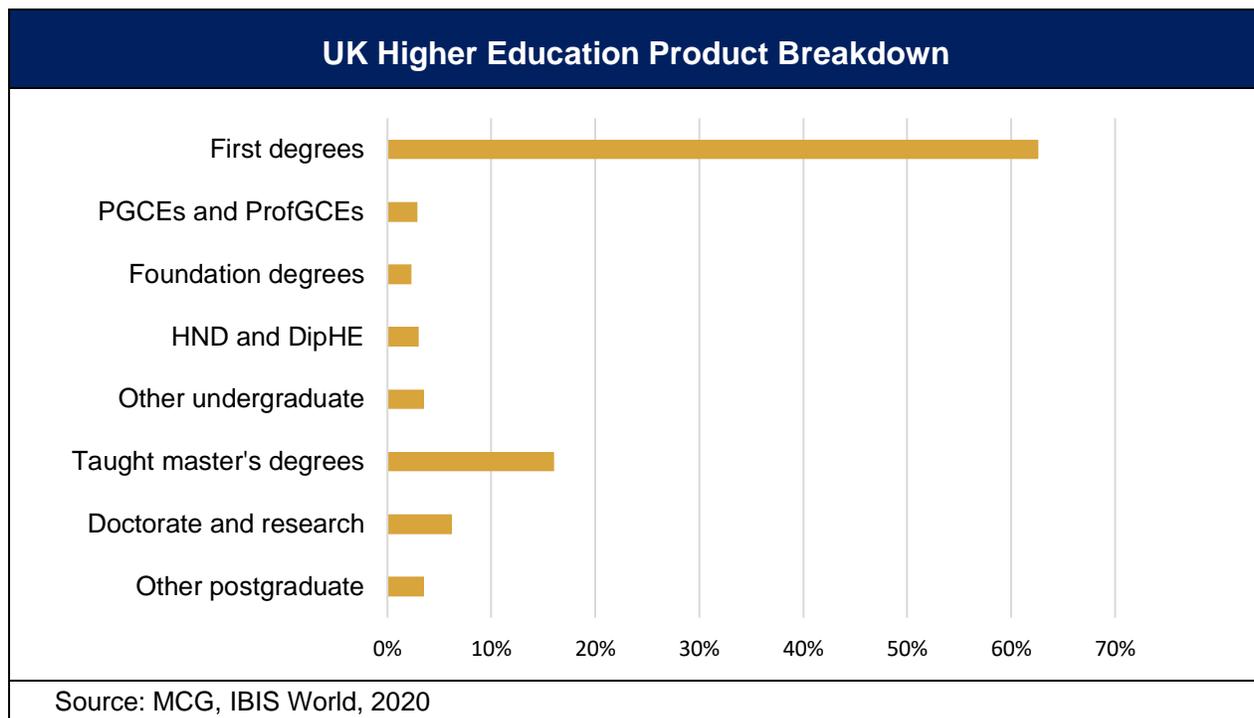
In response to the potential loss of overseas student fee income, universities in the UK asked the government for a £2.2 billion boost to short-run research funding. What the government decided to do instead was increase research funding by only £100 million and allow an advance on undergraduate fee income from the Student Loans company to the tune of £2.6 billion. This represents a loan of around 10% of fee income to universities. While this loan will be a short-run lifeline for some universities, it only stores up future funding problems as these loans will inflate future financial obligations. This is especially pertinent as the sources of UK University funding have changed dramatically over the past decade leaving many universities at risk especially if international students do not return or return slowly in the fall.



It’s unclear at this point if the UK government would allow various universities to close. If they supported at-risk institutions, it could politically be positive for especially if the universities in question were predominantly in the North of England, Scotland and Wales. It is expensive to merge and restructure a university and there is relatively little evidence in favor of economies of scale. A lack of government support may force some universities to close or cut costs and move to online learning.

### UK Post-Secondary Institutions

Over the past five years, the industry has faced challenges stemming from cuts to the level of funding received from the government. As a result, the percentage of revenue generated from tuition fees has increased over the period following a rise on the cap on undergraduate tuition fees from £3,000 in 2012 to £9,250 in 2017. Even with this increase, the Universities and Colleges Admissions Service (“UCAS”) reported a record percentage of 38.8% of the 18-year-old population applying for a place at university starting in September 2019. The cap on undergraduate student numbers in the United Kingdom was also lifted over the period, leading to a rise in student enrollments. Counteracting this, the number of part-time students has fallen over the period and universities have been forced to respond to funding changes through budget cuts.



Over the five years through 2019-20, revenue is expected to grow at a compound annual rate of 3.0%, including growth in the current year of 2.4%, to reach £41.3 billion. This expansion can be attributed to an increase in student numbers, tuition fees and investment returns. However, growth over the period was constrained due to the Higher Education Funding Council for England (“HEFCE”) cutting the level of funding received by universities. Additionally, a decline in the population aged between 16 and 25 and a backdrop of falling unemployment has encouraged potential students to enter the job market instead of attend university, leading only to a moderate growth in an otherwise highly demanded industry.

The industry's performance over the next five years is likely to depend on changes to the government's funding model, regulatory changes and competition from vocational education institutions. There is also risk associated with the high amount of funding needed from international students and whether COVID-19 or Brexit will affect enrollment and attendance.

Government proposals to increase funding for vocational and technical training are forecast to make these subject areas more attractive to students. As a result, universities are likely to face increasing competition for enrollment. Additionally, following the United Kingdom's exit from the European Union in December 2020 after the transition period, international student applications and research quality may be jeopardized by the loss of the free movement of people. Revenue is forecast to increase at a compound annual rate of 2.2% over the next five years, reaching £46.2 billion in 2024-25.

## UK Vocational Institutions

In March 2014, the government announced plans to lower the number of vocational qualifications by more than 5,000 in order to reduce the number of underused and low-value qualifications that are available through taxpayer funding. This involved redirecting £200 million of the Adult Skills Budget towards the highest quality and most relevant qualifications. Industry revenue grew in 2014-15 as a result. However, in 2015-16, funding for adult education was cut by approximately 24%. Public-sector cuts adversely affect the industry, as most operators are not-for-profit organizations that rely on government funding. As a result, revenue fell by 6% in 2015-16 following these cuts. As the decline in higher education funding coincided with high demand for vocational and technical training, industry players suffered from supply-side problems, with some cancelling courses or expansion plans. This was amplified by many students switching from studying degrees to enrolling on courses provided by the industry due to tuition fee increases, in conjunction with the school leaving age being brought up to 18 in 2015-16, leading to a higher uptake in apprenticeships. However, in 2015, the UK Commission for Employment and Skills identified a major skills shortage. Shortly thereafter, the government began to direct funds towards vocational training in areas most needed by UK businesses. As a result, volatility lessened over the second half of the period and revenue returned to growth. A £400 million increase in further education funding was announced in the September 2019 Spending Review, supporting a 0.4% rise in revenue in the current year and an expected growth from 2020 onwards. Nonetheless, industry revenue is expected to fall at a compound annual rate of 1.5% over the five years through 2019-20 to £855.4 million.

## UK MARKET DYNAMICS

The UK Higher Education market is made up of two primary operators, universities and vocational institutions. The two main players serve distinct customer markets with universities catering towards the traditional bachelor, masters, and PhD degrees and vocational institutions serving career-oriented learning. Both sectors are supported by the UK government, but most recently, vocational learning has been encouraged and financially supported by recent governments, however uptake has been slow and overall success seems uncertain.

### UK Post-Secondary Institutions

Industry demand is affected by changes in the overall economy, particularly factors affecting real household disposable income and unemployment. When the economy is performing poorly and unemployment is high, students facing a difficult job market are likely to invest in higher qualifications such as degrees in order to increase their competitiveness in the job market. Unemployment is expected to have fallen year-on-year over the five-year period through 2019-20, including in the current year. The improving job market over the period is likely to have tempted potential students away from higher education and into the workforce immediately after school. In addition, public-sector funding is forecast to have declined throughout most of the

period. However, degrees are increasingly viewed as a prerequisite to attaining higher paid employment. This, in conjunction with the law making it mandatory for children to stay in school until the age of 18, has raised the number of students gaining the qualifications required to attend university. In addition, real disposable income is expected to have grown over the majority of the five-year period, further supporting enrollment in higher education.

Figures from the Higher Education Statistics Agency (“HESA”) show that part-time student numbers fell by 56% from 2010 to 2017. Part-time student numbers continued to decline over 2017-18, however first year enrolments onto part-time first-degree courses increased between 2016-17 and 2017-18, although around half this increase is attributed to higher uptake of apprenticeships, which are not included in the industry. One of the main causes of this overall decline was the government’s decision to raise the cap on part-time tuition fees in 2012 to £6,750 a year. After course fees rose and part-time enrolment declined, the government aimed to address this by introducing maintenance loans for some part-time students. However, according to Claire Callender, Professor of Higher Education Policy at Birkbeck, University of London, only one-third of part-timers were actually eligible for these loans. The fall in student numbers led to the closure of many part-time courses. Callender further asserts that Russell Group universities have now almost pulled out of part-time undergraduate education. The Open University enrolls approximately 38% of the UK’s part-time students, and as a result has been hit particularly hard, with its student numbers falling by 30% between 2010-11 and 2015-16, according to The Guardian. HESA statistics reveal student numbers for the Open University have since fallen by 7% between 2015-16 and 2017-18. In March 2018, it was announced that the Open University is planning significant reductions in the number of courses offered and the number of lecturers employed following recent financial issues.

The rise in tuition fees in 2002 to £9,000 contributed to an immediate decline in student applications. Data from UCAS indicates that university applications fell by approximately 10% and the number of student enrolments by 6.3% for the 2012-13 academic year. However, the rate of student applications soon recovered, indicating that the fee increase did not significantly affect long-term student enrollment. In July 2016, the government announced that tuition fees would rise with inflation to £9,250. Revenue growth is estimated to have slowed to below 1% in 2016-17, likely as a result of students dissuaded from attending university by the second rise in fees within a five-year period. Fees were frozen for 2018-19 and 2019-20. At Scottish and Northern Irish universities students from these areas are eligible for lower fees, meaning many students will choose to study where they grew up rather than moving to England for university, where they will incur the full tuition fees. Scottish students studying at Scottish universities do not pay any tuition fees, and Northern Irish students studying at Northern Irish universities will pay up to £4,275 a year for tuition rather than the full £9,250 a year in England, and £9,000 a year in Wales.

In the Higher Education and Research Bill, the government proposed to link tuition fee increases with evidence of high-quality teaching, as rated by the new Teaching Excellence and Student Outcomes Framework. This was protested by opposition parties and the National Union of Students, which opposed fee increases. In March 2017, the House of Lords passed an amendment to temporarily de-link university tuition fees from the framework until an independent review of the framework’s metrics was complete. The government has agreed to ensure that the

link between the Teaching Excellence and Student Outcomes Framework and tuition fees will not come in for more than three years.

Government funding for universities has fallen significantly over the past five years. Figures released by Universities UK reveal that, in total, direct public funding for higher education teaching in England in 2017-18 was £3.6 billion, which is expected to be approximately 32% lower than the 2012-13 level of £5.3 billion. Spending on student maintenance grants was just over £1.6 billion in 2015-16. Grants were abolished for new students from 2016-17 and fell to £600 million in 2017-18. Grants are expected to be near zero from 2018-19. The combination of falling government funding along with a tuition fee rise of 208% for undergraduate courses since the 2012-13 academic year to 2018-19 has contributed to the share of industry revenue accounted for by fees growing. This is demonstrated by the fact that in 2011-12, the year before the fee increases, tuition fees made up approximately 34.7% of the total income of higher education institutions, a figure that rose to 49.3% for the 2017-18 academic year, according to HESA.

Additionally, a 30,000-student increase to the limit on undergraduates in 2014 further raised the share of revenue generated by tuition fees. As a result, competition for students between universities has grown. This has resulted in increasingly sophisticated advertising campaigns, outreach programs, campus developments and unconditional offers. Universities use unconditional offers to stabilize the level of income generated by fees by avoiding the risk of the clearing process and being left with unfilled courses. In November 2018, it was reported that the number of unconditional offers has been growing and combining the two forms of unconditional offers means that 34% of 18-year-olds applying through UCAS in 2017 received an unconditional offer from one of the five universities they selected. The use of unconditional offers has ballooned since the government abolished the cap on the number of undergraduates each university in England could accept, allowing expansion at a time when the number of school-leavers was declining. However, Damian Hinds, the former Education Secretary, warned that universities could face regulation by the Office for Students, an independent regulator and competition authority for the higher education sector, over any unjustified use of unconditional offers.

Universities and colleges have responded to funding changes by implementing budget cuts. This has involved ceasing unpopular courses, increasing class sizes, cutting administrative costs and collaborating with other institutions to share resources. In 2018 the Open University announced that 41 undergraduate and postgraduate degrees will no longer be available due to budget restrictions. In December 2018, more than half a dozen universities told staff there could be job cuts in 2019, including members of the research-intensive Russell Group such as Cardiff University. In an effort to trim costs, many industry institutions have aimed to alter employees' pension schemes, downgrading them from defined benefit pension schemes to defined contribution schemes. This caused staff at 65 universities across the United Kingdom to engage in strike action in February 2018.

The average industry profit margin in 2019-20 is estimated to be 5.8%. Most universities are run on a non-profit basis and generate a surplus rather than profit. The rise in tuition fees is expected to contribute to a slight rise in the average surplus, although higher tuition fees are likely to encourage increased expenditure as universities seek to justify the rise in fees to applicants.

## UK Vocational Institutions

According to the Association of Colleges, the Skills Funding Agency, now the Education and Skills Funding Agency (“ESFA”), has cut adult skills funding by more than 35% over the five years through 2016. As most industry players are not-for-profit companies and rely on funding from the ESFA, the cuts had a direct negative effect on performance, including putting downward pressure on profit. Surplus made by not-for-profit operators is passed on to facilitate courses for the next academic year, but due to poor industry performance and insufficient resources, less popular courses were cancelled at many institutions. In October 2016, adult learning body HOLEX stated that the government's spending priorities had led to many providers losing 24% from the Adult Education Budget (“AEB”) in 2015 on top of the more visible 2010 Spending Review cuts.

The former Skills Funding Agency increased funding to colleges for apprenticeships, traineeships, further education loans and adult education for 2016-17. In addition, the Apprenticeship Levy was put into place in April 2017. The scheme requires all employers with a payroll of £3 million or more to pay 0.5% of the value of their payroll to HMRC. This will allow the government to double investment in apprenticeships by 2020 from 2010 levels, and is expected to fund three million apprenticeships by 2020. The way apprenticeships are funded in England was also simplified in May 2017, shifting from a provider-led model to follow employer choice. In October 2018, this was followed up with a further package of reforms aimed at ensuring the Apprenticeship Levy had the desired effects. These include an extra £90 million of government funding, flexibility for employers, and £5 million for the Institute for Apprenticeships to introduce new standards and update existing ones so more courses can be offered. However, the levy has so far not had the desired effect and, despite initially increasing, the number of apprenticeship starts declined over 2017-18, a trend expected to continue through the current year. According to the Department for Education, there were 369,700 apprenticeship starts in England in 2017-18, 125,200 fewer than 2016-17 and 143,300 fewer than 2015-16. This indicates that the Apprenticeship Levy has not facilitated growth as expected. Although industry revenue is expected to have recovered in 2017-18, growth is anticipated to drastically slow over the two years through 2019-20.

More recently, in the September 2019 Spending Review, the government announced a £400 million injection into 16-19 education from 2020, which is the biggest increase for a decade. This is anticipated to support revenue growth in the coming years.

Industry demand is also influenced by the wider economy. When the economy is performing well, unemployment is likely to fall. As people join the workforce, they are less likely to enroll in the courses provided by industry operators. However, if unemployment rises, there is likely to be an increase in demand for the industry's services, as individuals are likely to aim to advance their skills in order to increase their competitiveness in the job market. The level of funding received by industry operators from the government is also expected to affect demand as increased funding enables providers of technical and vocational education to invest more in their courses and facilities, making them more attractive to potential students. Learndirect, the largest operator in the industry, had its funding from the Department for Education cut from July 2018, which could put downward pressure on its performance towards the end of the period. This was

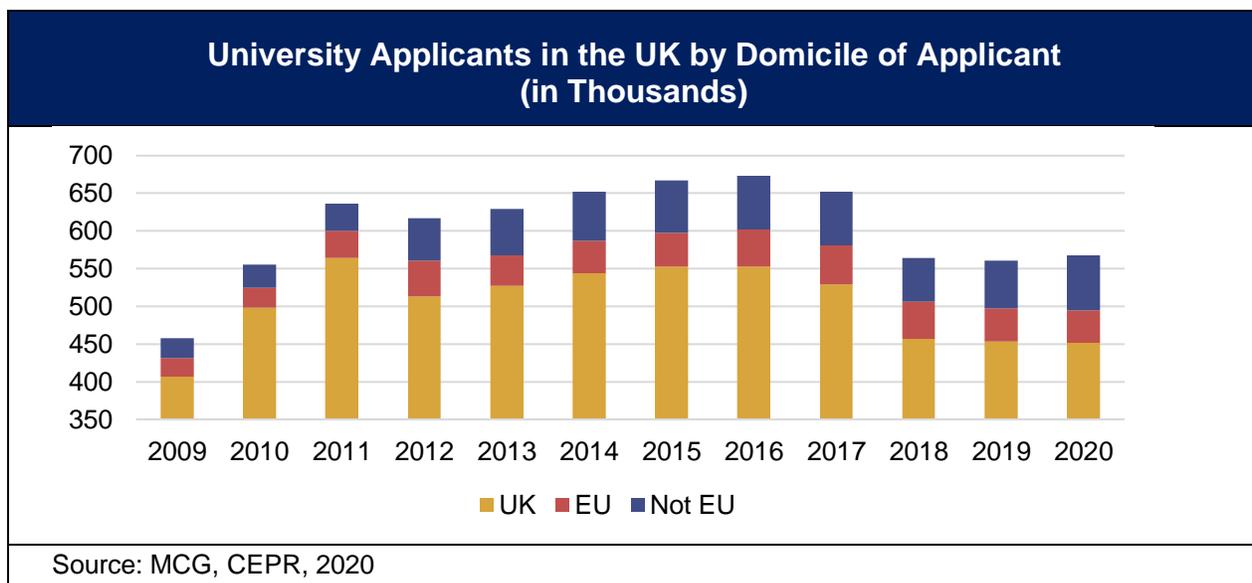
as a result of a review from Ofsted deeming the services provided by the operator as inadequate, which highlights the role brand reputation can play in shaping demand.

## TRENDS

Many of the trends affecting the UK are similar to those at a global and US market level. International student migration, global movement of education to online platforms, and domestic government support and funding play key roles in determining the near and more distant future of UK higher education.

### International Students and Government Funding of UK Universities

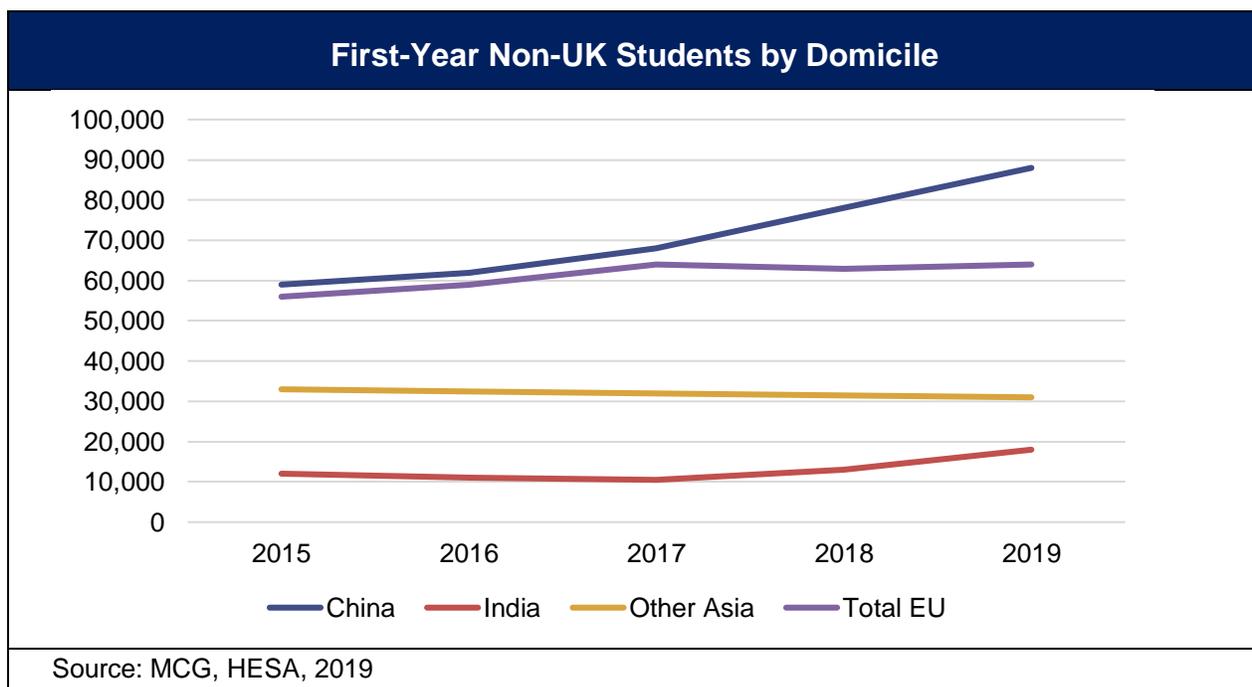
Students are becoming more willing to travel for their studies as courses become more expensive, and more importance is placed on finding and completing the right one to improve career prospects. Furthermore, as tuition fees for international students are higher than for those from the United Kingdom, competition for these students is increasing. The majority of foreign students are from Asia (predominantly China), followed by Africa and North America. In 2012-13, the number of overseas students dropped for the first time in 29 years, according to figures from HEFCE. This was a likely result of a tightening of student visa policy in the United Kingdom. More recently, the number of overseas students has risen again, with university applications increasing for the first time in three years in 2019, fueled by soaring applications from overseas students. As UK universities continue to capitalize on their prestige by setting up overseas branches, globalization in the industry is likely to increase. The University of Nottingham, for example, has campuses in Malaysia and China. In 2018-19, an estimated 80% of all UK students were from the United Kingdom, while 6% were from other EU countries and the remainder from outside the European Union.



Globalization in the postgraduate qualification market is high. For many years, students have been willing to travel, which has benefited UK institutions as they have a strong international reputation for their research output and teaching quality. According to the most recent statistics from HESA, approximately 46% of students enrolled on full-time postgraduate degrees, both taught and research, were domiciled in the United Kingdom in 2018-19. Students from other EU countries were estimated to account for 10% of those studying UK postgraduate degrees, while 45% were expected to be from non-EU countries.

The numbers coming from nearly all countries other than China has remained approximately constant. But the numbers coming from China have risen from 25,000 in 2006 to approaching 90,000 by 2019. This over-reliance on recruiting Chinese students has meant that the UK HE system is vulnerable to any change in policy from the Chinese government or an exogenous event like COVID-19.

Another major problem for UK university finances has been the Universities Superannuation Scheme (“USS”) and its associated problems. This is the largest private sector pension scheme in the UK, with assets of over £68 billion. Recent calculations indicate that the scheme has a valuation shortfall of between £6.6 billion and £17.5 billion. This will result in rising university employer contributions to the scheme, exacerbating their financial problems.



Technological advancement is also helping break down geographic barriers to learning, giving students around the world easy access to digital classrooms. This is expected to allow universities to better tap global markets, but also boosts competition from foreign rivals. The battle for international students is increasingly important given recent fee reforms, and

international fees have risen strongly in recent years. Overall, higher education institutions receive 8% of their income from international student fees, including both undergraduate and postgraduate students.

## **Profitability in the Face of Decreasing Support from Government**

The majority of universities across the United Kingdom operate on a not-for-profit basis and receive a large portion of revenue from state funding. This means that any surplus earned in an operating year is carried over to the next year's available funds. Universities will often reinvest any surplus into their academic estates in order to remain competitive. This consists of teaching and research facilities, business accommodation and buildings such as research institutions. Surplus is also likely to be invested in staff, technology and infrastructure. In 2010, HEFCE cut the level of funding received by universities and since then funding has continued to fall. However, a number of changes in the industry have ensured that the average profit margin has risen over the past five years, although margins have remained stable over the second half of the period. Following the Browne Review in 2010, the cap on university tuition fees for undergraduates was raised to £9,000 a year, an increase that was implemented in the 2012-13 academic year. From 2017 the cap on tuition fees was increased further to £9,250 a year, which was applied by a large majority of industry operators. Furthermore, tuition fees for postgraduate and international students are even higher. At the University of Cambridge, tuition fees for international students range from £19,197 to £52,638 depending on the course chosen and expense of course materials required for training. Rising tuition fees have supported growing profit margins. Profit is estimated to account for 5.8% of industry revenue in 2019-20.

Industry operators have undergone significant changes to the structure of their revenue sources over the past five years following a rise in tuition fees and a decline in government funding. Funding has fallen over the five years through 2019-20 in the wake of cuts to HEFCE funding in 2010, with figures released by HEFCE revealing that funding body grants for the University of Oxford fell from 22.6% of the institution's revenue in 2008-09 to 8.4% of revenue in 2017-18. Meanwhile, the percentage of revenue generated from tuition fees has increased over the period following a rise on the cap on undergraduate tuition fees from £3,000 to £9,000 in 2012. Despite concerns about the affordability, quality and value for money of higher education, and the long-term feasibility of the new funding system, tuition fees were raised again in line with inflation, to £9,250 in the 2017-18 academic year. UCAS reported a record number of school-leavers applying to UK institutions in the base year of the period despite these fee increases. University applications rose for the first time in three years in 2018-19, despite a fall in the UK's 18-year-old population, according to UCAS. This increase was mainly driven by a record number of applicants from outside the European Union, increasing by 9% from the previous year. It's expected that industry revenue to grow at a compound annual rate of 3% over the five years through 2019-20 to reach £41.3 billion, with growth of 2.4% in the current year.

## UK Vocational Institutions

There have been a number of developments within the vocational education sector that warrant discussion as they will continue to play a major role in both the near and longer term. The Apprenticeship Levy has not had the desired effect, and apprenticeship starts have fallen. A chronic skills shortage is unfolding, prompting the government to reprioritize their educational investment allocation. Demand has been boosted by new law requiring people to stay in education or training for longer. The UK's exit from the European Union may destabilize the job market but boost industry demand.

### Skills Shortage

In January 2016, the UK Commission for Employment and Skills published its 2015 Employer Skills Survey results, which reported a chronic skills shortage within the United Kingdom. It was suggested that the focus on academic achievement and attainment of academic qualifications such as university degrees has led to too few students studying technical and vocational courses. As a result, businesses in high-skill industries have struggled to find appropriately trained staff and suffered from a lack of international competitiveness. To rectify this, the government prioritized training and education in areas currently suffering a skills shortage. In the 2017 Autumn Budget, Chancellor Philip Hammond announced plans to invest £500 million a year in changing how technical education is taught by increasing the number of hours students train by 50% and replacing the current 13,000 qualifications with just 15.

Despite this, it was reported in September 2017 that approximately 13% of the £1.5 billion AEB went unspent in 2016-17, with certain individual providers having underspent by nearly £750,000 according to FE Week, a news service for the further education and skills sector in England. Additionally, government funding for higher education is expected to fall in the current year. These factors are likely to contribute to much slower revenue growth in 2018-19 and the current year.

### Increasing Demand

As a result of legislative requirements set out by the Education and Skills Act 2008, the age at which people can exit education increased from 16 to 17 in the academic year through 2013-14, and further to 18 in 2015-16. Young people are now required to remain in full-time education or undertake an apprenticeship course until they reach this age. The government has paid greater attention to vocational education in response to the underlying skills gap threatening the UK economy. As a result, many students who would have previously entered the workforce at 16 are now studying industry courses. It's expected that the average participation rate for 16- to 18-year-olds in full-time education will increase by 0.7% over the five years through 2019-20, with the strongest growth due to occur in the current year. Prior to this, in 2016 an estimated 13% of 16-18-year-olds were not in any education or training, the lowest rate since 1997. This has supported industry demand over the past five years. One of the responses to higher demand was that the ESFA increased apprenticeship funding for those aged 19 and over by 19% in 2016-17, according to the Association of Colleges. This is expected to have contributed to an increase in profit margins during that year.

The United Kingdom has the largest internet-based economy in the world, according to Boston Consulting Group, contributing just under 10% of GDP in 2012. The group forecasted that by 2016, the internet economy would contribute 12.4% of GDP in the United Kingdom, compared with a G-20 average of 5.3%. This has caused a rapid increase in the availability of technology-based jobs and consequently resulted in a digital skills gap. As a result, demand for information and communications technology courses, which are expected to account for 6% of revenue in 2019-20, has increased. Furthermore, the industry's most popular courses are those that prepare students for life and work by teaching basic computer skills, which are necessary for most office-based jobs in the United Kingdom. This is expected to have had a positive effect on employment, as these courses prepare people with key skills and facilitate their transition into the workforce.

### **Teacher Shortages**

Industry employment is forecast to fall at a compound annual rate of 0.2% over the five years through 2019-20. Despite government initiatives to boost technical and vocational training, and public-sector spending of £700 million annually on teacher training, teacher recruitment targets were missed in each of the five years through 2017. Additionally, in 2017, the number of teachers leaving the profession was higher than the number entering for the first time since 2011, according to the National Audit Office. The Education Policy Institute reported in August 2018 that England's schools faced a severe shortage of teachers. Average industry wages are also expected to have fallen over the past five years, but the Department for Education announced in July 2018 that lower-paid classroom teachers in England and Wales would receive pay rises of up to 3.5%. The September 2019 Spending Review indicated teachers' starting salaries will rise to £30,000 a year by 2022-23.

Enterprise and establishment numbers are expected to fall at respective compound annual rates of 3.4% and 2.7% over the five years through 2019-20. This is a likely result of a fall in both student numbers and government funding.

## **UK HIGHER EDUCATION OUTLOOK**

Some of the major factors expected to affect the Universities industry over the five years through 2025 include the exit of the United Kingdom from the European Union, the increasing reliance on foreign students, and decreasing government funding.

UK universities during COVID-19 are looking at unprecedented losses. Faced with these large expected losses in income, many universities in the UK are already implementing, or planning to implement, hiring freezes, redundancies, termination of short-term contracts, dropping courses and even whole degree programs, and closing departments. Senior management at some universities has taken a voluntary pay cut and proposed that professorial staff follow suit. These measures have large adverse implications for employment in the university sector, with some estimates suggesting up to 300,000 job losses.

Calculations of risk liability based on the financial position of different universities suggest that between 30 to 50 universities could be in immediate danger of insolvency. This was calculated for universities that are at most risk of financial failure, with an 'at risk score' that takes into account the current financial position of the university on debts and loans and their exposure to the loss of fee income from overseas students.

## UK Post-Secondary Institutions

Over the next five years, the number of 16- to 18-year-olds participating in full-time education is expected to continue rising. This is likely to increase the potential pool of students that could attend industry-provided courses despite an overall fall in the UK's 18-year-old population towards the end of the current period, boosting enrollment and income from tuition fees. In addition, there is a strong link between achieving a good bachelor's degree and higher earnings. In April 2019, figures published by the Department for Education showed that the median university graduate earned £10,000 more than the average non-graduate in 2018 as well as having higher employment rates, despite a rapid increase in the number of students attending university. This trend, in conjunction with rising disposable incomes and increasing unemployment, is expected to encourage further enrollment in courses, despite fluctuating levels of public spending on higher education. Government reforms to higher education have been shifting the funding of university education from the taxpayer to the individual, albeit with sustained help from the state. Revenue is likely to be supported by continued growth in enrolment numbers, with profit margins expected to remain relatively stable over the next five years.

Previously, government funding through the Higher Education Funding Council for England accounted for the majority of total income received by universities. However, this funding has fallen in recent years in line with government efforts to reduce the budget deficit. Figures released by Universities UK reveal that, in total, direct public funding for higher education teaching in England, estimated at £3.6 billion in 2017-18, is expected to be approximately 32% lower than the 2012-13 level of £5.3 billion. Although HEFCE funding details for the future have not yet been released, the fall in funding is likely to continue. The industry is also expected to receive less funding from the EU's Horizon 2020 research program following the UK's departure from the European Union. By 2024-25, it's expected that government funding will contribute less than 15% of the average university's total income.

The government reaffirmed its long-term science capital commitment of £6.9 billion between 2015 and 2021. This is significant for universities because much of the scientific research conducted within the United Kingdom takes place within university departments. A further £400 million is to be allocated via the UK Research Partnership Investment Fund through 2021, leveraging at least £800 million in private investment in the university research base. According to HEFCE, collaborations conducted between universities and businesses are expected to increase university income through commercial activity such as joint research, professional development programs and income from intellectual property.

Industry growth over the next five years is expected to be driven primarily by the tuition fee increase. Domestic students currently make up over 80% of undergraduates, so higher tuition fees for this group will significantly affect revenue. As part of the 2015 Budget, the government announced plans to allow universities to raise fees in line with inflation from the 2017-18 academic year onwards, although fees were frozen for 2018-19 and 2019-20. Most universities have implemented tuition fee increases as a result, with all but three English universities charging students the maximum amount of £9,250 for at least some of their courses, while 29% are expected to fix prices at the maximum amount for all their courses. Higher fees and the 30,000-student increase on the undergraduate cap in 2014 are expected to further boost industry revenue over the five-year period through 2024-25.

Falling government funding over the next five years is expected to be accompanied by decreased industry regulation. Regulatory bodies such as HEFCE and the Office for Fair Access were merged into one regulatory organization known as the Office for Students in 2018, with limited powers compared with past bodies. The Office for Students and UK Research and Innovation are two new bodies created by the Higher Education and Research Act, which was introduced in 2017. The act is a replacement of the Further and Higher Education Act 1992 and will accommodate subsequent changes in the higher education sector. Furthermore, proposals set out in the 2015 Budget suggested scrapping the requirement for institutions to have a certain number of students before they can become universities and included initiatives to make it simpler to get degree-awarding powers. It was also suggested that universities could become exempt from the Freedom of Information Act to create a level playing field with private providers, which are not subject to the Act. Removal of regulations is expected to decrease barriers to entering the industry, leading to the number of enterprises in the industry rising over the five years through 2024-25.

Figures from the Department for Business, Energy and Industrial Strategy analyzing support from the EU's Horizon 2020 research program show that the proportion of funds allocated to universities in the United Kingdom had dropped to 24% by the end of May 2019, down from a high of 25% in February 2017. Although this fall is only marginal, it highlights how the share of European funding allocated to British universities is slipping, as higher education institutions face rising financial pressures following the UK's exit from the European Union. As of August 2018, the United Kingdom has received £10.2 billion since the funding scheme began in 2014. It is not certain whether UK universities will still benefit from this funding now the United Kingdom has left the European Union. Although the government has guaranteed funding for projects begun before the referendum, no long-term plan has been announced.

Universities in the United Kingdom have benefited from free movement throughout the European Union. Erasmus and Erasmus+ programs allow students to study and work abroad in Europe. In January 2019 Erasmus announced that the terms of the withdrawal agreement on 31 January 2020, outline that the United Kingdom will continue to participate in the current Erasmus+ and European Solidarity Corps ("ESC") programs. However, international students are also likely to be affected by the government's decision to include them in net migration targets. This may lead to a fall in the number of international students, which would reduce industry revenue. For courses starting in September 2019, international student application numbers reached record levels, mainly driven by a 30% rise in applications from Chinese students. The number of

applicants from the European Union increased by 1%. Despite the inclusion of foreign students in migration targets, the government has guaranteed funding and loan access to EU students starting courses at UK universities in 2019-20.

A survey conducted by the University and College Union in January 2017 showed that 76% of European academics in UK universities stated that they were more likely to consider leaving UK higher education as a result of the referendum, while a second poll of academics found that 53% of non-UK nationals were actively looking to leave the United Kingdom. According to The Guardian, EU staff make up approximately 16% of the industry's workforce. This means that UK universities face a potential brain drain. According to figures based on freedom of information responses from universities this has materialized already, with the most recent figures showing that over the three years through 2018-29, almost 11,000 EU academics left UK universities.

## **UK Vocational Institutions**

The industry is set to undergo significant changes over the next five years, in line with plans announced by the government in the 2017 Spring Budget and 2019 Spending Review.

Plans include replacing 13,000 existing qualifications with 15, a decision linked to the needs of employers, with these new courses expected to commence in the 2019-20 academic year. An additional £500 million annual investment was pledged in the 2017 Spring Budget, to allow the amount of training for 16- to 19- year-olds to increase by 50% to 900 hours a year. This was followed by a £400 million increase in further education funding in 2020, announced in the 2019 Spending Review. The government's prioritization of rectifying the chronic skills shortage by directing funding towards vocational and technical education is anticipated to allow industry revenue to rise at a compound annual rate of 1.5% over the next five years, reaching £919.7 million in 2024-25. Expansion is also expected to be supported by increasing unemployment following the UK's exit from the European Union, particularly if this occurs without a deal and the economy crashes as a result. High unemployment is likely to act as an incentive for people to improve their employment prospects by enrolling in education courses provided by the industry to make themselves more attractive in a difficult job market.

Stricter immigration policies following the UK's decision to leave the European Union has resulted in the number of EU migrants coming to the United Kingdom falling. Net migration from the European Union to the United Kingdom fell by over 60% between June 2016, when Britain voted to leave, and May 2019, according to data from the Office for National Statistics. This is the lowest level since 2009 and is likely to widen the skills gap, leading to higher wages for those with vocational and technical skills and further encouraging the government to invest in the industry. Better wage prospects and increased access to and quality of industry courses are likely to boost enrolment.

## INDUSTRY PLAYERS

### UK Post-Secondary Institutions

#### Imperial College of Science, Technology and Medicine

Imperial College of Science, Technology and Medicine, or Imperial College London, was established in 1907 and was a constituent of the University of London before becoming fully independent in 2007. The university is located in the South Kensington area of London and operates four faculties: Natural Sciences, Medicine, Engineering and Imperial College Business School. These four faculties govern over 40 departments, employing approximately 7,800 members of staff. The university has over 19,000 students, and undergraduates make up approximately 52% of the student body. Imperial has outperformed the industry, since its revenue is estimated to reach £1.1 billion in July 2020, boosted by a growing student body. Approximately 34% of revenue is expected to consist of research grants and contracts, but the university also relies heavily on donations and fundraising. The university's college endowment fund consists of three primary portfolios, the Unitised Scheme, Endowment Property and Strategic Asset Investments. These are designed to generate long-term investment return, investments of five years or more, for the colleges and faculties. The university's surplus grew rapidly in 2014-15, from £86 million in the year through July 2014 to £130 million the following year. This is expected to be largely due to the addition of £60.7 million in Research and Development Expenditure Credit income. Surplus fell to £78 million in 2015-16. However, surplus increased again in 2016-17 and 2017-18. However, over 2018-19 surplus declined to a £39 million deficit as a result of a £118.6 million increase in the provision for the university's contribution to the USS pension deficit recovery plan.

#### The Open University

The Open University ("OU") was established by the government as a distance-learning university in 1969. It has grown into the largest academic institution in the United Kingdom, and one of the largest in Europe in terms of student numbers, enrolling approximately 168,000 students, a fall of nearly 4% from the previous year, and employing an estimated 8,500 members of staff. The university has an open entry policy, allowing students aged 16 years and over to enroll in most undergraduate courses without previous qualifications. The university model is particularly popular with those in the workforce; 76% of OU students are engaged in full- or part-time jobs during their studies, according to the university, while the average age of OU undergraduates is 29.

In its most recent annual report, the university reported revenue of £443.1 million for the year ending July 2019. This represented an increase of 7% on the previous year. Income for 2015-16 was 10% below that of 2014-15 due to a 25% drop in funding council grants. This decline in grant funding was offset somewhat by a 3% increase in income from tuition fees. In 2018-19 grant funding fell by 6% from the previous year. Nevertheless, increased tuition fees have led to a general fall in student registrations across the whole part-time university course sector, largely due to the lack of availability of loans from the Student Loans Company to those studying for an equivalent or lower qualification to one they already hold. The prospect of larger student debt

re-payments is expected to dissuade potential candidates, who may not necessarily earn more as a result of their part-time study, from applying to courses. In March 2018, the university announced that it is planning significant reductions in the number of courses offered and the number of lecturers it employs following financial issues over recent years. This includes the removal of 41 undergraduate and postgraduate degrees from the list of courses available. The Open University's revenue is projected to reach approximately £452 million in 2019-20.

### **University College London**

University College London ("UCL") is the largest multidisciplinary university in London. It was established in 1826 and was one of the two founding colleges of the University of London in 1836, which now comprises 18 colleges in London. The university operates 11 faculties and over 100 departments, which are governed by one of the faculties. The university's faculties are Arts and Humanities, the Bartlett Faculty of the Built Environment, Brain Sciences, Education, Engineering Sciences, Laws, Life Sciences, Mathematical and Physical Sciences, Medical Sciences, Population Health Sciences and Social and Historical Sciences. The university has undergone a number of mergers in recent years, including with the School of Pharmacy in 2012. On 25 November 2014, a merger between University College London and the Institute of Education was finalized. The new entity, to be named the UCL Institute of Education, acts as a single faculty school of UCL. Following this, UCL is London's largest university, with approximately 42,100 students, 48% of these being international, and employing approximately 13,400 members of staff. UCL remains highly attractive to prospective undergraduate students in particular with applications rising year on year. This expansion is expected to fuel revenue growth throughout the five years through 2024-25.

Over 2019-20, industry-related revenue is estimated to total £1.5 billion. Despite funding from HEFCE declining, the university has benefited from an increase in student numbers. Although undergraduate students make up a declining share of total student numbers, the number of international students has increased year on year, boosting revenue from tuition fees. However, the university's greatest source of income over the past five years has been from research grants and contracts for research studies. According to the university's most recent annual report, approximately 32.4% of its income during 2018-19 consisted of revenue from research grants and contracts. Academic fee income increased by 8.4% in 2018-19, reaching £564.9 million.

### **University of Cambridge**

The University of Cambridge was founded in 1209 and is the second oldest university in the United Kingdom after the University of Oxford. It is located in the city of Cambridge in the East of England. The university started as an association of scholars and has grown to encompass 31 constituent colleges and over 100 academic departments, organized into six schools. The university has over 21,500 students and employs nearly 10,000 staff members. It has consistently maintained its reputation and top spot in university league tables over the years. Most courses require entrance exams, with entry requirements on more than half of its courses demanding two A\* grades at A-level since 2014. The university is expected to lose some prospective students to Oxford University, which has only raised the admissions bar on three of its courses.

The University of Cambridge generates its income from a number of sources, including state funding, tuition fees, research, investment, publishing and services to external customers. The university also relies on philanthropic income and received £121.1 million in donations and endowments in 2018-19, a 92.5% rise from the previous year. The primary investment pool generating endowment and investment income is the Cambridge University Endowment Fund (“CUEF”). The majority of funds are invested in public equity and are intended to generate long-term return, with the university investing all of its philanthropic income back into the university.

Over the five years through 2019-20, the University of Cambridge's revenue is estimated to reach £2.2 billion. However, this is partially generated from Cambridge University Press, the worldwide publishing business of the University of Cambridge. Industry-related revenue for the period is forecast to reach £1.9 billion.

The government, through the HEFCE, provides a block grant for research determined by the quality and volume of research. According to the university's 2018-19 annual report, sponsors of research projects continue to be the main source of income for the university, giving £582.9 million for the year. Research grants and contract activity increased slightly, which is expected to be reflective of an increase in the quality of research recognized by the Research Excellence Framework. Furthermore, enrollment is expected to have increased over the five years through 2019-20, generating substantial income from tuition fees, due to an increase in both domestic and international students.

Revenue generated from academic fees rose to £306.1 million in 2018-19, an 8.2% rise from the previous year, with this growth being primarily due to increases in postgraduate fees. State funding is expected to fall in the short term as the new HEFCE funding regime continues to be phased in. However, income generated from CUEF has increased in recent years, offsetting the fall in government funding. The university also benefited from Cancer Research UK and the Medical Research Council transferring their research institutes to the university in 2013. The average surplus has continued to rise because the university took measures to reduce its expenditure. The university's surplus has increased marginally from approximately 3.7% of its income in 2013-14 to an estimated 4% in 2019-20.

### **University of Manchester**

The University of Manchester was established in 2004 by the merger of the Victoria University of Manchester and the University of Manchester Institute of Science and Technology. Both of these institutes date back to the 19th century. The university, located in the North West region of the United Kingdom, is a member of the worldwide Universities Research Association, the Russell Group of British research universities and the N8 Research Partnership. The university has approximately 40,100 students, of which approximately 69% are undergraduates. The university is expected to generate total income of £1.1 billion in 2019-20, with approximately 25% of this consisting of research income from research councils, UK charities, hospitals, health authorities and the government. The university's latest annual report showed that tuition fees accounted for 44% of the university's income in 2018-19. This is significantly larger than other high-income universities such as the Universities of Oxford and Cambridge. Funding body grants also rose in 2018-19 by 3.6%, however the university is expected to rely more heavily on external

research grants towards the end of the period. Such grants include a £10.3 million investment in early 2015 from the Biotechnology and Biological Sciences Research Council towards a new synthetic biology research center at the university. The University of Manchester announced plans in 2012 to invest £1 billion over the 10 years through 2021-22. This development includes a new engineering campus, new centers for the university's law and business schools and a refurbishment of the university's library. Government funding is likely to rise to accommodate the university's expansion.

### **University of Oxford**

The University of Oxford is made up of 38 constituent colleges as well as six permanent private halls, which all operate as autonomous self-governing corporations. The university has no clear date of foundation, but teaching in some form has existed since 1096 and this increased rapidly from 1167, making the University of Oxford the oldest university in the United Kingdom. There are approximately 24,000 students currently attending the university, 49% of which are expected to be undergraduates, while 49% are studying postgraduate courses with the remaining 2% expected to be visiting. Despite each college's autonomous status, the central university determines the content of courses, organizes lectures, provides teaching and learning resources, and governs examinations and the awarding of degrees. Applications for places starting in 2018 reached a record high, with more than 21,500 people applying for approximately 3,300 undergraduate places, an average of six applications for each available place. This is higher than the University of Cambridge, the university's closest academic rival, which on average receives five applications per place. This is likely due to Oxford's more aggressive outreach program, as well as a tightening of entry requirements at Cambridge.

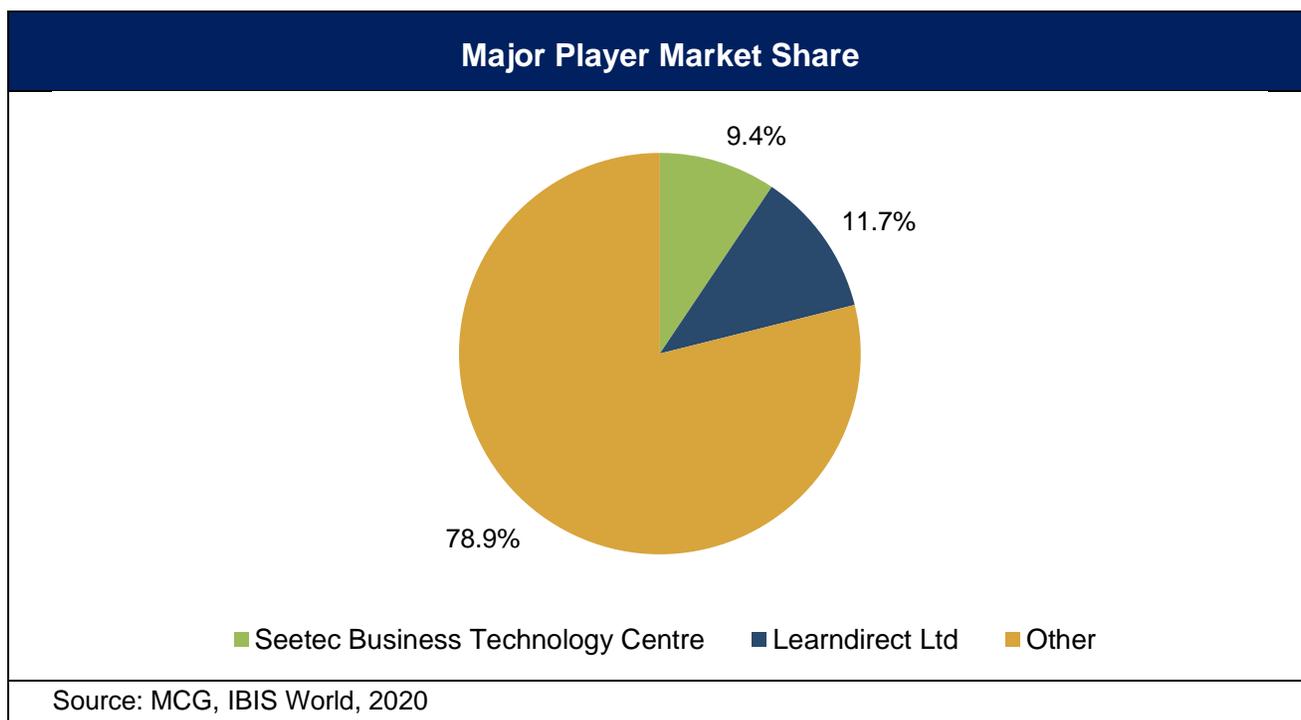
The University of Oxford employs approximately 13,900 people who assist with the day-to-day running of the university, and staff costs make up approximately 47% of the university's total expenditure. Oxford is a member of the Russell Group and receives high levels of research funding through research grants and contracts. Approximately 9.3% of the university's income comes from government grants for teaching and research through the Higher Education Funding Council, although there are over 1,000 separate institutions from which the university receives funding. Like other large universities, Oxford partly relies on its investment activities. Funds are controlled by Oxford University Endowment Management ("OUEM"), a wholly owned subsidiary of the university. The OUEM invests funds globally. In 2016, Japanese investments accounted for 6% of Oxford's portfolio, 33% of the fund was invested in North America and 33% was invested in the United Kingdom. Revenue from investments expanded from £4.7 million in 2014-15 to £14.4 million in 2016-17, falling marginally to £12.9 million in 2017-18 according to the university's latest financial report. Over the five years through July 2020, the University of Oxford's revenue is expected to reach £1.7 billion.

The university has outperformed the industry as a whole, with research grants and contracts continuing to be the largest source of income, totaling £576 million in 2017-18. In 2014-15, the university received exceptional income from a special transfer from Oxford University Press totaling £120 million and a Research and Development Expenditure Credit of £66.6 million. This contributed to revenue growth of 21.7% over 2014-15. Income from academic fees and support grants has increased over the period, reaching £319 million in 2017-18, an 8.1% increase from

the previous year. The university aims to reach an operating margin of 5% to ensure buildings, equipment and IT infrastructure are maintained. Operating surplus for the current year is expected to be above the 5% benchmark, aided by an increase in income from investments.

### UK Vocational Institutions

The industry has a low level of market share concentration, as the four largest operators are expected to have a combined share of 25.2% in 2019-20. This reflects the devolved structure of education in the United Kingdom. The government departments in England, Scotland, Northern Ireland and Wales are each responsible for providing education services in their respective jurisdictions and have developed specific systems to fund and regulate technical and vocational education. The industry has become more fragmented over the period. In the 2013-14 academic year, legislation was introduced in England increasing the age at which people must remain in education from 16 to 17. Further legislation was introduced in 2015-16 requiring those aged between 16 and 18 to stay in full-time education or start an apprenticeship or traineeship. However, in 2017-18, there were approximately 125,000 fewer apprenticeship starts in England than the previous year due to a new apprenticeship funding system introduced in May 2017.



The main focus of government education policies has been to encourage young people to follow academic routes. However, a workforce skills shortage has developed in recent years, especially in traditionally non-academic areas. This was exacerbated by the UK's vote to leave the European Union in 2016, with nine in 10 UK employers struggling to find skilled workers as of

June 2018, according to The Independent. To counteract this, the government has offered incentives to training companies and charities, including an £11 million training program announced in October 2018 that will build the necessary management skills lacking in many small- and medium-size enterprises. This is expected to help 2,000 businesses in its first year, with the aim of training 10,000 people per year by 2025. In addition, more private schools offer vocational courses, such as BTEC and City and Guilds qualifications, as alternatives to A-levels. This has further lowered market share concentration. The recent failure of two of the industry's largest providers has called into question the viability of having education providers that are 'too big to fail'. Consequently, the government could spread contracts out between a larger number of small companies in order to reduce risk, further reducing market concentration.

### **Learndirect Limited**

Learndirect is Britain's largest provider of skills, training and employment services. The Ufi Charitable Trust ("UCT"), a non-profit-making organization created in 1998 by the government's Department for Education and Skills, now replaced by the Department for Education and the Department for Business, Energy and Industrial Strategy, launched Learndirect in 2000. The initial aim of the trust was to support the delivery of adult vocational skills through digital technology as a means of improving the competitiveness of the UK economy. In 2011, UCT sold Learndirect, along with its parent company Ufi Ltd, to private equity firm Lloyds Development Capital ("LDC") through Pimco 2909 for approximately £40 million.

The company received an Ofsted rating of inadequate in 2017 and as a result had funding from the Department for Education cut from July 2018. Learndirect previously received funding of over £100 million per annum from the Department for Education, so this is expected to have a significant detrimental effect on the company's financial situation, putting it at risk of insolvency. To ward off financial crisis, LDC sold Learndirect in July 2018 to Dimensions Training Solutions ("DTS"), which is part of a wider group owned by Stonebridge Colleges, a privately owned company controlled by Wayne Janse Van Rensburg. This followed an announcement by the company that the vast majority of its staff were likely to lose their jobs as they were unable to secure new funding. Learndirect has since started to win government funding to deliver skills training again, with its new owner securing more than £20 million worth of European Social Fund ("ESF") contracts. The company is still banned from gaining funding from the adult education budget following failures by its old leadership team. It can, however, bid and win ESF cash, which is not inspected by Ofsted because much of it does not fall under education or training. The apprenticeship arm of the company was then sold on to Staffline, reportedly for £1, within weeks, dramatically reducing the size of the company.

In November 2012, Learndirect merged with JHP Group, a training and employability academy specializing in apprenticeships that was established in 1983. In May 2013, Learndirect acquired TLE and Tabs Training centers, which specialized in English, Math, IT, customer service and employability qualifications, for approximately £6 million. In the same year, Learndirect's parent company, Pimco 2909, merged with Hamsard 3191 in a share exchange. An expected acquisition of Learndirect's e- assessment business by Pearson Professional Assessments was called off in 2015 following an investigation by the Competition and Markets Authority.

Over the five years through April 2020, Learndirect's revenue is expected to decline at a compound annual rate of 10.2% to £100.2 million. In 2015, Learndirect changed its financial year to run through January instead of July. This means that the financial data for 2015-17 is skewed as it accounts for an 18-month period running from August 2015 to January 2017. Proportionally, on a month-for-month basis, the company generated less revenue in 2015-17 than in its previous financial year. Another change of reporting period in 2017-18, when the company's accounts ran for the 15 months through April 2018, has further skewed the data, and again, the company generated less revenue on a month-for-month basis. This was a period of instability for the company primarily driven by a poor Ofsted inspection which led to a reduction in the adult education budget and reduced performance by subcontractors following uncertainty around the business. The reporting period in 2018-19 and the current year will run for the 12 months through April. Despite a further program of cost reduction during the spring of 2017 to minimize the impact of cuts to funding, revenue is expected to decline further on a month-for-month basis over the two years through 2019-20 owing to the withdrawal of government funds from July 2018, in addition to the impact from the inadequate Ofsted rating in 2017. In the 18 months through January 2017, the company won 17 contracts with a combined value of £47 million. The funding model for these contracts is back-end loaded but the costs required to deliver these projects was considered to be a good investment in the short and long term, particularly as the company attempts to diversify away from reliance on the Education and Skills Funding Agency ("ESFA").

Over the past five years, the company has faced challenges due to cuts in government grants. In the base year of the period, cuts in grants led to the closure of a number of courses, which resulted in a fall in revenue over 2014-15. Furthermore, these course closures incurred exceptional costs, as the company paid out approximately £2.1 million during 2014-15 alone in compensation for loss of office. This, in addition to exceptional costs associated with Learndirect's parent company merging with Hamsard 3191 in 2013, is expected to cause profit to decline over the five years through 2019-20.

The sale of the company to DTS is expected to benefit revenue in the long term as the company is anticipated to receive increased ESF funding administered through the ESFA, the Department for Work and Pensions, and the National Lottery Community Fund, which each provide match funding.

### **Seetec Business Technology Centre Ltd**

Seetec is one of the UK's largest providers of government-funded employment and skills training programs, with over 1,000 employees. The company was founded in 1984 as a charity, with an initial goal of providing IT training to unemployed people in the local community. In 1989, Seetec Business Technology Centre Ltd was formed, taking over the operational contracts and services of the original company. It is owned by six employees, and now operates across the United Kingdom and in Ireland, with its head office located in Essex. Since its inception, the company has developed its services to include the provision of apprenticeships, NVQs and other vocational qualifications, as well as ICT training provision, to boost the skills of businesses and individuals. Seetec has delivered a portfolio of skills and employment-related programs and services, including apprenticeships, Train to Gain, New Deal for Disabled People, Work Choice, Pathways to Work and Work Programme. On 1 February 2015, the Ministry of Justice transferred

ownership of the Kent, Surrey and Sussex Community Rehabilitation Company to Seetec. The firm's justice division works with prisons, government and criminal justice agencies to support offenders in their rehabilitation and to protect communities from harm.

Seetec's key business risk is its reliance on income from government-funded contracts, such as those with the Department for Work and Pensions and the ESFA. The company performed well at the beginning of the period, after winning a contract with the National Probation Service in 2014 and despite an overall decline in central funding for higher level education. Strong revenue growth is also expected to have been the result of significant investments made in strategic growth areas, aimed at expanding the company's presence in the United Kingdom and Ireland. These include investments in personnel with sector-specific expertise, information technology systems, innovation, premises and diversification.

In 2014, the company won a large contract with the National Probation Service to provide learning for low-risk criminal offenders as part of the government's rehabilitation program. This contract contributed to revenue growth in 2014-15. Since 2015-16, approximately £23 million has been invested to diversify and consolidate the business to secure long-term growth. In May 2016, Seetec acquired the whole share capital of Outsource Education Group, an established skills provider with key client accounts. The acquisition was part of the group's investment strategy in skills to ensure the business was well positioned to provide services to employers in light of the Apprenticeship Levy introduced in May 2017. The company did not make a statement regarding its 70.4% decline in operating profit for 2016-17.

The company last reported revenue of £79.5 million in 2017-18. Revenue is anticipated to continue to fall over 2018-19 but to make a marginal recovery in the current year, attributable to the influence of the changes to levy and non-levy funding in the skills market and the resulting drop in apprenticeships starts, in addition to the effect on both confidence and trading mechanisms surrounding the UK's exit from the European Union. The group also relies on income from government-funded contracts; one of the risks highlighted by the company is how the recent withdrawal of funds from its competitor, Learndirect, is likely to affect the type of public and business services that are outsourced and the perception and reputation of organizations operating in the market. Over the five years through 2019-20, Seetec's revenue is expected to fall at a compound annual rate of 0.1% to reach £80.2 million.

### **Aspire Achieve Advance Ltd**

Aspire Achieve Advance Ltd, also known as 3aaa, was one of the UK's largest apprenticeship providers, receiving approximately £30 million in government funding in 2017. Operating in 34 locations across England, the programs provided by the firm include IT, Software, Digital Marketing, Accountancy, Financial Services, Business Administration, Customer Service and Management. The company last posted revenue of £25.5 million for the year through July 2016 and operating profit of £4.4 million.

In 2016, the company was investigated by the ESFA, which resulted in 3aaa repaying a substantial portion of a six-figure sum awarded to it by the ESFA as an apprenticeships contract. A further investigation was conducted by the Department for Education in September 2018,

resulting in all contracts to the education provider being terminated. As a result of the withdrawal of funds, the company was put into administration and is now being investigated by the police.

### **City and Guilds International Ltd**

City and Guilds International is a global vocational education organization, with its head office based in the United Kingdom. The company was founded in 1878 by the City of London Corporation and 16 livery companies in order to develop a national system of technical education, and it has continued to have a close relationship with its founding livery companies to the present day. City and Guilds operates in over 80 countries, offering a wide range of technical and vocational qualifications, as well as a comprehensive range of apprenticeships across many sectors. The organization was one of the first to offer the Technical Baccalaureate (“TechBac”), introduced by the government in 2014. The TechBac is designed for those aged between 14 and 19 and aims to provide specialist training across a number of subjects including construction, engineering and ICT. The company last reported revenue of £9.8 million for the year through August 2018. Of this, approximately £7.4 million is estimated to have been relevant to the industry. Industry-related revenue is expected to reach £8.9 million in 2019-20.

### **Skills Training UK Ltd**

Skills Training UK Ltd was established in 1992 and has grown to become one of the leading skills, apprenticeship and traineeship providers in the United Kingdom. The company works with employers to design traineeships and apprenticeships that meet their business needs in areas ranging across business administration, retail, management and operations. Skills Training UK’s head office is located in Wembley, but the company has benefited from partnerships with a number of government departments in various areas of the United Kingdom. The company operates as a prime contractor for the Education and Skills Funding Agency (“ESFA”) and the Department for Work and Pensions, as well as a subcontractor for other skills providers, including colleges.

The financial performance of Skills Training UK was poor prior to the start of the five-year period through 2019-20, likely due to government funding cuts and a financial reorganization in 2012 and 2013. Revenue for 2014-15 is expected to have been almost five times higher than revenue generated in 2012-13 and while the company was operating at a loss in 2012-13, profit reached almost £700,000 in 2014-15. Company success in 2014-15 is reflective of it winning two large contracts: one from the Department for Work and Pensions, which awarded Skills Training UK one of three supervised job-search programs; and the second from the ESFA to provide English and math skills to employed individuals. Additionally, in the same year, a contract from the European Social Fund doubled in size to over £3 million as a result of successful delivery.

Over the five years through 2019-20, the company has increased its market penetration and contract sizes have grown significantly as a result. This is reflected by the fact that in 2014-15, Skills Training UK’s apprenticeship program grew by over 200% from the previous two years. In addition, the company doubled the size of its training center in Walsall to meet growing demand

for traineeships. The introduction of the apprenticeship levy in April 2017 resulted in numbers dropping in the second half of the year as employers adjusted to the new funding mechanisms and the additional bureaucracy. However, apprenticeship numbers have since recovered and the company's long-held strategy of engaging with large employers is anticipated to help support further growth over coming years.

Skills Training UK last reported revenue of £20.5 million for the year through September 2018, a 32.3% increase from the previous year, with operating profit reaching £1.4 million. This surge in revenue has been attributed to apprenticeship enrollments trebling in the latter months of the reporting period against the same period in the previous year. Growth is reported to have continued into the 2018-19 financial year with the number of apprentices on programs increasing by almost 40% as at March 2019 when compared to September 2018. The company was awarded four ESF contracts in the latest round for delivery from April 2019. In the current year, revenue is forecast to rise again to approximately £26.8 million as the firm increases its capacity and program offerings.

## NASCENT GLOBAL PLAYERS



### INTRODUCTION

The Asian higher education sector and other emerging market players have made significant strides in the past decade to rise in international rankings and build reputable programs. Many of the countries presented aim to challenge Western dominance of global higher education and build programs that not only compete on a global landscape but can improve the domestic market through research and local workforce education. The two largest players are China and India as they both have the largest student populations in the world, but also some of the largest per country number of institutions.

### HIGHER EDUCATION IN CHINA

#### Overview

In China, the government launched 211 Project and 985 Project in the 1990s to improve the stature of Chinese universities in the world, particularly boosting top-tier Chinese universities' world rankings. In 1995, the 211 Project was formally initiated for purpose of realizing this goal (Ministry of Education of the People's Republic of China 2008). As of 2011, 112 universities were selected for funding in this project. From 1995 to 2011, around \$3 billion were provided to those 112 universities from the central government alone. When also taking account of the funding from the local governments and other related agencies, more than \$6 billion were distributed. The funding was used to build up the key disciplines, to create the public service systems of the higher education, and to enhance the infrastructure of universities.

Building upon the 211 Project, China launched the 985 Project in 1999; the aim of this project was to put selected Chinese universities on the list of the world's top research universities by the year 2020. In total, from 1999 to 2015, about \$14.7 billion was invested in the project; it

allocated an additional 10–20% of research expenditures to a set of 39 universities, among which the top nine of them were also funded through the earlier 211 Project. Funding priorities of these government projects mostly concentrated on STEM fields.

The evaluation of the 211 and 985 projects has been mixed. During the past two decades, those two projects created significant research capacity and contributed to improvements in the global rankings. First of all, they helped boost publications and citations as a result of the government's project refunding criterion; for example, the research publications as produced by the "Project 211" universities increased by 94% during the first phase. The ARWU rankings of Chinese universities that received government support under the 211 and 985 projects improved significantly, while some of them newly joined the top 500 global university ranks. Stepping up the pace of developing world-class universities, the Chinese government launched the World-Class 2.0 project in 2015, aimed at becoming a global higher education center. However, the lack of institutional autonomy and academic freedom, academic corruption, and intellectual property infringement remain critical challenges for China to overcome.

## Outlook

The main drivers of industry growth will be steady increases in overall demand for higher education and increased government funding. By 2023, the number of establishments is projected to increase at an annualized rate of 0.4% to 5,040. Total industry wages are forecast to grow at an annualized rate of 1.5% to total \$14.4 billion.

With China's entry into the World Trade Organization, the opening up of the higher education market has triggered increasing competition for education resources. Transnational educational institutions entering China can offer excellent pay and packages to employees, which may lure talented teachers away from domestic universities.

As China's economy becomes more globalized, a large number of foreign specialists will establish themselves in China, which may intensify competition in the education employment market. These foreign enterprises are equipped with advanced educational techniques, new training ideas, and excellent faculty and teaching facilities, all of which are attractive to students. If Chinese students choose to go to foreign-funded universities, domestic universities may suffer.

However, frequent international exchanges and cooperation among institutions will also raise the level of higher education in China and enhance the competitiveness of Chinese universities. Chinese higher education institutions will produce a large number of graduates with a wider outlook, improved cross-cultural communication skills, and the ability to contribute to the economic development of China. The flow of international education resources will also provide favorable conditions for the establishment of a state-led investment system where individuals, social groups and international institutions can all play a part, thus gradually increasing investment in higher education.

## HIGHER EDUCATION IN INDIA

### Overview

India's demographic trend means it will soon overtake China as the world's largest population, and with an average GDP annual growth of 8% over the last decade, its middle classes that demand higher education will swell to over 500 million people in the next ten years. India's higher education system, originally designed to serve the elite, will now have to serve the people. Innovation and change are required and understanding that change will be essential. The relationship between economic growth and growth in the tertiary enrolment ratio is particularly strong for economies with lower levels of GDP PPP per capita. As India's economy continues to grow, a huge number of first-generation learners will demand access to higher education. By 2025, 25 million households across India will have an income equivalent to \$15,000 and will be able to pay fees for higher education, an increase of 15 million on today's enrollment rates.

Another factor affecting educational change is political. Education in India is highly politicized and complex. Throughout the political system to the highest levels, the education sector is powerfully represented; reforms in education are controlled by political processes and interests at both central and state levels. Many education reforms, plans and ambitions are highly contested. There is a complex interplay beneath the formal structures affecting the distribution of power and resources in education in India; underlying pressures, interests, incentives and institutions can influence or frustrate future educational change. This is particularly complex in the higher education sector.

The Indian government is planning huge expansion at all levels of education. While there is no doubt that this will be the decade of change at a transformational scale and pace, India's rise faces daunting challenges. The education system as a whole is beset with issues of quality, access and equity, and change is happening much faster in some states than others.

The general standard of education in India is low. There are not enough places in schools, colleges or universities to cope with the enormous and increasing demand. Traditional approaches to meet this demand will not be sufficient in the time-scale needed. With the rise of the middle classes, an increasing number of people need not rely on the state to provide an education service. As a consequence, India has seen a dramatic shift towards private provision across the entire education spectrum, including higher education. The private sector is already playing a significant role in the development of education in India, and its influence and presence will increase substantially.

Education is vital for India's competitiveness and economic growth, but also for social stability. The disparity between rich and poor is growing, and expectations on the part of young people and their parents are high. Geographical differences are vast, compounded by social divisions and inequalities in education provision.

The vast bulk of students study at public and private colleges which are affiliated to state universities. These colleges do not have their own degree awarding powers; they deliver the

courses, curricula and examinations specified and regulated by their parent state university. The affiliated college sector is huge, enrolling over 90% of undergraduates, 70% of postgraduates and 17% of doctoral students. Some universities have as many as 1000 colleges affiliated to them. There are considerable challenges in regulation and quality control; and while there are notable exceptions, many are perceived to be sub-standard. Last year, accreditation through the National Assessment and Accreditation Council and the National Body for Accreditation of all universities and colleges was made mandatory. A huge exercise is underway to accredit the two-thirds of universities and four-fifths of colleges that do not have accredited status.

State universities, therefore, through their activities, form by far the greatest element of higher education in India. They are run and funded through their respective state governments. There is wide variation in the amount of funding they receive, but in general, they have been critically underfunded over the last 20 years. State universities depend on affiliation fees paid by the colleges for their survival. These fees, supplemented by state government funding, are generally used to pay salaries and little else; most have poor infrastructure and conduct little research, although pockets of excellence exist. Many state universities spend much of their time administering the exams and admissions to their affiliated colleges. Places at state universities are highly sought after by students.

## **Challenges to Higher Education in India**

### **Low Quality of Teaching and Learning**

Arguably, the greatest challenge facing higher education in India is the chronic shortage of faculty. Various reports estimate that 30-40% of faculty positions are unfilled. Most faculty have had no training in teaching. Other issues in teaching and learning which compound the problems include: Outdated, rigid curricula and the absence of employer engagement in course content and skills development. Very few opportunities for interdisciplinary learning. Pedagogies and assessment are focused on input and rote learning; students have little opportunity to develop a wider range of transversal skills, including critical thinking, analytical reasoning, problem-solving and collaborative working. High student: teacher ratio, due to the lack of teaching staff and pressure to enroll more students. Separation of research and teaching; lack of early stage research experience. An ineffective quality assurance system and a complete lack of accountability by institutions to the state and central government, students and other stakeholders.

This has resulted in graduates with low employability, a common feature of higher education across south Asia, and an insufficient basis for movement to higher levels of study and research. These problems are endemic across higher education institutions in India, including many of the 'top tier' institutions, but particularly so in affiliated colleges and state universities.

### **The Supply-Demand Gap**

Despite an average growth rate of over 7% in the last decade, India's Gross Enrollment Ratio ("GER"), the ratio of students enrolled in a grade vs all children eligible to enroll in that grade, in higher education is very low. By some estimates, even if India succeeds in its target of 30% GER

by 2020, 100 million qualified students will still not have places at university. India needs to drastically increase the number of places at universities and enrolment through distance learning programs. Over the last decade, the diversity of courses offered by universities and colleges has narrowed, resulting in saturated markets for engineers, technology graduates and MBAs.

### **Uneven Growth and Access to Opportunity**

Despite efforts to spread the location of higher education institutions more evenly across the country, there is wide variation, particularly between urban and rural areas, but also between states. There are still significant multi-dimensional inequalities in enrolment rates between rural and urban populations, rich and poor, minority and mainstream communities, men and women and people with disabilities. 'Inclusive growth' is a priority for reform in Indian education. With the growth in the middle classes, Indian universities must prepare themselves for considerable changes in student profile.

### **Constraints on Research Capacity and Innovation**

India does not have enough high-quality researchers. The number of students taking PhDs and entering research posts is very low: 4,500 PhDs are awarded per year in science and engineering, compared to 30,000 in China and 25,000 in the US. There is systemic segregation of teaching and research; most teaching-focused universities (the vast majority) do not provide students with research experience or the skills which would prepare them for research careers.

## **Outlook**

Over the last two decades, central universities and Institutes of National Importance have been the focus of central government priorities and funding. These include the IITs, IIMs and IISERs and several national institutes in specific discipline areas. Most international collaboration is concentrated in these institutes, many of which are research-based. They have high prestige in India and beyond.

The private sector has outpaced the state sector in tertiary education and is rapidly expanding. The private sector will continue to be crucial in the growth of higher education in India and already comprises 64% of the total number of institutions and 59% of tertiary enrolment across the country. Currently, private higher education universities are growing at 40% per annum and worth \$6.5 billion.

University education is, by law, not-for-profit in both public and private sectors. The majority of private institutions in certain parts of the country operate a widely prevalent means of making money through illegal 'capitation fees', in the form of one-off fees paid by the student, off-the-books. It is reported that in Tamil Nadu the capitation fee for an engineering course can be 3-400,000 rupees (£3-4000) and has been reported to reach up to 4.5 million rupees (approx. £45,000) at a prestigious medical college. The private sector argues that caps on the low, but legitimate, student fees, make it impossible for private institutions to operate without charging capitation fees. There are indications that the government increasingly recognizes that the low

levels of funding support and student fees in both private and state-funded institutions are unsustainable and are therefore likely to rise in the future.

There is evidence that technology will also come to shape Indian higher education. The Ministry of Human Resource Development in India has tried to ensure that students can continue their learning from home during the current crisis through the online digital education initiatives and about 50,000 people have accessed the learning project since 23 March 2020.

<sup>1</sup> Sources: from various sources — M Capital Group Research, including data from "Global Number of International Seeking Students" UNESCO Education, 2019; "Outbound Indian Degree Seeking Students" UNESCO Education, 2019; "Higher Ed" Education Dive, 2020; Various S&P Global Articles, 2020; IDP Connect, 2020; "Colleges & Universities Industry in the US" IBISWorld, May 2020; "Universities in the UK" IBISWorld, March 2020; " Average Cost of Tuition and Fees" Educationdata.org, 2020; The British Council on Education, 2020; "The Coming Disruption: Scott Galloway Prediction" New York Intelligencer Magazine, May 2020; World Education Services, 2020; "Coronavirus: universities face a harsh lesson" The Financial Times, April 2020; "The 2018 Brown Center Report on American Education" The Brookings Institution, 2018; " Current Term Enrollment Estimates – Spring 2020" National Student Clearinghouse Research Center, May 2020; Centre for Economic Policy Research 2020; Various reports from Georgetown Center on Education 2020; "Covid-19 puts pressure on higher education finances" Various Articles from Moody's, 2020; Various Articles from Bloomberg 2020; "Will the Coronavirus Forever Alter the College Experience?" The New York Times, April 2020.



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