



SHORT TAKE

The future(s) of public higher education

Five new models for state university success

N THE NOT-SO-DISTANT future, one way to "go to college" in the United States could be to periodically dip into a state-sponsored university's educational offerings over the course of a lifetime paying an annual subscription for the privilege.

This "Subscription University" approach is one of five models for state-supported higher education explored in Deloitte's report *The future(s) of public higher education: How state universities can survive—and thrive—in a new era.* These models represent proposed responses to challenges many of today's public educational institutions face in the United States, including the drastic decline in state funding that has driven unsustainable tuition increases for students; the growing need for lifelong learning as knowledge and skills become obsolete more rapidly; and the demographically driven dropoff in enrollments expected in the next five years.

Each of the five models for public higher education posits innovative ways in which state governments, educational institutions, students, and even businesses can work together to create an educational experience that serves students' needs while remaining accessible and affordable:

- The "Sharing University." This model calls for campuses to link student and administrative services to realize efficiencies of scale and/ or capitalize on the expertise of institutions. Repetitive activities would be either automated or outsourced to a single institution within the system, enabling the other campuses to focus resources on more strategic activities. Critical to this approach is to go beyond customary backoffice operations. By sharing activities such as career services, international recruitment, academic advising, legal affairs, and information security, university systems can decrease spending on administration to allow for reinvestment in the academic core.
- The "Entrepreneurial University." In this model, a state university system differentiates its offerings at the institution level while coordinating at the system level to align educational investments with student and state economic needs. Individual institutions would specialize

in areas such as undergraduate education, vocational training, or research, while degree programs and curricula would be centrally influenced through the definition of clear goals by the state and system. While this strategy stresses the idea of separate identities for each institution within a system, it also encourages cooperation: Given that specialization may result in less competition, campuses could share faculty, departments, and academic and administrative resources as needed.

- The "Experiential University." The Experiential University integrates work experiences deeply into the curriculum, with students toggling between long stretches in the classroom and the work world related to their area of study. This back-and-forth movement between theory and practice trains students' brains differently from a traditional classroom-only curriculum, and gives employers a chance to evaluate students for potential fit before committing to hiring them for a full-time position. Because the work experiences in this model would be closely tied to the state's economic development priorities-and its emerging job market-it would likely enjoy strong support in the legislature as well as from state economic development officials, who could use the system as another incentive to recruit new businesses to the state.
- The "Subscription University." This model reimagines a college education as a platform for continual learning that provides students with multiple opportunities to develop both soft and critical technical skills, not just between the ages of 18 and 22, but whenever necessary. Under this model, students would start higher education earlier by taking dual-enrollment or early college courses while still in the K–12 system. Thereafter, they could dip in and out of the curriculum throughout their lives to gain and update their knowledge and skills as needed, potentially potentially paying lower tuition fees up front and then an annual subscription fee during their lifetime.
- The "Partnership University." This model extends the annual budgeting cycle across a

window of several years, making it easier for institutions to plan and make strategic investments. It would guarantee a certain level of funding from the state over multiple years (absent extraordinary circumstances) in exchange for agreements from colleges for tuition limits, cost savings, increased collaboration and consolidation, and private fundraising. Integral to this partnership would be businesses and other employers, which would provide insights on curriculum, financial assistance for equipment, and other essential resources, as well as a steady stream of students to counter balance fluctuations in state appropriations.

While it is unlikely that one model will dominate the next generation of public higher education, new models are sorely needed. Strong institutional and governmental leadership will be critical, as well as a culture that puts student needs at the center of decision-making. Movement toward change will likely require more active state educational system offices that can help define and measure success. New financial models and incentives will also be important: University systems will need to rethink how to allocate revenues and costs, and appropriate incentive structures will need to be developed to inform decisions such as where new positions are added, how space is allocated, and how new ideas and strategic initiatives receive seed funding.

For a deep dive into the possible paths forward for US state universities, download Deloitte's full report *The future(s) of public higher education: How state universities can survive—and thrive—in a new era.*



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Deloitte Insights



The future(s) of public higher education

How state universities can survive—and thrive in a new era

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A report by the Deloitte Center for Higher Education Excellence in conjunction with Georgia Tech's Center for 21st Century Universities

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About the Deloitte Center for Higher Education Excellence

Higher education institutions confront a number of challenges, from dramatic shifts in sources of funding resulting from broader structural changes in the economy, to demands for greater accountability at all levels, to the imperative to increase effectiveness and efficiency through the adoption of modern technology.

Deloitte's Center for Higher Education Excellence produces groundbreaking research to help colleges and universities navigate these challenges and reimagine how they achieve excellence in every aspect of the academy: teaching, learning, and research. Through forums and immersive lab sessions, we engage the higher education community collaboratively on a transformative journey, exploring critical topics, overcoming constraints, and expanding the limits of the art of the possible.

About the Center for 21st Century Universities at Georgia Tech

The Center for 21st Century Universities (C21U) is Georgia Tech's living laboratory for fundamental change in higher education. Disruptive innovations in higher education are evolving and Georgia Tech is committed to leading the initiatives that will define the next generation of educational practices and technologies. As a research branch of the Office of the Provost, C21U works in tandem with campus administrators and faculty to identify, develop, and test new educational platforms and techniques.

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A recognized leader in the higher education space, Deloitte has solved complex problems with over 175 public and private higher education institutions nationwide. Deloitte's higher education team has experienced professionals and industry leaders that turn ideas into impact for your institution. Our professionals have solved some of the toughest higher education challenges for our clients, including operational and financial transformation, enterprise technology solutions, student experience redesign, and organizational and change management.

Executive summary

N THE DECADE since the beginning of the Great Recession, our complex and diverse system of public higher education in the United States has faced an unprecedented set of external forces and pressures that have, in some extreme cases, threatened the very existence of certain institutions. Throughout this period, there have been repeated proclamations of "disruption" to the higher education model—from certificates and badges, online learning (including MOOCs), for-profit universities, and the digitization and open access of learning resources, to name a few. Yet despite those disruptors, the system has soldiered on largely unchanged.

Today, however, the economic model for some in higher education, especially smaller, regional institutions, appears particularly vulnerable.

Much has been written about the future of public colleges and universities, a sizable majority of it negative. One doesn't have to dig too deep into the data to understand the rationale for the negative tone: For the first time in recent history, more than half of all states' institutions relied more heavily on money from students and parents than from state and local government support. Since the pre-Great Recession high point in 2008, net tuition revenue per full-time student equivalent has increased almost 38 percent-and over 96 percent, when adjusted for inflation, over the last 25 years.¹ This shift in who pays for college has resulted in those payers demanding much greater accountability and a demonstrable "return on investment"-and many are not satisfied with the results.

The common (and somewhat simplistic) refrain on how to best "fix" higher education generally centers around two big shifts: online delivery of learning content and a more vocational focus (training for a specific job or skill) for higher education. But as this study details, there are likely many "futures" or models for public higher education in the United States that balance change with the preservation of the ineffable qualities that make higher education more than just a place to learn a trade. All of these prescriptions are plausible and attainable, but not without considerable introspection and change. These models are described in detail in this study, and include:

- The "Sharing University." This model calls for campuses to link student and administrative services to realize efficiencies of scale and/ or capitalize on the expertise of institutions. Repetitive activities would be either automated or outsourced to a single institution within the system, enabling the other campuses to focus resources on more strategic activities. Critical to this approach is to go beyond customary backoffice operations. By sharing activities such as career services, international recruitment, academic advising, legal affairs, and information security, university systems can decrease spending on administration to allow for reinvestment in the academic core.
- The "Entrepreneurial University." In this model, a state university system differentiates its offerings at the institution level while coordinating at the system level to align educational investments with student and state economic needs. Individual institutions would specialize in areas such as undergraduate education, vocational training, or research, while degree programs and curricula would be centrally influenced through the definition of clear goals by the state and system. While this strategy stresses the idea of separate identities for each institution

within a system, it also encourages cooperation: Given that specialization may result in less competition, campuses could share faculty, departments, and academic and administrative resources as needed.

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- The "Subscription University." This model reimagines college education as a platform for continual learning that provides students with multiple opportunities to develop both soft and critical technical skills, not just between the ages of 18 and 22, but whenever necessary. Under this model, students would start higher education earlier by taking dual-enrollment or early college courses while still in the K–12 system. Thereafter, they could dip in and out of the curriculum throughout their lives to gain and update their knowledge and skills as needed, potentially paying lower tuition fees up front and then an annual subscription fee during their lifetime.
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window of several years, making it easier for institutions to plan and make strategic investments. It would guarantee a certain level of funding from the state over multiple years (absent extraordinary circumstances) in exchange for agreements from colleges for tuition limits, cost savings, increased collaboration and consolidation, and private fundraising. Integral to this partnership would be businesses and other employers, which would provide insights on curriculum, financial assistance for equipment, and other essential resources, as well as a steady stream of students to counter balance fluctuations in state appropriations.

To move these models forward, much work will be required. Strong institutional and governmental leadership will be critical, as well as a culture that puts student needs at the center of decision-making. Movement toward change will require more active state educational system offices that can help define and measure success. New financial models and incentives will also be needed: University systems will need to rethink how to allocate revenues and costs, and appropriate incentive structures will need to be developed to inform decisions such as where new positions are added, how space is allocated, and how new ideas and strategic initiatives receive seed funding.

Higher education is unique—steeped in historical precedent but at the same time pushing the envelope of teaching, learning, and research. In the pages that follow, we attempt to explore models that can contribute toward a vibrant, innovative, and efficient public higher education "ecosystem" in the United States, maintaining its position as the envy of the world and able to prepare all those seeking a credential to become productive, well-rounded citizens in an ever-changing global economy.

Introduction A brief history of US public higher education

ODAY, WITH NEARLY 70 percent of four-year college students in the United States attending a public university,² the concept of State U. is embedded in the story of American ideals.

But it wasn't always that way.

For much of the nation's first hundred years, many state-run universities struggled to gain respect. A handful of denominationally affiliated institutions—Harvard, Yale, and William & Mary, established in the colonial days—dominated the conversation about educating a select group of citizens in the growing republic. Repeated efforts by George Washington to organize a national university "to be a useful instrument in the shaping of patriotic citizens" never materialized.³ While state-chartered universities were built in the South, starting with the University of Georgia in 1785, they failed to gain much prominence outside of the region until decades later.

After the Civil War, the American higher education landscape started to shift. The first development was the passage of the Morrill Act. Approved in the midst of the war, it granted land to the states for agricultural colleges⁴ and spurred development of higher education focused on the needs of the Industrial Revolution. Meanwhile, the small denominational colleges in the Midwest and West could not keep up with the rapid population growth of those regions, and so the frontier mindset of the Midwest and Western states led to the creation of large public universities in Wisconsin, Minnesota, and California, among others.

The beginning of the 20th century brought with it continued growth and expanded prestige for public universities. By the 1930s, Harvard's President James Bryant Conant predicted that within a hundred years, "University education in this republic will be largely in the hands of the tax-supported institutions ... and as they fare, so fares the cultural and intellectual life of the American people."⁵

And he was right. Enrollment at state-supported universities surged after the passage of the GI Bill in the 1940s. Federal research spending took off in the wake of Sputnik. And state systems grew with the passage of the Higher Education Act and the arrival of the baby boomers on campuses. The period from the 1960s through the early 1980s has often been described by today's campus leaders as the "golden era" in American public higher education. By the late 1980s, when *U.S. News & World Report* named the top 25 national universities, eight of them were public.⁶

The golden era for public higher education also likely set the stage for changes in the relationship between states and their institutions that we're seeing today.

As the federal government spent more on research and student aid throughout higher education, the lines began to blur between the "publicness" of private and public institutions. "The whole notion of differentiating the universities into public and private universities is actually both a misnomer and misguided," says Pradeep Khosla, chancellor of the University of California at San Diego. "There's hardly a university in this country, especially research universities, that, in my mind, are not public universities."⁷

While most public college leaders focused on how much money they were receiving annually from the state legislature, some lost sight of their service to the student and the public at large. "We are a public university because that's the mission we are pursuing," Khosla added. "Universities have been so stuck in their own brand and branding strategies ... that they have forgotten that our sole existence is for the student."

Now, as we near the end of the second decade of the new millennium, we are entering a new wave in the evolution of public higher education. Much like the period after the Civil War, the decades ahead will likely be defined by a renewed mission for public universities to serve the needs of a changing economy and shifting student demographics. States will face uneven growth in the number of high school graduates. These graduates are more racially and ethnically diverse than any cohort of students that higher education has previously served. And all face a job market that is wholly unfamiliar when viewed through a historical lens, causing great unease for generations of workers.

This next era in the development of public higher education will require a new understanding between states and their universities. It will require a new definition of public higher education. "We need to do a much better job of understanding the ultimate convergence between career, technical, vocational, and baccalaureate education," said Mark Rosenberg, president of Florida International University. "How do we build enduring partnerships in the community that gives us credibility and value? How shall we help solve community issues, starting with literacy and education gaps, but going far deeper than that?"

The decade ahead will demand that universities be more agile, entrepreneurial, and innovative, as well as more strategic about where to direct limited financial resources, especially in states and university systems with enrollment challenges. At the same time, states should be clear in their expectations of institutions, support differentiation of missions, and encourage collaboration. As institutional officials and policymakers look to this next phase, what is the ideal design of state universities? Whom should they serve? How should they be funded?

This report attempts to frame and inform those discussions. Over the last year, Deloitte's Center for Higher Education Excellence and Georgia Tech's Center for 21st Century Universities examined the state of public higher education in the United States, mining 565 strategic plans of public four-year institutions, interviewing dozens of higher education leaders and policymakers, and studying volumes of scholarly literature and economic reports on state universities. Our goal in this study is to examine the historical context, identify the critical trends, and provide a series of potential approaches for institutions and states to consider as they develop the next phase of public higher education in the United States.

"Universities have been so stuck in their own brand and branding strategies ... that they have forgotten that our sole existence is for the student."

Pradeep Khosla, chancellor of the University of California at San Diego

FIGURE 1

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2000

The evolution of the American state university

•1700s | A stuttering start

The idea of a "national university" was discussed at the constitutional convention and was a matter of deep concern for George Washington, who mentioned the proposal in his first message to Congress in 1790, and again in his last message in 1796.⁸ Despite repeated attempts, however, efforts to establish a national university ran up against hostile political interests as well as private colleges—forces that hindered the growth of public universities in this period.

---•1800s | Western growth

The state university was newly defined in the Midwest and West, where "frontier democracy and frontier materialism" helped practically oriented institutions keep up with population growth. The Morrill Act (1862), which gave land to the states for agricultural colleges, led to new state universities being established in the years after the Civil War.

---• 1900–1964 | **The American century**

The universal high school movement at the turn of the century led to broader demand for public universities. In the aftermath of World War II, returning GIs flocked to state colleges. Normal schools that trained teachers were turned into regional public universities offering courses in nursing, business, and engineering. State systems were established to coordinate the growing number of campuses.

1965–1980 | The modern research university

The passage of the Higher Education Act of 1965 offered new financial aid programs to college students, increasing the amount of federal dollars flowing to institutions. Federal research spending also escalated, and the scale of public campuses allowed them to grab a significant share in science, technology, engineering, and medical research.

1980–2008 | The balance wheel of state budgets

A series of recessions, as well as increasing demands on state budgets from pensions, prisons, and health care, meant fewer dollars for state institutions even as enrollment continued to grow. During this period, the cost of education at public college began to shift from states to students.

2009–present | Balancing the public good

The Great Recession of 2008 resulted in historic drops in funding per student at public universities. College leaders in many states discussed new relationships with their lawmakers in exchange for more autonomy.

Source: Deloitte analysis, Statista, and SNL Kagan.

The seeds of decline

How public higher education lost the "public"

UCH HAS BEEN said and written about public colleges in the last few years. That flood of surveys, data, and rhetoric is often overwhelming and sometimes confusing. The next two sections represent our attempt to interpret the facts and summarize the current state and future direction of public higher education.

In the middle of the last century, government and business alike saw colleges as wellsprings of innovation and aspiration. Europe's loss after World War II was America's gain, as some of its best minds found refuge from war's devastation on tranquil American campuses. Returning soldiers and sailors, many of whom had never dreamt of earning a degree, streamed through college gates. The creation of the Pell Grant, a federal government commitment to accessibility, further democratized higher education.

It was an era of institution-building, literally. Many of the country's preeminent public university systems—North Carolina, New York, and California—have their roots in the postwar years. Broad consensus existed about education's role in economic opportunity and social mobility. As American colleges attracted some of the brightest students and faculty, turned out exceptional scholarship, and produced extraordinary breakthroughs, the United States cemented its place as higher education's global center of gravity.

It seemed like a time of enormous, endless promise. But what we see today as some of the biggest challenges facing public higher education were seeded in this era. While it can be tempting to blame a single culprit for the current state of public higher education, the reality isn't so simple. Rather than being wounded by one decisive blow, public colleges were hit by dozens of small cuts, many barely perceptible or easily dismissed as a matter of politics or circumstance or luck.

Our research and in-depth interviews with more than two dozen prominent public university presidents and scholars chronicled four main developments that appear to make the road for public colleges much more treacherous now than it was a few decades ago.

First, states now have many more competing interests. Budgeting is a zero-sum game. With states constitutionally unable to run deficits, a dollar spent on one program is a dollar less for another. And higher education frequently lands on the short side of that ledger, with other state funding demands taking precedence.

Though higher education spending is the thirdlargest item in state general fund budgets, it is a distant third. In 2014, higher education accounted for approximately 9 percent of state spending, about half as much as spending on Medicaid, the health program for low-income Americans, and a quarter of what goes to elementary and secondary education.⁹ What's more, that gap is only increasing: Higher education's share of the general fund declined from 15 percent in 1990, while Medicaid's portion nearly doubled during that time.¹⁰ "Before we knew it, we were third or fourth in line. We became somewhat discretionary," said Nancy L. Zimpher, a former chancellor of the State University of New York.

To be clear, this was not because colleges were in legislators' disfavor but because lawmakers determined that the greatest needs lay elsewhere. In some cases, the funding imbalance was the result of federal mandates or legal obligations. Courts in many states have ordered increased appropriations for financially needy K–12 school districts. In others, like California, voters have passed measures guaranteeing public schools a set portion of state budgets.

Political choices also sapped spending on colleges. State appropriations to corrections, for instance, soared 141 percent between 1986 and 2013. During the same period, public college budgets were largely flat.¹¹ And while spending on prisons is now on the decline in many states, higher education could face new competition in the form of rising health care costs and pension liabilities.¹²

As higher education became a perennial also-ran, that situation may have changed the perception of college, Zimpher said. "The policymakers who knew they couldn't fund us, I think, began to develop [a] rationale for why we couldn't be funded that sort of struck at our value," she said. "What was literally a shortage of funding turned into 'maybe you're not deserving of the funding."

Second, higher education turned into a private good to be paid for by students. Higher education's postwar boom was of a piece with a belief in the efficacy of government to address societal ills and inequities. Just as the Great Society sought to tackle racism and poverty, programs like the Pell Grant flung open the doors of the university to Americans of all backgrounds. Educating the nation's sons and daughters was seen as a down payment on future prosperity. "There was this view everyone should have a chance at college," said Barry A. Munitz, a former chancellor of the California State University.

Beginning in the late 1960s, attitudes toward higher education and toward government more broadly began to shift. Tax revolts in multiple states limited government spending. In California, Ronald Reagan, who argued that the state shouldn't be "subsidizing intellectual curiosity," was elected governor.¹³

Reagan was a harbinger. The idea that the role of college is to prepare a student for a job and that the public at large shouldn't have to pay for it is now a prevailing sentiment, according to a long-running national survey of college freshmen by the University of California at Los Angeles.¹⁴ Even universities themselves increasingly frame the value proposition of higher education in individual terms, touting job placement rates and graduates' starting salaries.

As a result, students and their families have come to shoulder a larger share of the cost of their education. Historically, tuition covered a third of the cost of a degree; now it accounts for nearly half. In 28 states, students, not taxpayers, pay the bulk of educational expenses.¹⁵ When E. Gordon Gee was president of West Virginia University for the first time in the early 1980s, the state paid 80 percent of operating costs. Now, in his second stint in the job, the state's share is closer to 15 percent, Gee said.

The idea that higher education is a collective benefit has frayed.

Third, the Great Recession virtually ended the boom cycles for higher education. For many years, it was easy to dismiss the slow shift away from support for higher education. Conventional wisdom held that funding was cyclical, with cuts to public colleges during lean years, followed by a windfall when state coffers were flush. The aftermath of the recession of 2007–2009 dispelled that idea.

During the recession years, higher education budgets were cut nationally by nearly a quarter. But even though most states have increased appropriations to public colleges in recent years, spending growth has lagged behind the economic recovery, and overall, higher education funding remains well below 2008 levels. Only six states have surpassed their pre-recessionary budget allocations, and in 19 states, per-student expenditures are at least 20 percent lower than before the downturn.¹⁶

As the United States has not had an economic slowdown for some time, it's likely that the recession permanently reset higher education spending at lower levels. "There's no question that the Great Recession is a dividing line," said Rosenberg, the president of Florida International University.

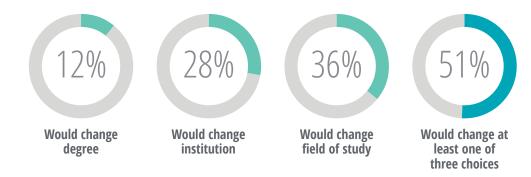
Finally, trust in colleges has eroded and perceptions of value have shifted. If higher education previously took a hit, it was an incidental blow: Lawmakers didn't necessarily want to spend less on colleges; they just wanted to spend more on other programs. Taxpayers thought higher education was a good thing—but they didn't want to pay for their neighbor to earn a degree.

But polling has found a growing skepticism about higher education, with six in 10 Americans in a recent Pew Research Center survey saying they thought it was moving in the wrong direction.¹⁷ Opposition from Republican-leaning voters, three-quarters of whom held a negative view of colleges, seems rooted in the so-called culture wars, with Republicans disapproving of campus protests and professors introducing political and social views into the classroom. Democrats appear to view higher education more favorably, but still, half told Pew that they thought colleges were going the wrong way. For Democrats, the overwhelming issue was the rising cost of tuition. What's more, according to another recent survey of educational experiences, college graduates have considerable regret about their higher-education experiences. A little more than half would change at least one of their education decisions if they had to do it all over again (figure 2).¹⁸

And even as employers demand college credentials and degrees as necessary preparation for an increasingly innovative economy, members of the public, of both parties, question whether college adequately prepares graduates for the workplace. Indeed, just 11 percent of employers think colleges do an effective job preparing students, a Gallup/ Strada Education Network survey found.¹⁹

FIGURE 2

More than half of US adults would change at least one of their higher education decisions



Source: Gallup and Strada Education, On second thought: US adults reflect on their education decisions, June 2017.

"We've allowed a lack of information to distort consumers', students', and parents' thinking about what a good college is or a good university really is. And the more we put outcomes information into their hands, the more we can do open comparisons and be accountable and transparent."

— F. King Alexander, president, Louisiana State University

"I worry about the growing cynicism regarding the value of higher education. I worry about the disconnect between the theoretical statement of support and the pragmatic demonstration of that support by providing resources."

— Barry Munitz, former chancellor, California State University system

RESEARCH, ENROLLMENT ARE FOCAL POINTS FOR PUBLIC HIGHER EDUCATION

What are public higher education institutions planning for the future, and what areas of investment are most important to them? To find out, we analyzed 565 state institutions' publicly available strategic plans to better understand the direction colleges and universities have said they are headed. Each institution's Carnegie Classification²⁰ (which classifies institutions as doctoral universities, master's colleges and universities, baccalaureate colleges, baccalaureate/associates colleges, or special focus institutions) was added to the data set to better understand strategic plans by type of institution. Using text analytics, we analyzed the areas covered in each plan (e.g., research, enrollment, facilities) and how frequently each area was addressed. Finally, we developed a statistical model to determine the extent to which each area was covered in the plans.

Observations from this analysis include:

- **Research is a priority for institutions.** This seems especially true at special focus four-year institutions and doctoral universities, where 16 percent and 14 percent of all paragraphs in the plans were deemed to substantially address research (figure 3). Fifty-four percent of all four-year institutions had at least one paragraph devoted to research, while 74 percent of doctoral universities had at least one paragraph devoted to research. Overall, "research" was the seventh-most-common word in the strategic plans.
- All types of institutions are focused on enrollment. Associates colleges most frequently mention this topic in their strategic plans, with 35 percent of all paragraphs substantially addressing enrollment. They are followed by baccalaureate/associates colleges (28 percent), master's colleges/universities (18 percent), baccalaureate colleges (17 percent), special focus four-year institutions (17 percent), and doctoral universities (16 percent).
- The two other topics that most frequently appeared in the strategic plans were facilities/buildings and mentions of specific programs and offerings.
- The plans' publication dates (when they were available) varied widely, indicating that a substantial minority of institutions may need to refresh their plans. Eight percent of plans had not been updated in the past eight years, and 6 percent had not been updated in 10 years. The oldest plan was from 2002. On the other hand, 49 percent of the plans had been published within the past four years, indicating that many institutions are rethinking their strategies on a frequent basis.

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RESEARCH, ENROLLMENT ARE FOCAL POINTS FOR PUBLIC HIGHER EDUCATION (CONT.)

FIGURE 3

Research is a priority for special focus four-year institutions and doctoral universities

Percentage of strategic plan paragraphs addressing research

Special focus four-year	
	16%
Doctoral universities	
	14%
Baccalaureate/Associates colleges	
1	0%
Master's colleges and universities	
8%	
Baccalaureate colleges	
7%	
Associates colleges	
3%	

Source: Deloitte Center for Higher Education Excellence analysis.

Why is change needed, and why now?

ECENT YEARS HAVE been rough for many of the nation's public colleges. And barring sig-

Inificant change, the coming decade could also be stormy. Higher education will likely have to continue to grapple with longstanding headwinds such as tough budgetary situations, low retention and graduation rates,²¹ and they could face new and turbulent surrout

could face new and turbulent currents.

The inclination to continue with the current business model for public universities in the states remains strong, as it requires no work on the part of legislators and institutions to map out a different path. But without substantial changes, our research points to four significant challenges that public colleges and universities could face:

Budgetary competition will grow. State spending on corrections is declining, but otherwise, the competition for funding remains fierce. An aging population in many states is likely to increase and diversify the demands on budgets. Already, 10 states spend more on public-employee pensions than they do on higher education, and to meet legal liabilities, they will have to contribute even more.²² In Illinois, for instance, 32 cents of every dollar of revenue goes toward paying down interest on state debt and trying to meet retirement fund obligations.²³

In addition to pensions, services and care for elderly residents and expanded health insurance costs under the Affordable Care Act all will require taxpayer support, and many of these programs have potent constituencies that could prioritize them ahead of higher education. "The overriding trend has been the shift in most states to taking care of old people and not taking care of young people," said Michael F. Adams, a former president of the University of Georgia. Public college budgets will likely continue to be squeezed.

An aging population in many states is likely to increase and diversify the demands on budgets.

A downturn seems unavoidable. We are now in the midst of the second-longest period without a recession in more than 160 years, and it seems inevitable that current economic growth will eventually stall. Because state funding has never returned to pre-recession levels—nationally, per-student appropriations are almost 12 percent lower²⁴—colleges will enter the next downturn with less of a financial buffer than in the past.

There's little reason to think that higher education funding won't take a hit again, and with the countercyclical trends in enrollment, a recession could mean a temporary uptick in student numbers, particularly at community colleges, just as budgets are most constrained. Indeed, 22 states reduced funding for colleges last year, even as the economy continued to hum along.²⁵

There could be a breaking point in tuition increases. As public funding has waned, tuition has accounted for a larger and larger share of higher education revenues (figure 4). During the last recession, tuition was an escape valve, more than offsetting state cuts. That is unlikely to happen during the next downturn.

Simply put, the tuition increases of recent decades—per-student tuition revenues have climbed 96 percent in the last 25 years²⁶—seem unsustainable. Eighty-four percent of those surveyed by Pew

FIGURE 4

A growing percentage of public higher education revenue is coming from tuition

Net tuition as a percent of public higher education total education revenue, US FY1992-2017

Recession 50 46% 40 30 29% 20 2000 2001 2002 2005 2005 2005 2006 2007 2008 2009 2010 2011 2011 2013 2013 1992 2015 2016 993 966 998 999 2014 2017 994 995 997 Between 1992 and 2017, the percentage of public higher education revenue coming from tuition increased by **17 percentage points**.

Note: State Higher Education Executive Officers Association, State higher education finance 2017 report, 2018.

said tuition is too high.²⁷ This unwillingness to pay more is likely exacerbated by growing skepticism about the real-world value of a college degree and by the mounting debt burden shouldered by recent graduates as well as by those who attend college but never earn a degree.

Many university governing boards will face political pressure to hold tuition steady or even to decrease it. The University of California system, for instance, recently passed its first tuition cut, albeit a small one, in nearly 20 years.²⁸ Flagships and research universities have other sources of income, but the vast majority of tuitiondependent public colleges will have to cut costs or find other ways to pay their bills.

Enrollments will decline, but expenses may not. Nationally, college enrollments have been falling since 2011.²⁹ The recent decline may be attributed, at least in part, to an improving economy. Many Americans returned to college during the recession for retraining, but now are going back to work. Community colleges, which saw the greatest enrollment growth during the downturn, have also experienced the largest declines, with student numbers falling more than 15 percent over the past seven years.³⁰

Demographics will likely lead to greater declines in the future. Already, the number of high school students is falling in certain regions of the country in New England, for example, the number of high school graduates will likely fall 10 percent between 2013 and 2023. Nationally, the high school population, now flat, is expected to drop significantly beginning in 2025.³¹

Although the number of students may be falling, the infrastructure of education—from campuses to tenured faculty—is slower to shrink. In 2014–2015, colleges spent US\$536 billion on operating expenses, with about a quarter of that going to faculty salary and benefits. Finding efficiencies is difficult, said Mark G. Yudof, president emeritus of the University of California. "You don't cut the cost of the symphony by eliminating the violins."

Yet most colleges will have to cut costs, increase efficiencies, or find new ways to recruit out-of-state or international students to make up the difference. The latter may be challenging—the enrollment of new overseas students fell last year for the first time in more than a decade. What's more, the fastestgrowing groups of students are those that colleges have traditionally struggled to educate and who may need more, not less, support (such as firstgeneration collegegoers and low-income students, among others).

Some institutions may be better positioned to weather the challenges that lie ahead. Many flagships and large public research universities will be less exposed because of the diversity of their revenue sources, their advantage in recruiting students, and their ability to essentially privatize. Enrollment shifts and funding declines are typically not distributed equitably, and institutions in states more hospitable to higher education will have an edge. But the rest, heavily dependent on tuition and state funds, could be increasingly vulnerable and face real, existential pressure to adopt a new model. "You've got public universities," said F. King Alexander, president of Louisiana State University, "that are in survival mode."

RETHINKING HIGHER EDUCATION POLICIES IN THE STATES

As part of our research, we met with nearly two dozen legislative staff members responsible for higher education policy in the states with representation from across the country and political spectrum. They identified several common issues they faced when developing strategies and funding approaches for their state institutions. Many of the staff members were veterans of the appropriations process and had served lengthy tenures supporting their higher-education committees, even if members of those panels were relatively new.

By far, the biggest frustration many of these staff members expressed was trying to balance the fiscal needs of the state beyond higher education with the desire to provide broad access to higher education by making tuition as affordable as possible. For many of them, it has been a losing battle, as state appropriations per student has fallen in their states while tuition rates have increased.

"The state is funding a smaller percentage of higher education," one staff member said, "but is still interested in controlling all of what institutions do and spend their money on."

In an interactive poll, the legislative staff members also identified several other top issues of concern in their states:

- Employability of graduates
- Growing partisan politics about the role and funding level of higher education
- Declining enrollment
- Lack of trust between state lawmakers and higher education

If the models outlined in this report are implemented, legislative staff will play a key role in working with university leaders. Given their familiarity with the system and the constant turnover of lawmakers in many states or committee members on higher education panels within the legislatures, these staff members' knowledge and experience will be invaluable in shifting the relationship between governments and higher education institutions.

Five models for the 21stcentury public university

HE DEFINING MODEL for today's public higher education system was forged in California in the early 1960s. The state's master plan—a document that *Time* magazine once called a "complex fair-trade pattern for California's higher education"³²—organized three fast-growing and sprawling public college systems into well-defined tiers. At the top was the research-focused University of California; in the middle, the undergraduate California State University system; and at the bottom, the open-access community colleges.

This blueprint overseen by the University of California President Clark Kerr quickly became the basis for similar plans in other states, ushering in several decades of institution-building and expansion of public higher education nationwide. It was the era in which the most senior of today's public college leaders came of age as undergraduates—and one for which they sometimes wax nostalgic, at least

in terms of state funding. "We can't suddenly go back to Clark Kerr in the 1960s," said Munitz, who led the California State University system from 1991 to 1998. "The world's changed too dramatically."

Higher education is now firmly planted in a new era. Our interviews with presidents, chancellors, and legislative staff in the states made it clear that they understand that the relationships among key stakeholders in public higher education have changed, even if university leaders don't always want to accept that reality. "It doesn't make us less of a public university because we get less money from taxpayers," said Michael Crow, president of Arizona State University. "We still have a public purpose, a public duty."

Perhaps if public universities could maintain anything from a previous era of public higher education, they would want to preserve a sense of planning and predictability rather than the volatility of the last decade. A new master plan for public higher education—how it is organized and funded, its mission, and whom it serves—is necessary. Unlike the California master plan of the 1960s, prominent for so long, a single model is unlikely to dominate in the coming decades. Rather, our research identified several models that are likely to emerge. Which one of them takes hold in any particular state will depend on its economic needs, educational circumstances, and political choices.

Higher education is now firmly planted in a new era.

In the section that follows, we present five approaches that could serve as models for the future of public higher education in the states. These ideas should not be taken as exhaustive or prescriptive, but rather as prompts to drive discussion and new ideas, and hopefully as catalysts to break the status quo.

Model No. 1: The "Sharing University"

MODEL HIGHLIGHTS

- Campuses link student and administrative services to realize efficiencies of scale and/or capitalize on a particular institution's expertise.
- Repetitive activities are either automated or outsourced to a single institution within the system, enabling the other campuses to focus resources on more strategic activities.
- As capabilities and collaboration increase, more innovative solutions and increasingly complex challenges could be addressed.

dressed. The concept can even be expanded to institutions outside of the system and state to go beyond the system's traditional boundaries when other institutions face common issues and goals. Networking universities in this way would allow institutions that must remain smaller (say, because of physical constraints or their unique mission) to achieve the financial benefits of scale.

A critical part of this approach is to take shared services beyond the customary back-office operations, such as payroll, travel processing, and employee onboarding, that colleges have attempted to connect in the past. By sharing activities such as career services, international recruitment, academic advising, legal affairs, and information security, colleges can reduce spending on administration and allow for reinvestment in the academic core.

In a Sharing University model, campuses link student and administrative services to eliminate duplication and leverage the strength of individual institutions for expertise—two areas where huge opportunities for econo-

mies of scale in higher education tend to remain untapped.

At a Sharing University, repetitive activities such as grant billing, auditing, and accounting would be either automated or outsourced to a key institution within the system, enabling each campus to focus resources on more strategic activities. This approach allows a system to invest further in training staff with specialized skills and to provide more consistent service across the system. The institution providing services would be paid by other campuses, or regional centers could be created among institutions and their work even extended to local businesses and organizations to generate additional revenue.

As capabilities and collaboration increase within the Sharing University, more innovative solutions and increasingly complex challenges could be ad-

"Partnerships are something we need to work harder on. Can we share faculty? Can we partner with private institutions?"

— Jeb Spaulding, chancellor, Vermont State Colleges System³³

In some cases, such collaboration can result in improved quality of service. Take the career center, as an example. The set of job-hunting skills offered to students is comparable across colleges of all kinds, yet not all institutions within a system have the resources or local employment opportunities available to students. Effective job placement depends on attracting a critical mass of employers available to campuses; and because digital communications can link students and counselors in distant locations, this approach could

have appeal for both students and employers. Under this model, each institution could retain a smaller, highly engaged staff to offer personalized advice for students while allowing the Sharing University to provide commodity services such as job fairs and résumé-writing workshops.

Another example is admissions. The Sharing University could start with outbound marketing to prospective students: A centralized marketing function among campuses in the system would work like an outside agency to develop sophisticated websites and printed materials, as well as conduct data analytics to yield a robust recruitment funnel. Later in the process, institutions could share back-office operations for the admissions process itself. Think about how much time, effort, and resources are spent on processing applications, financial aid forms, and related materials. With those operations shared between institutions, admissions and financial aid offices could focus their energy on student outreach.

PROGRESS TOWARD THE SHARING UNIVERSITY

In Georgia, the University System of Georgia has started the OneUSG initiative to develop and put in place streamlined policies, procedures, and technologies to benefit the 28 institutions within the system. The initiative's first priority is to bring all of the institutions onto a single technology solution to manage human resources, benefits, and compensation. Using the same software, standardizing policies, and centralizing support is expected to reduce the net cost to USG. The benefits for the system and its constituents are numerous: common HR benefits, a consistent user experience across all HR-related services, and far less duplication of effort across the system's colleges and universities.

Model No. 2: The "Entrepreneurial University"

MODEL HIGHLIGHTS

- Specialization by individual institutions in areas such as undergraduate education, health sciences, professional graduate programs, or research.
- Degree programs and curricula are centrally influenced through the definition of clear goals by the state, system, and institutions.
- System offices play an elevated role in planning, active monitoring of progress, and providing information to support investment decisions.

Public institutions today develop academic programs and degree offerings with little coordination across campuses. The result is often duplicate programs, diluted offerings, and, in some cases, under-enrolled majors that can become a strain on university finances. Few incentives exist for deans and faculty members to adjust their offerings across the system.

While the Entrepreneurial University includes elements from the Sharing University model, it differs in that it focuses more on the academic side of the house rather than student services or backoffice operations. The Entrepreneurial University seeks to incentivize innovation by faculty on individual campuses with much more coordination across the state and the system.

In an Entrepreneurial University, the system

office plays an important role in supporting the efforts of individual institutions and monitors progress toward reaching goals. This model allows the system office to work with the board(s) and state to prescribe and fund new revenue-generating activities in desired areas. A portion of state appropriations could be set

"We inherited a system largely conceived in the 1960s ... but times, society, and students have all changed dramatically."

Steven Wrigley, chancellor, University System of Georgia³⁴

"In any university, you can find people who are right at the cutting edge, who understand why that's important, and who have the courage to maintain their beliefs and the importance of being at the cutting edge, and they will pull others along."

Mark Rosenberg, president, Florida International University

aside for this purpose before they flow to the campuses. This model would likely require the adoption of a budget approach that captures detailed revenue and expenses across the system, encouraging each institution to be as self-sustaining as possible. In some cases, the model might require campuses to allocate a portion of their tuition revenue to fund strategic initiatives across the system.

"We have to find people who are not complacent, who have passion, who are driven, who may have a different view of the world."

— Gordon Gee, president, West Virginia University

One of the keys to this strategy is differentiation and coordination. One campus, for instance, could focus on preparing students for the cutting edge of the job market; right now, perhaps that means readying graduates for jobs in the technology sector through first-rate degree programs in data science, cybersecurity, and computer science. Another campus could be known for offering multiple pathways to a credential by blending together competency-based programs, micro-degrees, and badges. A third might specialize in the health sciences and nursing. One or two others could be research-focused universities.

Degree programs and curricula would still be designed at the university level, but they would be centrally influenced through the definition of clear goals and dollars from the system. Incentives would be provided for specialization, and the system's overall progress monitored. Additionally, with a clear set of goals, the right metrics, and the ability to monitor progress, difficult decisions can be made about where to reduce resources and potentially redirect them to where they will be most useful.

> To do this requires specific measures that define success (e.g., degree attainment goals by program area, enrollment levels by program, net tuition by program) that can be captured in an accountability framework. This framework defines overarching objectives, provides transparency and communicates how investment

decisions will be made (e.g., hiring new faculty, upgrading facilities, investing in new technology) and how progress will be monitored. Additionally, the framework will help individual deans, department chairs, and faculty understand how they can meet systemwide goals and capture more investment by

> designing programs and course offerings that align with the overarching goals. A systemwide vision also provides a road map that can be used for strategic planning purposes by presidents, provosts, vice presidents, and other leaders on an individual campus.

> > The Entrepreneurial University will require the system office to play a critical role in supporting decision

making and monitoring progress across the system. This is a departure from how most system offices operate today. It may require changes starting with:

- Creating common data definitions across the system so that accurate comparisons of credit hours, enrollment levels, and facilities utilization can be made across campuses
- Integrating and potentially updating student information, finance, and other supporting systems so progress can rapidly be assessed and used to inform decision-making
- Supporting institutions in developing a detailed understanding of all operating aspects down to the program level. This requires having information for sources of revenue (e.g., tuition, financial aid, student fees, grants/contracts, endowment payouts) and expenses (e.g., compensation and benefits, energy consumption, supplies, facilities usage, and other overhead)
- Supporting institutions in scenario and enrollment planning efforts to understand how decisions will affect progress toward goals outlined in the accountability framework

While this strategy stresses the idea of separate identities for different institutions within a system, it also encourages cooperation among them. Given that the differentiation of institutions may result in less competition, campuses could share faculty, departments, and academic and administrative resources as needed. For instance, if a new academic field emerges, the central system can help to identify opportunities to invest resources to grow it on one campus with resources and faculty shared across the system. Even though one campus may be tech-focused and another might concentrate on the health sciences, other institutions within the system would continue to offer courses and some programs in those areas—but delivered by one institution. This model acknowledges that faculty members, department chairs, and deans are closest to the students and are often in the best position to think differently. By setting systemwide goals and incentivizing and empowering faculty members to be more nimble, resources can be directed to the areas with the largest demand. What's more, such an approach, which gives professors in growing areas the incentives and tools to innovate, is likely to have the best chance at success, as top-down mandates across a system rarely work.

PROGRESS TOWARD THE ENTREPRENEURIAL UNIVERSITY

Western Governors University (WGU) is a nonprofit university established in 1997 by the governors of 19 US states to expand access to quality higher education to adult students with some college and no degree. WGU, which includes four separate colleges (the College of IT, the College of Health Professions, the College of Business, and Teacher's College), is the nation's first accredited competency-based education (CBE) university, providing CBE online and at scale. WGU's model is distinctive not because it is completely online, but because it measures learning rather than time and focuses on the validation of industry-validated "marketable" skills through authentic, engaging, and rigorous evaluation processes. The university's sole focus is on student learning and success, featuring a distributed faculty model where four distinct, highly qualified faculty roles oversee curriculum design and development, longitudinal program and career coaching, course instruction, and assessment scoring and feedback. This type of segmentation and coordination of a community of care laserfocused on student outcomes would be a hallmark of the Entrepreneurial University.

Model No. 3: The "Experiential University"

MODEL HIGHLIGHTS

- Integrates work experiences deeply into the curriculum, with students toggling between long stretches in the classroom and the work world related to their area of study.
- Gives students and employers a chance to evaluate fit before committing to a full-time position.
- Technology supports students who are off campus in taking classes, meeting with advisors, and collaborating with peers.

Students and employers today expect different things from higher education than they did a generation or two ago. The traditional model of college, where students are cloistered in residence halls and classrooms cut off from the real world, is increasingly falling out of favor. Some 45 percent of college students in 2015 were 22 or older, according to recent data from the National Center for Education Statistics,³⁵ and many of these students see their degree as a chance to upskill or change careers. Even traditional-age students increasingly consider a college degree as a means to an end—a job—and want a mix of theory and practice as part of their undergraduate experience. A recent poll by Gallup and the Strada Education Network found that 58 percent of students say securing a good job is their primary motivation for going to college, compared with just 23 percent who want to learn something.³⁶

The Experiential University would blend academic and work experiences, and in the process, provides the potential benefit of better utilizing campus facilities as students cycle on and off campus in any given semester.

In the Experiential University, students grow accustomed to toggling between long stretches in the classroom and the work world related to their area of study, while also being able to refine and reflect on what they learn in both places. This back-andforth movement between theory and practice trains

FIGURE 5

Getting a good job is the primary motive for going to college

Main reason for choosing level of education

Good job or career Learning and knowledge Family or social expectations Access/affordability Other Cher Source to get a good job or career.

Source: Gallup and Strada Education Network, Why Higher Ed?, January 2018.

students' brains differently from a traditional curriculum restricted to classroom learning. It also gives employers a chance to directly engage with the university and evaluate students for potential fit before committing to hiring them for a full-time position.

"I think we need to be out there really saying that part of our function is employment readiness."

 Peter McPherson, president emeritus, Michigan State University

The work experiences in this model are closely tied to the state's economic development priorities—and its emerging job market. As a result, this model would likely enjoy strong support in the legislature as well as from state economic development offices, which could use the system as another incentive to recruit new businesses to the state. Indeed, public campuses with experiential learning at their core could be marketed to new employers on the basis of allowing companies to have a welleducated, ready-made workforce of potential recruits on day one.

> Technology is integral to this strategy, as students would continue to take classes, meet with advisors, and collaborate with peers even when they are not on campus.

This model also has the potential to personalize pathways through higher education for students and expand the current lineup of legacy credentials. With the Experiential University, students can "cycle out" of the institution at various points once

> they complete individual courses and work experiences that land them gainful employment. At those various "exit points," they would receive industry-recognized badges and certificates. These credentials could be stacked toward traditional or competency-based degrees that students earn over time as they continue to return to the university

as they work or in between jobs.

PROGRESS TOWARD THE EXPERIENTIAL UNIVERSITY

Co-ops are offered by a handful of institutions, including the University of Cincinnati and Georgia Tech. Under the co-op model, working is part and parcel of the undergraduate experience, making up anywhere from one-third to almost half of the time a student spends in school. An Experiential University would integrate the work experience even more deeply into the curriculum and require students to spend less time on campus, reducing some costs for universities.

"We need to do a much better job of understanding the ultimate convergence between career, technical, vocational, and baccalaureate education ... How do we build enduring partnerships in the community that give us credibility and value?"

Mark Rosenberg, president, Florida International University

Model No. 4: The "Subscription University"

MODEL HIGHLIGHTS

- Reimagines college education as a platform for continual learning that provides students with multiple opportunities to develop both soft and critical technical skills throughout their lifetime.
- Students start higher education earlier by taking dual-enrollment or early college courses while still in the K–12 system.
- Students dip in and out of the system throughout their lives to gain and update their knowledge and skills as needed.

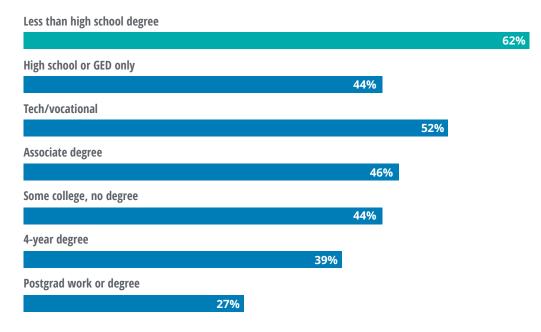
This model breaks down the traditional barriers between high school and college and between higher education and work. The idea that college is a specific place where individuals spend four years just after high school made sense when people had shorter life expectancies and worked for one employer their entire careers. But given the frequency with which most Americans change jobs and careers today, and how quickly business models and industries shift, people now need access to higher education at various points throughout their lifetimes, not just for a few years after they turn 18.

The Subscription University reimagines college education as a platform for continual learning that would give students multiple opportunities to develop both soft skills and critical technical skills not just between the ages of 18 and 22, but whenever necessary. Under this model, students would start

FIGURE 6

Nearly half of US workers feel they need additional education to advance in their current career

Percentage of US workforce who feel they need additional education to advance in their career by educational status



Source: Gallup and Strada Education Network, Why Higher Ed?, January 2018.



higher education earlier by taking dual-enrollment or early college courses while still in the K–12 system. Then, as they reach college age, they could dip in and out of the curriculum throughout their lives to gain and then to update their knowledge and skills as needed. One possibility would be to offer students lower tuition fees up front, as traditional undergraduate education could be subsidized by annual subscription fees alumni would pay during their lifetime in exchange for just-in-time access to online resources or regional campuses for their professional or personal development. Another alternative would be to offer discounts to individuals after they obtain their first credential or degree.

This model defines a new mission for public universities to serve students from "K to gray," allowing the university to deliver tiers of services to different types of students throughout their lives.

Because it broadens the scope of higher education, spreading the cost of instruction over a larger base of students, the Subscription University model could garner greater political support in the states. It could also assist states in achieving their attainment goals. Most states have set the objective for 55 to 65 percent of their citizens to earn a postsecondary credential by 2025, and nearly all face challenges in meeting those objectives. In 2015, the national average attainment rate for adults aged 25 to 64 was 46 percent, and that included workforcerelevant certificates.³⁷

PROGRESS TOWARD THE SUBSCRIPTION UNIVERSITY

When Georgia Tech issued a report in 2018 imagining education in 2040, its overarching recommendation was a promise that it would provide an educational experience that is highly individualized and sustainable for a lifetime. Meanwhile, in Idaho, the state board of education's scope of responsibility extends from kindergarten through grade 20, which allows the board to take a more holistic view of opportunities for coordination between K-12 education and higher educational institutions. For instance, the state's college admission system automatically admits graduating high school seniors in the state to the state university. The board's motto is "Education for Life."38

Model No. 5: The "Partnership University"

MODEL HIGHLIGHTS

- Extends the annual budgeting cycle across a window of several years, making it easier for institutions to plan and make strategic investments.
- Guarantees a certain level of funding from the state over multiple years (absent extraordinary circumstances) in exchange for agreements from colleges for tuition limits, cost savings, increased collaboration, and private fundraising.

"Right now, as a university president, you're living from budget to budget. Departments are squirreling away funds. I could imagine moving to three-year budgets. That would give some more consistency."

— Mark Yudof, former president, University of California system

University leaders have long sought cures for the paycheck-to-paycheck dilemma of annual state budgets, as the annual cycle makes it difficult for institutions to plan and make strategic investments. The Partnership University would create a social compact, extending the planning window and renewing the commitment among states, institutions, and students, and also adding employers as a critical player. It would guarantee a certain level of funding from the state over multiple years (absent extraordinary circumstances) in exchange for agreements from colleges for tuition limits, cost savings, increased collaboration and consolidation, and private fundraising. This model would provide more stability to colleges and universities, which would better enable them to plan and provide guidance to families planning their expenses.

"I would take less money for greater long-term predictability and security."

— Barry Munitz, former chancellor, California State University system

In our research, multiple presidents said they would be willing to accept slightly lower funding levels for more assurances about their financing in the long run. While this agreement would not return states to the levels of funding of decades ago, it does return them to previous methods of planning by extending the budget calendar by three or four years. This allows states and universities to develop longterm strategies for higher education that extend beyond a legislative cycle or a governor's term.

This partnership would need to go beyond the historical partnership between states and their universities. Unlike when the compact of state financial support for higher education was first established, colleges and universities are now a critical player in preparing workers for the knowledge economy. The partners in a 21st-century public university alliance would need to include businesses and other employers who depend on higher education as a training ground for talent. At a Partnership University, employers could provide insights on curricula, financial assistance for equipment, and other essential resources, as well as a steady stream of students to counter balance fluctuations in state appropriations.

> More aggressive partnerships could involve either closer collaboration between the business community and higher education or mergers of public and private entities. An example of deeper collaboration is the one between Arizona State University and Starbucks, which allows benefits-

eligible part- and full-time Starbucks employees to receive full tuition to earn a bachelor's degree

in one of ASU's 80 online undergraduate programs.³⁹ An example of publicprivate mergers is the combination of Purdue University Global and Kaplan universities in 2017. The merger, which combined a for-profit, mostly online university with a traditional land-grant institution, has the goal of providing access to a Purdue education to tens of thousands of individuals who may never set foot on campus. It also brought together two distinct approaches to higher education—one very traditional and on-premise, the other virtual and mobile. While neither of the approaches at ASU or Purdue were without controversy, it could be these sorts of forward-thinking methods that enable the kinds of partnerships needed to position higher education for the student of tomorrow.

PROGRESS TOWARD THE PARTNERSHIP UNIVERSITY

More than a decade ago, Maryland's Effectiveness and Efficiency Initiative instituted a partnership model. In its first ten years, the initiative saved US\$356 million at the 11-campus system,⁴⁰ which froze tuition for three of those years. In return, lawmakers were generous with the system, giving it more money for cost increases attributed to rising enrollment.

Developing the public university for a new generation

UCH AS IN the decades before the Civil War and after World War II, public universities in the United States are at a crossroads. In those earlier periods, the federal government and the states, in partnership with the universities, responded to society's changing needs to build a public higher education system second to none in the world. These universities powered a century of innovation and entrepreneurship that led the United States to economic prosperity.

But now most states' public universities are

hard pressed financially even as demand for higher education expands in a digital, global economy and a new generation of students arrives with seemingly greater academic and financial needs than before. Decades of declining state resources for public universities has left institutions without the capital they need to adequately serve these new students and support research and development, forcing many to shift more costs to students and families.

It's clear that new models are needed.

Unlike in the past, when the land-grant concept and the California master plan were established and copied elsewhere, it is unlikely that one model will dominate the next generation of public higher education. This report has suggested five models, pieces of which are already being attempted in some places. None of these ideas will come to fruition without a significant shift in mindset, as well as political will, from both higher education leaders and lawmakers. As public universities build the financial, virtual, and physical infrastructure to provide new pathways for students, different types of credentials, and lifelong learning platforms for citizens, they can't do it without help. A wide range of stakeholders should be involved, including institutional leaders, boards, faculty, students, staff, elected officials, business leaders, and philanthropies, among others. In most cases, initial progress will take time, and specific approaches will need to be tailored to each state, system, and individual institution.

As public universities build the financial, virtual, and physical infrastructure to provide new pathways for students, different types of credentials, and lifelong learning platforms for citizens, they can't do it without help.

> Several common elements will need to be in place for changes to take hold and scale at a system level:

> Effective leadership. Strong and visionary leadership from the state governor, state legislators, boards, and institutional leaders will be required to drive change. An effective leader will help to design the blueprint for the state's higher educational system and animate the university community to help build and embrace the vision. However, to be truly effective, leaders should also possess a

strong sense of the culture and history of higher education and a commitment to shared governance. Respecting both history and shared governance will be important in helping to repair trust and transparency issues that have taken hold over time in the relationships among higher education institutions, higher education systems, and state governments.

A new focus for the state system office. In many cases, the state system office will need to transition their focus from reporting and compliance to helping to define and measure success. This could involve establishing common data structures across the system, providing tools to monitor progress and support decisions, and conducting active communication between the central office and institutions. In some states, the system may coordinate how these capabilities are provided; in others, they may actually provide capabilities and technical infrastructure as a service to institutions. The system should transition from a passive observer in some cases, but not in a way that robs the constituent campuses of their voice and unique identity. Differentiation between institutions should focus on the elements that matter and occur in parallel with strong coordination, and perhaps even consolidation, in those areas that are not.

An institutional culture that puts the student at the center. When the needs of the student are at the forefront, decisions about where to invest and focus can be made more clearly, supporting areas that meet student demand. This line of thinking can help to direct investments needed

to hire faculty, expand degree/credential offerings, and invest in new technology.

New financial models and incentives. As universities innovate, evolve, and collaborate more frequently within and across a system, the operational changes can affect the current funding model. Analysis will be needed to rethink how to allocate revenues and costs across the system. Additionally, to unlock the entrepreneurial spirit of individual schools and faculty, incentive structures will need to be put in place for a range of activities, such as where new positions are added, how space is allocated, and how new ideas and strategic initiatives receive seed funding.

Clear and frequent communication. For any initiative, there should be clarity of purpose for why change is needed. For example, is it in response to demographic shifts, inflexible cost structures, student needs, or another priority? This reason should be broadly communicated to help bring stakeholders along in the journey.

The American public university, some 240 years in the making, is in a new phase of its evolution. The US system of higher education remains the envy of many in the world. But without the political will and discipline to change, that position could be at risk from rising powerhouses. University and government leaders can sit idly by and wait for what might happen, or they can start working together with other key stakeholders in designing future systems that, when built, will power the next century of education and innovation. This is not a process that will be straightforward or swift. The time to act is now.

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