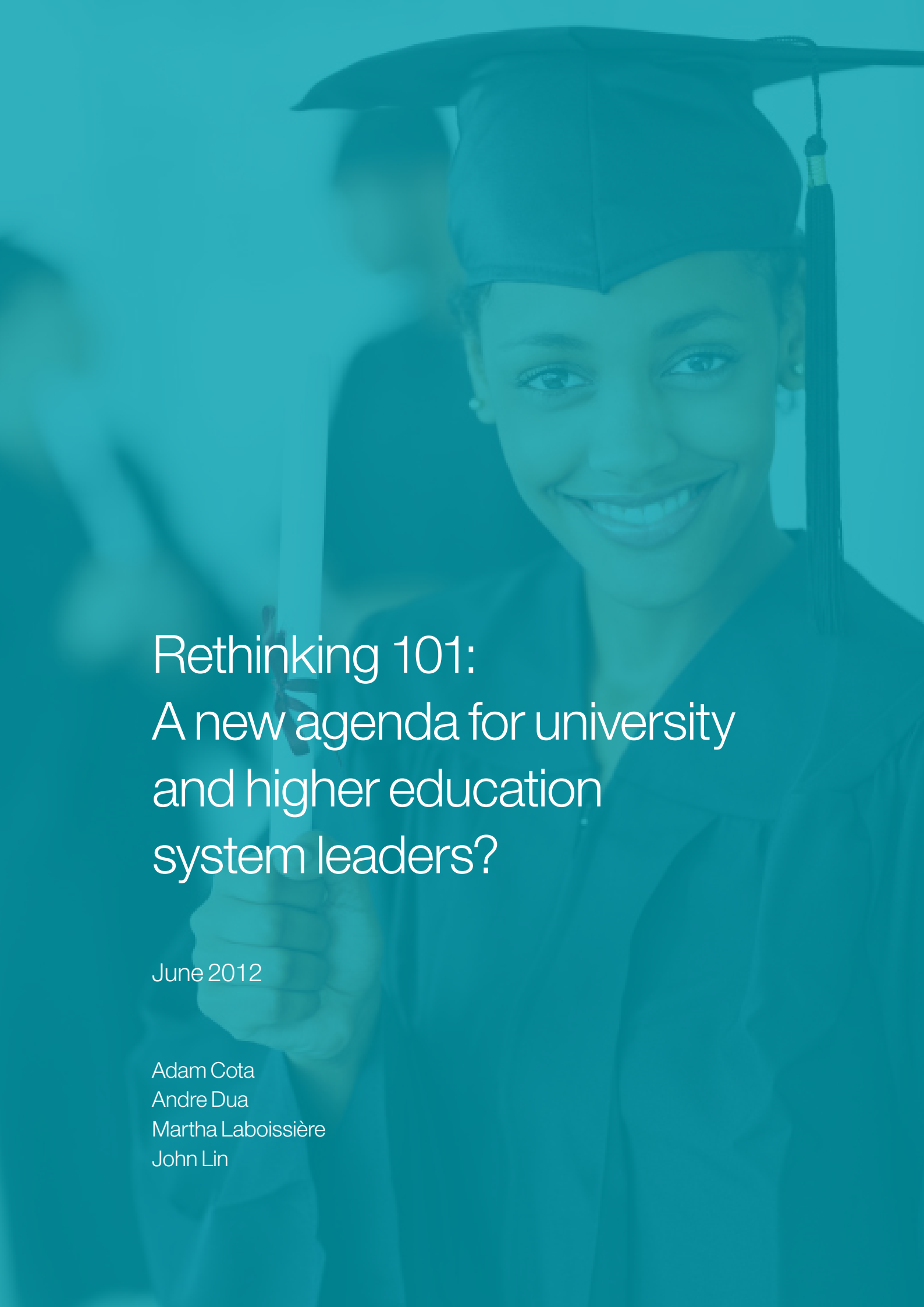
Education

Rethinking 101: A new agenda for university and higher education system leaders?



Rethinking 101: A new agenda for university and higher education system leaders?

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20 million students in higher education cost **$450 billion** to educate each year

More than 31 % took at least one online course in the fall of 2009

On average **state support** for higher education **dropped by 7.6 percent** with states like Arizona, New Hampshire, and Wisconsin seeing **over 20% decrease in state funding over the past 5 years**

Tuition at public 4-year institutions have grown **3.7x over the past 30 years,** after adjusting for inflation

Student debt exceeds **$1 trillion** in the US
yet 29% of all students who take out loans drop out
of school, with 9% of loans currently in default

US average graduation rate is **57%**
for 4 year institutions;
31% for 2 year institutions...

... and 14.5% of bachelor's degree
holders under the age of 25 were jobless while
another **39.1%** were underemployed in 2011

Meanwhile, employers in the U.S. are predicted to face
a shortage of about 1.6 million
college-educated workers in 2020

Rethinking 101: A new agenda for university and higher education system leaders?

The quality and reach of higher education in America has been a major force behind the nation's social, cultural, and economic preeminence. Yet dramatic changes in the environment are forcing institutions to rethink traditional ways of doing things to sustain these contributions in the years ahead. The forces buffeting the sector are greater than at any time in memory—including permanent fiscal pressure at the state and federal level; public resistance to rising tuitions and student debts; skepticism in some quarters about the link between academic credentials; increasing pressure for accountability and affordability; and disruptive technologies that transform learning's reach even as they upend longstanding business, governance, and instructional models. In this context, McKinsey believes it is imperative that universities and higher education systems aspiring to leadership look with fresh eyes at how they define their strategy and how they execute plans to serve students and society.

Our ongoing dialogue with educators, as well as our experience helping top private-sector organizations navigate similar storms in their sectors, convinces us that six major thematic areas now deserve fresh scrutiny. The stakes of this rethinking are high; indeed, some observers say higher education's legacy of impact could be at risk unless the sector takes a hard (and sometimes uncomfortable) look at traditional practices.

Which six areas stand out for special attention? In this fast-changing world, universities and higher education systems must:

- Get clearer on their **strategy and sources of distinctiveness**
- Think through options to **expand the reach of their system** (including access and affordability, as well as global and online)
- Examine every aspect of their **economic model** to ensure they are viable for the long term
- Lift **graduation and retention** rates across all student populations
- If relevant, **boost research excellence and commercial productivity**
- Work more closely with employers and governments to **prepare students for work in ways that bolster the country's competitiveness**.

On their own, none of these areas will strike educators as wholly new. But taken together, they represent a set of simultaneous challenges that are extremely difficult for even high-performing organizations to manage well. In addition, beyond the question of management complexity it's clear that innovation in these areas presents practical challenges vis-à-vis a number of stakeholders.

Yet there's little choice but to tackle these issues if higher education is to meet its duty to society. And the progress some institutions are already making is inspiring. Western Governor's University, for example, has taken the fully online degree beyond the for-profit and professional learning realms to the undergraduate setting, with more than 32,000 students now enrolled at an average price of $27,000 per degree. MIT's Media Lab, largely funded through 70 corporate sponsors, invites the sponsors to participate in its shared IP pool without paying license fees or royalties. BYU–Idaho has created a third semester dramatically improving capital productivity and expanding access to the institution. Stanford professors have founded Udacity and Coursera, which already offer nearly 50 courses that reach 1 million students around the globe, and Boeing partners with universities, including the University of Michigan, to enhance undergraduate curricula, support continuing education of Boeing employees, recruit for internships and employment, and collaborate on research that benefits the long-term needs of their businesses. Meanwhile, Arizona State University has reduced cost per degree by 15 percent through a range of productivity initiatives, including system-wide shared services and the consolidation of duplicated or low-demand programs.

These and other developments suggest the climate is ripe for bolder agendas that in normal times might be off-limits, and arguably unneeded.

The attached survey describes in more detail the six thematic areas that higher educational institutions need to pursue today, as well as examples of leading practices and transformational impact in each. We hope this document—a work in progress to be refined as our dialogue with the sector continues—helps higher education leaders organize their own thinking on new approaches and initiatives their institutions might adopt.

Thematic areas universities and systems are addressing

1. Clarity around strategy and source of distinctiveness

Traditionally, strategy and long-range planning in higher education have focused on projections of enrollment demand and associated boosts in faculty and capital investments. Over the past decade we have seen many higher education institutions take a sharper approach to strategy that borrows from longtime business precepts: rather than being "all things to all people," some schools now define their source of distinctiveness and focus new investments on nurturing it. This clarity has become more important as higher education becomes more competitive—not to mention more expensive to students and public funders alike.

1. *Clarity around strategy and source of distinctiveness.*

- Defining an overall strategy for the institution or system
- Instituting a school-level strategy (e.g., business school strategy; academic medical center research strategy)
- Improving competitiveness, rankings, and reputation in order to attract top-tier faculty and students

Perhaps the most common approach is to differentiate based on unique advantages in select disciplines. For example, Johns Hopkins University translated its leading position in biosciences and clinical medicine to create the healthcare-focused Carey Business School. An alternative approach is to differentiate based on unique pedagogical competencies or delivery models. Western Governor's University developed an online degree platform that now has more than 30,000 students. Arizona State University is fulfilling its mission of better educating the citizenry of the state through an institution-wide transformational change. Under this new strategy, **ASU has seen a 15 percent decrease in cost per degree, a 90 percent increase in undergraduate minority students, and a 150 percent increase in Pell Grant recipients in the past decade.**

Finally, institutions have taken steps to sharpen the way they talk about their distinctiveness and the investments behind it. In the 1990s, the University of Chicago recognized that it was losing "market share" of the students it sought to attract. Low application rates meant that admission rates were 70 percent or higher, and the students who accepted their offers tended to be those denied admission at their top-choice schools. To reverse this cycle the University of Chicago identified the needs of its desired academic population, many of which were nonacademic in nature (e.g., access to culture and arts; inspiring interactions with campus representatives), then made investments against these (e.g., relaxing core curriculum requirements; offering free shuttle service to downtown Chicago; and introducing more stringent screening of alumni interviewers). As a result of these programmatic investments, application rates from the targeted student segments have grown, acceptance rates have dropped to 16 percent, average SAT scores of incoming students have risen from 1300 to 1450, and the school's ranking in *US News and World Report* is now number 5.

2. Expanding the reach of the university or system

In pursuit of impact and relevance, many higher education institutions are launching initiatives to expand their reach and student body. Broadly speaking, these efforts have focused on three distinct forms of expansion.

First, institutions have been tackling access and affordability issues to attract a more academically diverse student base. In part this is achieved through different admission approaches, including more sophisticated transfer and credit policies that appropriately recognize students' prior achievements (including real-world work experience). For more selective institutions, this translates to more sophisticated admission approaches, transfer policies, and the redesign of financial aid models; other institutions have deployed consumer marketing techniques to more accurately segment students according to the role of financial support in their matriculation decisions. Less selective institutions (by mission or mandate) are helping students come in better prepared, quickly moving them through developmental education, improving both their inbound and outbound transfer agreements and ensuring that their offering is attractive to top-tier students as well.

Several institutions are also redesigning financial aid models. Harvard's "under $65,000 income come free" approach is one extreme example. Other institutions have deployed consumer marketing techniques to more accurately segment students according to the role financial aid plays in their decisions. Taking a different route, Wesleyan University has cleared a path for enrolled students to earn a four-year degree in just three years, offering significant savings to students and their families and potentially increasing overall access to Wesleyan for more students.

2. Expanding the reach of the university or system

- Improving access and affordability
- Creating a global footprint
- Implementing a digital and online strategy

Second, select institutions are pursuing global expansion strategies. International students continue to grow in importance in US higher education. Despite the economic downturn, the census of international students grew 26 percent over the past nine years, with particularly rapid (62 percent) growth among non-degree seekers. Select institutions are also aggressively expanding their presence internationally by establishing foreign campuses and international partnerships. For example, New York University has built a new Global Network University paradigm that envisions a future in which the "front door" to the university is no longer Manhattan for 40 percent of its students, and in which students fluidly circulate across a global network of campuses throughout their four-year education. Other examples include research partnerships (e.g., between MIT and the National University of Singapore on electromagnetic materials) and twin programs such as the Duke-NUS Graduate Medical School.

Third, institutions are beginning to understand the disruptive potential digital technologies will have on their pedagogical model and are considering their own digital and online strategies. Millions of students have received degrees at disruptively low cost through online remote learning (e.g., Southern New Hampshire University, Western Governor's University). Several institutions are offering full degrees online (e.g., Penn State, SUNY). Dozens of start-ups have disaggregated the pedagogical value chain with targeted, digitally enabled services (e.g., self-pacing of content delivery; location-agnostic assembly of peer discussion groups; automation of proctoring and assessment). We are in the early stages of experiments by "elite brand" institutions to make their courseware available on a massively open-access basis (e.g., MIT OpenCourseWare, edX, Coursera, Udacity). **McKinsey estimates that the postsecondary degree export market could be well in excess of $100 billion. The prize is up for grabs for those who can combine scale via technology and a way to certify acceptably to employers the quality and relevance of the education provided.**

3. Economic sustainability

The traditional revenue model in higher education has come under considerable pressure. For public systems, state budget pressures and fiscal deficits are translating into a seemingly permanent crunch when it comes to state support. State educational appropriations per student have decreased from 71 percent to 57 percent in the past 10 years.

For private institutions, the traditional cross-subsidization model of student tuition (in which the small number of students who pay full tuition fund the financial aid for those in need) is reaching its natural limits: published tuition rates are on trend to exceed $100,000 per year by 2020 at some institutions, pricing middle-class families out entirely. Facing this new pressure on price, a few institutions are taking bold and proactive measures on cost to ensure economic sustainability for the next generation.

One approach is to take a hard look at noninstructional costs; by applying best practices from the private sector, we have seen higher education institutions capture 15 to 20 percent savings. The impact can be enormous: for a typical multicampus state system with a $3 billion operating budget (of which $900 million is in noninstructional costs), there is an opportunity **to save 10–15% annually. This savings is the equivalent of raising $3 to 4 billion of endowment.** For example, the University of Connecticut launched a comprehensive noninstructional cost transformation program and identified a broad range of opportunities for cost savings, including centralization of procurement, application of lean principles to facilities management (e.g., maintenance), and application of best practices in IT application

3. *Economic sustainability*

- Reducing noninstructional spend and generating nontuition revenue streams
- Improving capital asset productivity
- Evaluating core vs. noncore activities
- Rationalizing the portfolio of campuses and programs

development. The University of Michigan identified $30 million in annual savings through changes to its health benefits alone. The University of Pennsylvania has migrated all finance, HR, IT, and grant support functions to one of its 14 regionalized business offices, leading to lower costs and better service levels.

Other institutions have taken a hard look at the productivity of their capital assets and capital investments. For most institutions, we believe that more than 20 percent of the capital budget can be eliminated through better year-round use of existing campus assets: improved utilization of existing classrooms, introduction of evening and weekend courses, and adoption of summer programs as implemented at BYU–Idaho. Institutions are also actively evaluating what activities are "core," and eliminating "noncore" activities from their operating budget. Some institutions, for example, outsource management of their dining services activities and parking; others are extending the logic even to dormitory management (e.g., Montclair State). Ohio State University is taking steps to open a new financial frontier with its parking lots. The school has proposed to its Board that approval of a $483 million agreement to lease all parking operations to an outside vendor for 50 years.

Finally, a few select institutions are taking bold steps to address the cost of their instructional activities—long perceived as untouchable given the mission of higher education institutions. For example, the City Colleges of Chicago evaluated their footprint of campuses and identified a number of duplicate courses on campuses in proximity to one another; despite significant alumni and community resistance, they were able to successfully consolidate programs in a single campus. Other systems have taken a similarly analytical approach to their roster of programs by assessing the cost per degree of each. These inventories frequently identify legacy programs that have become obsolete over time (e.g., stenography), as well as low-demand programs whose significant cost can then be weighed against the other investment priorities for the institution.

4. Improving graduation and retention rates

Degree productivity remains unacceptably low for many higher education institutions: among community colleges, graduation rates typically range from 19 to 45 percent; for four-year institutions, 37 to 62 percent. For students, this imbalance between input and output creates a significant burden in debt and lost time. For campuses, this imbalance represents a lost opportunity to fulfill their missions. Yet **a modest 5 percentage point improvement in freshman to sophomore retention on a typical 10,000-student campus translates to approximately $10 million to $20 million in tuition alone.** And this doesn't take into account savings from recruiting and admissions, nor the reputational benefits of improved graduation rates. **Likewise, if students were to enter ready to do college work (and thus not in need of developmental education), McKinsey estimates savings of more than 10 percent in total cost per degree delivered.** This can be accomplished for example, by improving the preparation of inbound students through partnerships with high schools that decrease needed remediation.

4. *Improving graduation and retention rates*

- Developing intensive student support services and tools
- Creating structured pathways to graduation
- Revamping transfer agreements
- Improving preparation of inbound students

There are multiple causes of low graduation and retention rates. Many students enroll without the requisite academic skills to be fully successful in college. Others drop out of college for academic reasons such as poor grades, boredom with courses, a change in career goals, or an inability to take desired courses or programs. Still others drop out due to changes in financial and personal situation (e.g., lack of adjustment to college life, life changes, and family responsibilities).

While many of these issues are beyond an institution's control, several institutions are trying to address the factors they can affect community colleges, given their significantly lower graduation rates have tended to be innovators in addressing these challenges. For example, Valencia Community College has achieved a three-year graduation rate 15

percentage points above peer institutions via a world-class, integrated package of student support services that helps each student plan his or her path to graduation. It tailors support to different student segments and has improved the quality of student support by, for example, tracking quality and performance metrics for core student support services such as financial aid processing. Four-year institutions can learn quite a bit from community colleges, which face an even more severe problem and hence, have tried a number of innovative approaches with some success. For example, the City Colleges of Chicago have improved graduation rates by 25 percent across their 115,000 students through a comprehensive package of initiatives, including reducing the extent to which students inadvertently take credits that do not contribute to a degree, revamping antiquated transfer agreements that inappropriately limit credit for work done elsewhere, and establishing partnerships with the Chicago Public School System.

5. Research excellence and commercial productivity

In real terms, US federal support for research has fallen nearly 15 percent from its 2003–2005 peak (from $35 billion to $30 billion), and under current fiscal conditions most expect research funding to be at best flat over the midterm. As a result, research-based universities are increasingly turning to industry for support.

In some cases, institutions are investing in professionalizing their technology transfer offices, ensuring they are adequately staffed and are engaging in proactive marketing and business development support (vs. simply facilitating the patent application process).

More strikingly, we see a broad range of increasingly innovative research partnerships between academia and industry. For example, GlaxoSmithKline (GSK) and Harvard University have signed a five-year, $25 million research agreement to study stem cells. Stanford and IBM have collaborated to create the Spintronic Science and Applications Center. Carnegie Mellon partnered with Disney on the Global Research Lab for Entertainment Technology. UC Berkeley and Yahoo have teamed up on the Research Center for Internet Technology. MIT's Media Lab is perhaps the most remarkable and intriguing example—largely funded through 70 corporate sponsors, the lab invites sponsors to participate in the its shared IP pool without paying license fees or royalties.

5. Research excellence and commercial productivity

- Ensuring world-class technology transfer competency
- Developing research partnerships with industry

6. Addressing competitiveness, workforce, and labor market issues

Part of the value of a degree is obviously the return that such a significant investment will bring. Yet for much of the 20th century, most talk of a direct link between education and jobs was restricted to the realm of career and technical education curriculums and two-year degrees. Today, however, the changing nature of work and technology, and the increasing competitiveness of the global economy, are forcing a much broader range of institutions to consider the connection between the education they provide and the kinds of jobs their graduates can get.

To put this challenge in context, even while national debate rages around how to address the unemployment crisis, McKinsey research shows that 60 percent of employers claim that they have jobs that have been open for more than six months because they cannot find employees with the needed skills. This phenomenon is even more acute in the STEM (science, technology, engineering, and math) fields.

Employers and states are already taking action. For example, Boeing partners with universities to educate current and future employees. It publishes preferred curriculum requirements (e.g., engineering graduates must have a "systems perspective" and

6. Addressing competitiveness, workforce, and labor market issues

- Contributing to regional economic vitality
- Aligning course and program portfolio in Education for Employment (E4E) effort
- Partnering with the private sector to improve employment of graduates
- Creating centers of excellence

advanced information technology skills). Boeing also sponsors the Welliver Faculty Fellowship, which partners with universities (e.g., Northwestern, University of Michigan) and other industrial giants (e.g., Ford) to encourage industrial course content and develop academic faculty. At the state level, Maine has launched the Maine Futures Institute, a collaboration between the state university, the Maine Department of Labor's Workforce Research and Information office, the business community, and educators. This venture uses state-of-the-art demographic data to help high school students navigate the new labor market and make better-informed decisions on their higher education.

Questions universities and higher education systems should ask in this time of great change

- Does our **strategy** adequately respond to the accelerating pace of change in the sector? Is it as relevant today as when it was created or last refined?
- What are our institution's **sources of distinctiveness**? Are there **bold new goals** we should pursue to set us apart?
- Are our **academic programs relevant** in today's global economy? What **new or updated offerings** will better prepare our students for the workforce of tomorrow? What **offerings can be eliminated**, freeing up resources to reinvest elsewhere?
- How could we rethink the **portfolio of campuses** that make up the system? Do we have the right number? Could different campuses play specialized roles that boost overall efficiency and effectiveness?
- How can we best benefit from the **digitization of higher education**? What is the role of a physical campus? How might technology allow us to improve student outcomes and serve more students at lower cost? How can we navigate resistance to such initiatives while honoring faculty prerogatives?
- What elements of our **cost model and capital efficiency** can be dramatically improved? Do we understand our true costs and how they compare to relevant peers?
- Are we satisfied with our **graduation and retention rates**? What would a truly aggressive improvement plan look like?
- Do our strategy and supporting mechanisms (e.g., culture, structure, funding) ensure **leadership in research**?
- Is our **governance structure** up to the task of fulfilling our mission in this new era? What changes if any, will be required?
- How can we **measure performance and increase accountability** in the quality and efficiency of how we fulfill our educational mission?

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