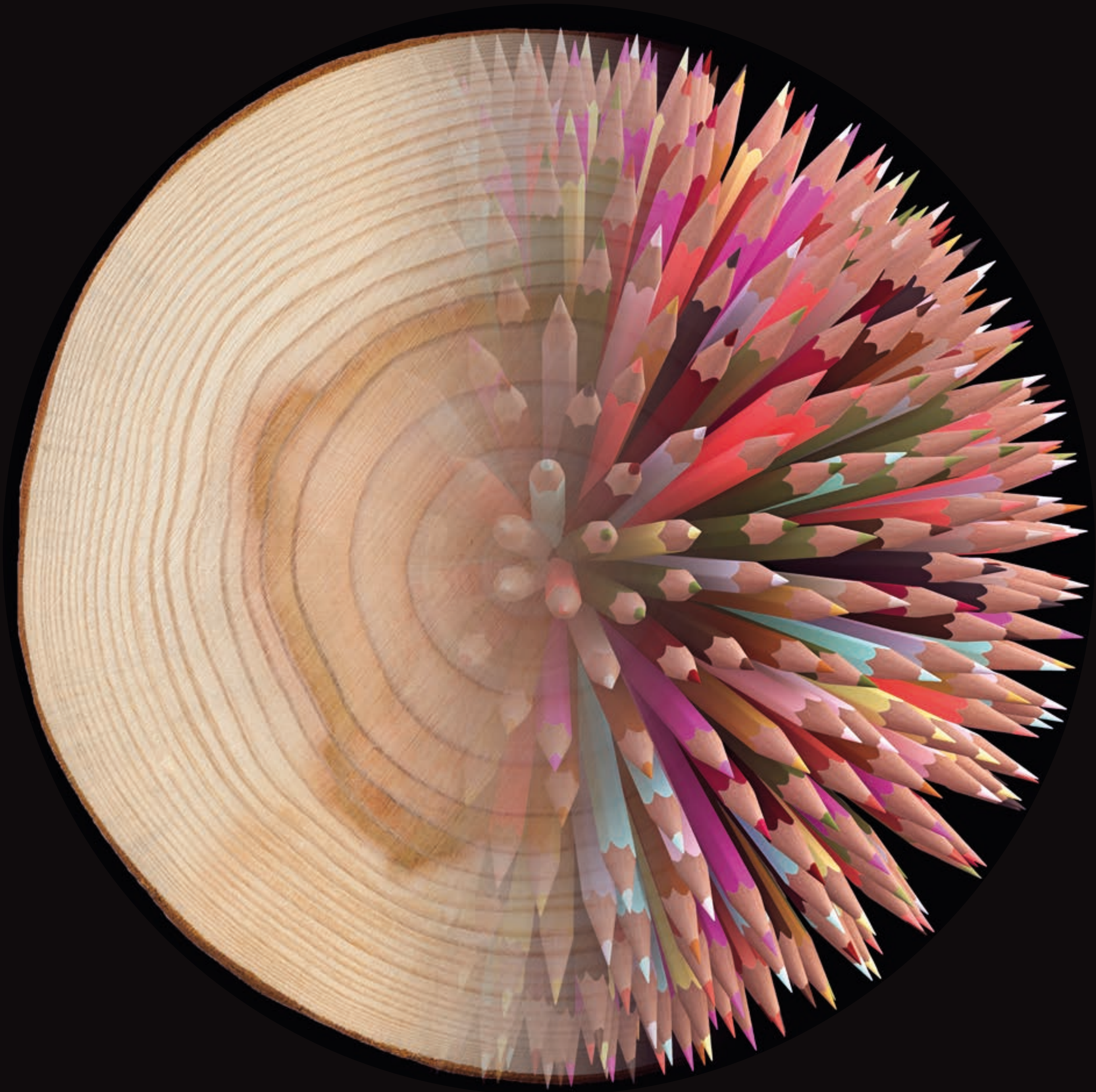
Deloitte.



Significant risks facing higher education

Taking an enterprise approach to risk management

The higher education sector is experiencing change at an accelerating rate. Some of these shifts have been years in the making; others are the result of recent disruptions to the sector itself, or even adjacent sectors, from such as finance and retail. A study by Duke Corporate Education explains that, "It's time to get comfortable being perpetually uncomfortable. The known, mostly predictable, rhythms associated with universities of the past 100 years have given way to syncopation caused by two off-beat troublemakers: technological change and cost pressure[1]."

While an environment of constant change and disruption creates opportunities for institutions to differentiate themselves in a crowded market, it also creates a growing array of risks that can quickly derail their strategy. On top of that, recent events on college campuses have raised serious questions about not just the priorities and processes of leadership, but their moral and ethical standards. High profile instances of sexual misconduct, deaths related to hazing, and athletic program violations, among many others, have shown that major reputational crises (and the resulting scrutiny of both leaders the Board) can happen at any time – and may be happening already.

In some cases, a risk event catches an institution by surprise; in other cases, the risk is well known. Growth of media coverage, including amplification of any topic through social media, means that any mishaps are likely to quickly become public and thus subject to the type of scrutiny that can erode a university's reputation overnight. Consider an institution that:

- is rocked by sexual misconduct allegations that results in leadership resignations and large financial settlements
- braces for student activism after incidences of alleged racism, resulting in leadership resignations followed by an enrollment dip the following year
- faces the ramifications of the loss of accreditation, leaving students at risk of financial aid request denial, inability of credits in progress to transfer to another institution, and most importantly the stigma against the institution that may negative impact the degree's value and the student's ability to gain employment.

Institutions do not need to have all the answers to all the risks they face. But they can be more aware of the increasingly wide spectrum of threats affecting them and thus more proactive, taking action to avoid what they can but also prepare for worse case scenarios to lessen the damage of events that are out of their control.

Further, institutions should consider developing an "enterprise" approach to risk management, as opposed to siloed plans that exist within specific divisions or units to deal with risks specific to their function or mission.

The sections below describe some of the significant risks and issues facing higher education institutions of various sizes. Looking at recent examples of brand and financially-damaging events, five broad categories emerge, under which there are examples of specific risk areas that institutions are (or should be) thinking about. The risks below are by no means comprehensive, nor are they mutually exclusive, but they begin to show why the higher education sector has been steadily investing in the people, systems, and capabilities to survive in the new normal of perpetual discomfort.

[1] http://www.dukece.com/insights/riding-tide-disruption-higher-education/

Business Model Risks

Business model risks challenge an institution's ability to generate adequate revenue and, in some cases, to even exist. The factors below impact the sustainability and relevance of college and university business models in an environment where new approaches to education delivery, revenue generation, and enrollment are evolving rapidly. Institutions that do not plan for these factors may find themselves outpaced by more agile competitors.

- **Tuition dependency –** Schools from large research universities to community colleges depend on income from student tuition to provide the cash flow that sustains operations. Where tuition is the primary (>60%)[2] source of revenue, growing concerns among prospective students about rising costs can lead to decreases in enrollment or increased subsidy rates, all impacting an institution's financial health. With certain geographic regions experiencing a decline in high school graduates, there is a smaller pool of potential new students[3]. Naturally, the decline in high school graduates has had an impact on higher education enrollment, in fact, the National Student Clearinghouse Research Center conducted a study in Spring 2018 concluding that college enrollments went down in 34 states; six of the 10 states with the largest declines were in the Midwest or Northeast.[4] As schools confront this topic, some are exploring new ways to diversify revenue streams or make tuition growth more sustainable. To compound these factors, the unpredictability in state appropriations at public universities provides an additional risk factor beyond the control of an institution. As states grapple with competing interests for state funding such as rising health care costs, an institution should be prepared for less reliance on state appropriations. Forbes predicts that the concept of "state universities" may change, with institutions less reliant on state aid and more dependent on tuition fees and private support gaining some greater independence from state control as partial compensation for declining state support. The distinction between public and private schools, already minimal, might decline even more[5].

- **Education delivery mix[6] –** The trend of rising tuition and declining enrollment in traditional track, in-person programs has led to an increase in alternative delivery models. This movement is not limited to online programs and includes expansion of new or existing part-time programs, Massively Open Online Courses (MOOCs), independent-study, accelerated executive programs, and shorter certificate programs. While alternative models can diversify an institution's offerings, they also present risks related to the quality of material delivered and the ability to assess competency and completion. As students increasingly elect to forgo the traditional path in favor or alternative programs, institutions should be prepared with responses to questions about their student's preparedness for potential jobs and whether an online education is attractive enough and accepted by potential employers for them to become gainfully employed. Alternative delivery models also put pressure on institutions to allocate the appropriate resources to fund them.

- **Endowment returns[7] –** For many institutions, endowments are a critical revenue stream to fund ongoing operations and new initiatives. Endowments adhere to required guidelines mandating how funds can be invested (asset allocation), target returns expected by fund managers, and proportion of investment income that can be spent in each timeframe. As endowments continue to grow (returns averaged 12.2% in the fiscal year ending June 2017[8]), institutions should comply with established rules and long-term expectations for their investments. Because endowments also fund ongoing operations, institutions should ensure they are appropriately estimating expected returns to avoid insufficient cash flow that could force staff/program cuts.

- **Recruiting and targeting –** Depending on location, offerings, and other factors, schools may target certain demographics and population sub-groups (e.g., career experience, STEM-focus, income level, full/part time). However, many institutions have not developed sophisticated recruiting and targeting methods that leverage analytics and continue to "mine" their traditional sources of new students. More advanced use of analytics and big data could help institutions improve recruiting efforts and better align their academic offerings with target segments, potentially reducing recruiting costs and increasing enrollment. Yet institutions should also be conscious of unintended consequences, such as decreases in diversity due to more targeted recruiting. Institutions may need new strategies to balance recruitment targeting, diversity, and the historic enrollment characteristics that have positively influenced the institution's reputation.

- **Heightened Cash Monitoring (HCM) –** Schools with issues including but not limited to accreditation, late or missing annual financial statements and/or audits, outstanding liabilities, denial of re-certifications, concern around administrative capabilities, concern around a schools' financial responsibility, and findings uncovered during a program review, may be placed on HCM by the Department of Education As of June 2018, 544 institutions are designated as being placed on HCM1 or HCM2[9], which may lead to severe financial impacts (including reduced or cessation of funding) that could affect their ability to operate.

[2] https://www.forbes.com/sites/schifrin/2013/07/24/behind-forbes-financial-grades/#7bfa7f44d386
[3] https://www.insidehighered.com/news/2016/12/06/high-school-graduates-drop-number-and-be-increasingly-diverse
[4] https://www.insidehighered.com/quicktakes/2018/05/22/enrollment-declines-steepest-midwest-and-northeast
[5] https://www.forbes.com/sites/richardvedder/2018/05/24/why-is-public-support-for-state-universities-declining/#7c8abc094894
[6] https://mfeldstein.com/the-emerging-landscape-of-educational-delivery-models/
[7] https://www.investopedia.com/ask/answers/how-do-university-endowments-work/
[8] https://www.insidehighered.com/news/2018/01/25/college-endowments-rise-122-percent-2017-experts-worry-about-long-term-trends
[9] https://studentaid.ed.gov/sa/about/data-center/school/hcm

Reputation Risks

In the 24/7 news cycle where negative headlines score highly, higher education institutions have frequently become the target. Schools can lose alumni and business relationships, brand favorability, etc. Institutions with reputational awareness and control over their increasingly vast presence in the media can reduce the risk of damaging a reputation they have spent years building. Some reputational risk factors may include:

- **Brand management -** In 2007, a study in the Journal of Business Research noted that "consensus exists that understanding institutional branding and clearly developing and communicating that brand is of high-quality value to universities[10]". Universities rely on their positive reputation not only to bring in top students and faculty, but to maintain strong alumni relations and bring in auxiliary revenue through merchandise sales, ticketed event sales, television deals for athletics, and relationships with local and state businesses.

- **Campus safety -** To be considered a viable option for students, universities should make campus safety a top priority. Campus safety departments and related functions must be prepared for a wide range of threats – active shooters, hazing, sexual misconduct, physical security, lab safety, drug-related crime, to name a few. For example, while it is difficult to say whether sexual misconduct on college campuses has increased in the last 20 years, the number of cases reported in the media has become more frequent. With the rise of social media and the ease in capturing video footage or text messages, an institution should be prepared for when sexual misconduct occurs on their campus, and speed at which a student body can organize against how an event is being handled. Additionally, hazing was conducted in the open for decades, but since retreated to "behind closed doors", however with the rise of social media, the evidence can no longer be buried[11]. Swift, organized action on behalf of the victim and the institution can reduce the backlash from the media, but an institution must be vigilant in their preparation for events happening on campus. The same logic also applies to active shooters or unrest on campus. Response plans must be established, tested, and continuously improved.

- **Student activism -** While student activism is not a new concept to higher education institutions, a school's responses can in some cases create new risks. With the rise of social media, students can mobilize quickly around an issue faster than ever. Given that institutions are bastions of free speech and encourage students to formulate their own positions on issues, the risk of conflict amongst the student body and the surrounding community is elevated. Institutions should be prepared with plans to de-escalate the situation in the early stages of unrest within the student body. Frequently institutions are caught in a reactive position and unable to manage the situation because they are unprepared for the event.

Operating Model Risks

Operating model risks stem from inadequate processes, people, and systems that affect an institution's ability to function efficiently and effectively. Operational agility is critical to staying competitive, flexible, and relevant as strategies and business models shift. As shown below, college and university operating models involve a range of activities such as how to deliver academic programs, conduct research, make decisions, manage relationships with vendors, sustain enrollment, or maintain accreditation status.

- **Operational efficiency –** If institutions don't continuously assess their portfolio of business process, identify duplicative activities or inefficiencies, or ensure each business function supports the institution's broader strategy, they could find themselves unable to deliver on their academic mission. How business processes are designed and executed drives resource allocation, staffing, and management oversight. If processes are inadequate, the institution may experience financial strain in an environment already facing revenue declines, increased operating costs, and shrinking budgets. Colleges and universities should balance revenue with operating costs, including faculty, staff, utilities, and facilities.

- **Third-party vendors –** Today, every large organization has contracts and relationships with third-party vendors to support and, in many cases, carry out day-to-day operations. Third-party vendors help colleges and universities deliver a growing range of essential duties ranging from janitorial staff to food service to IT security and even teaching. While contracting with third parties can bring efficiencies, there are also risks that require strong governance, iron-clad service level agreements for mission critical services, and robust processes (e.g., pre-screening, vetting and verification of vendors, etc.) to ensure a university's needs are being met while complying with applicable laws and regulations.

- **Accreditation –** Maintaining accreditation is fundamental for higher education institutions to attract and maintain enrollment, faculty, and revenue. A variety of accreditation bodies (approved by the US Department of Education as a safeguard to prevent fraudulent accreditation bodies from taking advantage of schools) assess colleges and universities against defined standards relevant to the institution type. institutions should be prepared for these reviews to reduce the risk of losing their accreditation.

- **Facilities and asset management –** Higher education institutions manage a large portfolio of physical facilities and assets within them – from dormitories, classrooms, offices, student centers, and athletic facilities, to expensive equipment used in research labs. University CFOs should balance the need to maintain competitive, via large scale capital investment programs for new facilities,

[10] https://core.ac.uk/download/pdf/398055.pdf
[11] https://www.insidehighered.com/news/2017/05/24/college-hazing-becoming-easier-punish

with the need to allocate adequate resources to maintenance costs to sustain their growing physical footprint.

- **Business continuity and crisis management –** Colleges and universities are often communities unto themselves, where in some cases thousands of people live and work in close proximity. Whether it's a natural disaster, an active shooter, or a cyber breach, institutions are at high risk given the concentration of people and physical assets that are vulnerable. While geography and institution size are factors that drive the level of exposure to natural hazards or the amount of damage that is possible, these events can happen at any time and often with little warning, requiring increasingly higher levels of preparedness to mitigate the damage.

- **Talent management –** Retaining and attracting top talent is fundamental to a university's ability to not only operate but compete in a crowded market. Talent can be defined beyond the traditional professor or department administrator and includes the people responsible for managing all facets of university life. An institution's ability to maintain top talent is essential to maintaining a respected reputation, producing valuable intellectual property, sustaining enrollment, and reducing turnover.

- **Decision support –** The ability to make informed decisions, such as how to allocate scarce resources to meet their strategic goals, requires leaders from different functions and departments to balance tradeoffs and risks – often without data or visibility into how decisions impact other areas. Challenges that stress an institution's ability to make informed decisions include: functional silos that do not share data; poorly defined business processes; and aging information systems. Higher education institutions should balance financial considerations against academic expectations for a high-caliber organization[12], which may not be aligned. Institutions lacking dedicated capabilities to manage strategy, risk, budget, enrollment, academic performance, and the relationships between them may find themselves unprepared for the changes transforming higher education.

- **Cybersecurity –** As universities becomes more digitized, exposure to cybersecurity breaches naturally increases. Cyber risks have been well publicized over the last several years, and organizations such as EDUCAUSE have noted that information security is annually listed as a top risk by higher education leaders.[13] Higher education institutions possess large amounts of personally identifiable information (PII), payment information, and medical records that can be lucrative targets for hackers. Migration of systems and applications that house this data to new cloud platforms means IT administrators have to think differently about security, and in many cases cloud solutions also make information safer. An added complexity is that institutions may have antiquated systems or connection points with various third-party vendors that allow for numerous entry points. Without the commensurate information security controls, institutions are more vulnerable to a breach. Schools should not expect to mitigate all cyber risks; the costs would be prohibitive. But they are increasingly thinking more holistically about identity and access management, data protection, application security, and cyber incident response capabilities across all business domains. Tools such as business continuity, war gaming, crisis communication, and post-crisis recovery and review exercises are readily available to help institutions stay prepared and resilient in the face of today's inherent cyber threats.

[12] https://www.researchgate.net/publication/47799644_Higher_education_decision_making_and_decision_support_systems
[13] http://www.govtech.com/education/higher-ed/8-Cybersecurity-Challenges-Facing-Higher-Education.html

Enrollment Supply Risks

In the absence of robust, consistent student enrollment, tuition-dependent institutions cannot sustain their financial health and fund operations. Gaps between estimates and actual student enrollment limit a school's ability to forecast faculty turnover, resource use, and infrastructure needs to support the student population. Recent trends have pointed to declining student populations (between 2026 and 2031 the number of high school graduates is expected to drop by 9%)[14], as well as shifting demographics. Some enrollment supply risk factors include:

- **Immigration and Federal policies –** The United States hosts the largest number of international students worldwide[15]. In 2017, there were 1.21 million international students in the United States, a number which declined from 2016's high of 1.23 million.[16] Some universities have come to rely on international students as a main revenue source, putting them at greater risk to the recent fluctuations in foreign students entering the US. According to a National Science Foundation report, in Fall 2017 the number of international students enrolled at US universities fell by close to 4% from the previous year, and State Department data showed a decline in the number of new student visas awarded. Recent policies, such as proposals to limit legal immigration levels and increased scrutiny of H-1B visa applications[17], are beginning to make it increasingly difficult for workers from certain countries to gain access to US institutions. Despite declining enrollment, there is still a large international presence and support system surrounding an institution. Institutes, often funded by international governments to promote the country of origins' culture and language exist at many colleges and universities.

- **Growing economic markets –** Global socio-economic shifts have also contributed to declining enrollment at US universities. Other countries are continuing to advance their institutional quality and students who would otherwise have considered US schools may choose to attend an institution of choice in their home country – or may stay in their home country due to immigration concerns. Or, US students looking to avoid high costs at US institutions may attend programs abroad, decreasing the domestic enrollment levels.

- **Market demand –** Demand for higher education varies according to economic factors and relevance of educational offerings to job markets and industry trends. With overall employment projected to increase 7% by 2024[18], students hoping to invest further in their education will consider the expected payoff of their degrees and their ability to find a job upon completion. Some students may forsake higher education in favor of entering the job market. Institutions should to remain attuned to current and projected market conditions to ensure their business model and associated offerings are aligned with demand.

- **Rising student debt –** Aggregate student debt in the US has eclipsed $1 trillion, while the price of American college education has risen nearly 400% in the past 30 years[19]. This has resulted in prospective students questioning the return on investment of a college degree vs. entering the workforce directly or finding alternative online or certification-based education. Institutions should be conscious of the impacts of debt on students' ability to attend the institution of their choice.

[14] https://www.washingtonpost.com/news/grade-point/wp/2018/01/27/higher-education-is-headed-for-a-supply-and-demand-crisis/?utm_term=.917e977e9658
[15] https://www.theatlantic.com/education/archive/2015/11/globalization-american-higher-ed/416502/
[16] https://www.bostonglobe.com/metro/2018/02/01/number-foreign-students-studying-drops/JHb6P59y3Ut0px2VM54JBN/story.html
[17] https://www.wsj.com/articles/u-s-workers-only-companies-hesitate-to-hire-foreign-m-b-a-students-1533124800?mod=searchresults&page=1&pos=5
[18] http://time.com/money/4169373/fast-growing-jobs-2024/
[19] https://www.theatlantic.com/business/archive/2017/07/college-bubble-ends/534915/

Compliance Risks
Higher education leadership and governance bodies are expected to remain compliant with a growing array of state, local, federal, and private regulations. Failure to meet compliance standards can lead to consequences ranging from loss of funding, loss of accreditation, or, in extreme cases, to lawsuits and/or criminal charges against leadership.

There is complicated web of compliance requirements and the list is growing as universities become increasingly complex. As a result, the cost of compliance is increasing. A study conducted found that "it spends 11 percent of the university's entire budget[20]" to comply with government regulations. The study also notes that it has become increasingly difficult to quantify the cost of compliance as the requirements have become increasingly complex and at times intertwined. The Higher Education Compliance Alliance created a matrix of 265 key federal laws and regulations governing colleges and universities[21]. Institutions may have additional requirements based on their financial relationships, research expenditures, and legal circumstances. Some compliance risk factors include:

- **Federal regulations –** Higher education institutions should comply with a variety of federal regulations to maintain accreditation and standing. Failure to satisfy the requirements of Title IX, Title IV, Clery Act, the Gainful Employment Act, or other regulations can not only damage an institution's accreditation status and financial standing but can also damage its reputation.

- **State and local regulations –** While typically requiring fewer resources to remain compliant relative to Federal rules, adherence to state and local regulations is essential for institutions to remain solvent, accredited, and successful in their business model. Many of these local regulations are related to physical assets, zoning, safeguards against physical and emotional harm, taxes, and workforce management. Some examples include - Pennsylvania State System of Higher Education Procedure/Standard Number 2011-04 Accounting for Privatized Housing, California Code of Regulations Title 13 Hazardous Materials Transportation.

- **Research expenditures –** Research can be funded either by the Federal government or privately, through a variety of channels. To sustain the research programs that attract top talent, schools should consider adhere to all regulations around research funding. A study noted, approximately $117M of the $150 million of annual compliance-related costs are attributed to "research-related regulation[22]". While a portion of grant funding covers administrative and reporting requirements, large university research programs require dedicated offices, staff, and operating budget to coordinate compliance across a large portfolio.

- **Fraud –** Higher education institutions are susceptible to instances of financial and academic fraud, leading to significant legal and reputational costs. A strong internal controls program can reduce the potential for fraud while adhering to specific fraud prevention requirements such as the Fraud Enforcement and Recovery Act of 2009 (FERA) and Higher Education Program Participation Agreements.

Embracing the challenging future: the new normal
As higher education continues to rapidly evolve, new risks will emerge, known risks will take new forms, and crises will inevitably unfold. Universities must be comfortable with a "new normal" of perpetual discomfort.

In response, many schools are re-thinking how they look at risk. Whereas risk management has historically been confined to specific domains (compliance, internal audit, safety, insurance) and often managed in siloes, institutions today are realizing their risk portfolio is inherently interconnected. Greater visibility helps but is often not enough. Schools are finding they need the infrastructure – governance, data, processes, and culture – to be prepared for the threats (and opportunities) that will determine whether they can survive or thrive.

Universities must accept that they will not have all the answers. Events and even crises will occur. But events that derail an institution's strategy are not inevitable. By taking an "enterprise" approach to risk management, schools can be more proactive and prepared: avoiding, accepting, mitigating, sharing, or exploiting risk where possible, or responding more effectively when issues, incidents, and crises do materialize. Knowing they have taken steps to be more resilient in the face of risk, Boards, presidents, and the rest of the university community can be more confident as they embrace a challenging future.

[20] https://hechingerreport.org/the-150-million-question-what-does-federal-regulation-really-cost-colleges/
[21] http://www.higheredcompliance.org/matrix/
[22] https://hechingerreport.org/the-150-million-question-what-does-federal-regulation-really-cost-colleges/

Contact Us

Cynthia Vitters

Managing Director | Deloitte & Touche LLP
cvitters@deloitte.com
+1 571 858 0857

Justin Obbagy

Senior Manager | Deloitte & Touche LLP
jobbagy@deloitte.com
+1 703 209 1754

Mark Ford

Principal | Deloitte & Touche LLP
mford@deloitte.com
+1 313 919 5313

Jake Braunsdorf

Manager | Deloitte Transactions and Business Analytics LLP
jbraunsdorf@deloitte.com
+1 202 304 8059

Deloitte.

About Deloitte Higher Education

Cyber Risk for colleges and universities
Deloitte's Higher Education practice can help colleges and universities become more diligent and deliberate in being secure and resilient, focusing on policies, and controls to prevent the compromise of their most risk-sensitive assets and operations. Deloitte is a leader in cybersecurity, risk, and governance, providing end-to-end capabilities for the spectrum of cyber threats in higher education. We help colleges and universities achieve the fundamentals faster, by leveraging our engagement accelerators, extensive industry experience, and deep cyber risk domain knowledge to safeguard risk-sensitive assets and operations. Please visit our website to learn more about our cyber risk services: www.deloitte.com/us/higher-ed-cyber-security