



CONCEPT PAPER U.S. HIGHER EDUCATION

COVID-19 Implications for Higher Education.

JUNE 2020

CBRE

EXECUTIVE SUMMARY

Across the country, colleges and universities large and small are working to understand the short- and long-term impacts of COVID-19 on their established ways of delivering education and conducting research. The abrupt and comprehensive response necessary to mitigate the spread of the virus on campus will reverberate for the foreseeable future.

Social distancing requirements have rendered spaces that are traditionally closely collaborative into potentially unsafe environments that will require creative re-purposing. As of Spring 2020, most major university campuses have been effectively closed to students, while dormitories, residence halls, and even apartment style housing has generally been emptied. University faculty and administration are turning to online teaching to finish the spring semester and contemplating creative solutions to address the summer and fall semesters and beyond.

COVID-19 has had a dramatic negative impact on university operating budgets nationwide, however, the magnitude of the impact remains unknown. Many universities have already experienced increased expenses in the transition to online learning, while at the same time, non-tuition revenues have been decimated. Further, as the crisis continues to evolve, it has been challenging for campus leaders to plan and forecast for the upcoming academic year.

While the future of higher education is uncertain, there are clear indicators of the near-term outlook for this sector. According to Moody's credit rating agency, the United States higher education outlook has been downgraded from 'stable' to 'negative' and in the given environment, financial instability is expected to continue into 2021. Public institutions that rely on state support could see public funding decline further as state governments struggle to respond to unprecedented fiscal challenges. Universities are looking for ways to decrease their expenditures and stabilize revenue to weather the pandemic. Some universities might have to close their doors permanently as a result of this crisis, while those with larger operating budgets and reserves may be able to survive the crisis and emerge more agile on the other side.

This paper relies on a survey of publicly available documents and reopening plans released by the universities named herein.

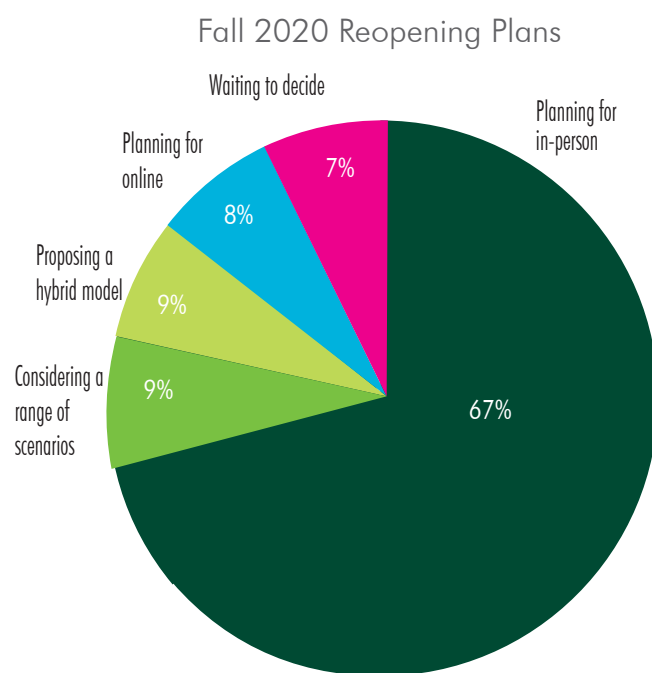
While universities *plan* to reopen, flexibility must be built into their strategies as the effects of the broader economic reopening become known.



REOPENING FALL 2020

According to the Chronicle of Higher Education, the majority of colleges and universities are planning to hold in-person instruction in the fall. As of June 8th, of 910 colleges and universities surveyed, 67% have stated they will reopen to in-person classroom instruction for the Fall 2020 semester. Only 8% are planning to administer classes entirely online, while the remaining 25% are waiting to decide, weighing multiple options, or planning for a hybrid model. It is important to note that many universities planning to reopen to in-person instruction in the fall, are considering some form of hybrid education. For those universities planning a full reopening under the traditional instruction model, the plan may be based on optimistic forecasts rather than best practices, as community spread of the COVID-19 continues in most university communities and remains an integral driver of the CDC's reopening recommendations.

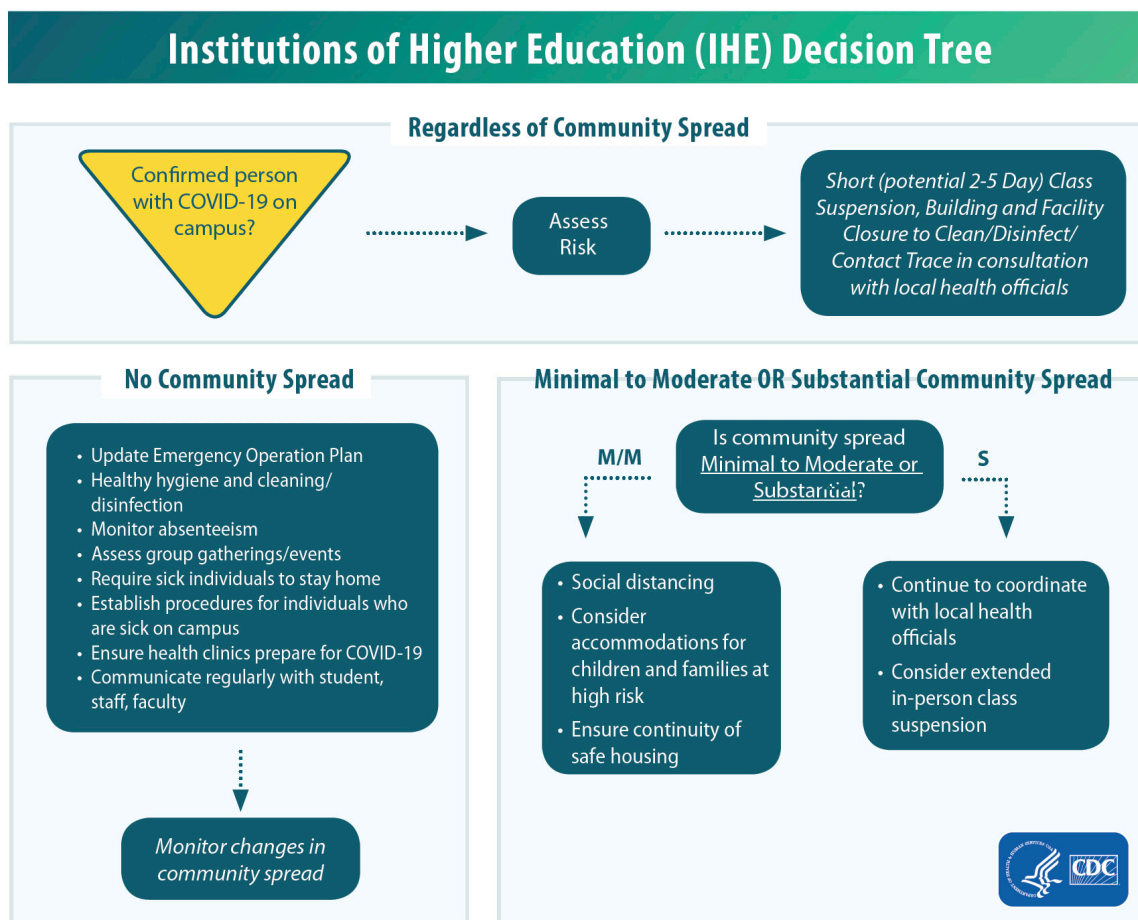
While universities plan to reopen, flexibility must be built into their strategies, as the effects of the broader economic reopening become known.



The diagram is provided for informational purposes only, copied from the Chronicle of Higher Education website in June 2020.

<https://www.chronicle.com/article/Here-s-a-List-of-Colleges-/248626>

Clear, concise communication will be of paramount importance as universities look to reopen. Students, parents, faculty, and staff will want to know what to expect when they return to campus. The CDC's [Considerations for Institutions of Higher Education](https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-ihe-response.html) website currently provides guidance that recommends university administrators work with local health officials and implement practices that promote behaviors that reduce spread, maintain healthy environments, maintain healthy operations, and prepare for when someone gets sick. These practices may mitigate the financial and operational burdens of closing and reopening a campus, which may exacerbate the stress universities are already experiencing.



The diagram is provided for informational purposes only, copied from the CDC website in June 2020.
<https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-ihe-response.html>

In preparation for reopening in the fall, universities are considering a variety of actions to mitigate the spread of COVID-19. Testing and tracing have proven to be effective methods of mitigating the spread of COVID-19, however issues around privacy render these options controversial in some circumstances. Outside of testing and tracing, other ideas are emerging as potential stopgap measures or permanent solutions to building more resilient campus communities that are capable of mitigating the spread of the virus on campus.

Restructuring classes provides universities with the flexibility to decrease contact between students. For class sizes between 20-50 students, students could be divided into two equal groups, alternating with one half participating in person and the other half online via live stream for each class section. For example, in a class of 50 students that have a Tuesday/Thursday class, 25 students would come to class on Tuesday and the other

would tune-in via livestream. On Thursday, the groups would switch roles, ensuring each student is afforded in-person time with the professor. For larger classes typically held in lecture halls, classes may shift entirely to online instruction. There simply aren't enough hours in the day nor sufficient faculty to divide these large classes into enough smaller sections to perform in-person lectures safely.

The question remains, what are the best procedures for sanitizing classrooms between sessions?

Procedures for installing sanitation stations throughout campus might be necessary and some universities may ask students to wipe their desks after use and again upon arrival to class. New cleaning procedures could require additional time between class sessions and may not be sufficient either in practice, or in the perception of the students and their parents. UV lighting and advanced air filtration systems are currently being retrofitted into office space throughout the country and universities may benefit from similar installations. Guidance on increased janitorial services and advanced cleaning methods are being issued by the CDC and should be considered an important resource when implementing best practices. While immediate attention is being given to classroom space cleaning procedures as a driver to reopening, research spaces, dining halls, and student housing pose additional challenges. Medical and hospital facilities and programs abide by their own set of best practices, not addressed in this concept paper. Sports arenas and other large-scale extracurricular gatherings spaces will require further consideration.

Smaller universities, junior colleges, and community colleges with fewer resources are opting for online programs through the fall and potentially into the Spring 2021 semester. **Community colleges are often better prepared with online infrastructure for teaching remotely, as accessibility has long been a core tenet of their mission.**

Some reopening plans are geographically dependent, such as the case of Columbia University in New York, which is considering a three-term semester (Fall 2020, Spring 2021, Summer 2021), to de-densify the on-campus experience. National hotspots, like New York are reacting with more measured plans to reopen their campuses and planning for the potential of a resurgence of the virus in the fall.



A primary challenge for all real estate occupiers is safe and practical ingress and egress. Urban universities with larger and taller facilities are particularly challenged by the constraints caused by limited elevator access, smaller floor plates, and fresh air exchange. Elevator size may limit safe use to one person at a time. Air filtration and sanitization options are available as minor retrofit opportunities. Software to allow Bluetooth selection of the desired floor from a smart phone is also becoming commonplace, decreasing the need to press a button and potentially spread the virus. Stairwells are being converted into one-way traffic flows to decrease person-to-person contact. These efforts could be combined with staggered access plans to help prevent bottlenecks at ingress/egress points. **Additional consideration to the needs of those with disabilities might be required depending on the facility.** All practices will need to be ADA compliant so involving counsel in any remediation decisions is a good idea. Safe wheelchair access provided in freight elevators could be considered, so long as those spaces do not have additional hazards, and appropriate social distancing measures should incorporate appropriate ADA, state or local laws.

University-offered bus and shuttle service is another area of concern. Universities should communicate what facial coverings are required and what seating protocols are expected at the shuttle stops. Mass transit cannot adequately provide for social distancing and students that have the means will likely drive to campus, potentially resulting in increased demand for parking. If shuttle service is being suspended, parking demand will increase, and universities will need to consider remedies such as staggered and varied class times to accommodate the increased demand for parking.

Student housing became a high-priority concern immediately upon the COVID-19 outbreak in the United States. Almost unanimously, universities decided to send students home in order to assess the situation. Residence halls and dormitories could provide opportunities for safe social engagement, but present unique risks for housing students during a global pandemic.

The University of Texas at Austin took swift action to close all residence halls and relocated students who could not return home to off-campus apartments that were originally constructed and owned by a private student housing developer. Apartment style student housing provides improved bedroom/bathroom ratios and improved social distancing. As universities look to bring students back in the fall, many are removing the requirement for freshmen to live on campus, allowing students to live in traditional multi-family residential assets. Struggling vacant hotels present an opportunity for universities as they seek to enter into agreements to master lease blocks of rooms or the entire facility through the future semesters in an effort to replace beds that are deemed temporarily unusable in residence halls. The migration of students into 'shadow housing' or private residential housing may further exacerbate affordability issues already plaguing many college towns and could have a continued negative impact on communities already facing unprecedented economic challenges.



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Food service is another area that will require alteration, although this can be more easily remedied than other challenges. Current mitigation methods include self-serve meals and salad bars being shuttered temporarily, and prepackaged, hot meals served instead. Improved systems for pre-ordering and dedicated pick-up times will mitigate social interactions that could cause potential spread, as well as limiting campus meal plans to on campus student only. The move to apartment and hotel housing may offer students private refrigerator access not available in many dorm rooms

For those opting to reopen their campuses, the span of the in-person instruction for the Fall 2020 semester is trending shorter, as many campus leaders have decided to send students home for the semester at the Thanksgiving break, not to return until the start of the spring semester. The potential for virus exposure during travel home and back to campus worries many university leaders, prompting them to administer exams online and have students then return after the winter break. This time will also provide facility operators an opportunity to deep clean the campus and continue to make necessary infrastructure alterations that might restrict the potential spread of the virus during the spring semester. This longer break will afford campus leaders time to revisit and refine their operation plans to be further resilient when students return.

Universities should consider how they plan to physically communicate with visitors to their campuses, especially those that are arriving on campus for the first time.

Thoughtful communication and effective wayfinding will be imperative in this new era.



BUDGETARY CONSIDERATIONS

Budget constraints are hardly a new topic for public universities. State appropriations have been on the decline for decades, while demand for amenities, additional student services, and administration have caused expenses to increase. The most significant sources of revenue decline resulting from the global pandemic are from the following:

- Reimbursements from the spring semester, including tuition, room and board, parking, ancillary fees;
- Decreased tuition for the summer and fall semesters where only online learning is offered. In some cases deferred or canceled semesters will lead to zero tuition revenue;
- Decreased enrollment in the fall semester, projected conservatively by the American Council on Education to drop by 15%, but likely to decrease further as families struggle financially;
- Decreased or zero revenue projections from athletic events, catering, conferences, parking, summer rentals, bookstore sales, and other ancillary and extra-curricular events;
- Decreased gift income;
- Decreased international student population;
- Decreased state appropriations as tax revenues decline; and
- Decreased revenue from oil and gas investments, in which some universities have significant exposure. Note, this is partially due to the global oil market negotiations as well as a steep decline in oil and gas consumption across the globe.

California's Governor Newsom released his budget revisions, which propose a \$338M cut to the University of California System, a \$398M cut to the California State System, and a \$740M cut to the California Community College System.

Syracuse University reported an accrued \$35M in unplanned COVID-19 related expenses as of April 30th. John Hopkins University recently announced a suspension of contributions to retirement accounts and salary cuts to remedy the projected \$100M budget deficit for 2020 and projected \$375M shortfall in 2021. Annual 2020 deficits and 2021 deficit projections of \$100M+ are typical for many major universities and more announcements of budget constraints are forthcoming. Universities are seeking upwards of \$50B from Congress to alleviate the crisis, but to date only an approximate \$14B will be allocated from approved congressional funds in the CARES Act.

Faculty and staff furloughs and layoffs have been a direct and unfortunate result of the financial crisis resulting from the pandemic. The Labor Department released May numbers showing almost 20,000 fewer workers employed by colleges and universities in the United States from February 2020 to March 2020. Although April and May numbers are not yet in, the projection is forecasted to increase dramatically. To add context to this number, between 2000 and 2019, the largest February to March employment decline in higher education was 8,100 in 2003.

Enrollment and resulting tuition revenue are another area of significant budgetary concern. With unemployment at historical levels not seen since the Great Depression, many families are reconsidering if they can afford the cost of college. Other students who feel cheated out of the traditional student life experience are opting to take a 'gap year,' from which research has shown many will not return. Enrollment is expected to decline 15-20% this fall and may be even higher. Some families will reconsider sending their children out of state and a trend toward regional education may become more prevalent.

With universities facing unprecedented fiscal challenges, new revenue opportunities will need to be considered. Creative opportunities for public-private partnerships, monetization strategies and thoughtful portfolio and operational reviews might provide creative solutions to address these challenges.



WHAT'S NEXT

Higher education represents the future of our workforce and our economy. The campus culture fosters innovation and creativity which produces solutions to our most challenging social problems. A university research lab is a probable source for the creation and refinement of a COVID-19 vaccine. Until that time, colleges and universities will need to weather the storm through carefully thought-out strategic plans that consider the well-being of their students as a paramount priority. The college experience is likely forever changed for many, and will certainly not immediately return to the bustling, collaborative environments that they once were.

University leaders must consider new sources of revenue and review existing processes for opportunities to realize savings. More universities will offer online or hybrid classes and may be able to offer education to more students through that model. Residence halls will likely phase into apartment style layouts to improve privacy and social distancing. The highly amenitized campus culture trend may slow and a move to more regional education is likely to rise. Major capital investments that are not COVID-19 related are likely to take lower priority.

In this early reopening phase, universities can build trust with their students, parents, and communities through a measured response and thoughtful reopening plans, developed in line with CDC guidelines and best practices to provide safe environments for the campus community.

SELECT UNIVERSITY REOPENING PLANS & STATEMENTS

Colorado State University

Columbia University

Dallas County Community College

Florida State University

Harvard University

Illinois State University

Iowa State University

Kansas State University

Kent State University

Mississippi State University

New Mexico State University

North Carolina State University

Ohio University

Oklahoma State University

Oregon State University

Rice University

Syracuse University

Texas A&M University

Texas State University

Texas Tech University

University of Alabama

University of Arizona

University of California Berkley

University of California Los Angeles

University of Kansas

University of Oregon

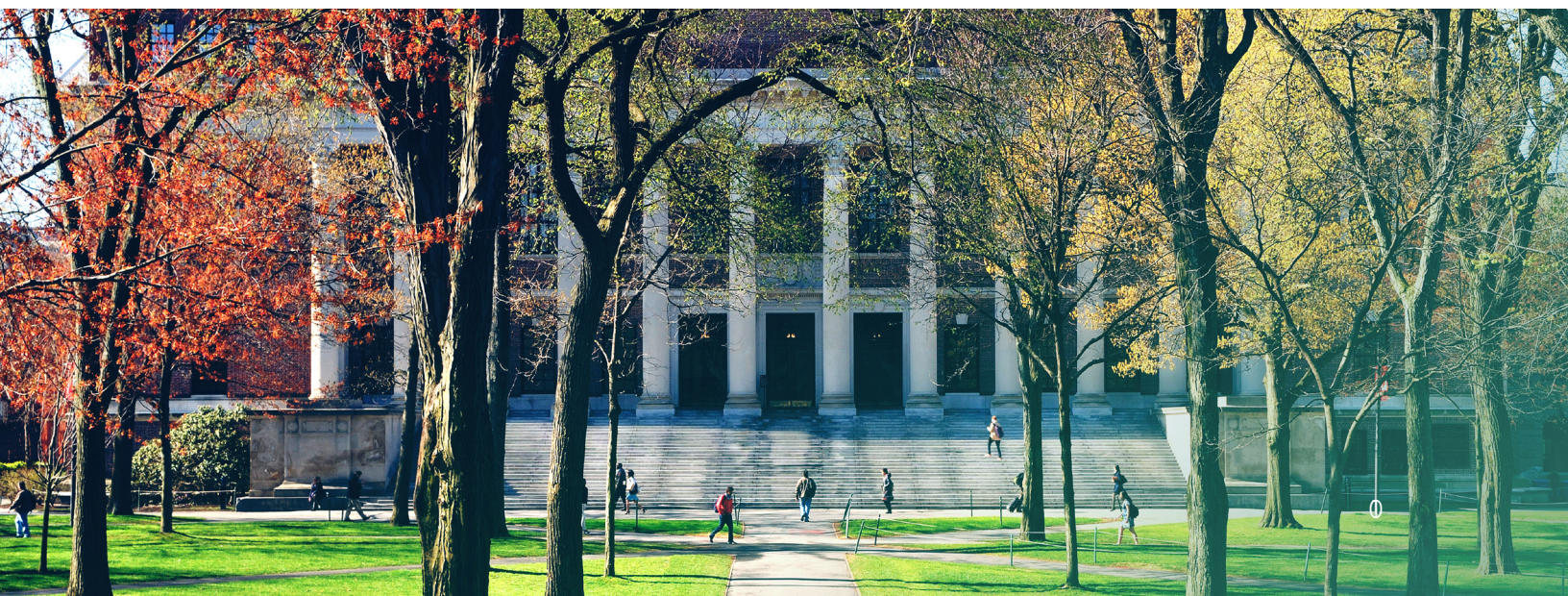
University of Pittsburgh

University of San Diego

University of Tennessee

University of Texas System

Vanderbilt University



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All of CBRE's COVID-19 related materials have been developed with information from the World Health Organization, the Centers for Disease Control & Prevention (and similar global organizations), public health experts, industrial hygienists, and global subject matter experts across CBRE and our strategic suppliers. Guidance and requirements from public health and governmental organizations vary by geography and should inform decisions in specific locations. Our materials may not be suitable for application to all facilities or situations.

Ultimately, occupiers and landlords must make and implement their own reopening decisions for their individual stakeholders and facilities. CBRE's guidance is intended to help facilitate those discussions and expedite the implementation of those decisions once made by the client. We make no representations or warranties regarding the accuracy or completeness of these materials. CBRE cannot ensure safety and disclaims all liability arising from use of these materials.