McKinsey & Company

Ten considerations for reopening US higher education

Executive summary

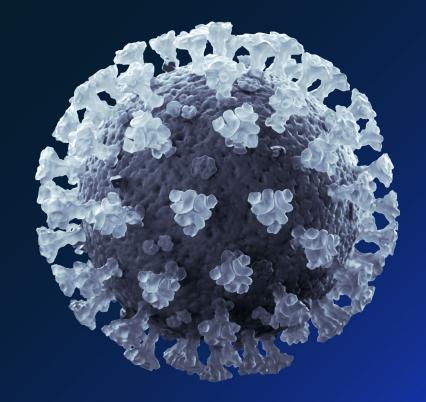
June 2020

COVID-19 is, first and foremost, a global humanitarian challenge.

Thousands of health professionals are heroically battling the virus, putting their own lives at risk. Governments and industry are working together to understand and address the challenge, support victims and their families and communities, and search for treatments and a vaccine.

US higher-education institutions face uncertainty about reopening.

While recognizing the uncertainties inherent in discussing any timeline for returning to pre-outbreak normalcy, this document strives to lay out key considerations for reopening higher-education institutions.



This document was created to help university leaders understand the considerations related to reopening

Intent of document

The purpose of this document is to help colleges and universities build strategies aligned with their missions and priorities for returning to campus after COVID-19 closures. The contents are considerations and options, not policy recommendations. The materials are intended to:

- Provide structured decision-making frameworks for when and how higher education could reopen
- Build a common fact base and share tools for making data-driven reopening decisions
- Share examples of how other highereducation institutions, governments, and companies are addressing the topic of reopening



Structure of document

Executive summary: This document is a high-level summary of 10 considerations and features a subset of the most top-of-mind considerations.

Appendix: Detailed backup sections feature deep dives on executive-summary content and additional insights into reopening considerations that may be useful to individual decision makers on campus (e.g., communications leads, government relations heads, provosts).

This document incorporates guidance and examples from more than 60 institutions, including governments, publichealth organizations, universities, and private organizations.

Reopening in higher education is a uniquely complex problem, akin to opening a small city

Higher-education campuses...



...are complex ecosystems of different populations and functions

Diverse population of students, faculty, and staff with different ages, health conditions, socioeconomic backgrounds, places of residence, etc.

Close interaction between students (lower risk, potentially asymptomatic) and staff and faculty (more likely to be at risk)

Variety of risk profiles based on design of university (e.g., commuter and residential colleges have different risk profiles based on how frequently students leave campus)

Array of activities, including not only instruction but housing, dining, healthcare, research, athletics, and various business support functions (e.g., HR, finance, IT, legal)



...are foundational elements of local communities

Major sources of employment and key contributors to local economy (e.g., healthcare, arts, events)

Responsible for providing higher education and skills training to students

Providers of essential services, including housing, healthcare, food, and transportation, to a large proportion of students,

Generators of critical research and knowledge that advance a broad swath of sectors (e.g., healthcare)



...bring unique risks compared to other sectors

Congregation of students and visitors from different geographies increases the risk of transmission

Residential component creates much higher density and more interactions than other sectors have



If everything returns to normal this fall, the average Cornell University undergraduate will come into contact with more than 500 students in a typical week.

Kim Weeden and Benjamin Cornwell, Cornell University¹

^{1.} Nell Gluckman, "'A Very Small World': How Data on Student Enrollment Could Help Colleges Stop Coronavirus's Spread," The Chronicle of Higher Education, April 17, 2020, chronicle.com.

As higher-education institutions develop their reopening strategies, several guiding principles may help inform decisions





Safeguard the health and safety of students, faculty, staff, and the local community.



Communicate widely and often

Use clear, consistent communication with all groups of stakeholders.

Work with regional authorities and stakeholders to define a coordinated approach to reopening.



Decide systematically

Base reopening decisions on defined assessments of conditions and defined trigger points.

Align timing and sequence of reopening with university's mission and values.



Support to deliver

Support campus functions with capabilities and resources to deliver in a disciplined and efficient way.

Ensure response is well coordinated across functions and its impact is monitored.



Stay well informed and prepare for various scenarios

Continually collect information and be ready for course correction as appropriate.

Consider potential resurgence and build in trigger points and contingency plans ahead of time.



Ensure compliance

Create a culture of compliance with health and safety protocols on campus.

Monitor compliance with established protocols and help resolve related issues.

10 considerations for universities for reopening their campuses



Local conditions and healthsystem capacity

- A) Relevant regulatory guidelines
- B) Infection status
- C) Health system capacity
- D) Social and economic context
- E) Key work enablers (e.g., K-12 school systems, transit)
- F) Other local university responses



- A) Learning
- B) Research
- C) Service
- E) Alumni



Testing, tracing, and other protections

- A) Testing
- B) Contact tracing
- C) Confirmed cases and quarantine policy
- D) Other campus-wide health and safety policies



Protection for vulnerable populations

- A) Health and safety
- B) Learning enablement and equity
- C) Financial challenges
- D) External factors



University safeguards

- A) Classroom and faculty
- B) Research & student laboratories
- C) Residential occupancy
- D) Dining
- E) Student activities
- F) Offices
- G) Athletics



Scenarios for reopening

- A) Objectives and risks of reopening
- B) Sequence of opening core activities in different scenarios
- C) Restricting campus activity after reopening
- D) Case examples



Maximizing mission in the next normal

- D) Student life



Detailed operational planning

- A) Preparation required to reopen
- B) Resources required (supplies, personnel)



Governance and compliance

- A) Governance
- B) Adherence and change management
- C) Data tracking



Communications

- A) Communicating in a crisis
- B) Engaging university stakeholders



Financial impact and mitigation

- A) Financial impact of each scenario
- B) Mitigating actions to close the gap

1: As complex 'mini-cities,' universities will need to create their own reopening plans while also following state/local regulations

To develop their plans, universities can consult a wide variety of sources

Steps to build a comprehensive reopening plan that includes sequencing and gating criteria:

- 1. Determine what is mandated by state and local government and recommended by federal guidelines.
- 2. Given that depth and detail of state plans will vary, consult additional sources beyond state plans when creating university plans.

Questions for leadership to answer

A

What are the relevant regulatory mandates and government guidelines?

Epidemiological:

Legal:

What is the public health context in our local/regional community? What is the degree of contagion?
What is the local health system's capacity?

Socioeconomic:

What is the social and economic context in the local or regional community?

Do people have the resources (e.g., childcare, public transit) that they need to work?

How are other regional universities responding?

Inputs to decision

State and city/county mandates

Mandates of other states (to consult as guidance)

Federal guidelines

Public-health organization (e.g., CDC) guidelines
Epidemiological metrics in your state, region, and county
Healthcare capacity in your county
Testing capacity in your county

Economic health of university and community

Availability of resources that enable people to work

Activity of and collaboration with other regional universities

 Once external reopening criteria are defined, evaluate importance of reopening to university mission and assess internal ability to safely execute reopening in a fiscally prudent way (e.g., implement needed safeguards, procure required resources)

See sections 2–10 -

The weight of each of these considerations will differ based on characteristics of the university, including: university system vs. individual campus, 2-year vs. 4-year institution, primarily residential vs. commuter school, public vs. private

1B: The CDC recommends a 3-phased process for reopening based on a decline in documented cases¹

Gating criteria and phase-specific thresholds

Gating criteria	Thresholds for entering Phase 1	Thresholds for entering Phase 2	Thresholds for entering Phase 3
Decreases in newly identified COVID-19 cases	Downward trajectory (or near-zero incidence) of documented cases over a 14-day period	Downward trajectory (or near-zero incidence) of documented cases for at least 14 days after entering Phase 1	Downward trajectory (or near-zero incidence) of documented cases for at least 14 days after entering Phase 2
Decreases in emergency department (ED) and/or outpatient visits for COVID-19-like illness (CLI)	Downward trajectory (or near-zero incidence) of CLI syndromic cases reported over a 14-day period	Downward trajectory (or near-zero incidence) of CLI syndromic cases for at least 14 days after entering Phase 1	Downward trajectory (or near-zero incidence) of CLI syndromic cases for at least 14 days after entering Phase 2
Decreases in ED and/or outpatient visits for influenza-like illness (ILI)	Downward trajectory (or near-zero incidence) of ILI reported over a 14-day period	Downward trajectory (or near-zero incidence) of ILI cases for at least 14 days after entering Phase 1	Downward trajectory (or near-zero incidence) of ILI cases for at least 14 days after entering Phase 2
Decrease in percentage of positive SARS-CoV-2 tests ²	Downward trajectory (or near-zero percent positive) of positive tests as a percentage of total tests over a 14-day period (flat or increasing volume of tests)	Downward trajectory (or near-zero percent positive) of positive tests as a percentage of total tests for 14-days after entering Phase 1 (flat or increasing volume of tests)	Downward trajectory (or near-zero percent positive) of positive tests as a percentage of total tests for 14-days after entering Phase 2 (flat or increasing volume of tests)
Treat all patients without	Jurisdiction inpatient and ICU beds <80% full	Jurisdiction inpatient and ICU beds <75% full	Jurisdiction inpatient and ICU beds <70% full
crisis care	Staff shortage in last week = no	Staff shortage in last week = no	Staff shortage in last week = no
	PPE ³ supplies adequate for >4 days	PPE supplies adequate for >4 days	PPE supplies adequate for >15 days
Robust testing program	Test availability such that percentage of positive tests is ≤20% for 14 days	Test availability such that percentage of positive tests is ≤15% for 14 days	Test availability such that percentage of positive tests is ≤10% for 14 days
	Median time from test order to result is ≤4 days	Median time from test order to result is ≤3 days	Median time from test order to result is ≤2 days
Centers for Disease Control and Preven	ntion. 2.Tests for active infection of SARS-CoV-2, the strain of cord	onavirus that causes coronavirus disease 2019 (COVID-19); includes	both molecular and antigen tests.

^{3.} Personal protective equipment.

2: Testing, tracing, and other protections—universities will need to consider options and set clear policies and guidelines to enable a healthy and safe reopening



Testing

What types of COVID-19 tests are available?

What types of COVID-19 symptom checks are available?

What can be done prior to reopening?



Contact tracing

How does contact tracing work?

How is contact tracing usually implemented?

How can applications and technology fit in?

What are the main considerations for deciding whether to implement contact tracing and how to do it?

What can be done prior to reopening?



Confirmed cases and quarantine policy

What actions can be taken upon detection of positive case?

What can be done prior to reopening?



Other campus-wide health and safety policies

What other important health and safety policies can be put in place?

What can be done prior to reopening?



2A: What types of COVID-19 tests are available?

AS OF MAY 27, 2020

NOT EXHAUSTIVE

Method	FDA- approved examples (not exhaustive)	Considerations
COVID-19 active infection	Hymon SARS-CoV-2 Test Kit, BioCore 2019-nCoV Real Time PCR	Accuracy and sensitivity of test (e.g., false positive and false negative rate)
tests (molecular)	Kit, DiaPlexQ Novel Coronavirus (2019-nCoV) Detection Kit ¹	Cost of test
		Availability of test
		Speed of turnaround Ease of administering test (e.g., swab or blood test)
COVID-19 active infection	Sofia 2 SARS Antigen FIA ¹	Who can perform test
tests (antigen)		Site of testing
COVID-19 exposure tests (serological)	Anti-SARS-CoV-2 ELISA (IgG), Elecsys Anti-SARS-CoV-2, SARS- CoV-2 IgG assay, Alinity I SARS- CoV-2 IgG, Architect SARS-CoV-2 IgG, Anti-SARS-CoV-2 Rapid Test ^{1,2}	Pending further medical evidence on accuracy of tests and whether exposure indicates immunity

Universities can consult expert and/or local/state guidance to evaluate all testing options and determine appropriate policies for their campus.

^{1.} www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations.

^{2.} www.fda.gov/medical-devices/emergency-situations-medical-devices/eua-authorized-serology-test-performance.

2A (continued): Key considerations and options for determining frequency and target populations for COVID-19 testing

Targeted and rationalized diagnostic testing

Testing is rationalized and targeted to only symptomatic patients. This is often due to constraints on:

- Supplies, including swabs/collection apparatus, collection transport media, testing kits
- Testing capacity, including availability of staff and testing centers with appropriate systems
- Operational barriers, including lack of testing sites and locations for sample collection

Selective diagnostic testing and contact tracing

Testing symptomatic patients and patients who have been exposed to COVID-19 to enable contact tracing and targeted quarantine protocols

As larger set of patient base, with variable likelihood for COVID-19 infection, is tested, consider these opportunities:

- Alternative testing, which includes tests that may not be approved by the FDA but have potential viable use for select patient cases
- Contact tracing by tracking COVID-19 to curb further spread

Broader surveillance testing

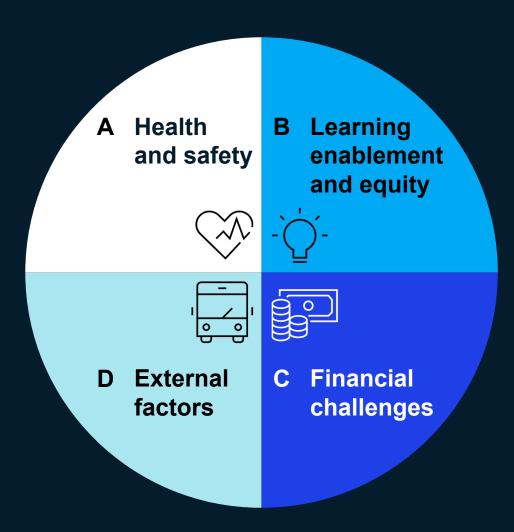
Broader population testing including asymptomatic patients as well as those without direct exposure can aid in controlling epidemic

Broader population testing can be enabled by:

- Pooled testing, potentially with a greater number of samples that are pooled to reduce supply use
- Reporting and tracking across systems and states to better track and understand overall epidemic outbreak and control

The cost of widespread population testing may be prohibitive; thus some schools will need a more targeted strategy that includes other types of tests (e.g., screening for symptoms) or alternative testing protocols (e.g., pooled testing).

3: University leaders can proactively address the needs of vulnerable populations across 4 dimensions and take appropriate actions to mitigate challenges exacerbated by COVID-19



Risk of complications

Mental health and substance use

Physical safety

Access

Support and remediation

Employment

Housing

Nutrition

Transportation limitations

Travel restrictions

Childcare

In this document, the definition of "vulnerable populations" includes individuals particularly vulnerable to both the direct and the indirect implications of COVID-19.

As the challenges evolve with reopening, institutions will need to:

- Continue supporting stakeholders after they return to campus
- Proactively institute new policies and supports
- Provide to all affected stakeholders clear communication about options

3A: Health and safety challenges particularly impact those with high risk of complications, mental health concerns, and compromised physical safety



Health and safety

Risk of complications

COVID-19-related challenges

Certain individuals have increased risk of complications from the virus

Most vulnerable population(s)

65 years or older

With underlying medical conditions (e.g., asthma, hypertension, diabetes)

Immunocompromised

Pregnant

Hospital workers

Students without health insurance (e.g., undocumented immigrants, low-income, parents laid off)

Example actions to mitigate challenges

Allow flexibility for individuals to opt in to remote learning and work from home (WFH), with particular attention to critical roles without replacements (e.g., faculty and administrators age 65+)

Create structural barriers between instructors and students if possible (e.g., Plexiglas barrier at front of classroom)

Provide adequate PPE

Prioritize individuals for viral and/or antibody testing

Enforce special events, hours, and/or facilities

Provide health coverage for all uninsured students

Mental health and substance use

Eliminated or reduced in-person social support services and social opportunities due to physical distancing

Difficulty maintaining interaction and sense of belonging with school community; loss of social support and engagement with others create feelings of isolation, loneliness, and potentially anxiety and depression Individuals with existing mental health (e.g., anxiety, depression) and substance-use issues

Individuals who have COVID-19, have a close family member or friend with COVID-19, and/or have lost family or friends to COVID-19

Economically vulnerable students whose housing or tuition may be at risk due to job loss

Create a single point of access for all mental health and substance-use resources, including emergency hotlines, access to services available through student health and additional "self-serve" resources (e.g., apps)

Provide increased access to mental health services through telemedicine, integration of mental health screenings and services through primary care, partnerships with apps that offer mental health supports

Develop or refine a mental health and substance-use crisis- response plan that includes faculty and staff training to address emotional trauma

Reduce the stigma associated with mental health and substance use through leadership modeling and dialogue

Consistently measure student well-being and mental health (e.g., through quick pulse surveys)

3A (continued): Health and safety challenges particularly impact those with high risk of complications, mental health concerns, and compromised physical safety



Health and safety

Physical safety

COVID-19-related challenges

Increasing discrimination against certain racial/ethnic groups

Exacerbation of existing racial/ethnic tensions and economic disparities

Physical distancing/isolation and economic stress may trigger domestic abuse

Economic stress may increase rate of crime

Altercations due to political divide (e.g., about wearing masks in public)

Most vulnerable population(s)

Individuals of particular race/ethnicity (e.g., Asian)

Students with expected family contribution (EFC) levels

Students living in disadvantaged or high-crime neighborhoods

Example actions to mitigate challenges

Mandate diversity and inclusion and/or unconscious-bias training for students, staff, and faculty

Have instructors check in with students as frequently as possible and report safety and welfare concerns to respective agencies

3B: Learning enablement and equity can be addressed by taking action to mitigate access challenges and provide support and remediation when necessary



Learning enablement and equity

Access

COVID-19-related challenges

Lack of educational support for students with special education or language needs during school closures

Limited access to technology, Wi-Fi, and adequate working space at home to continue with online learning during shutdown

Rapid flow of COVID-19 information may not be provided in appropriate languages or channels to meet needs of hard-to-reach populations

Shift in personal priorities in remote environment (e.g., meeting basic needs, caring for sick family members, assisting children with remote learning)

Most vulnerable population(s)

Students with disabilities that usually require in-person modifications and accommodations

Students with low EFC levels

Students in rural communities

English as a Second Language (ESL) or non-native speakers

Students with children

Example actions to mitigate challenges

Provide training to instructors to adapt to remote learning and master remote learning skills for vulnerable students (e.g., delivering special-needs instruction)

Record lessons/enable asynchronous instruction (e.g., on-demand classes), including subtitles and sign language where possible, to provide students with flexibility

Check in with students to assess extent of learning loss and understanding of how students and families are dealing with COVID-19 situation

Explore partnerships with nonprofits and tech organizations to leverage resources, sustain internet connectivity, and increase effectiveness

Off campus, prioritize when distributing loan equipment (e.g., phones, laptops, tablets) to enable participation in online courses

On campus, provide alternative space for students to access devices at safe distance (e.g., computer lab with computers >6 feet apart)

Deploy tutors, teaching assistants, academic counselors, and virtual office hours remotely and advertise to at-risk students

Provide training on remote learning and goal-setting and offer performance incentives (e.g., badges, microcredentials) to struggling students

3B (continued): Learning enablement and equity can be addressed by actions to mitigate access challenges and provide support and remediation when necessary



Learning enablement and equity

Support and remediation

COVID-19-related challenges

Inability to effectively convert classes online to achieve desired learning outcomes

Reduced instructor capacity to provide differentiated support due to additional responsibilities of transition to remote environment and platform limitations

Limited capacity or ability of parents to support students and hold them accountable (e.g., lack of time, language barrier, lower education level of parents)

Loss of in-person community support and sense of belonging for students at risk of stopping/dropping out

Most vulnerable population(s)

Students with majors with a heavy in-person component (e.g., in labs, studios)

Incoming freshmen

Students with parents/families unable to provide educational support

Example actions to mitigate challenges

Assess extent of learning loss and establish remediation plans for incoming freshmen and current students

Develop and execute remediation plan through collaboration with other systems to share best practices, modified curricula, and accelerated learning programs

Recruit new instructors to meet increased student needs; develop strong first-year coaching programs and consider incentives to recruit most capable instructors to serve vulnerable students

Determine if and what policy changes are needed to ensure equity, and finalize them if so (e.g., minimum instructional days, grading, assessments, advancement)

School-parent partnership: Create and disseminate learning guides and training to families and offer coaching when needed; establish multilingual hotlines to help families support students at home

Provide robust mentorship (e.g., upperclassmen sharing experiences on transition to college) and virtual community-building opportunities (e.g., virtual student centers, budget for virtual club events) for students at risk of not retaining

3C: The economic downturn has resulted in financial challenges affecting employment, housing, and nutrition



Financial challenges

Employment

COVID-19-related challenges

Decrease in income due to spike in unemployment from businesses closing as a result of physical distancing and the economic downturn

Most vulnerable population(s)

Students who lost primary source of income (campus jobs, parents' jobs)

Students without health insurance (e.g., undocumented immigrants, low-income, parents laid off)

Faculty or staff who were furloughed or laid off

Class of 2020 graduating into unemployment

Alumni who lost their jobs

Example actions to mitigate challenges

Help students, alumni, and laid-off staff with job placement through online campus recruitment service and expanding campus jobs in needed areas (e.g., contact tracing)

Create student emergency fund and launch campaign to support it

Leverage alumni network to mentor 2020 grads and post jobs or temporary positions on career platform

Explore community-based partnerships to provide upskilling or reskilling to local workers affected

Provide health coverage for all students and furloughed/laid-off staff

Offer financial assistance (e.g., one-time scholarships, zero-interest loans) and financial planning, postpone tuition payments, waive student fees when possible

Expand enrollment of graduate students

Housing

All residence halls closed, forcing students to go home

Ability to quarantine compromised by living arrangements (e.g., shelters, group homes)

Increase in housing insecurity

Homeless students

Students without safe environments at home to for various reasons (e.g., violence, lack of emotional support)

Allow students without housing to remain on campus as long as possible/come back to campus as early as possible

Nutrition

Destabilization of food safety net as a result of school closure

Rise in food insecurity due to loss of income from reduced hours and layoffs

Students with low EFC levels

Maintain skeleton crew in dining halls for food-insecure students

Organize alternative methods for food distribution (e.g., repurpose closed schools as food distribution center, offer food credits/ vouchers, use buses for food delivery

Work closely with privileged families and local food banks to support families in hardship

3D: External factors such as transportation limitations, travel restrictions, and childcare support affect certain populations disproportionately



External factors

Transportation limitations

COVID-19-related challenges

Public transportation systems reduced frequency of routes

Ride-share options reduced with physical distancing

Most vulnerable population(s)

Commuter students, staff, and faculty

Individuals with limited mobility

Example actions to mitigate challenges

Arrange private transportation for students, staff and faculty to and from campus

Explore partnerships with local public transportation systems and/or ridesharing companies (e.g., Uber, Lyft) to provide safe, subsidized transportation

Ensure health and safety of traditional campus transportation (e.g., buses) with frequent cleaning, physical distancing, etc.

Travel restrictions

Closing of US campuses and global travel restrictions sent many students and some faculty and staff back to their homes overseas, with unclear return dates International students, staff, and faculty

Proactively communicate with current and prospective international students who are overseas to gauge fears/concerns about coming to campus upon reopening; stay up to date on latest government-imposed international travel restrictions

Provide remote learning or flexible start dates (e.g., enrollment deferrals) for students who are unable to be in-person in FY21

Leverage campuses abroad to serve international students unable to enter US

Partner with international universities to widen course offerings and legally provide instruction to students in certain geographies

Childcare support

With closing of K–12 schools and daycare facilities, many students, faculty, and staff members are juggling the simultaneous demands of learning or working full time and at-home parenting Students, faculty, and staff with children

Allow flexibility for reduced course load and/or preferred class scheduling for students with no childcare

Explore partnerships with childcare programs (e.g., Bright Horizons) to offer subsidized childcare

Offer support and virtual connectivity (e.g., launch online community for students' parents)

Create opportunities for remote work/flexible schedules for faculty and staff with no childcare

4: Internal safeguards can be implemented across campus operations to accommodate a healthy and safe reopening



Classroom and faculty

Entrances/exits to buildings, classrooms, and stairwells
Class size and spacing
Scheduling
Delivery method

Other academic facility



Research, student laboratories

Entrances/exits to buildings and labs Scheduling Lab size and spacing Other research and lab facility changes



Residential occupancy

Move-in day
Entrances/exits to buildings, bedrooms, and stairwells
Spacing and roommates
Shared areas
Shared bathrooms
Residential advisers

Visitors
Other residential facility changes



Dining

Entrances/exits to buildings
Customers
Employees
Physical spacing and
payment contact
Other dining facility changes



changes

Student activities

Club and activity scheduling Common areas On- and off-campus parties Gyms Study abroad Curfews



Offices

Entrances/exits and stairwells
Visitors and contractors
Layout and spacing
Remote work
Meetings and training
Travel to work
Sick-leave policy
Other office facility changes



Athletics

Fans
Athletes
Scheduling
Staff
Recruiting
Confirmed cases



Childcare

Entrances/exits to building, classrooms, and stairwells
Transportation
Scheduling and spacing
Food service
Other childcare facility changes



4: Guidance for the considerations listed in Section 4

Schools can implement safeguards for campus operations under three broad scenarios:

- "Eased" (least conservative)
- "Graduated" (somewhat conservative)
- "Restricted" (most conservative)

Section 5 discusses potential phases of reopening. The safeguards outlined in this section can complement the phases outlined in Section 5, where in some instances different levels of a given safeguard may be appropriate for different phases of reopening.

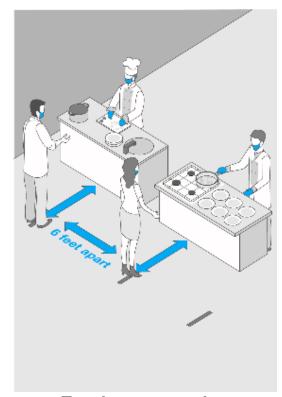
Particular care should be taken to implement tactics to protect vulnerable populations (see Section 3 for additional information).

The safeguards ultimately put in place at your university should be developed and vetted by a group of public-health experts and should complement and be in accordance with CDC/public-health guidance.

Universities will prioritize the various campus operations differently. Not all operations will apply to all universities.

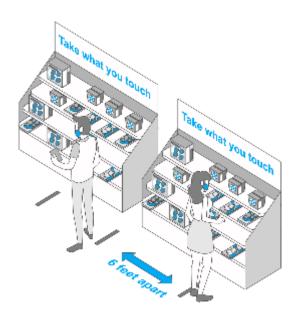
4D: Example campus safeguards—dining operations

NOT EXHAUSTIVE



Employees serving customers standing 6 ft+ apart from each other with visual distancing cues

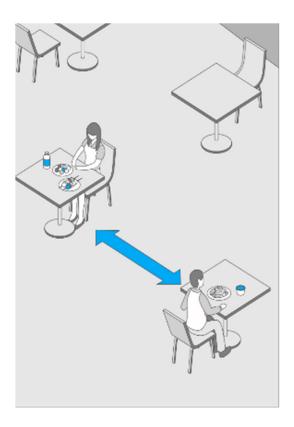
Buffet area replaced with prepackaged food items available for pickup and "take what you touch" signs





Checkout with contactless payment

Customers eating individually at tables spaced 6 ft+ apart



Less

conservative

4D (continued): There are a range safeguards to implement — dining examples¹

NOT EXHAUSTIVE "Eased" scenario "Graduated" scenario "Restricted" scenario

Building entrances/exits

Place sanitization wipes or automatic sanitization dispensers near doors and stairwell handles with visual cues/reminders

Require mask to enter building

Check temperature of those entering buildings, at the discretion of university leaders

Suspend any fingerprint-entry keypads; use badges or install no-touch doors where possible

Customers

Ensure customers stay more than 6 feet apart from each other and employees; use floor markings to help with implementation

Require customers to wear cloth or surgical masks at all times (except when eating)

Post signs to inform customers of foodpickup protocols

Group size <4 for dining in; parties must sign in; student meal times staggered to manage capacity

Dining-in option limited to individuals; individuals must sign in; student meal times staggered to manage capacity

Only takeaway and delivery options (e.g., grab-and-go plans for meals, group orders delivered to site, lunch boxes for pickup)

Other dining facility changes

Leave vending machines, water fountains, and other communal equipment accessible but with visual signage about using gloves/sanitizing

Remove or block off all vending machines, water fountains, and other communal equipment

Limit elevator occupancy to promote physical distancing

Have adequate supplies available to support healthy hygiene behaviors, including soap, hand sanitizer with at least 60 percent alcohol, and tissues

Make no changes to ventilation

Upgrade ventilation per OSHA guidance to remove aerial antigens

More conservative

^{1.} These guidelines should complement and be in accordance with CDC/public-health guidance.

5: Each university should think about general reopening decisions in the context of its priorities

NOT EXHAUSTIVE

		Potential priorities	Risks and considerations for reopening
	Educational mission	Effective teaching Provision of student experience/community	Due to nature of their programs, students in certain areas (e.g., nursing, life sciences) may be learning less in remote settings and could take longer to earn their degrees
		Continuation of research	Cutting-edge research and grants/publications could stagnate
		Commitment to public service	University may not be delivering on its mission to students
	Equity	Equity of access and success	Economically disadvantaged students may learn less in remote settings
	Health	Protection of mental and physical health of students, faculty, and staff	Students with underlying health conditions may be at a greater disadvantage in reopening
		Prevention of contagion in local community	Premature reopening could result in contagion on and off campus
	Economic	Protection of faculty and staff livelihoods	Potential difficulty maintaining current faculty and staff without reopening
БПП	well-being	Contribution to local economy	Fear of losing top talent to other universities
			Local small businesses may go out of business
	Institutional	Financial sustainability of institution	Budget shortfalls of X% possible without reopening
	stability		Greater potential financial shock if premature reopening were to result in contagion and reclosure

5 (continued): As universities think about reopening, they can consider 3 condition-based phases of returning

Universities will need to assess their priorities to determine which activities are mission-critical to return¹







Phase 1:

Low-risk, mission-critical activities and programs resume in person as well as reopening preparation activities

Phase 2:

Additional limited activities resume in person with significant safeguards

Phase 3:

Most or all activities resume in person with fewer safeguards

Example activities:

Research, small lab courses, dorm cleaning

Example activities:

Graduate programs, graband-go campus dining

Example activities:

Full undergraduate program, athletics

Transition between phases should be condition based and aligned with gating criteria that each university defines (see Section 1 for more details)—some universities may skip phases or define additional ones.

Phase 1 could possibly begin when state/local **stay-at-home orders are lifted**, but universities will assess local conditions and public health guidance to determine if entering Phase 1 is appropriate.

At each transition, universities will also assess faculty/staff/student willingness to return and ensure that appropriate safeguards are in place and vulnerable populations are protected.

^{1.} Within state regulations and guidelines.

on campus in each phase, universities can assess the risk of each occupation

100

0

Workplace density:

To what extent does this job require the worker to perform job tasks in close proximity to other people?

High workplace density Low student/public interaction

Workplace interventions required to safely return to campus (e.g., staggered shifts, to be able to quickly silo and contain infections)

Low workplace density Low student/public interaction

Minimal safeguards needed and perhaps the first to bring back to campus

High workplace density High student/public interaction

Most strategic planning and safeguards required before bringing back to campus

Low workplace density High student/public interaction

Example: Plexiglas separating university workers from student/public

100

Public interaction: How important is it to work with the public in this job?

Regardless of safety, there are some occupations that likely are not necessary on campus until students return (e.g., resident advisers).

5 (continued): The most pressing decision for many universities is whether and when to bring students back in fall 2020

There are several archetypes of reopening that universities may consider

ents te	Reopening archetype		
	All students fully	On-time, full start	Campus reopens to all students and assumes normal operations in fall 2020
	in person	Full reopen with delayed start or early end	Campus reopens to all students and resumes normal operations a few months after fall 20 or begins on time (or early) and ends early (e.g., before Thanksgiving)
	All students partially in person	Low-residency mode	Groups of students come to campus iteratively in low densities for a few weeks of rich experiences
		Students in residence, learning remotely	Residence halls reopen to all students but most (if not all) classes stay remote; certain type of high-risk extracurricular/social activities are restricted
	Some students fully in person	Program/grade-level-based phasing	Campus reopens to certain grades/programs that are highest priority for in-person learning working (e.g., PhDs, first-years, seniors, MBAs, etc.)
		Need/equity-based phasing	Those most in need of campus services (e.g., housing, tutoring) allowed to return by application
		Locality-based phasing	Commuter and local students allowed to take classes on campus; most or all residence has stay closed
	All students fully remote	On-time, remote start	Campus remains closed and all courses are taught remotely/online
		Structured gap year	Students allowed to propose project-based experiences when remote, and later requirement are fast-tracked
	Universities will choose an a	rchetype based on (1) the phase they expe	ct to be in at reopening and (2) their priorities/operational capabilities

5 (continued): Different contexts and conditions will inform decisions on the appropriate reopening archetype for fall 2020

Reopening archetype		Conditions that may need to be met
fully in person Full reopen with delayed Institution can procure and set up all ne		Local external conditions (e.g., state/local guidelines, healthcare capacity, etc.) required for a safe reopening of campus are met Institution can procure and set up all necessary internal conditions (e.g., safeguards, policies, etc.) to safeguard student/community health Institution has adequate plans to accommodate those who cannot return (e.g., immunocompromised)
All of the above for Archetype 1, but at smaller scale Campus experience, even with strong limitations, is a key part of delivering on the institution's mission		All of the above for Archetype 1, but at smaller scale Campus experience, even with strong limitations, is a key part of delivering on the institution's mission
All students partially in person	Low-residency mode	Risk of contagion from increased travels can be sufficiently mitigated Curriculum/campus experience can be modified (e.g., modular) to accommodate hybrid model Institution has adequate plans to accommodate those who cannot return (e.g., immunocompromised)
	Students in residence, learning remotely	Classrooms are the biggest risk for transmission/contagion on campus Institution has adequate plans to accommodate those who cannot return (e.g., immunocompromised)
Some students fully in person		All of the above for Archetype 1, but at smaller scale There are certain subpopulations for which on-campus programming is mission critical and sufficiently low risk
	Program/grade level- based phasing	Classes/programs/degrees can be meaningfully separated into in-person vs. online classes
	Need/equity-based phasing	There are certain populations for which the campus provides critical services difficult to replicate at home Faculty is willing/able to prepare and deliver nearly all courses both online and in person
	Locality-based phasing	Faculty is willing and able to prepare nearly all courses both online and in person
All students fully remote		The potential risks of reopening outweigh the benefits of an in-person campus experience Institution can withstand a potentially significant drop in enrollment
	On-time, remote start	Institution has/will have the digital teaching and learning capabilities to support an entire remote semester There are ways to build campus community in a virtual environment
	Structured gap year	Students will be able to find meaningful ways to learn on their own in a physically distanced environment Institution can define ways to redesign credit requirements to support gap-year experiences

5 (continued): Updating the academic calendar can support each archetype and provide flexibility for announcing fall 2020 plans

NOT EXHAUSTIVE

EXAMPLES CURRENT AS OF MAY 21, 2020

Option	Considerations	Appropriate archetypes
No change to academic calendar	Earlier decision and clarity for students, faculty, and staff on fall 2020 plans	On-time, full start On-time, remote start
		Structured gap year
Modular or block calendar (e.g., 8- or 4-week blocks vs. semesters) COLUMBIA UNIVERSITY 3 equal Module-based terms semester	Shortens the amount of time needed to complete a unit's worth of credit Allows more flexibility to change "phases" of reopening and/or to bring groups of students back to campus at different times Alleviates burden once (both students and faculty) of juggling multiple classes at once	Low-residency mode Program/grade-level-based phasing Need/equity-based phasing Locality-based phasing
Shortened semester (e.g., delayed start or ended before to Thanksgiving)	Eliminating holidays and breaks minimizes off-campus travel and contact Shortens the amount of time needed to complete a unit's worth of credit Could provide additional time to make decisions for either fall 2020 or spring 2021	Students in residence, learning remotely Full reopen with delayed start or early end

6: While ability to deliver on mission is challenged in a COVID-19 world, universities can be thoughtful about how to deliver impact

Part o	of mission	Current challenge	Potential themes to explore
6A	Learning	Incoming students feel negatively impacted in terms of college academic readiness	Creating impactful online course environments
		Faculty are teaching in new classroom environments that feature unique challenges that	Providing effective remote student supports
		they may not have faced before	Assisting faculty in teaching with faculty supports
6B	Research	Research activity at institutions across the country has halted as universities investigate	Conducting research effectively in a virtual way
		what is necessary to safely re-engage with lab activity	Collaborating with other universities using remote capabilities
		Research funding has stagnated with halts in research activity	Understanding the impact of COVID-19 on research funding priorities
6C	Service	Secondary schoolchildren are learning in adverse environments and will require	Supporting K–12 education partners in local areas
		remediation and supports to get back on track	Investing in support of displaced workers in retraining and job search
		COVID-19 has accelerated job displacement due to automation	Creating dynamic ways for faculty to remain involved with broader
		Individuals with lower educational attainment will be disproportionately displaced	university activity
		Given distancing, faculty may currently be disengaged from campus community	
6D	Student life	Students are facing unprecedented spikes in depression, anxiety, and loneliness given the pandemic and social distancing New graduates are entering a highly adverse job market Students are not optimistic they can receive the full, vibrant college experience in a remote/ hybrid college environment	Providing mental health support to assist with reopening transition
			Supporting seniors in finding employment
			Bringing the "quad" online
			Ensuring student clubs succeed in a socially distant environment
			Providing virtual global learning experiences
6E	Alumni	Alumni are facing a job market with unemployment rates at a scale not seen since the	Offering supports for those newly unemployed due to COVID-19
		Great Depression	Identifying creative ways for alumni to engage on campus
		Many alumni may be feeling disconnected from their alma mater given lack of campus activity (e.g., athletic events)	
	Universities	s should bear in mind equity and access considerations with respect to the five t	topics listed above (see Section 3 for more details).

6A: Learning: Universities can help students adjust to online by creating impactful online course environments and providing effective student supports

Potential themes to explore

Actions

Creating impactful online course environments

Set up routines and provide consistency in terms of delivery method, norms, and deadlines in a manner similar to that in pre-COVID-19 classroom settings

Lead a goal-setting exercise at beginning of remote learning, and have regular check-ins on progress toward those goals

Encourage classmates to support each other virtually by providing the medium for classmates to collaborate and connect via thoughtful group assignments and peer-tutoring hours

Find creative opportunities to conduct class labs and exercises

Providing effective remote student supports

Create a personal concierge to help students with the transition to and navigation of online course design

Host an easy-to-access (e.g., 24/7) service hotline for technical difficulties and online tutoring at no cost

Develop readiness assessments to ensure students are appropriately placed in online courses

Ensure equity and access to content by providing necessary resources (e.g., laptop, hot spot) as necessary and augmenting course content (e.g., adding closed captioning) to accommodate all



Example: Arizona State University

ASU Online partnered with Google and Labster in 2018 to offer a virtual-reality (VR) biology lab to students, allowing them to complete their lab requirements remotely. The VR experience allowed students "to do some things in a virtual lab that wouldn't be possible in the physical world, like viewing and manipulating DNA at the molecular level."

6A: Learning: Universities can also consider how to institute faculty support to maximize learning

Potential themes to explore

Offering support to assist faculty with teaching

Actions

Provide faculty with help from specialists on topics such as online course design

Develop short, effective student surveys to provide professors with nearly real-time feedback and ability to improve the experience throughout the semester (note: surveys should be used in a nonevaluative way)

Train faculty in remote teaching (e.g., remote-learning boot camp)

Test new technologies that enable remote learning, and install them in physical classrooms and/or online

Create avenues (e.g., faculty meetings) for faculty to share what they learn from remote teaching to build a culture of continuous improvement even in the next normal

Pair teachers who are novices online with teachers who are experienced online, to network and collaborate

Give teachers opportunities to bend the rules by making deadlines more flexible and shortening content that needs to be covered, to allow them to be receptive to the needs and emotional states of each student



Example: Open SUNY Center for Online Teaching Excellence

State University of New York opened a peer-topeer network to encourage collaboration, learnings sharing, innovation, course development, and camaraderie; it features an Open SUNY Learning Commons to encourage engagement.

6B: Research: Potential research themes to explore

Potential themes to explore

Actions

Conducting research effectively in a virtual way

Identify vendors that provide virtual research platforms and data sets for students and faculty to conduct research virtually

Collaborating with other universities with remote capabilities

Understand overlaps for large research priorities with sister institutions

Provide incentives (e.g., funding) for faculty members to collaborate in a remote fashion with peer faculty of other universities

Understanding the impact of COVID-19 on research funding priorities

Make deliberate investments in COVID-19 knowledge advancement related to topics such as vaccine development, testing, and economic recovery

Convene appropriate research leadership at university to create a strategic road map of research priorities and investment areas over next 6–12 months

Engage in frequent communications with academic donors and grants for continuing ongoing research on campus

6D: Student life: Universities can be thoughtful about ways to simulate a vibrant campus experience and peer-to-peer engagement

Not exhaustive

Potential themes to explore	Actions
Providing mental health and substance-use support to assist with reopening transition	Provide video options (along with in-person support) for mental health and substance-use professionals Partner with telehealth and tele-counseling providers as needed to offer virtual options Provide access to online mental health and mindfulness classes and applications Embed mental health and substance-use screenings into on-campus reopening health evaluation (along with temperature checks) Create "one-stop" portal featuring all mental health, substance use, and crisis response tools and resources (including appointment sign-ups) and feature during student orientations
Supporting seniors in finding employment	Provide virtual career counselling options for students who are remote Facilitate peer-to-peer mentorship on job search help (e.g., resume reviews) Design resources (e.g., websites) focusing on job search in post-pandemic economy
Bringing the "quad" online	Open up virtual spaces for discussions, events, wellness classes, and other forums to stimulate engagement and provide a semblance of campus life Work with student leaders to understand pulse of students students and develop a common set of goals related to student life
Ensuring success of student clubs in a socially distant environment	Create forums for student leaders to share lessons with each other on what works Convene virtual "meet the clubs" for freshman to learn more about student organizations
Providing virtual global learning experiences	Increase engagement with sister universities abroad and/or create new partnerships with sister universities Host a virtual lecture series with faculty from universities abroad



Example: University of Florida

The university developed a "student plaza" for students to organize study groups and connect with peers and counselors.

7: Universities can break the reopening process into three phases

Developing reopen plan pre-announcement

Assess campus capacity (e.g., housing, healthcare) that will constrain and inform your strategic choices

Pressure test reopening scenarios to determine feasibility of each option

Define university's reopen strategy and policies/ procedures to support the strategy

Build detailed operational plans, by work stream, for how to enact policies, procure resources, and make investments

Set milestones and stage gates to meet before reopening; and define criteria, by work stream, for go/no-go decisions

Source expertise for areas that require technical knowledge and help

Begin initial vendor scans as relevant



Implementing plan preopening

Execute operational plans (e.g., sending communications, hiring personnel, altering spaces, and engaging relevant stakeholders as needed) by work stream

Prepare and train employees to implement the laid-out strategy, and govern according to the policies/procedures

Identify KPIs and data sources to be used for monitoring where relevant

Set up dashboards to create visibility and real-time monitoring of health and safety

Finalize vendor agreements as necessary, and stock up on necessary resources

Track progress at milestones/stage gates, and alter plans as needed if go/no-go criteria are not met



After reopening

Monitor dashboards and action accordingly based on real-timemetrics updates

Update university leadership and necessary stakeholders as situation evolves

Update policies/procedures as situation evolves

Restock resources as needed

These steps can be repeated for each stage of reopening (e.g., initial return after shelter-in place, full return of students).

7 (continued): There are 4 buckets of internal resourcing that universities can consider planning for right now

Resource type	Equipment to consider	Additional personnel and skills to consider	Additional facilities/spaces to consider
Healthcare	Stocking up on PPE (e.g., masks, gloves, gowns, coveralls) for healthcare workers and campus employees and students	Temporary healthcare workers (e.g., nurses, primary care)	Additional quarantine spaces (e.g., hotels)
			Additional dorm capacity to maximize ability to have singles (one person/room)
Identification,	Aggregating screening (e.g., thermometers, infrared cameras) resources	Administerers of temperature checks and tests	Testing checkpoints across campus
testing, and tracing	Stocking up test kits (e.g., PCR, 1 serological tests) to appropriate levels given testing protocol put in place	Labs and personnel to proc Contact tracing testers	
	Standing up a mobile application for contact tracing	Data analytics experts to provide insights	
Cleaning/ sanitization	Stocking up on disinfectants (e.g., hand sanitizers, wipes, cleaning products) that are designed for COVID-19	Temporary cleaning staff to handle surge	Additional classrooms/spaces for smaller classes
IT/data security	Setting up infrastructure for enhanced WFH work and distance learning along with appropriate data security and collaboration tools	IT, data security, and infrastructure experts	IT help desks across campus to facilitate remote work/distance learning where applicable

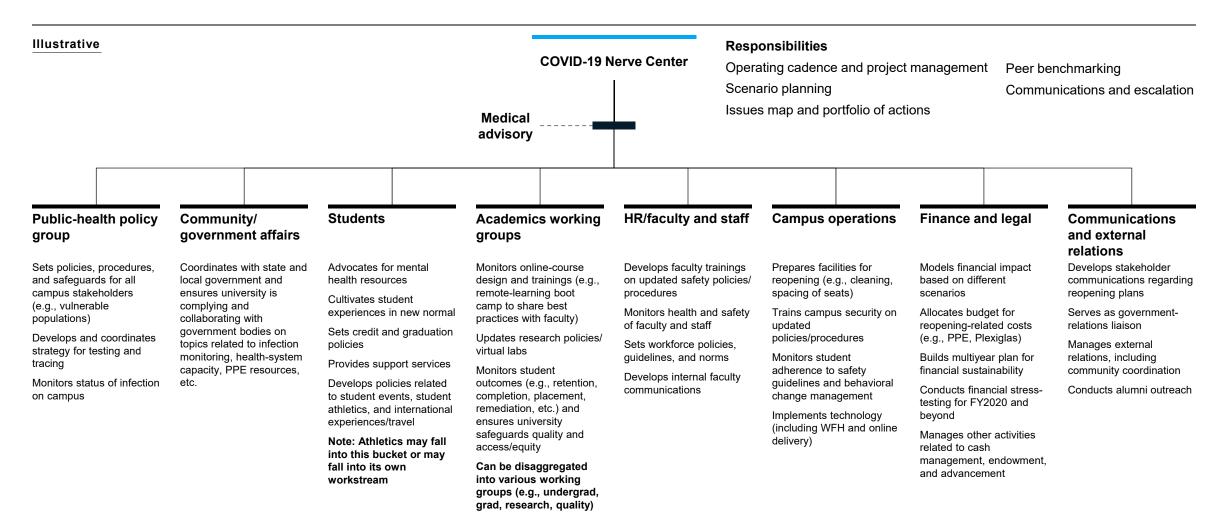
Universities can plan for and allocate budget and resourcing now to ensure successful execution—financial constraints and procurement capabilities will impact the ability and to what extent a university can source and operationalize these resources.

^{1.} Pomerase chain reaction.

8: Governance and adherence/change management are critical elements of a successful reopening strategy—and can be powered through data

Work stream		Description
8A	Governance	Managing university work streams in planning and executing the reopening strategy Coordinating initiatives across departments and enabling agile decision making Convening cross-functional committee at frequent intervals for status check-ins
8B	Adherence/change management	Creating the infrastructure by which the university community adheres to COVID-19-related policies and procedures Instituting a disciplinary process for noncompliance and coordinating across academic, campus-security, and law-enforcement leaders
8C	Data tracking	Enabling stakeholders in both governance and adherence/change management to make data-driven decisions and accurately monitor reopening KPIs in real time as the situation evolves

8A: Governance: Example of a cross-functional committee a university can put in place to create and execute reopening plans



University governance structures will need to adapt as reopening progresses.

Universities can reflect on which processes have improved (e.g., speedier decision making) given COVID-19 and brainstorm ways to integrate into post-pandemic governance processes.

8B: Adherence and change management: Universities can apply behavioral reinforcement techniques to drive adoption of safeguards

Example actions

Ensure President/senior leaders commit to WFH for certain period of time and wear appropriate PPE when filmed and/or on campus

Launch an influencer network to collaborate with university leaders and use social media to rolemodel healthy behaviors of their peers

Start every meeting with a health and safety moment to increase personal ownership for the collective health of the community

Fill any health and safety capability gaps through hiring, deployment, or rapid upskilling (e.g., technicians)

Provide online training for students, faculty, and staff, including on:

- Public-health knowledge (e.g., sanitization best practices, symptom identification)
- University-specific policy updates (e.g., altered class schedules)

Understanding and Role modeling commitment "I see my leaders, colleagues, and staff "I know why I need to change behaving differently." and in what way." "I choose to change my mindset and behavior if..." Skills required for Aligned systems and change structures "I have the skills and

"The systems reinforce the

desired change."

opportunities to behave in

the new way."

Example actions

Roll out two-way communications plan to keep key stakeholder groups involved and informed

Clearly communicate the "why" behind process and policy updates

Launch printed/digital health campaign to promote healthy personal habits with high-visibility signage and nudges across campus (e.g., email reminders, social distancing and sanitization cues)

Resources and structures in place to enable behavior changes (e.g., PPE available, automatic hand sanitizer dispensers stationed across campus)

Update processes and policies to ensure health and safety of all stakeholders

Hold individuals accountable for following process and policies related to health and safety

Partner with law enforcement and campus leaders to impose fines/disciplinary actions for safeguard infractions

8C: Data tracking: Setting up a mechanism for data tracking and monitoring across workstreams can enable analytical decision making

Not exhaustive

Potential metrics to track across different stages of reopening

Workstream	Developing plan pre-announcement	Implementing plan preopening	After reopening
Governance	External conditions (e.g., contagion metrics, health-system capacity, testing distribution, contact tracing	Progress per work stream toward key milestones and stage gates outlined in detailed operational plan	Regulatory guidelines, infection status, health-system capacity, and adherence on campus (see Section 4C for KPIs to track)
	capabilities—see Section 1 for comprehensive list)		Updates by work stream across KPIs and milestones (e.g., additional initiatives, adjusting policies)
Adherence/ change	Progress towards completing development of trainings,	Participation rates in virtual and on-site trainings and results from any safeguards and policy/procedure tests administered as part of training	Hospital admittance rates from withir university community
management	communications, and detailed adherence plan		Campus video footage
	adricionos plan	as part of training	On-campus disciplinary rates (e.g., suspensions, arrests)

Data tracking and monitoring should be done in compliance with data security and privacy standards (e.g., Health Insurance Portability and Accountability Act [HIPAA]).

9: Communicating in a crisis presents unique challenges

Lives and livelihoods are at stake

The stakes are high for individuals, institutions, and communities.

People's ability to process information is reduced

In times of crisis, behavioral science and observation show us people experience elevated stress and anxiety and a sense of "tunnel vision," reducing their ability to process information and look forward.

People experience crisis differently

Depending on circumstances, people will experience crisis differently, and messaging must be adjusted accordingly. Institutions are in danger of being tone deaf or insensitive if they don't tune into their people.

Sensitivity and the need for sense-making is heightened

Information in a crisis is limited and unfolds over time. During crises, people have an increased desire for transparency, clarity, and sense-making to understand events.

There is a need to grieve

People experience different types of loss—perhaps job loss, perhaps loss of lives.
People need space to grieve.

9 (continued): Universities can adopt crisis-specific principles to guide all messaging to campus



Communicate clearly, simply, frequently

Prevent "cognitive freezing" with clear, simple messages.

Dos, not don'ts. Frame messages based on what people should do, and highlight best practices rather than debunking myths.

Tailor your messaging. Use multiple channels and platforms to tailor messaging to specific groups (e.g., students, parents, faculty, etc.).

Repeat, repeat. Audiences need to hear a health risk-related message 9–20 times to fully absorb it.¹

Make consequences salient. The pain of losses is psychologically ~2x as powerful as the pleasure of gains.² When possible, refer to losses (e.g., preventing deaths) instead of gains (e.g., saving lives).



Choose candor over charisma

Build trust by being honest and vulnerable—especially when it's difficult.

Facts, without sugar coating. Differentiate clearly between what is known and unknown, and don't minimize or speculate.

Be transparent. Give people a behind-thescenes view of options you are considering.

Involve your audience. Invite stakeholders to share their ideas for how to address a challenge.

Share your experience. Acknowledge the personal effects of emotional turmoil; be relatable.



Build community and continuity for all stakeholders

Reinforce a common social identity through story sharing and group activities.

Celebrate the positives. Share positive stories and uplifting moments about how people are responding and adapting.

Help people to help. Give people a way to contribute to the crisis response. Promote useful individual actions and decisions.

Revitalize resilience. Tap sources of hope, trust, and optimism to unlock creativity.

Remember all the stakeholders. Address the needs of all your stakeholders, including students, staff, and faculty.



Distill meaning from chaos

Help people make sense of events.

Identify the leadership voice(s) from the outset. Apply the right voice(s), with the appropriate tone, at key moments.

Set clear goals and "walk the talk." Clarify what your institution will achieve during the crisis, and take steps to realize those goals.

Connect to a deeper sense of purpose. Shape a meaningful story for your institution that connects to its mission or purpose.

Foster dialogue. Create space for people to create their own stories of meaning, through questions and dialogue.

Manage backlash. Anticipate, acknowledge, and respond constructively to criticism or backlash.

^{1.} Xi Lu, Xiaofei Xie, and Lu Liu, "Inverted U-shaped model: How frequent repetition affects perceived risk," Judgment and Decision Making, 10(3), May 2015, pp. 219–24, http://journal.sjdm.org.

^{2.} Emma Smith, "Using behavioural insights to address COVID-19," International Development LSE blog, https://blogs.lse.ac.uk.

10: Stress tests can be performed to test the impact of each scenario on revenues for fall 2020

Nature of impact

		Fully in person Fully remote
Revenue type		
Tuition and fees	Partial reimbursements or losses in student activity fees (e.g., student affairs, commencement) Potential decline in enrollment and tuition revenue, particularly among international or out-of-state students	Losses in student activity fee revenues due to remote operations
Federal and state funding	Possibility of direct funding under CARES Act Potential decline in state funding driven by reduced tax revenues	
Research ¹	Nominal impact on operations, limited impact on research funding/revenues unless significant program delays or cancellations result in decreased funding	Stalled research projects resulting in decreased funding and grants Loss of research facility rental and corporate fee revenues
Endowment	Shrinkage in endowment values due to market losses Reduction in investment income and nominal drop in permitted statutory draws for operations for FY21	
Advancement	Potential for significant decline due to market losses, impacting donor capacity and willingness to donate, and new tax laws on athletic contributions ²	
Auxiliary	Reduction in merchandizing and bookstore sales/drop in vendor commissions Reduced rent and lease revenues from low utilization of leased cafes and services Loss of hotel and conference rental revenues in case of repurposing facilities for academic or residential purposes, parking fees, facility rental fees	Loss of merchandizing and bookstore sales/vendor commissions Loss of rent and lease revenues from low utilization of leased cafes and services
Athletics	Potential drop in conference participation revenue share due to tournament cancellations Reduced funding from NCAA, ticket revenues and media rights revenues	
Housing	Potential loss in student housing revenues due to decreased enrollment, and potential reimbursement to allow for physical distancing in residence halls	Loss in student housing revenues
Dining	Potential loss in dining and meal plan revenues due to decreased enrollment Loss in third party vendor commissions in cases of outsourced services	Loss in dining and meal plan revenues
	The nature and magnitude of impact are likely to vary by size and brand of institution, student demo	

Changes in research funding support will have greater effect on research-focused institutions. | 2. Private support for all institutions dropped 17% during Great Recession, from \$29.1 billion peak in 2007–08 to \$24.3 billion trough in 2009–10.

Fully remote

Fully in person

10 (continued): Stress tests can be performed to test the impact of each scenario on costs for fall 2020

Nature of impact

			Tany in porcon
Cost type			
	Faculty	Potential increase in personnel costs for IT and health-services training	Likely increase in personnel costs on IT and health-services training
	-	Potential increase in faculty stipend and adjunct hiring costs to meet online-learning and student support needs	Spike in faculty stipends to meet online learning and student support needs
	Staff	Potential increase in staff hiring costs to meet online-learning and student support needs and IT and health-services training	Spike in staff hiring costs to meet online learning and student support needs and increase in IT and health-services training
T III T		Ongoing fixed salary costs for research and auxiliary support	Potential reduction in overtime and spending of student workers
		Likely increase in onboarding and training costs for essential roles (e.g., contact tracing)	
	Healthcare and Insurance	Potential increase in utilization of on-premise health clinics based on prevalence of illness ¹ Nominal impact on costs associated with student health plans	Potential increase in use of telemedicine to address mental health issues Potential decrease in costs associated with student health plans, assuming regional access/coverage
	IT	Investments needed in infrastructure and licenses in the case of supporting individuals with remote-working and online-learning needs	Significant investments needed in infrastructure and licenses due to remote working and increased number of online classes/students
	Operations Maintenance	Significant increase in facilities maintenance and repairs, utility expenses, and spending on operational health and safety safeguards (resources, personnel, equipment, deep cleaning and sanitization, etc.)	Significant reduction in utility expenses due to limited campus operations
			Reduced spending on facilities maintenance and repairs
		Deferral of non-essential capital projects	Deferral of most capital projects
	Other external spend	Nominal impact on external spend, travel, and catering costs due to slightly reduced operations, though potentially offset if canceled contracts with travel companies, venues, caterers, etc., are uninsured	Significant reduction in external spend, travel, and catering costs due to limited campus operations, though potentially offset if canceled contracts with travel companies, venues, caterers, etc., are uninsured
			Increase in marketing/vendor costs for virtual admissions, student engagement, etc.

The nature and magnitude of impact is likely to vary by size and brand of institution, student demographics, and online preparedness.

The revenue impact of the "hybrid" scenario will fall in between the "fully in person" and "fully remote" scenario and differ based on the hybrid approach.

^{1.} Highly dependent on course of the pandemic; high infection and mortality rates could generate stark increases in insurance costs.