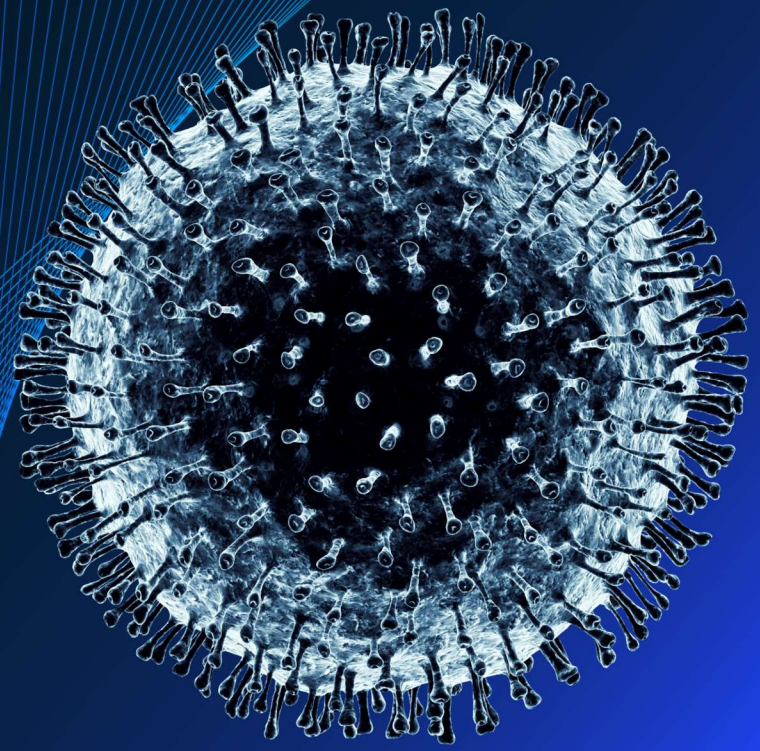
McKinsey & Company

Coronavirus COVID-19: Perspectives for Higher Education

This Document is Current only as of April 6, 2020

This Document is Solely Intended to Provide Insights and Best Practices for the Client – This Document does not Constitute Client Advice



Current as of April 3, 2020

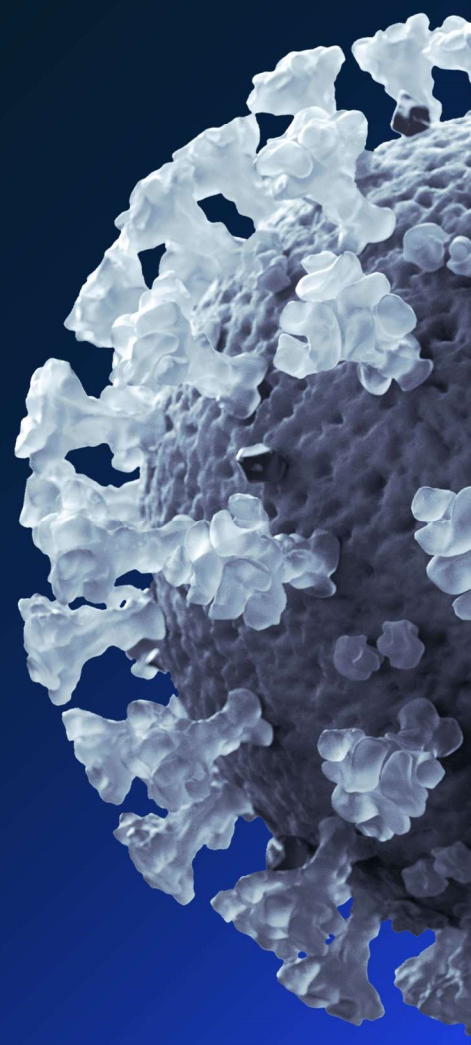
COVID-19 is, first and foremost, a global humanitarian challenge.

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.

Companies around the world need to act promptly.

This document is meant to help senior leaders understand the COVID-19 situation and how it may unfold, and take steps to protect their employees, customers, supply chains, and financial results.

Read more on McKinsey.com →



Executive summary

The situation now

At the time of writing, COVID-19 cases have exceeded 900,000 and are increasing quickly around the world, with concerns that a 15% hospitalization rate could drive hospital system overload.

To reduce growth in cases, governments have moved to stricter social distancing, with "shelter in place" orders in many areas in the U.S., Europe, India, and other countries. This has driven rapid demand declines—among the deepest in recent times—that are being met by attempts at bailouts.

Some Asian countries, e.g. China, have kept incremental cases low, and are restarting economies. So far, there is little evidence of a resurgence in infections.

How the situation may evolve

There is a limited window for governments to drive adequate public-health responses and meet demand drawdowns with proportionate economic interventions. Without this, the possibility of a deeper effect on lives and livelihoods is more likely.

Scaled-up testing will soon clarify the extent and distribution of spread in the U.S., and Europe.

Learnings from other countries and recent innovations (strict social distancing rules, drive through testing, off-the-shelf drugs that can address mild cases, telemedicine enabled home care) could provide basis for a restart.

Actions that institutions can take

1

Resolve

Address the immediate challenges that COVID-19 represents to the workforce, customers and partners

2

Resilience

Address near-term cash management challenges, and broader resiliency issues

3

Return

Create a detailed plan to return the business back to scale quickly

4

Reimagination

Re-imagine the "next normal"—what a discontinuous shift looks like, and implications for how the institution should reinvent

5

Reform

Be clear about how the environment in your industry (regulations, role of government) could evolve

Establishing a Nerve Center can ensure speed without sacrificing decision quality across these five dimensions

The global spread is accelerating with more reports of local transmission

Latest as of April 3, 2020[1]

Impact to date

>1 million
Reported confirmed cases

>52,000
Deaths

>200
Countries or territories with reported cases[1]

>160
Countries or territories with evidence of local transmission[2]

49
Countries or territories with more than 1000 reported cases[1]

~.2%
China share of new reported cases March 27–April 2

~38%
US share of new reported cases March 27–April 2

~52%
Europe share of new reported cases March 27-April 2

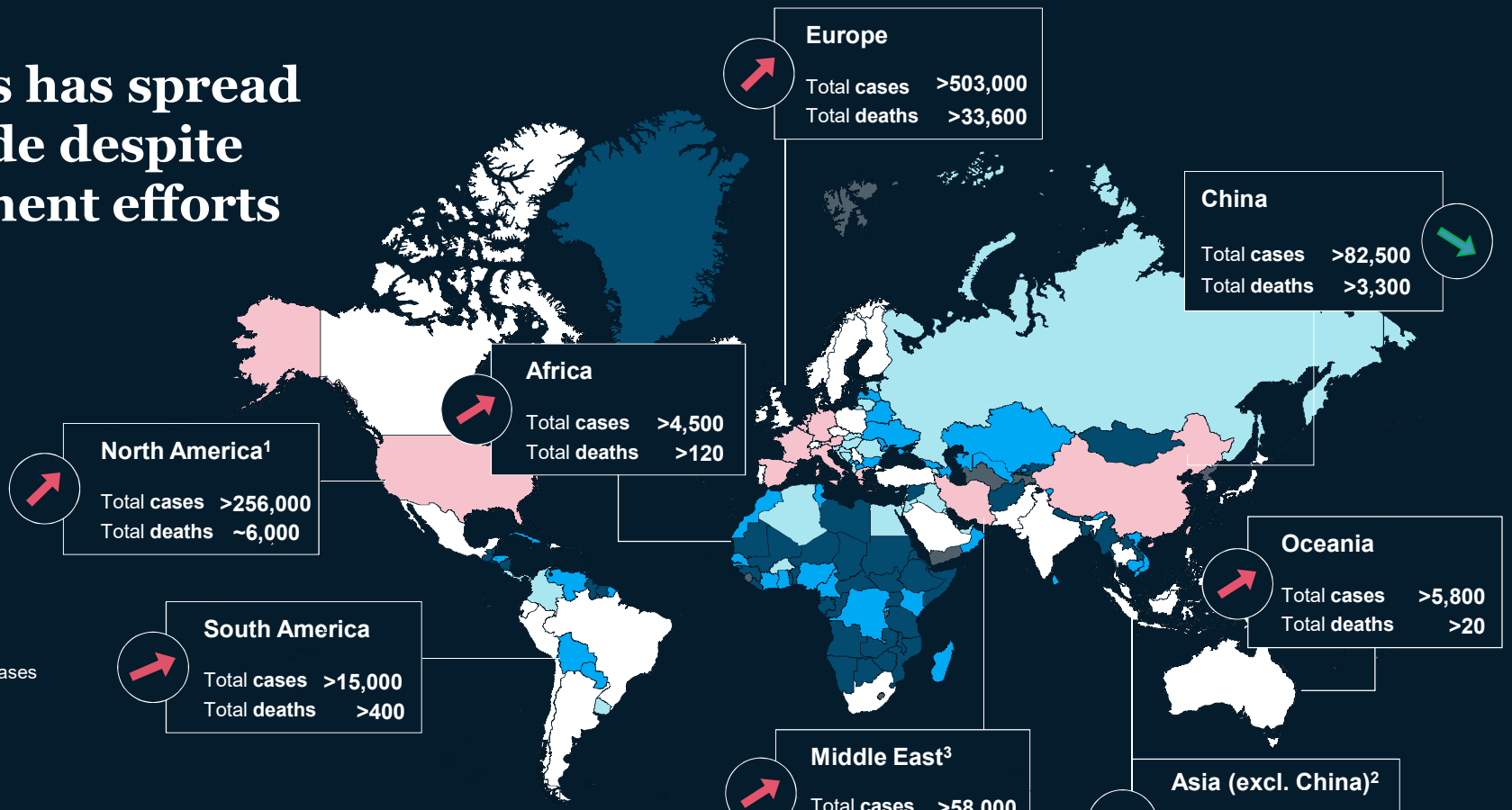
6
New countries or territories with cases March 27–April 2

1. Previously counted only countries; now aligned with WHO reports to include territories and dependencies; excluding cruise ship
2. Previously noted as community transmission in McKinsey documents; now aligned with WHO definition

Source: World Health Organization, John Hopkins University, CDC, news reports

Current as of April 3, 2020

The virus has spread worldwide despite containment efforts



1. Johns Hopkins data used for U.S., all other North America countries reporting from WHO
2. Includes Western Pacific and South–East Asia WHO regions; excludes China; note that South Korea incremental cases are declining, however other countries are increasing
3. Eastern-Mediterranean WHO region

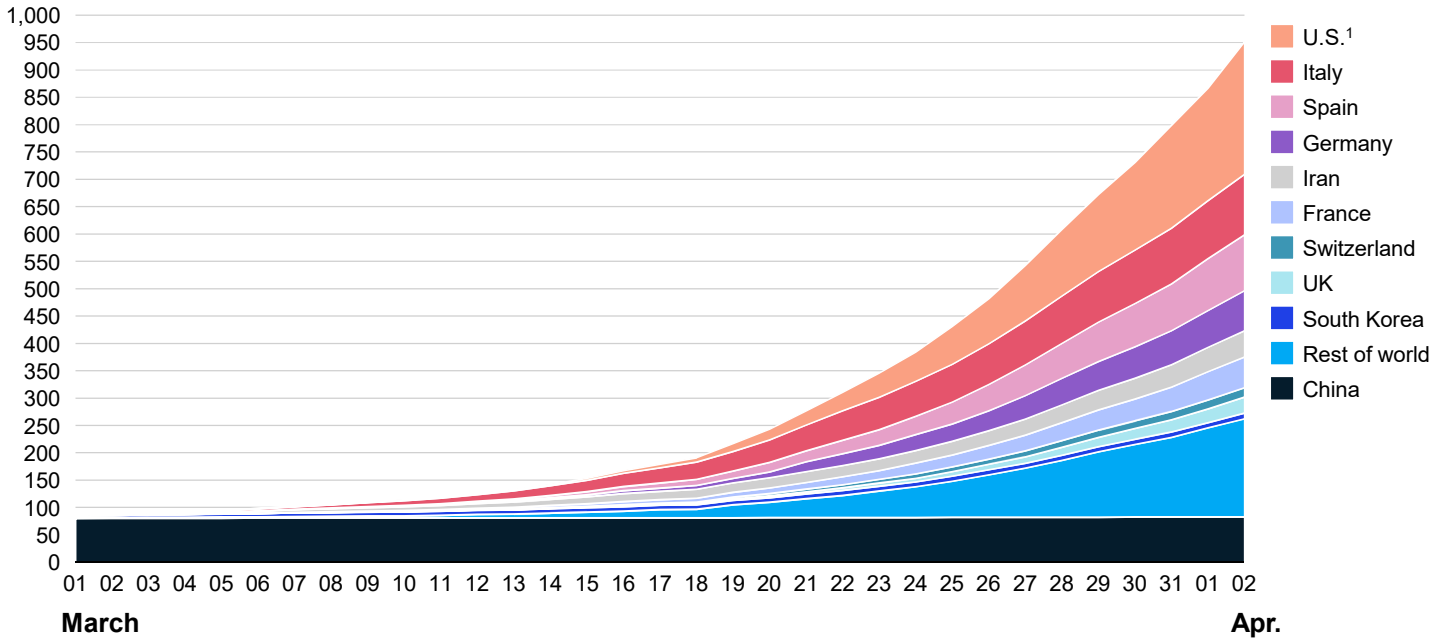
Source: World Health Organization, Johns Hopkins University, McKinsey analysis

Current as of April 3, 2020

Greatest share of recent cases comes from Europe, although U.S. cases are rapidly accelerating

Cumulative number of cases since March 1 – April 2

Thousands



Asia
Incremental cases for China and South Korea are now ~100 per day with continued focus on disease surveillance and management of imported cases and localized transmission

Europe
Cases and deaths continue to increase across the region. Effects of national lockdowns are beginning to show effect in Italy (which recorded relatively flat incremental cases for the past 3-4 days); close monitoring should continue in upcoming days to understand the impact of distancing measures across European states

United States
Dramatic rise in cases in the past week have led the U.S. to exceed all other countries (including China) in total cases; incremental cases are now above 10,000 per day with highest concentrations in New York, New Jersey and California

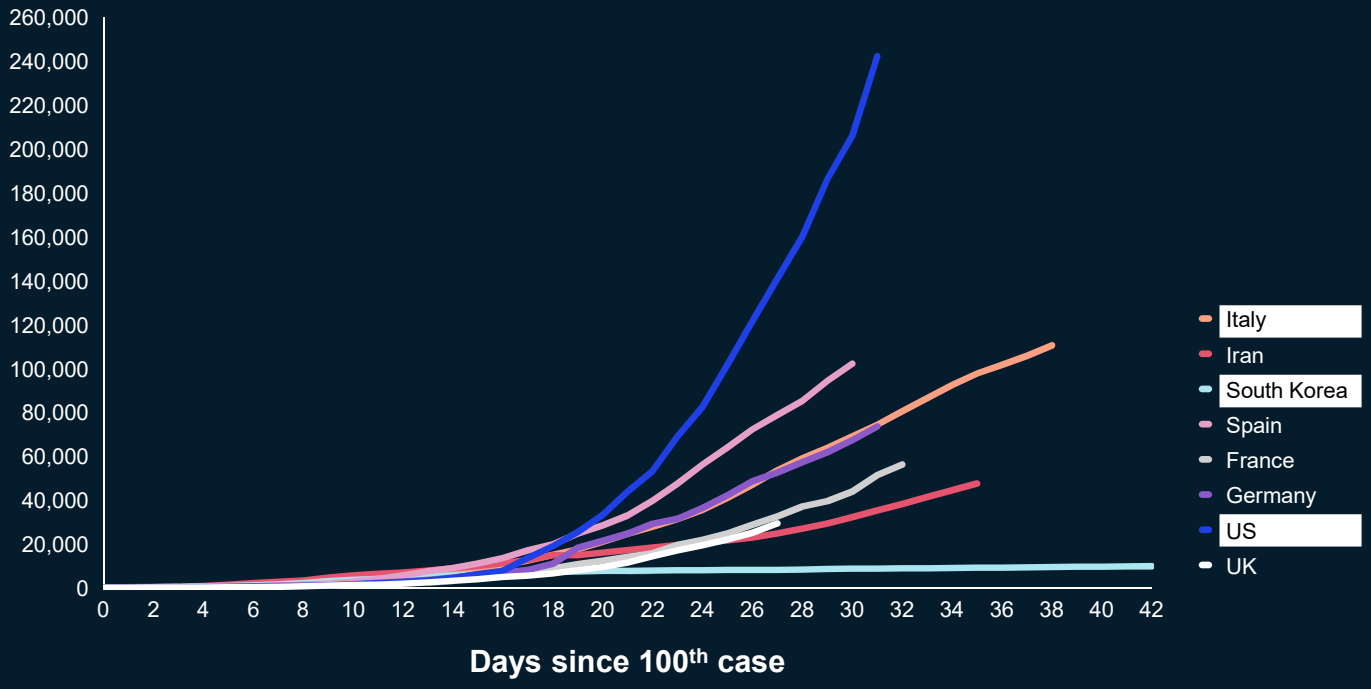
1. U.S. data from Johns Hopkins University CSSE (observed at 1700PT); all other data from WHO Situation Reports

Sources: WHO situation reports, Johns Hopkins University, press search

Current as of April 3, 2020

Countries begin with similar trajectories but curves diverge based on measures taken

Cumulative number of cases



Select country detail

Italy: After more than two weeks of national lockdown, incremental cases and deaths are flattening, indicating that public health are reducing transmission

South Korea: Aggressive testing, contact tracing and surveillance, and mandatory quarantines are helping isolate virus clusters and dramatically slow spread of outbreak.

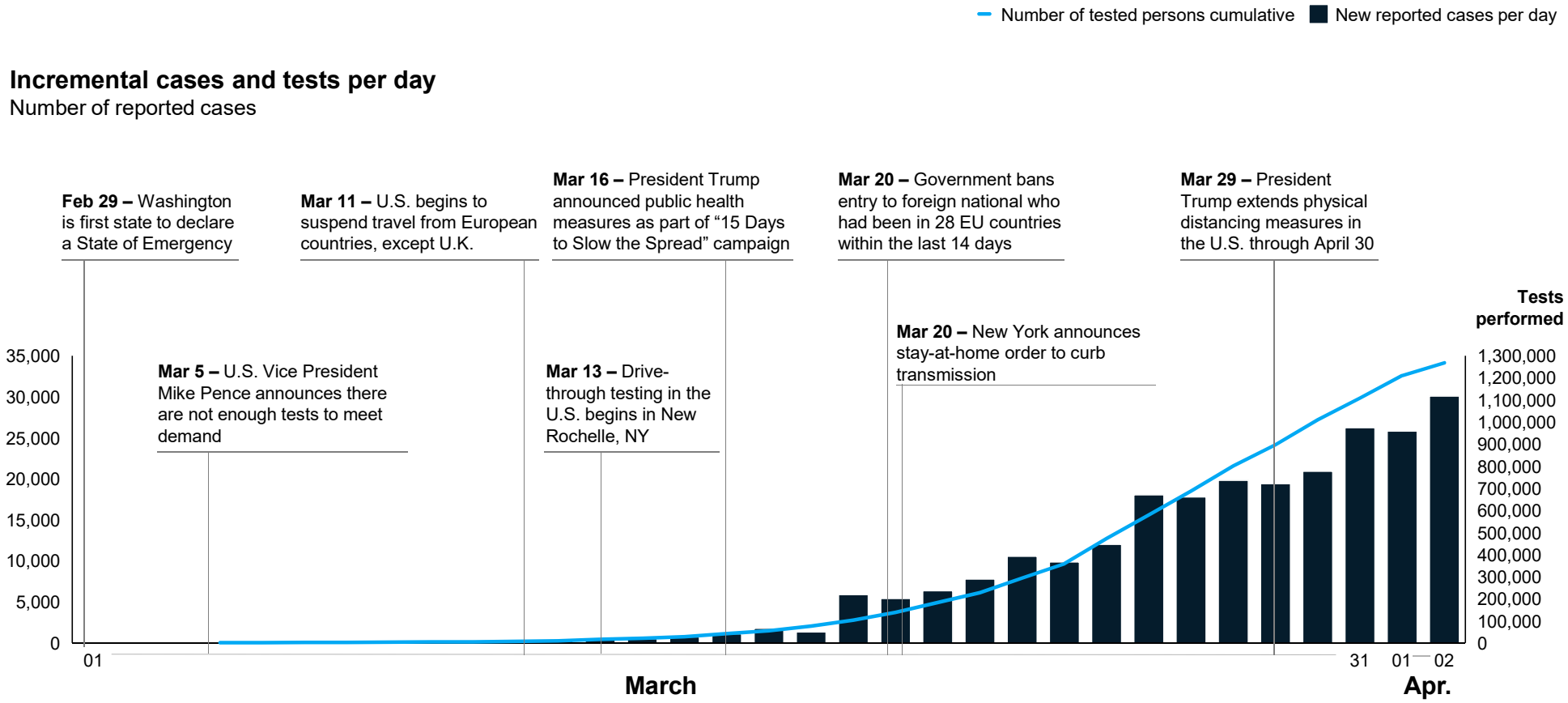
United States: Cases and deaths are accelerating rapidly amidst containment responses that vary at state and local levels; U.S. now has the highest number of confirmed cases in the world

1.U.S. data from Johns Hopkins University CSSE; all other data from WHO Situation Reports

Sources: WHO situation reports; Johns Hopkins University, press search

Current as of April 2, 2020

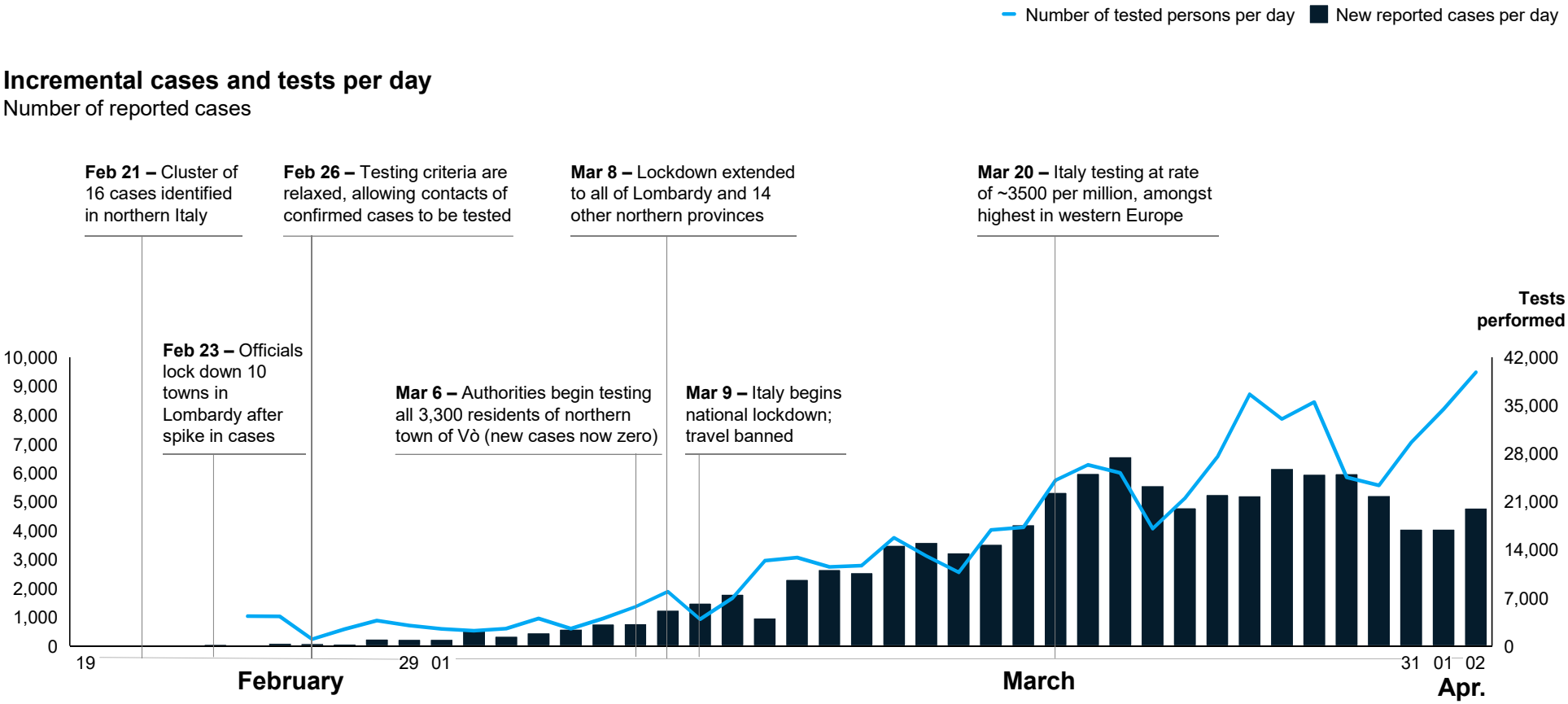
US: Exponential growth in the past two weeks has made the US the newest COVID-19 epicenter



Source: Johns Hopkins University, COVID Tracking Project, NY Times, press search

Current as of April 3, 2020

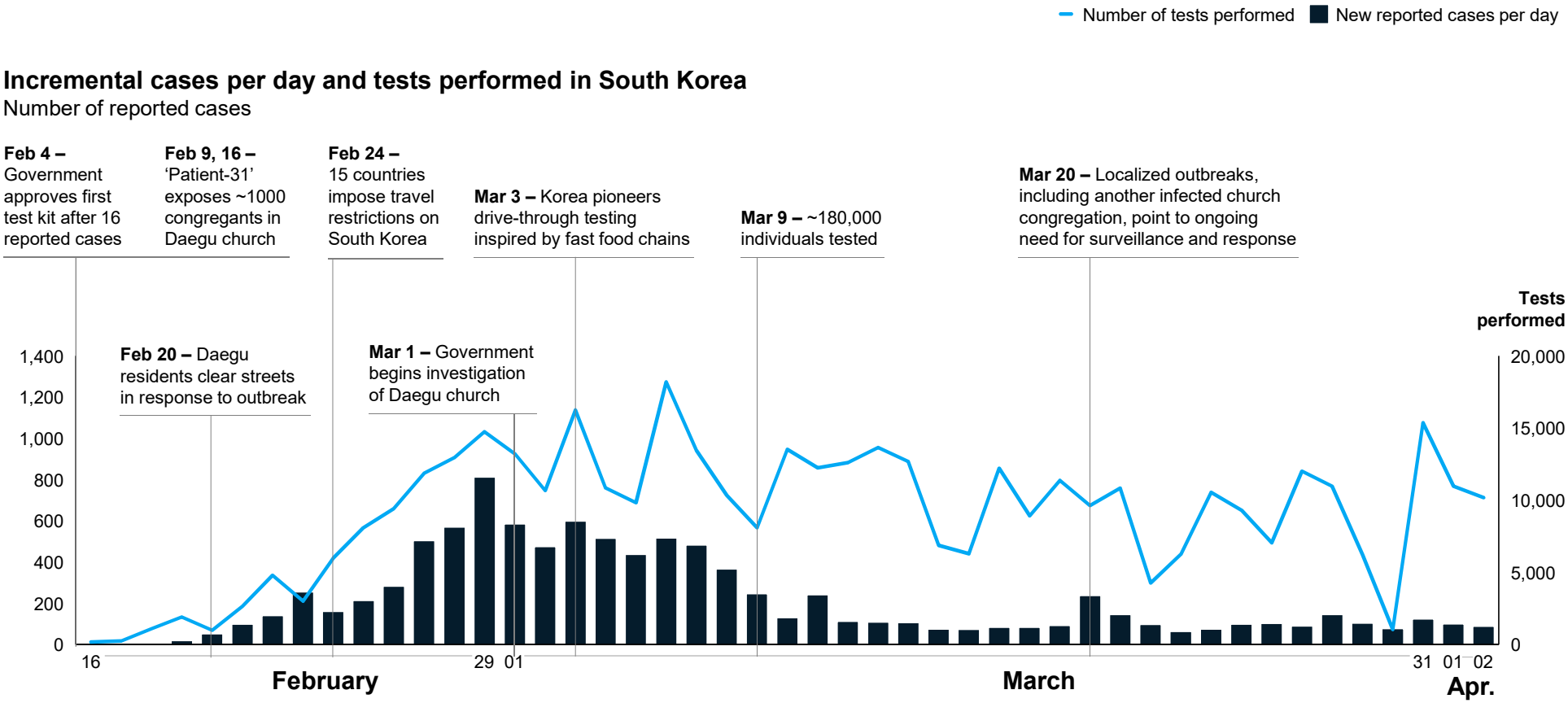
Italy: The number of new cases has trended slowly down over the last 10-14 days



Source: WHO situation reports, CNN, New York Times, press search

Current as of April 3, 2020

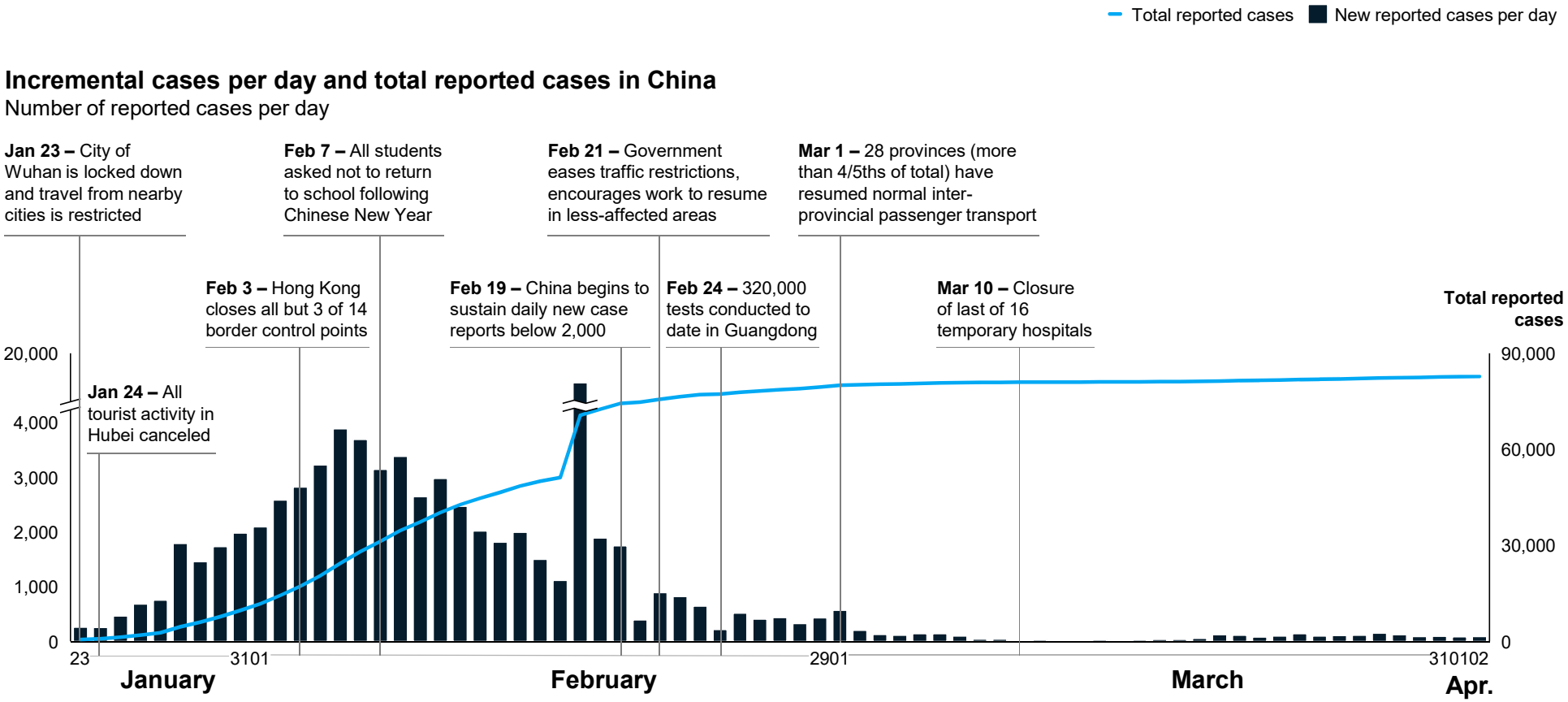
South Korea: Rigorous investigation of outbreak clusters and rapidly scaled testing capabilities limited spread



Source: WHO situation reports, CNN, New York Times, Korean CDC, press search

Current as of April 3, 2020

China: Rapid lockdowns were employed to manage outbreak before ramping up testing and response capabilities



1. Changes in new case tracking and reporting methodology yield spike in reported cases

Source: WHO situation reports, New York Times, Chinese government official notices and reports, press search

Key considerations for disease progression

A

Growing evidence on the extent and role of asymptomatic cases and transmission

Although the range is large for estimated share of total cases (~20-50% for percentage of cases that are asymptomatic and ~10-60% for percentage of transmission due to asymptomatic cases)

There is significantly higher prevalence than confirmed cases, that could require continued strict social distancing for a while

B

Seasonality alone will not be enough to curtail transmission, while it is like to have modest impact on extent of transmission:

prevailing outlook is that seasonality alone will not be enough to curtail transmission, requiring ongoing public health intervention even as weather

C

Promising testing innovations may greatly expand disease surveillance capabilities

At home sampling and point-of-care diagnostics can improve convenience and reduce processing times. Additionally, new antibody diagnostics under development may facilitate testing for prior exposure, which may allow significant segments of the population with immunity to resume activity

D

Economic restarts in Asia reflect possibility to restart limiting local transmission however need for renewed travel restrictions

experience from Hong Kong, Singapore and Taiwan has shown spike in cases following return to in-person employment and relaxation of travel restrictions. While most cases are categorized as imported, Hong Kong especially has also seen renewed growth in local transmission. In response all three economies have reinstituted restrictions on travel and in-person gatherings

A: Emerging evidence indicates that asymptomatic cases could be drivers of transmission

Asymptomatic Symptomatic

Officials agree asymptomatic / pre-symptomatic cases are quite common

World Health Organization

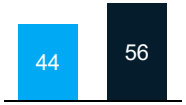
"The risk of catching COVID-19 from someone with no symptoms at all is very low. However, many people with COVID-19 experience only mild symptoms. This is particularly true at the early stages of the disease. It is therefore possible to catch COVID-19 from someone who has, for example, just a mild cough and does not feel ill."

CDC Centers for Disease Control and Prevention

"One of the [pieces of] information that we have pretty much confirmed now is that a significant number of individuals that are infected actually remain asymptomatic. That may be as many as 25%. That's important, because now you have individuals that may not have any symptoms that can contribute to transmission, and we have learned that in fact they do contribute to transmission.

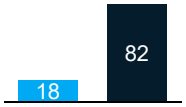
Emerging evidence suggests that 20-50% of cases are asymptomatic / pre-symptomatic…

March 15: Announcement by the Iceland government based on 425 confirmed cases



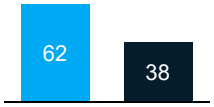
March 12: EU CDC report based on ~13,000 lab confirmed cases in Italy

March 16: announcement by the South Korea CDC based on ~8,200 reported cases

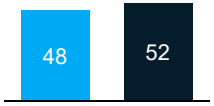


Study of 643 infected cases on Diamond Princess cruise ship published March 12 in Eurosurveillance journal

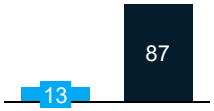
And that asymptomatic / pre-symptomatic transmission may account for 10-60% of cases



Study based on 135 cases in Tianjin, China published March 8 on medRxiv (preprint server for health science)



Study based on 91 cases in Singapore published March 8 on medRxiv (preprint server for health science)



Study of 468 reported cases in China published March 19 via early release in Emerging Infectious Diseases journal

Source: WHO, US CDC, EU CDC, Korea CDC, Government of Iceland, Mizumoto et. al "Estimating the asymptomatic proportion of coronavirus disease 2019 (COVID-19) cases on board the Diamond Princess cruise ship, Yokohama, Japan, 2020," Ganyani et. al, "Estimating the generation interval for COVID-19 based on symptom onset data," Du et. al, "Serial Interval of COVID-19 among Publicly Reported Confirmed Cases"; https://www.npr.org/sections/health-shots/2020/03/31/824155179/cdc-director-on-models-for-the-months-to-come-this-virus-is-going-to-be-with-us

Public health response needs to account for possible widespread transmission asymptomatic individuals

- Countries / territories with limited confirmed cases and testing could still have significant transmission prevalent
- Resurgence could be driven by asymptomatic transmissions
- Could require continued strict social distancing for a while

Antibody blood tests are currently the best method for detecting asymptomatic cases

B: Seasonality is unlikely to be a major contributor to stopping the spread of COVID-19

Some early evidence indicates negative association between temperature/ humidity and COVID-19 transmission …

High temperature and high relative humidity show association with reduced transmission of COVID-19 in regressions in China data[1]

Majority of COVID-19 cases fall within temperate climates (95% of cases falling between 2.0-9.5 degrees Celsius)[2]

… However, climate and seasonality alone are broadly not expected to stop or significantly slow transmission

Applying observed association between temperature/humidity and transmission rates, North American and European countries would see little impact of climate on transmission until late June[3]

Historical pandemic influenza analogues do not exhibit same patterns as seasonal flu in terms of waning during summer months[4]

"For the novel coronavirus SARS-CoV-2, we have reason to expect…it may transmit somewhat more efficiently in winter than summer, though we don't know the mechanism(s) responsible. The size of the change is expected to be modest, and not enough to stop transmission on its own"

Marc Lipsitch, PhD, Harvard School of Public Health

1.Jingyuan Wang, Ke Tang, Kai Feng and Weifeng Lv 2020
2.Miguel B. Araújo and Babak Naimi 2020
3.Qasim Bukhari and Yusuf Jameel 2020
4.Marc Lipsitch 2020

Ongoing public health measures and private sector response leaders should not rely on seasonal changes to provide immediate or significant relief

Ongoing disease containment and surveillance will continue to be critical in the near term until validation of reduced transmission

C: Two major test-types detect either active or past infections

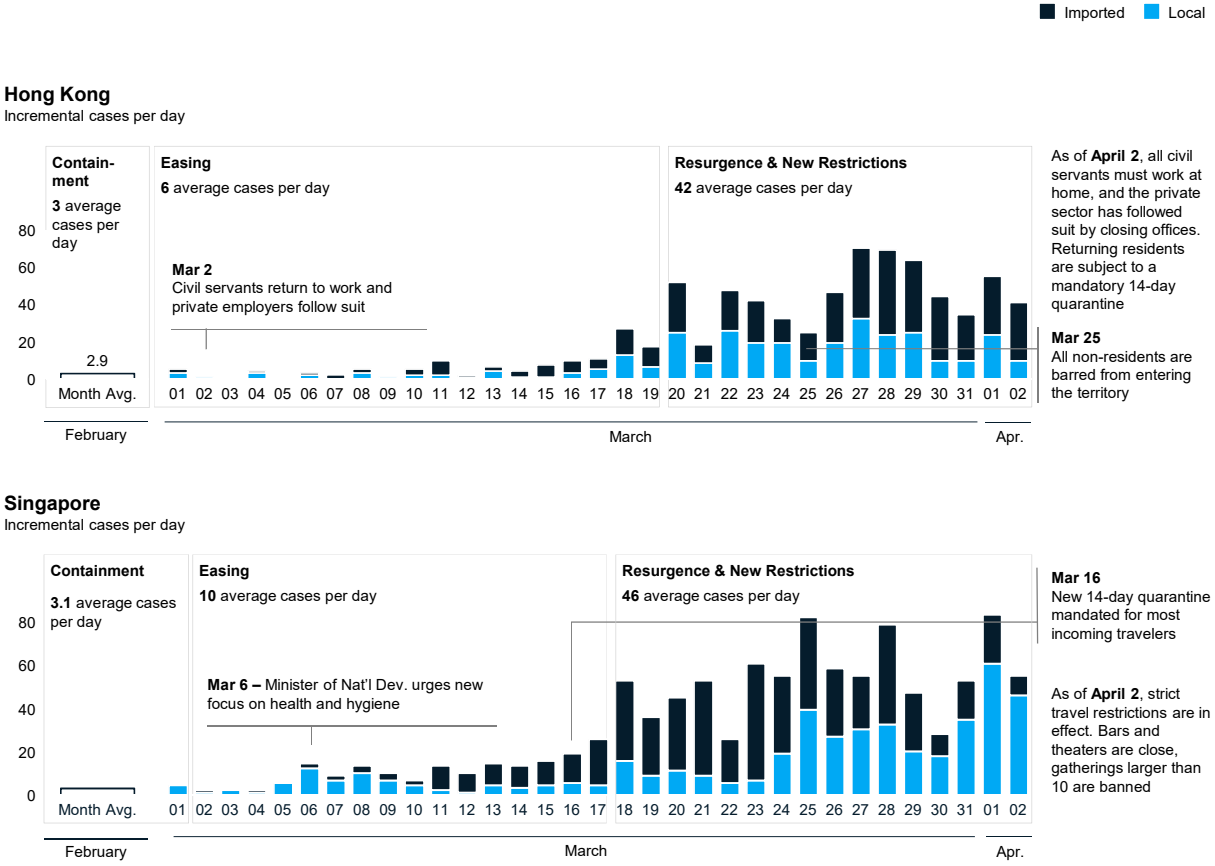
Types	Technology	Details	Availability
Molecular Detect genetic material of the virus	**RT-PCR** Reverse transcription polymerase chain reaction	Steps of amplifying and detection of viral genome **identifies presence of virus** **Predominant testing method globally and most accurate** Lab based tests typically takes **~3 days for results** Near point of care takes **<1 hour for results**	**Growing availability** varies by geography; Rapid PCR test received emergency FDA approval
	Isothermal amplification	Rapid diagnostics with a **single step identification of virus** Typically near point of care (e.g., hospitals, clinics) taking **< 20min**	**Recently approved tests**
	CRISPR	CRISPR protein used after isothermal amplification to detect viral RNA presence	**Experimental / proof of concept**
Immunological/ serologic tests Detect antigens or antibodies	**Lateral flow tests** **CLIA:** Chemi-luminescence Immuno Assay **ELISA:** Enzyme linked immune sorbent assay	**Detects presence of antibodies and antigens based on binding to enzymes** Negative test results don't imply lack of infection but just antibodies below detection limit; **test most effective 8-10 days since infection started** Lateral flow tests are shorter, point of care, self administered (like a pregnancy test), Typically **<15 min** CLIA / ELISA tests are primarily lab based / near point of care; typically **takes <1 hour for results**	**Starting to become available in Europe, only one in EUA in the US** **Over 30 tests under consideration**

Source: https://www.finddx.org/covid-19/pipeline/?section=immunoassays#diag_tab https://www.nature.com/articles/d41587-020-00010-2 , CDC website, https://www.cepheid.com/coronavirus, https://www.360dx.com/coronavirus-test-tracker-launched-covid-19-tests,

Improved speed and scale of live case confirmation will be critical to facilitating test and trace strategies for lower burden settings or for countries that have successfully contained initial outbreaks and are moving towards economic restart

Antibody tests with scaled distribution can enable recovered populations to resume normal activity

D: Asian jurisdictions have restarted economy, containing local transmission, though travel related transmissions persist



Source: Hong Kong Government Data Repository, Singapore Ministry of Health, Taiwan Center for Disease Control, press search

Current as of April 3, 2020

Some Asian jurisdictions have been able to restart their economies with limited local transmission

Imported cases reflect a high fraction of the total, which may drive longer imposition of travel restrictions relative to other public health measures

The Imperative of our Time

Imperatives

1

Safeguard our lives

1a. **Suppress the virus** as fast as possible

1b. **Expand treatment and testing** capacity

1c. **Find "cures";** treatment, drugs, vaccines

2

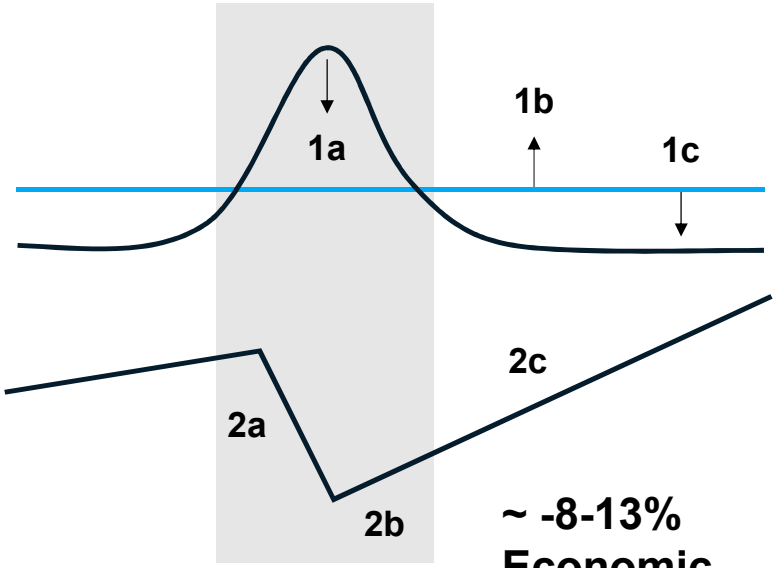
Safeguard our livelihoods

2a. **Support people and businesses** affected by lockdowns

2b. **Prepare to get back to work safely** when the virus abates

2c. **Prepare to scale the recovery** away from a -8 to -13% trough

"Timeboxing" the Virus and the Economic Shock



Source: McKinsey analysis, in partnership with Oxford Economics

Scenarios for the economic impact of the COVID-19 crisis

GDP impact of COVID-19 spread, public health response, and economic policies

Virus spread and public health response

Effectiveness of the public health response in controlling the spread and human impact of COVID-19

Rapid and effective control of virus spread

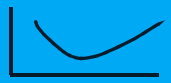
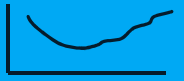
Strong public health response succeeds in controlling spread in each country within 2-3 months

Effective response, but (regional) virus resurgence

Public health response initially succeeds but measures are not sufficient to prevent viral resurgence so social distancing continues (regionally) for several months

Broad failure of public health interventions

Public health response fails to control the spread of the virus for an extended period of time (e.g., until vaccines are available)

B1 Virus contained, but sector damage; lower long-term trend growth 	**A3** Virus contained, slow recovery  **Virus Contained**	**A4** Virus contained; strong growth rebound 
B2 Virus resurgence; slow long-term growth 	**A1** Virus resurgence; slow long-term growth  **Muted World Recovery**	**A2** Virus resurgence; return to trend growth  Strong World Rebound
B3 Pandemic escalation; prolonged downturn without economic recovery 	**B4** Pandemic escalation; slow progression towards economic recovery 	**B5** Pandemic escalation; delayed but full economic recovery 
Ineffective interventions Self-reinforcing recession dynamics kick-in; widespread bankruptcies and credit defaults; potential banking crisis	**Partially effective interventions** Policy responses partially offset economic damage; banking crisis is avoided; recovery levels muted	**Highly effective interventions** Strong policy responses prevent structural damage; recovery to pre-crisis fundamentals and momentum

Knock-on effects and economic policy response

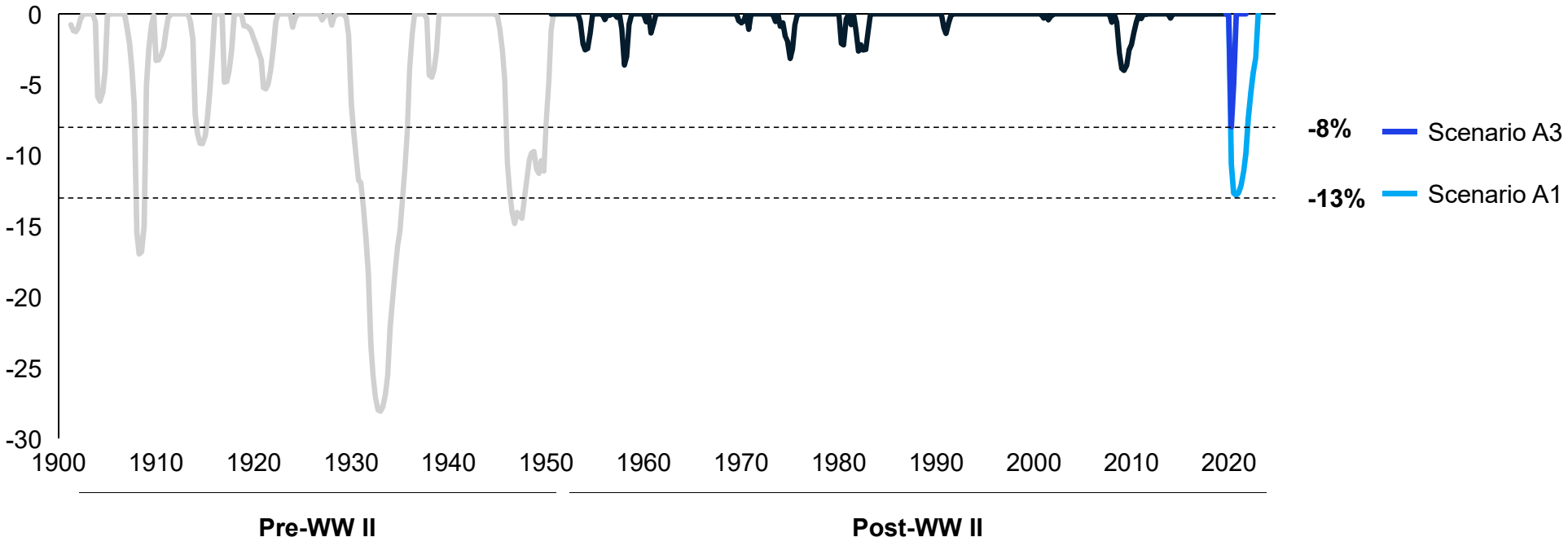
Speed and strength of recovery depends on whether policy moves can mitigate self-reinforcing recessionary dynamics (e.g., corporate defaults, credit crunch)

Source: "Safeguarding our lives and our livelihoods: The imperative of our time,"; available online at https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/safeguarding-our-lives-and-our-livelihoods-the-imperative-of-our-time; date of access: Mar 31st 2020

COVID-19 U.S. impact could exceed anything since the end of WWII

United States real GDP

%, total draw-down from previous peak



Source: Historical Statistics of the United States Vol 3, Bureau of economic analysis; McKinsey team analysis, in partnership with Oxford Economics

Scenario A3: Virus Contained

The virus continues to spread across the Middle East, Europe and the US until mid Q2, when virus seasonality combined with a stronger public health response drives case load reduction

Epidemiological scenario

China and East Asian countries continue their current recovery and control the virus by early Q2 2020

Virus in Europe and the United States would be controlled effectively with between two to three months of economic shutdown; new case counts peak by end April and declines by June with stronger public health response and seasonality of virus

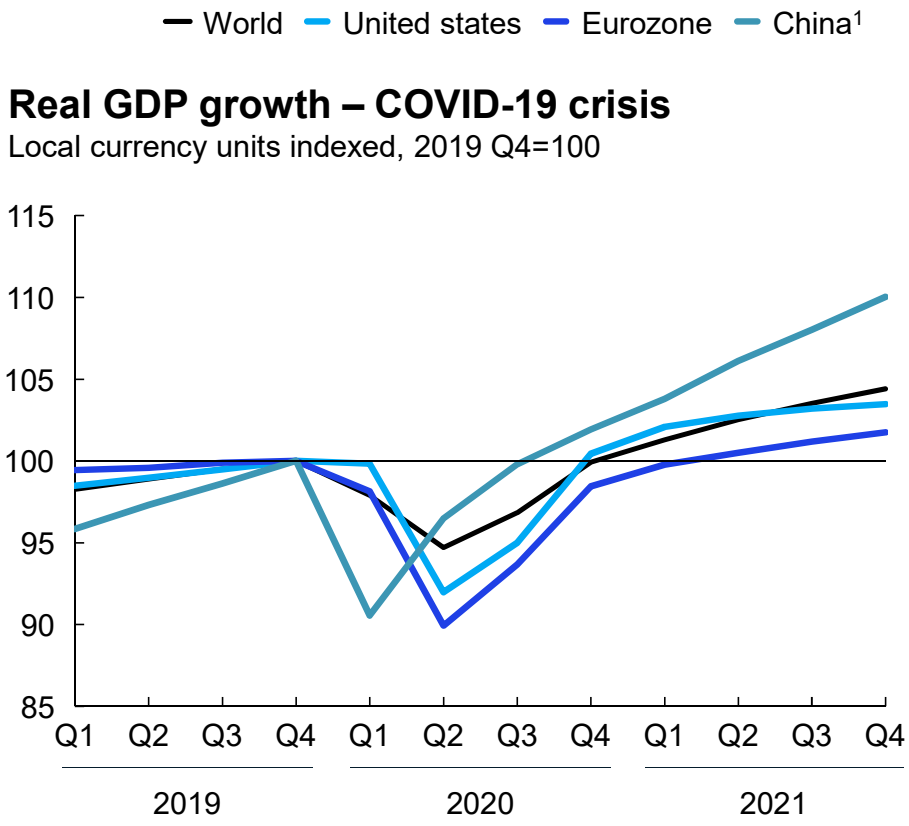
Economic impacts

China will undergo a sharp but brief slowdown and relatively quickly rebound to pre-crisis levels of activity. China's annual GDP growth for 2020 would end up roughly flat

In Europe and the US, monetary and fiscal policy would mitigate some of the economic damage with some delays in transmission, so that a strong rebound could begin after the virus was contained at the end of Q2 2020

Most countries are expected to experience sharp GDP declines in Q2, which would be unprecedented in the post WWII era

Scenario A3: Virus Contained



	Real GDP drop 2019 Q4–2020 Q2 % change	2020 GDP growth % change	Time to return to pre-crisis Quarter
China	-3.5	-0.5	2020 Q4
USA	-8.0	-2.4	2020 Q4
World	-5.3	-1.8	2021 Q1
Eurozone	-10.1	-4.7	2021 Q2

1. Seasonally adjusted by Oxford Economics

Source: McKinsey analysis, in partnership with Oxford Economics

Scenario A1: Muted World Recovery

The virus spreads globally without a seasonal decline. Health systems are overwhelmed in many countries, especially the poorest, with large-scale human and economic impact

Epidemiological scenario

China would need to clamp down on regional recurrences of the virus

The United States and Europe would fail to contain the virus within one quarter and be forced to implement some form of physical distancing and quarantines throughout the summer

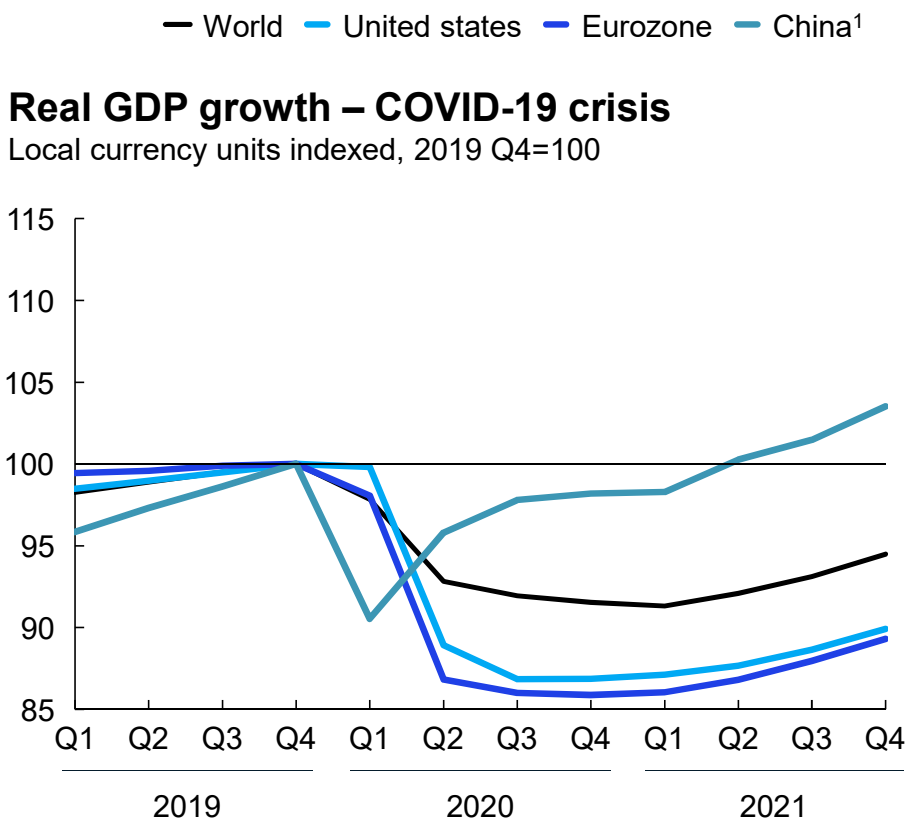
Economic impacts

China would recover more slowly and would also be hurt by falling exports to the rest of the world. Its economy could face a potentially unprecedented contraction

The United States and Europe would face a GDP decline of 35 to 40 percent at an annualized rate in Q2, with major economies in Europe registering similar performance. Economic policy would fail to prevent a huge spike in unemployment and business closures, creating a far slower recovery even after the virus is contained

Most countries would take more than two years to recover to pre-virus levels of GDP

Scenario A1: Muted World Recovery



Real GDP growth – COVID-19 crisis
Local currency units indexed, 2019 Q4=100

1. Seasonally adjusted by Oxford Economics

Source: McKinsey analysis, in partnership with Oxford Economics

Current as of April 3, 2020

	Real GDP drop 2019 Q4–2020 Q2 % change	2020 GDP growth % change	Time to return to pre-crisis Quarter
China	-4.2	-2.3	2021 Q2
USA	-11.1	-8.7	2024 Q2
World	-7.2	-5.7	2022 Q4
Eurozone	-13.2	-10.6	2024 Q4

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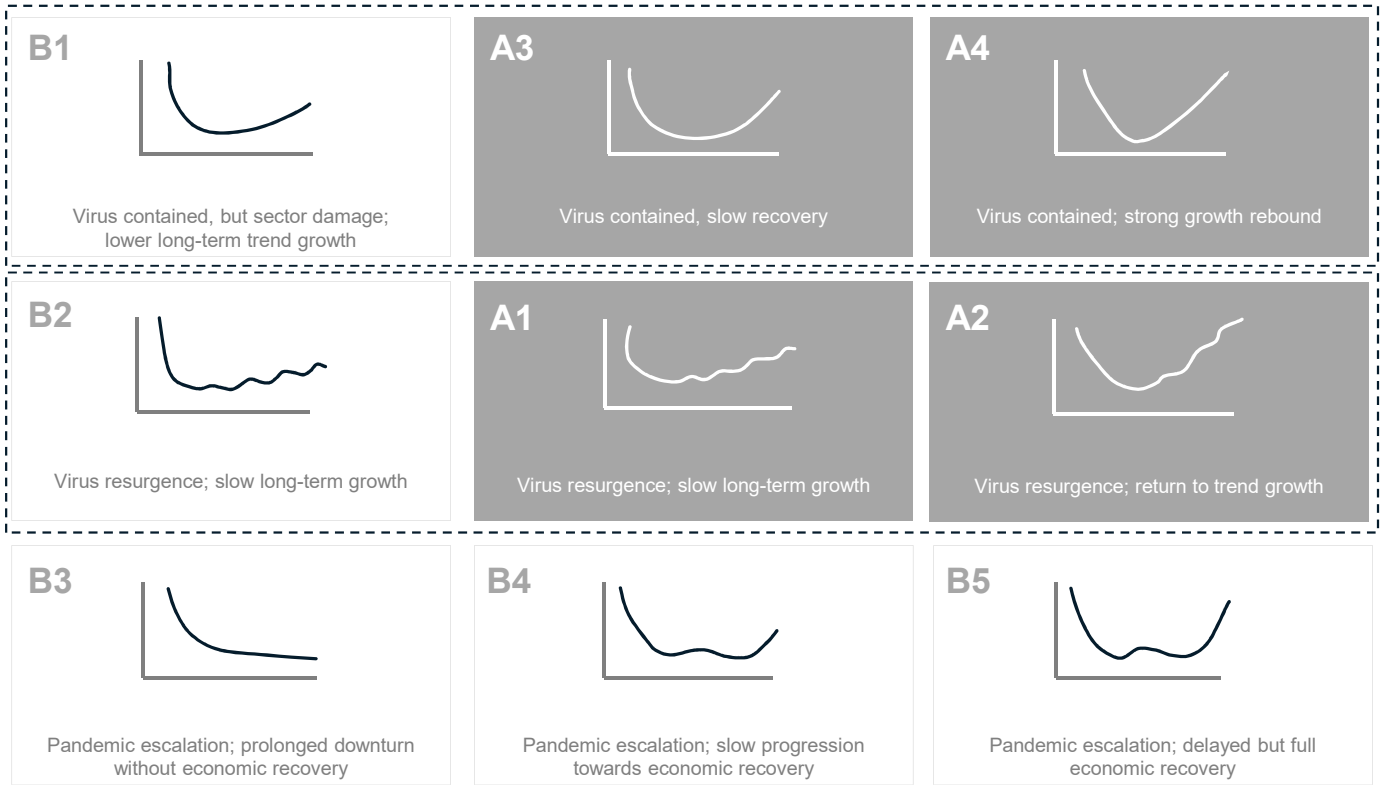
Economic impact scenarios can be translated into two major epidemiological scenarios for higher education



Current as of April 6, 2020

I Virus contained

Spring & Summer mostly online, face-to-face resumes in Fall 2020

II Virus resurgence

Fall 2020 online, face-to-face resumes in Jan 2021 in some geographies and Summer 2021 in others

III Pandemic escalation

Fall 2020 online; face-to-face resumes as last as summer to fall 2021

Current as of April 6, 2020

Depending on the scenario, normal operations may not resume until summer 2021

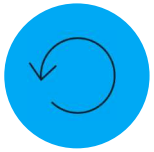
Focus of this document

Rapid and effective control of virus spread

I Virus contained

Remote learning predominates through spring and summer 2020; face-to-face instruction resumes in fall 2020

Programs are disrupted through the summer, impacting major auxiliary revenue streams. The 2020-21 school year operates almost normally, but new health controls stay in place. There is some disruption to international student enrollment



Effective response, but (regional) virus resurgence

II Virus resurgence

Remote learning through fall 2020; face-to-face instruction resumes by January 2021

Colleges start the 2020-21 school year online, resulting in major decline in auxiliary revenues. Schools with strong brands and online capabilities stand to gain enrollment amidst a spike in attrition and switching.

Broad failure of public health interventions

III Pandemic escalation

Remote learning through 2020; face-to-face instruction resumes as late as summer to fall 2021[1]

Colleges operate online only for at least the first full semester of the 2020-21 school year. Continued switching towards schools with strong online capabilities. Significant disruption to international student enrollment.

1. Some institutions are discussing scenarios that include online only classes through December 2021

Current as of April 6, 2020

Both scenarios I and II have significant implications for higher education

		Teaching and learning	Enrollment and student retention	Faculty and staff	Operations and infrastructure
I	**Virus contained**	**Online classes through late April** for most colleges**, through graduation for some** (May or June 2020) but students return to class for the fall semester. **2020 graduation held online or postponed.** **Additional health safeguards** required in the classroom as students return to campus **Curriculum updates are required, including greater remediation** for the incoming class, which did not complete high school.	**Retention suffers** as students struggle to adapt to online learning. **Low-income students** suffer disproportionately from dorm closures and the shift to online coursework; their enrollment could fall. **Some 2020 graduates struggle to find jobs.**	**Limited direct disease** among faculty and staff, mostly among healthcare/AMC workers. **K-12 school cancellations** affect provision of critical staff services. Difficult decisions to be made around **support to on-campus staff , including cleaning and catering personnel, given less need for their services.**	**Housing under pressure** as international and study-abroad students return to campus.
II	**Virus resurgence**	**Online classes through graduation** for all**, through the rest of 2020 or well into 2021** for some. **Study abroad programs cancelled** through 2021. **Time to graduation impacted for class of 2021,** given changes to curriculum.	**Changes to graduate/international enrollment affect composition of the student body.** **Enrollment for fall 2020 is affected,** given cancelled exams and concerns over COVID-19. **Deferred enrollment for some international students.**	**Material portion** of faculty and staff are directly affected by COVID-19, with **clusters in every school.** Strain on campus **mental-health and counselling resources.** **Contraction of staff** as revenues fall. **Slow-down** of **faculty research,** particularly in wet lab and projects that require human subjects.	**Housing empty** as classes remain online. Dorms requisitioned by state governments as quarantine facilities. **Upgrade of IT systems** required to support long-term online learning.

Current as of April 6, 2020

I: There are a number of potential negative effects on revenues in the 'virus contained' scenario

Spring & Summer mostly online, face-to-face resumes in Fall 2020

Type	Nature of impact	Magnitude of impact
Tuition and fees	Potential decline in enrollment in summer programs especially for schools with weak online capabilities Loss of summer program and non-credit / certificate and executive program revenues Partial reimbursements or losses in student fees (student affairs, commencement etc.)	Low for big schools Medium for small schools
Federal and state funding	Possibility of direct funding under federal COVID impact relief plans Potential for immediate freezes in state funding (e.g., NJ state freeze on higher ed support)	Moderate for public schools Low for private schools
Research[1]	Nominal impact on operations but no impact on research funding / revenues Impact on research facility rental and corporate fee revenues over the summer in select cases	Low
Endowment	Shrinkage in endowment values due to market losses Reduction in investment income and nominal drop in permitted statutory draws for operations for FY21	High
Advancement	Potential for significant decline due to market losses and new tax laws on athletic contributions[2]	High
Auxiliary	Reduction in merchandizing and bookstore sales/drop in vendor commissions Reduced rent and lease revenues from low utilization of leased cafes and services	Low
Athletics	Drop in conference participation revenue share due to tournament cancellations Reduced funding from NCAA, ticket revenues and media rights revenues for the Spring semester	Moderate
Housing	Reduced summer, conference accommodation, student exchange housing fees Partial reimbursement or future credits towards Spring 2020 housing revenues	Low
Dining	Loss in dining and meal plan revenues over the summer Loss in third party vendor commissions in cases of outsourced services	Moderate

1. 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 $29.1B peak in 2007-08 to $24.3B trough in 2009-10.

Current as of April 6, 2020

I: There are potential negative and positive effects on expenses in the 'virus contained' scenario

Spring & Summer mostly online, face-to-face resumes in Fall 2020

Type	Nature of impact	Magnitude of impact
Faculty	Potential increase in faculty stipend, adjunct hiring costs to meet online learning and student support needs Potential increase in personnel costs on IT, health services	Low
Staff	Potential reduction in overtime and student worker spending Potential increase in personnel costs on IT, health services	Low
Healthcare	Nominal impact on health care expenses in instances of self-insurance[1]	Low
IT	Nominal investments needed in infrastructure and licensing due to remote working needs and significantly larger number of online classes and students Greater technology costs from increased usage and customized needs of remote work	Low[2]
Operations & Maintenance	Nominal reduction in utility expenses due to limited campus operations Reduced demand on facilities maintenance and repairs Deferral of select capital projects and maintenance costs	Moderate
Other external spend	Reduced external spend, travel and catering costs due to reduced operations Increase in external spend due to increased marketing costs and new vendors for virtual admissions activities etc. over the summer	Moderate

1. Highly dependent on course of pandemic; high infection and mortality rates could generate stark increases in insurance costs
2. Institutions with less developed online capabilities may experience moderate upfront technology costs

Current as of April 6, 2020

II: The potential impact on revenues is likely to vary by school size, brand, and online preparedness in the 'virus resurgence scenario'

Fall 2020 online, face-to-face resumes in Jan 2021 in some geographies and Summer 2021 in others

Type	Large university, big brand, and/or strong online presence	Magnitude	Small university, small brand, and/or weak online presence	Magnitude
Tuition and fees	Potential increase in enrollment from more "online only" Freshmen Potential increase in transfer/grad enrollment from online strengths Potential decline in Fall international student enrollment Potential drop in student activity fees revenues Increase in write-offs and bad debts due to economic slowdown	Moderate	Potential decline in domestic/international enrollment Potential drop in student activity fees revenues due to remote operations Increase in write-offs and bad debts due to broader economic slowdown	High
Federal and state funding	Direct federal funding through CARES Act Decline in state funding/appropriations from reduced tax revenues	Moderate	Direct federal funding through CARES Act	Low
Research	Stalled research projects resulting in decreased funding Loss of research facility rental and corporate fee revenues	High	Stalled research projects resulting in decreased funding and grants	Low
Endowment	Loss of investment income due to market decline Nominal drop in permitted statutory draws for operations for FY21	High	Loss of investment income due to market decline Sizeable drop in permitted statutory draws for operations for FY21	High
Advancement	Market losses impact donor capacity and willingness to donate	High	Market losses impact donor capacity and willingness to donate	High
Auxiliary	Reduced merchandizing and bookstore sales/vendor commissions Reduced rent and lease revenues from low utilization of leased cafes and services Loss of hotel and conference rental revenues	High	Reduced merchandizing and bookstore sales/vendor commissions Loss of rent and lease revenues from closures of leased campus cafes and services	High
Athletics	Drop in conference participation revenue share Significant hit on ticket revenues and media rights revenues Drop in funding from NCAA	High	Drop in conference participation revenue share Drop in funding from NCAA, ticket sales and media rights revenues	Moderate
Housing	Reduced student housing revenues Refunds of credits offered in Spring 2020	High	Reduced student housing revenues Refunds of credits offered in Spring 2020	High
Dining	Loss in dining and meal plan revenues Significant drop in 3rd party vendor commissions	High	Loss in dining and meal plan revenues Significant drop in 3rd party vendor commissions	High

Current as of April 6, 2020

II: The potential impact on expenses is likely to vary by school size, brand, and online preparedness in the 'virus resurgence scenario'

Fall 2020 online, face-to-face resumes in Jan 2021 in some geographies and Summer 2021 in others

Type	Large university, big brand, and/or strong online presence	Magnitude	Small university, small brand, and/or weak online presence	Magnitude
Faculty	Likely increase in personnel costs on IT, health services Likely increase in search, hiring, onboarding and training costs for essential hiring Spike in faculty stipends to meet online learning and student support needs	Moderate	Potential reduction in overtime and student worker spending Potential increase in personnel costs on IT, health services Potential increase in faculty stipend, adjunct hiring costs to meet online learning and student support needs Ongoing fixed salary costs for non-critical and auxiliary services	Moderate
Staff	Spike in adjunct/staff hiring costs to meet online learning and student support needs + increases in IT and health services Ongoing fixed salary costs research support and auxiliary services Reduction in overtime and student worker salaries	Low	Potential increase in adjunct hiring costs + IT and health services Ongoing fixed salary costs for non-critical and auxiliary services Potential reduction in overtime and student worker spending	Moderate
Healthcare and Insurance	Nominal impact on healthcare expenses in instances of self-insurance Increase in health insurance costs	Moderate	Significant increase in healthcare expenses in instances of self-insurance Sizable increase in health insurance costs	High
IT	Nominal investments needed in infrastructure and licenses due to remote working needs and larger number of online classes	Low	Potential investments needed in infrastructure and licenses due to remote working and increased number of online classes / students Greater technology costs from increased usage and customized needs of remote work	Moderate
Operations & Maintenance	Significant reduction in utility expenses due to limited campus operations Reduced demand on facilities maintenance and repairs Deferral of most capital projects	High	Significant reduction in utility expenses due to limited campus operations Reduced demand on facilities maintenance and repairs Deferral of most capital projects	High
Other external spend	Nominal external spend, travel and catering costs due to limited operations Increase in marketing costs and new vendors for virtual admissions and student engagement activities etc.	Moderate	Nominal external spend, travel and catering costs due to limited operations Increase in marketing costs and new vendors for virtual admissions and student engagement activities etc.	High

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Institutional financial outlook

Pandemic scenario modeling, 2020-21

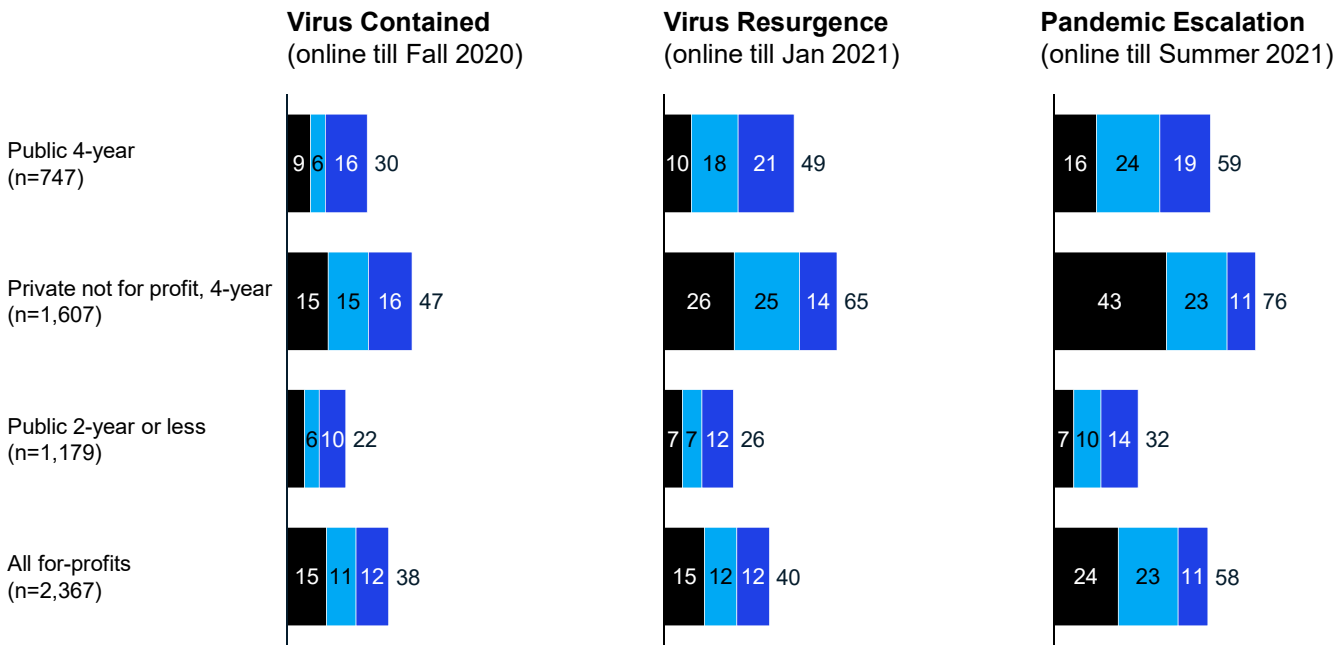
The higher education institutional financial model predicts funding shortfalls driven by five principle levers	Virus contained (online till Fall 2020)	Virus resurgence (online till Jan 2021)	Pandemic escalation (online till Summer 2021)
1 **Decline in international enrollment**	10%	10%	10%
2 **Loss of auxiliary income,** e.g. student housing, athletics	10%	50%	80%
3 **Loss of investment income**	100%	100%	100%
4 **Shift towards schools with mature online capabilities**			
Primary shift: Proportion of students shifting from schools with no demonstrated online capability[1] to Top 100 online schools[2]	10%	10%	20%
Secondary shift: Additional proportion of students shifting from schools with little demonstrated online capability[3] to Top 100 online schools	0%	5%	10%
5 **Decline in state and local higher education funding**			
State funding loss	5%	5%	10%
Local funding loss	10%	10%	20%

NOTE: These are estimated assumptions and should not be taken to be considered projections
1. Schools with 0 online-only or partial distance enrolled students
2. Schools with the largest online-only or partial distance enrollments
3. Schools with fewer than 500 online or partial-distance students or that have <10% students enrolled in online courses

Institutions of all types and sizes could face budget short-falls of more than 5 percent[1]

Gap between projected revenues and historical costs >20% 10-20% 5-10%

Proportion of schools with a potential gap between revenues and costs for 2020-21
% of institutions



1. Includes 5,898 US institutions in the four categories above reporting data to IPEDS; 244 schools did not have sufficient data

Source: IPEDS, expert interviews, McKinsey analysis

Absent public or philanthropic intervention, the combination of lost auxiliary and investment income and higher attrition at schools with weak online capabilities could pose a budget challenge to many institutions

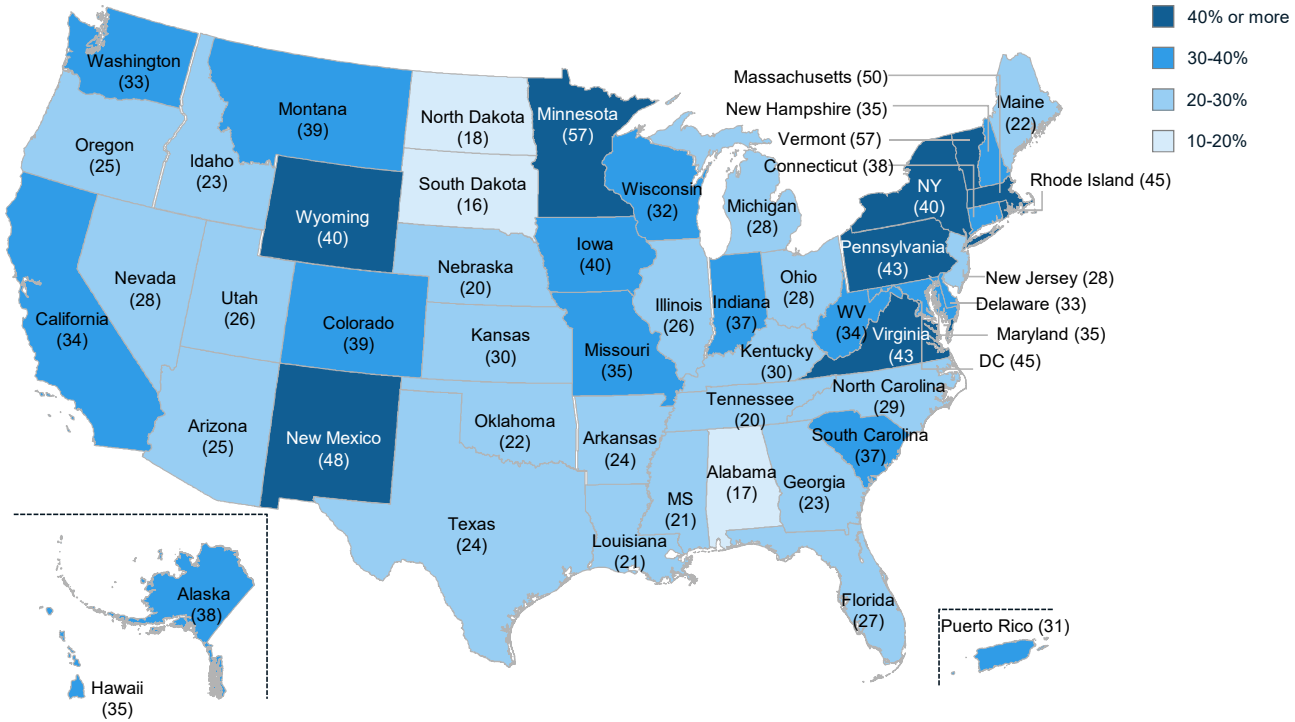
Schools may have to use endowments, raise outside funds, or explore cost reductions to fund operations

32% of all schools could face funding gaps of more than 10 percent under the 'Virus resurgence' scenario

Virus resurgence

Current as of April 6, 2020

Percent of institutions with greater than 10 percent funding gap, %



The financial implications of COVID-19 on institutional budgets is likely to vary across States

40 percent or more of institutions in states like New York (40%), Pennsylvania (43%), Virginia (43%), Massachusetts (50%), and Minnesota (57%) could have funding gaps exceeding 10 percent

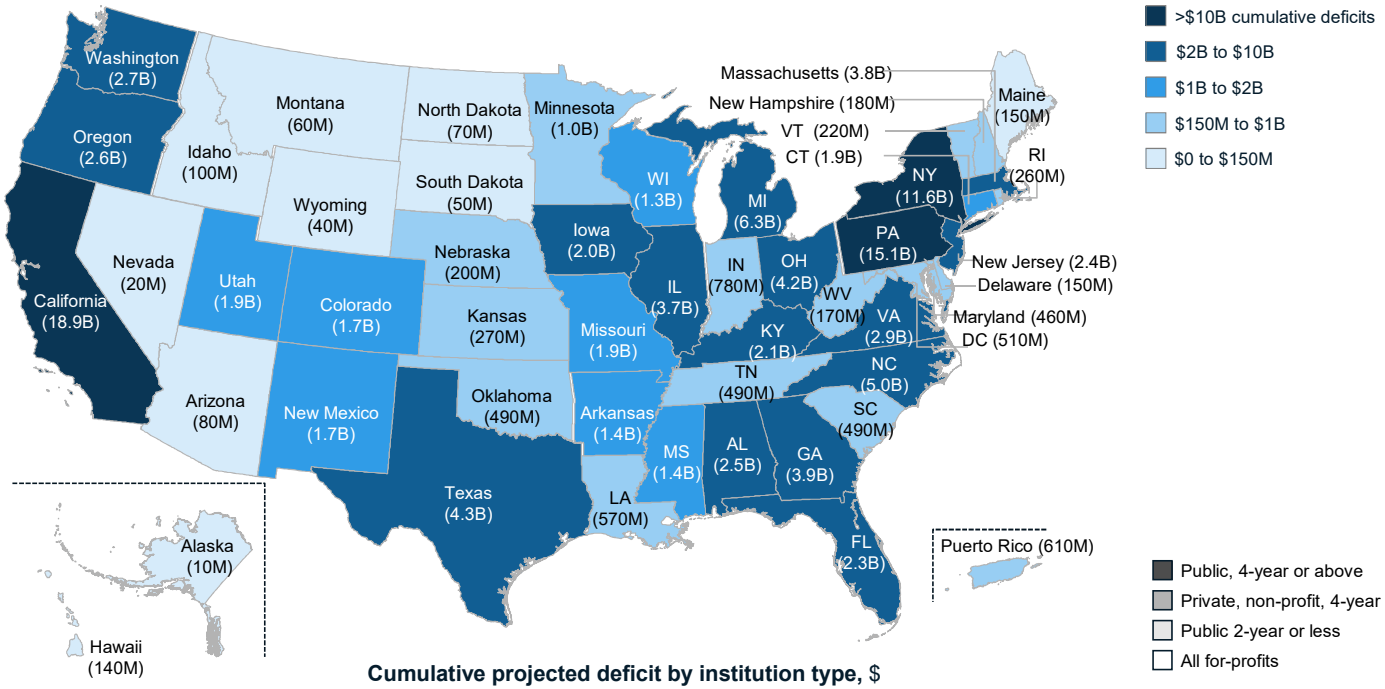
Institutions in southern states are generally better positioned to withstand a prolonged contraction

Source: IPEDS, expert interviews, McKinsey analysis

Cumulative institutional deficits may exceed $115B in 2020-21[1]

Virus resurgence

Cumulative deficit by, $



Cumulative projected deficit by institution type, $

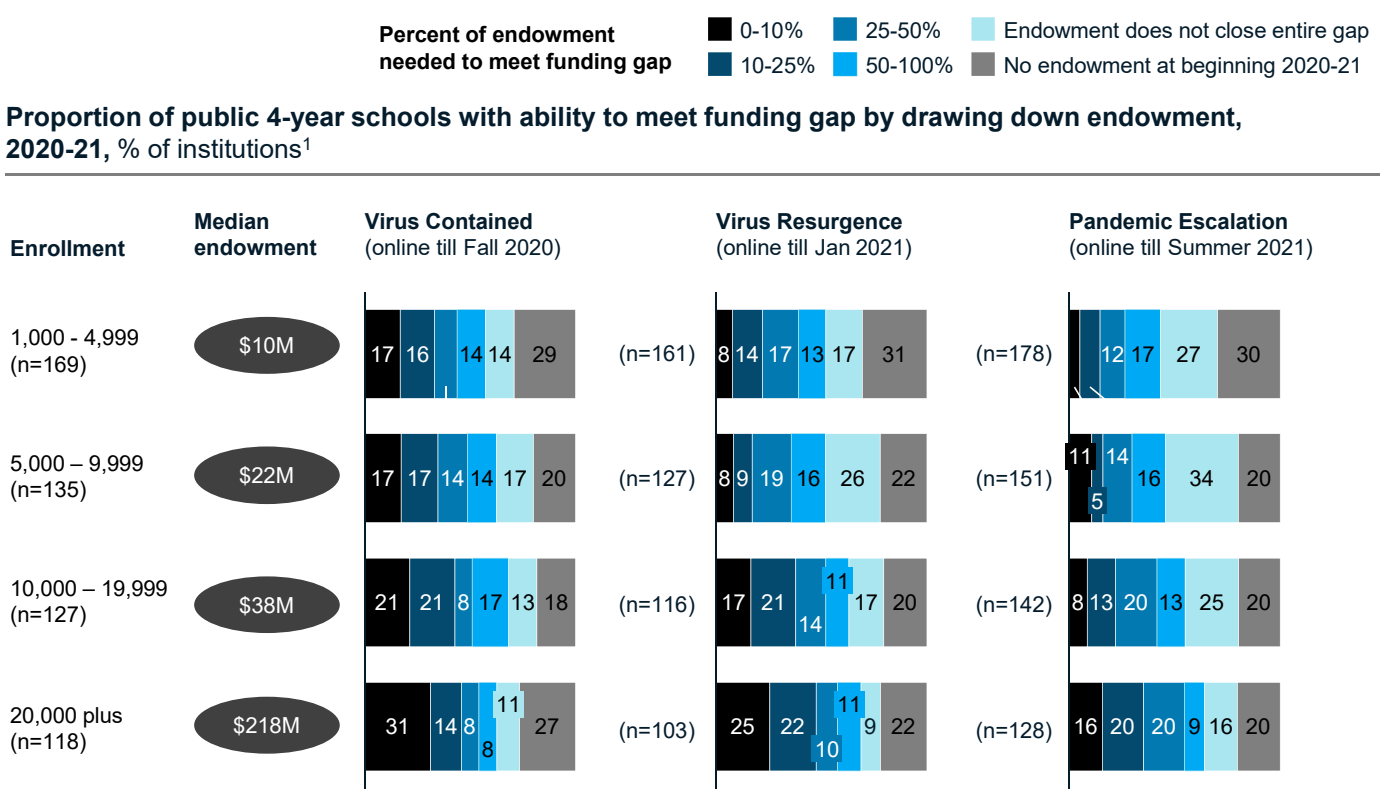
1. Detailed state level breakdown by institution type available in appendix

Source: IPEDS, expert interviews, McKinsey analysis
Note: Includes only institutions with projected 2020-21 deficit

Ten states account for more than 65 percent of the cumulative $114B in estimated funding shortfalls

Public, 4-year schools account for 56 percent of the cumulative $118B funding gap, while private, non-profit 4-year schools account for another 41 percent

Smaller public 4-year schools may have less ability to meet funding gaps by drawing down endowments



1. Includes only schools that have funding gap

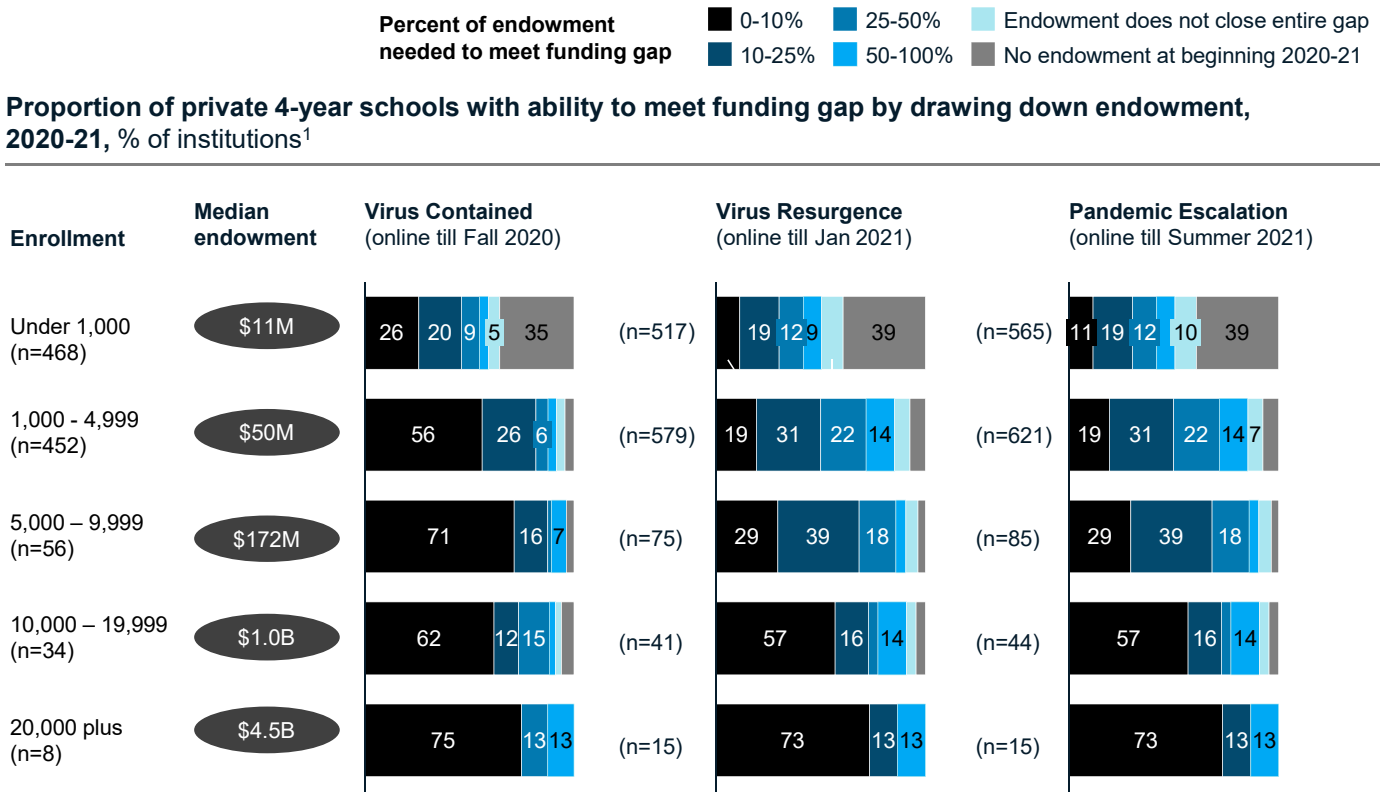
Note: Analysis does not account for restrictions on endowment spending
Projected 2020-21 endowment level adjusted by haircutting 2018 endowment balance by projected 2019-20 losses/gains; median endowment levels captured for schools with deficitS in scenario 1

Source: IPEDS, expert interviews, McKinsey analysis

The majority of public schools that face funding gaps across all scenarios may not be able to meet funding gaps with acceptable levels of draw downs on their endowments

While larger public schools are generally better positioned to meet gaps using their endowments, most would still require draw downs in excess of 10 percent of their endowments across all scenarios

Private 4-year non profit schools have greater ability to meet funding gaps using endowments, but gaps remain for smaller schools



1. Includes only schools that have funding gap

Note: Analysis does not account for restrictions on endowment spending
Projected 2020-21 endowment level adjusted by haircutting 2018 endowment balance by projected 2019-20 losses/gains; median endowment levels captured for schools with deficits in scenario 1

Source: IPEDS, expert interviews, McKinsey analysis

Private non-profit 4 year institutions are relatively better positioned to close funding gaps by drawing down their endowments, largely driven by higher value endowments

While most large private institutions are projected to be able to close funding gaps with minimal (<10%) endowment draw downs, most small institutions would have to find alternative means to raise revenues or reduce costs

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Current as of April 6, 2020

There are some 'no-regret' actions that colleges can take over the next 6 months– to be refined in coming days and weeks (1/2)

Category	Near-term (March-May)	Medium-term (May-Sept)
Teaching & learning	Migrate all courses online Support faculty to adapt courses to online tutoring Make early decisions on graduation and grading policy (e.g., moving to pass / fail) Identify and support students who need additional support in virtual learning environment	Create plan for additional support for incoming class who missed up to 3 months of high school education Build support tools for new graduates who may struggle to find jobs in this climate Develop strategy for school year 2020 – 2021 learning delivery
Enrollment, retention and student outcomes/experience	Expand mental health support services to students Pay special attention to vulnerable students (e.g., food insecure, parents have lost jobs) Stand up a command center to increase accepted student yield Migrate admitted student days and other admission experiences online	Develop high touch approach for students at risk of not enrolling or returning (e.g., low-income or international students) Update communication strategy to highlight relevant strengths of institution and community
Faculty & staff	Decide policies regarding leave / compensation throughout spring & summer (e.g., emergency sick leave)	Further train faculty for online delivery
Ops & Infrastructure	Ensure viable infrastructure to support students online Institute best practice health protocols Consider options to repurpose dorms and other infrastructure temporarily (e.g., for housing for medical personnel)	Invest in long-term infrastructure to support online learning Integrate new technology tools into college system Consider adjustments to school year timeline Stress test financials across different scenarios
Alumni relations	Build communication and engagement strategy to maintain community	Develop plan to engage alumni to create informed advocates Support alumni who lose their jobs as a result of COVID-driven recession

Actions may be overseen by nerve center that is most effective when established immediately

Current as of April 6, 2020

There are some 'no-regret' actions that colleges can take over the next 6 months– to be refined in coming days and weeks (2/2)

Category	Near-term (March-May)	Medium-term (May-Sept)
Containment, health and safety	Encourage students to return home for the rest of the semester and shift all courses online Enforce restricted access to campus buildings and close campus to all outside visitors Develop and implement an infection preparedness plan (e.g., identify quarantine site)	Update health and safety protocols for student, faculty and staff Implement new safety measures to ensure safe re-opening, including ramping up temperature taking and quarantine protocols as isolated cases are likely to remain through 2021
Research	Inject support to faculty with relevant expertise on COVID-19 (e.g., testing & vaccines, 'nudge' behavioral economics and communications to encourage social distancing) Evaluate lab closure within broader campus closure measures	Provide training for virtual conferences Assess impacts on federal research funding

Actions may be overseen by nerve center that is most effective when established immediately

Contents

Current as of April 6, 2020

A crisis nerve center can play an important role in planning and managing COVID-19 responses for Universities

Crisis nerve centers can help in situations with **three determining features**

- A disruption or crisis requires immediate attention both in the near and long-term by the University
- The situation is novel due to the nature or scale of the threat, which distinguishes it from a “routine emergency”
- The disruption is unfolding faster than the organization can understand or interpret using the usual approaches

COVID-19 fits these criteria, so a nerve center may help universities quickly assess the situation and consider and choose plans of action, and execute those plans

When standing up a nerve center, consider **four key actions**

- **Discover** an accurate view of the situation through multi-source ‘listening posts,” assess how it might evolve, and derive implications for the University
- **Design** a trigger-based portfolio of actions – immediate and strategic – with a pragmatic operating model to develop detailed plans and act on them
- **Decide** on strategic actions quickly after stress-testing of hypotheses and alternatives, and ensuring adherence to university and local community values
- **Deliver** in a disciplined, efficient way, keeping sufficient flexibility to adapt to the changing landscape

Current as of April 6, 2020

Best practices for creating a COVID-19 crises nerve center at a University

Bring an **equity lens** to your **decision making**

Ensure a **dual focus** on **safety and operations**, while also **setting the University up for the future**

Ensure senior leadership has a **single point of contact** for all things COVID-19, is informed of the latest issues and incidents, and can focus on top issues every day

Provide **daily updates and ensure communications flows up to senior leaders**, down to managers & staff, and across divisions to enable **streamlined and informed decision making**

Establish **clear accountability for each body of work**

All actions need to include the **student and community voice**

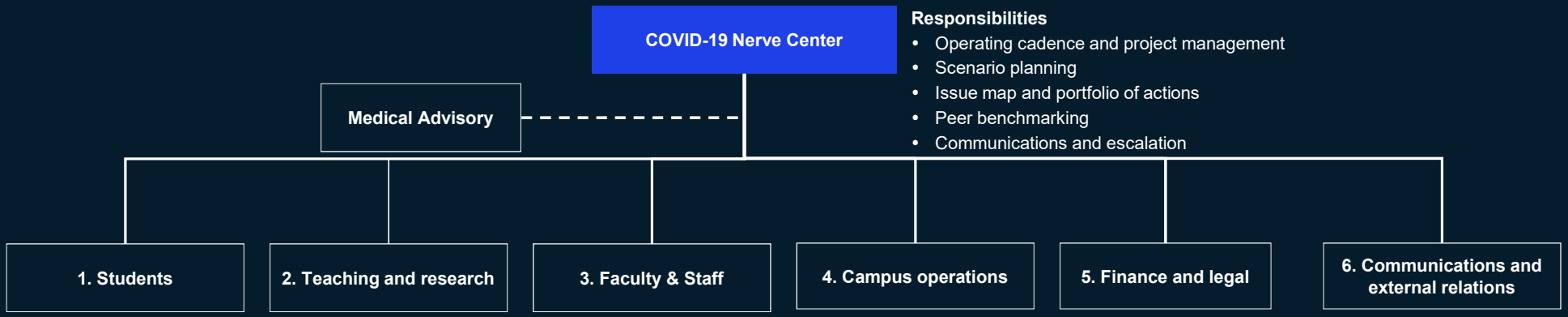
This is a time to **collaborate and learn with other universities and companies**

Proactively focus on **student support services and mental health**

Don't forget your alumni – they will be critical to the bounce-back

Keep sufficient flexibility to adapt to the rapidly changing COVID-19 crisis

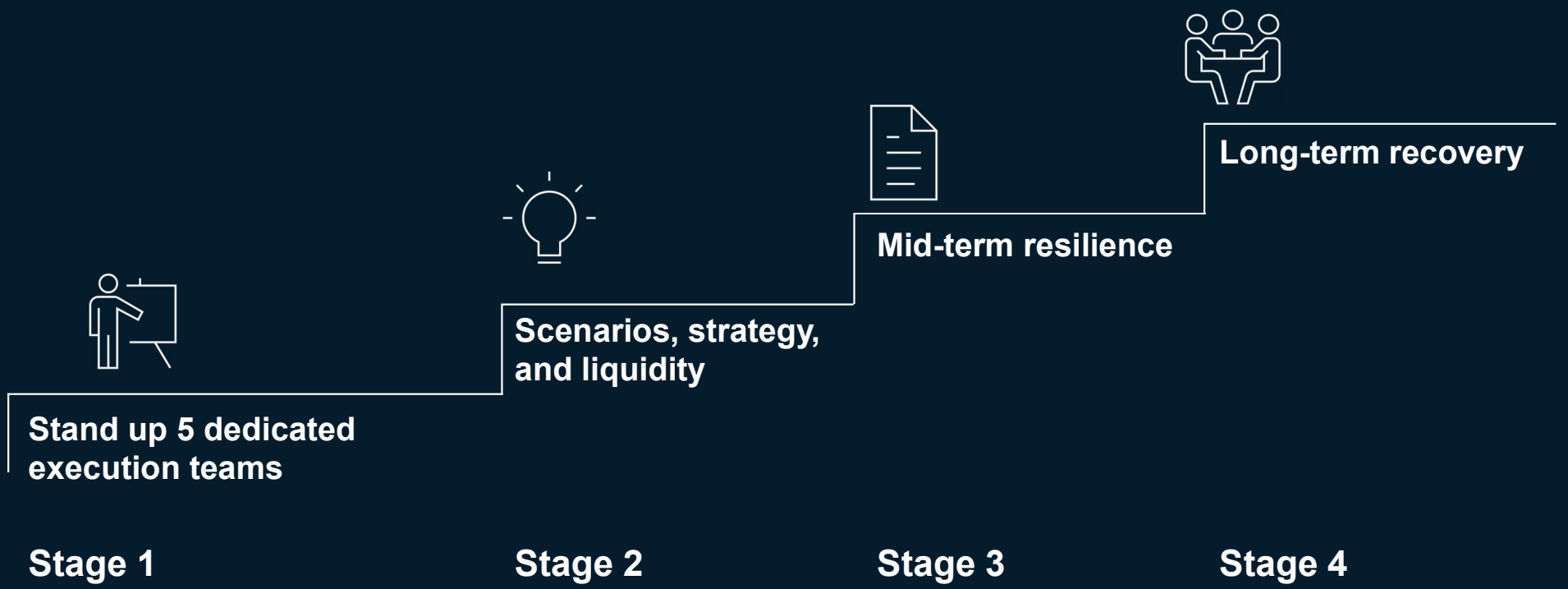
Framework for a higher education COVID-19 nerve center



Current as of April 6, 2020

COVID-19 Nerve Center will need to evolve as the response moves through 4 horizons

The COVID-19 Nerve Center response horizons



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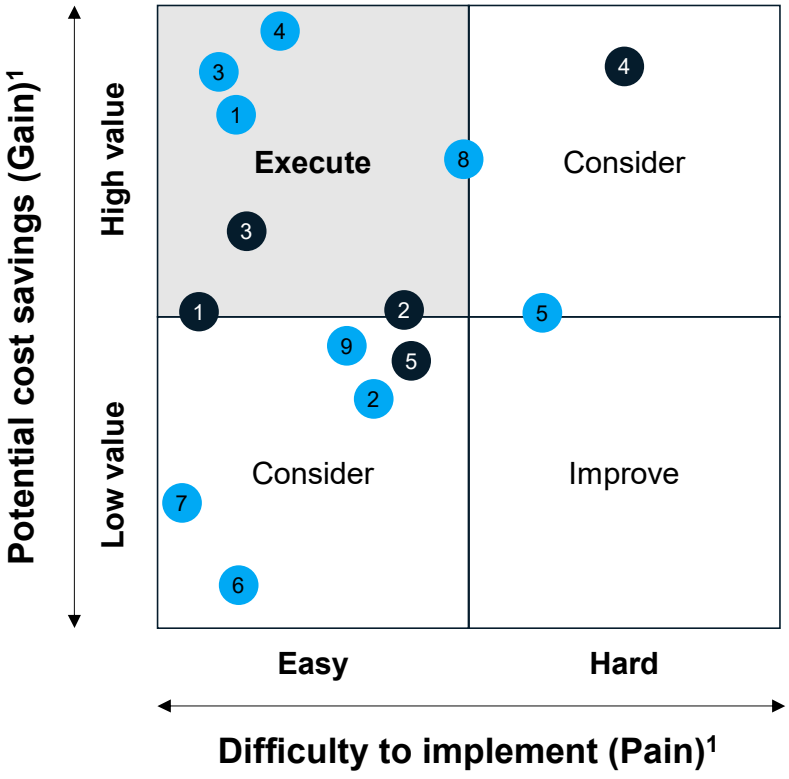
Revenue actions for universities to consider

x Detailed analysis to follow

Action		Magnitude of opportunity	
		Large university, big brand and/or strong online presence	Small university small brand and/or weak online presence
1	Pursue strategies to increase retention and better manage yield	Moderate - High	High
2	Consider expanding incoming “online-only” freshman class size to increase enrollment and create a waitlist of candidates who could be extended in-person admits to backfill enrollment dips	High	Low
3	Consider offering a larger suite of online only graduate degrees to serve students newly seeking education as result of economic slowdown	Moderate	Low
4	Consider introducing or expanding December term (winter break) and summer semester online offerings	Low	Moderate
5	Expand suite of non-credit and certificate offerings with relevant skills for remote working, offline collaboration, etc.	Moderate	High
6	Prioritize marketing spend to highlight online and remote learning capabilities	Moderate	Moderate
7	Optimize research portfolio based on funding availability and institutional capabilities in a post-COVID landscape	Low - Moderate	Low or not applicable
8	Evaluate selective rapid asset liquidation of non-performing assets, if applicable	Moderate	High
9	Repurpose unused housing or facilities for COVID-19 related uses, e.g. temporary housing for healthcare workers, quarantine facilities, etc.	Moderate	Low
10	Sell excess capacity from on-campus utility generation, e.g. solar	Low - Moderate	Low

Current as of April 6, 2020

Universities can prioritize cost actions based on potential impact and ease of implementation



Examples of least intrusive personnel and salary expense actions

1. Implement hiring freezes for non-essential positions in the near term
2. Offer voluntary reduced workload schedules for non-student facing administrative roles
3. Reduce or eliminate overtime spend
4. Pursue collaboration across departments or peer Universities to share back office staff and resources
5. Introduce voluntary early retirement programs for all eligible personnel

Examples of operating and capital expense actions

1. Setup spend control tower as part of University nerve center to reduce discretionary spend
2. Institute regular cadence of “gap closing” calls or meeting with departmental leadership to review progress and enhance accountability
3. Consolidate vendors and renegotiate based on higher volumes
4. Cut or postpone all non-essential capital projects; de-scope and de-spec essential capital projects to lower cost alternatives
5. Rationalize IT project portfolio and readjust or remove scheduled projects that do not meet core needs of students and faculty
6. Review and renegotiate all IT, technology licensing, marketing and new vendor contracts signed to gain maximum value for extended online operations
7. Institute new energy saving policies campus wide
8. Reduce leased real estate portfolio to reflect current demands for space
9. Reduce debt service costs via refinancing

1. Pain and gain classifications are illustrative for typical university. Actual opportunity and difficulty depends on particular circumstances of school.

Contents

Current as of April 6, 2020

There are significant potential implications resulting from COVID-19 on enrollment, retention, and student outcomes/experience

Potential implications on enrollment, retention, and yield differ under each scenario …

Virus Contained

- **Retention suffers** as students struggle to adapt to online
- **Low income students** suffer disproportionately from dorm closures and shift to online and/or are unable to persist
- **Some 2020 graduates struggle to find jobs** given economic environment

Virus Resurgence

- **Student body / diversity impacted** (international student mix, graduate student mix, out-of-state population)
- **Enrollment for fall 2020 impacted** given cancelled exams / panic. **Deferred enrollment for some international students**
- Challenges associated with **students ability to pay given recession**
- **Increase in gap year deferrals and part time enrollment** for students who are working to support themselves and their families

… based on the archetype of the institution

Big brand / strong online presence / larger university

- Potential increase in enrollment from attracting more “online only” Freshmen
- Potential increase in transfer and grad enrollment due to Online presence / brand
- Potential decline in Fall 2020 international student enrollment
- Potential drop in student activity fees revenues due to remote operations
- Increase in write-offs and bad debts due to broader economic slowdown

Weaker brand / small online presence / small university

- Potential decline in domestic and international freshman enrollment
- Potential drop in student activity fees revenues due to remote operations
- Increase in write-offs and bad debts due to broader economic slowdown

Current as of April 6, 2020

We believe there are four key pillars to successful retention strategies at this time

Clear management accountability and delineated roles and responsibilities throughout the retention team, including temporary reporting lines to President's office and other academic leadership

Use of data and predictive analytics to pinpoint at-risk students and drive brainstorming of interventions

Investment of key influencers (e.g., faculty, upperclassmen) in retention initiatives to support at-risk students

Comprehensive and coordinated communication with students and families, ensuring key information is readily available to at-risk students and their families

Current as of April 6, 2020

There are a set of key risk flags for retention that leaders must look for under COVID-19 that are different from business as usual

The following attitudinal and mindset shifts are the biggest risks to retention …

- Shift in personal priorities in remote environment (e.g., meeting basic needs, caring for sick family members, assisting children with remote learning)
- Lack of connectedness to academic assignments
- Feelings that college is not a high return on investment at the moment
- Low satisfaction levels with learning in the remote environment
- Unwillingness or inability to maintain social connectedness and sense of belonging with students and faculty in remote environment

... and can be evidenced by academic and social risk flags

Academic	Infrequent or no logons to learning management system since shift to remote instruction
	Low submission of assignments in remote instruction or significant drop in quality of submissions
Social	Increased use of remote counseling services or new access of counseling services since the transition to remote instruction
	Evidence of disengagement and displeasure with remote learning situation via social media

Additionally, there are certain demographics that are more at-risk now than usual

- Students with low EFC levels
- Students with disabilities that usually require in-person modifications and accommodations
- Students with children
- First-year students
- Majors with a heavy in-person component (e.g., lab, studios)
- Frequent users of in-person counseling and support services

Academic and mental health surveys can provide critical data points on mindset and social risk flags

	Description	Sample Questions
Mental Health	A weekly mental health pulse survey from now until the end of the semester Analytics will show collectively and individually how student feelings change throughout the course of the semester Provides retention command center with the ability to identify students who may require additional interventions and support Common trends also highlight areas that require schoolwide communications to address Cadence can shift to once every two weeks or monthly in the summer with updated questions	How are you feeling? How connected do you feel to your classmates and professors? Do you want someone to call you? If so, about what? How are you feeling about the support the university is providing you?
Academic	One-time survey on academics in the remote environment First survey identifies areas needing immediate intervention and improvement	Class-by-class satisfaction ranking What would most improve remote learning in your opinion? Do you have access to the resources needed to succeed academically? Do you want to talk to an academic advisor?
Operational Factors	Schools should have background infrastructure to quickly aggregate surveys and determine which students need intervention Underutilized staff can be repurposed to read write-in comments and identify responses that require follow up	

Current as of April 6, 2020

Sample actions across key risk areas to improve retention during COVID-19

Key risk areas	Sample actions to improve retention, particularly in newly remote learning settings	
	Short-term	**Long-term**
Academic 	• Change grading guidelines to pass / fail • Provide assistance for faculty on utilizing the best online engagement tools • Provide asynchronous instruction where possible • Redeploy tutors and teaching assistants in the remote environment • Hold virtual office hours with faculty via an open Zoom link where students can join freely • Repurpose underutilized library staff to provide support, training, and guidance for navigating the remote environment • Host remote mindset workshops and goal-setting for struggling students	• Provide assistance for faculty on utilizing the best online engagement tools • Consider creating on-demand classes / flexible syllabi for students who may need to work • Create virtual performance incentives (e.g., badges / micro-credentials for skill development and achievement in a knowledge area) • Create best practice guide for remote learning and share content on effectiveness of remote learning with both students and families
Financial 	• Free summer programming • One-time scholarship awards to get through spring/summer • Offer paid jobs for students to assist staff and admin with various difficulties of remote environment (e.g., yield assistants, social media managers)	• Zero-interest loans for students and families • Facilitate goal setting and planning for financial goals with students and families (e.g., free access to financial advisors for certain students)
Social 	• Provide reminders of remote counseling services available • Give student groups budget to host virtual events in the spring and summer • Create small competitions with awards and prizes students can cash in on when they return to campus to boost students' school spirit	• Create a virtual student center with virtual student activities that students can participate in to maintain connectedness • Upperclassmen interviews on transition to college and first-year experience • Create online challenges to bring together students, faculty, and staff

Contents

Current as of April 6, 2020

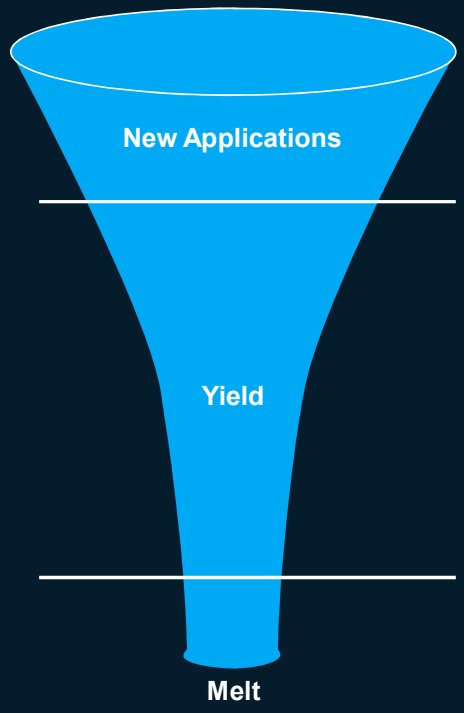
There are 7 stages to track across the 3 sections of the admissions funnel during "yield" operations

Steps most immediately impacted by COVID-19

Steps to track

1. Applications started
2. Applications submitted
3. Applications completed
4. Admission decision communicated
5. Confirmation or deposit by student
6. Student enrolled
7. Final student census

Funnel



Data to track

	Real Time	Historical
• Local students	✓	✓
• Transfers	✓	✓
• Interest levels	✓	
• Financials (FAFSA, etc.)	✓	✓
• Discount rate	✓	
• Geography — City — Metro area — Other states	✓	✓
• Melt daily	✓	✓

Current as of April 6, 2020

Throughout the yield timeline, higher ed institutions are facing unprecedented questions during COVID-19

Time until deposit deadline	Deposit until the fall starting class	Fall online until Jan 2021
	Confirmation of student deposit by student	Student enrolled / Final student census
Should we push back our deposit deadline?	Which students are at highest risk of not starting in the fall?	How do we ensure students and faculty are prepared for online classes?
How do we support families with incomes impacted by coronavirus?	How do we ensure students who experience school closures meet entrance requirements (e.g., tests, transcripts)?	How do we provide a typical first-year college experience virtually (e.g., orientation, clubs, social events)?
Should we increase our deposit to decrease likelihood of switching in response to NACAC regulations?	How do we maintain engagement with students and families virtually?	How do we conduct typical fall admissions activities virtually?
	How do we build connectivity among students virtually?	

Current as of April 6, 2020

Additionally, there have been changes to the admissions landscape that may impact bottom of funnel yield

Positive Negative

Changes to the admissions landscape

Some provisions related to candidate recruitment have been stripped from the NACAC Code of Ethics

- Colleges can recruit students that have committed to attending another college
- Colleges can offer enrollment incentives to students who have enrolled, registered, declared their intent, or submitted deposits to other institutions
- Colleges can offer incentives exclusive to students applying or admitted under an early decision application plan (e.g., special housing, financial aid packages, special scholarship for early admits)

Many schools have pushed back their deposit deadline in response to COVID-19

- ~310 colleges have pushed back the deposit deadline to from May 1 to June 1[1]

How it may impact bottom of funnel yield during COVID-19

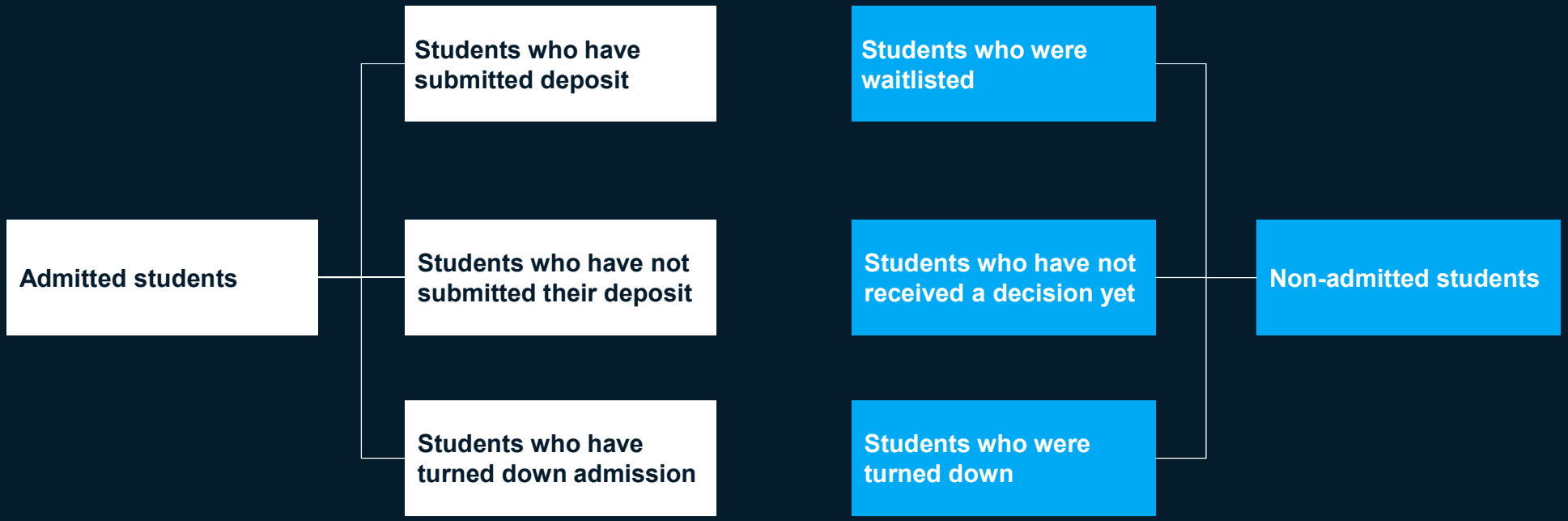
- Committed students who are geographically far away may be recruited by a college closer to home
- Likely decline in international enrollment may force colleges to recruit students who have committed elsewhere
- Extended deposit deadlines provide additional time for families to sort out finances and for institutions to brainstorm creative financial aid interventions to support impacted families

1. As of April 6, 2020

Current as of April 6, 2020

Given the uncertainty COVID-19 has brought on enrollment, it is important to update keep-in-touch strategies

Higher education institutions should update their keep-in-touch strategies for both admitted and non-admitted students



Potential keep-in-touch strategies for admitted students

Admitted students

Students who have submitted deposit

Build community and a sense of connectedness with starting class

- Leverage social media to recreate critical parts of the campus experience (e.g., summer / first-year orientation, dorm assignments)
- Conduct virtual student group fair to get connected to potential clubs
- Launch “spirit sprints” where students compete for awards and prizes to when they get to campus

Overcommunicate measures being taken to ensure health and safety when students return to campus

Establish a protocol for admissions reps to track touchpoints over the summer with an escalation process if there is an indication the student is at-risk of not enrolling

Students who have not submitted their deposit

Offer low-cost financial resources where applicable (e.g., book scholarship, limited travel budget, subsidized meal plan)

Reallocate a pot of financial aid resources to use for incremental aid packages for students

Communicate resources available to mitigate common concerns (e.g., location, health, cost)

Connect students with admitted students, current students, and alumni that share affinity with the prospective student (e.g., from the same area, ethnic affinity)

Students who have turned down admission

Communicate that students can rejoin the starting class without having to reapply up until Fall 2021

Send monthly communications with updated marketing (e.g., stories of alumni similar to the student) with options to update interest status or enroll

Target students who are geographically close to campus to see if their decision has changed

Communicate the transfer process for students emphasizing that they will not need to reapply should they choose to transfer

Revisit financial aid offers in the summer when there is more visibility into the fall class composition

Potential keep-in-touch strategies for non-admitted students

Group students who were waitlisted based on key metrics that would increase likelihood of attending (e.g., location, major of choice, income levels)

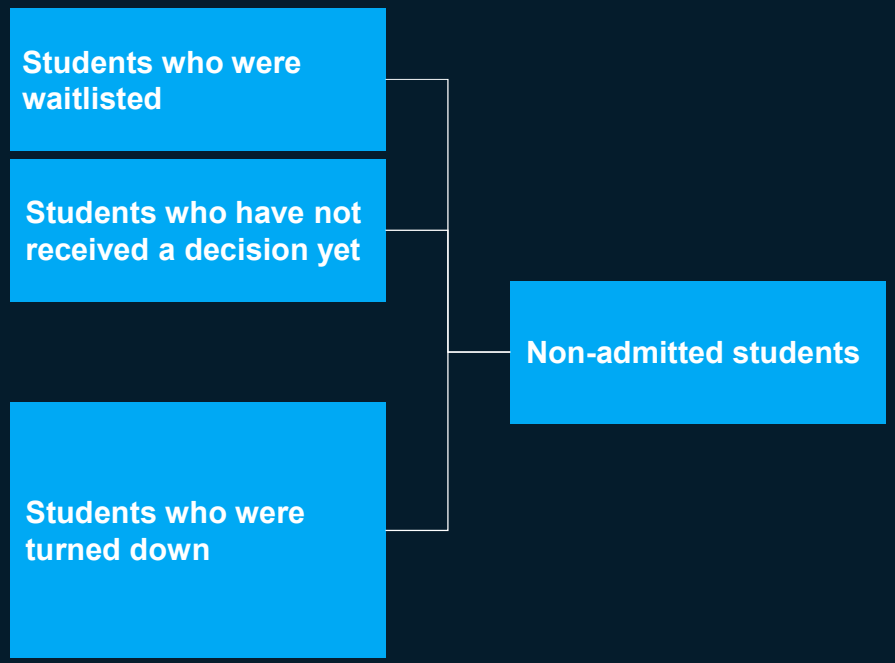
Admit more students than previous years given potential enrollment decline in the fall

Provide a means for students to update if they have made a final decision elsewhere

Determine what metrics need to be hit in order to offer admission (e.g., percentage drop in international or out-of-state deposits)

Group students who have been turned down based on key metrics that would increase likelihood of attending (e.g., location, major of choice, income levels)

Communicate any relevant updated transfer policies



Current as of April 6, 2020

Additional actions to expand the funnel and improve yield by archetype of institution, particularly in newly remote learning settings

	Big brand / strong online presence / larger university	Weaker brand / small online presence / small university
Academic Tactics	**Consider offering a larger suite of online only graduate degree programs**; potential upside countercyclical to economic downturn **Provide curriculum that bridges high school** and ensures readiness for freshman online curriculum	**Identify which majors are able to be provided online** and expand the size of the Freshman class for those programs, where applicable **Provide curriculum that bridges high school** and ensures readiness for freshman online curriculum
Admissions Tactics	**Build a robust waitlist** that can tapped into to backfill any international enrollment dips **Over admit domestic students** vs. international students **Consider expanding incoming Freshman class size under "online only when things return to normalcy"** that serves as a second waitlist of candidates	**Invest in market research** to identify what is top mind for target students and families
Outreach Tactics	**Leverage size of alumni base in marketing comms** to help students visualize paths to their careers of interest **Leverage underutilized non-admissions staff** to help with candidate outreach **Launch "swag" blitz** that provides candidates with school paraphernalia **Embed famous alumni and historic university moments** in marketing communications	**Affinity-based institutions** (e.g., HBCUs, HSIs, women's colleges) **can leverage alumni and current student stories** about the student experience in marketing communications **Leverage underutilized non-admissions staff** to help with candidate outreach **Leverage smaller student body by "buddying" candidates** with current students or alumni based on shared affinity **Conduct targeted outreach to high schools** located close to the university

Contents

Current as of April 6, 2020

There are 3 immediate steps and 4 second order priorities to consider when transitioning to remote learning

Immediate steps focus on setting up the basics of remote instruction

1. **Identify online platform**
2. **Train faculty and students** on using the online platform
3. **Identify transition plan for courses** that are particularly difficult in an online context

Second order priorities focus on elevating the remote instructional experience for students and faculty

a. **Equity and access** in online learning

b. **Building learning communities**, moving both the classroom and the quad online

c. **Activating stakeholders across the institution** for purposeful short-term engagement

d. **Ensuring sufficient security for teaching and learning** to go on without interruption

Current as of April 6, 2020

Each of the second order priorities has a set of actions and considerations that should drive academic leaders

a Equity and access in online learning	• Identify learners who will need additional support with online instruction (e.g., low-income students, accessibility and support for students with disabilities, students with children) • Utilize the university as a resource to connect students with existing services for wifi and internet connectivity • Provide access to hardware • Provide support for pressing non-technical needs (e.g., shelter and food security, mental health services)
b Building learning communities	• Create online events and open learning spaces for traditional campus discussions, events, wellness classes, etc. • Build a system to continue on-campus learning networks online
c Activating stakeholders across the institution	• Activate student clubs and organizations • Redeploy campus workers and work-study roles
d Ensuring sufficient security for teaching and learning	• Implement safe-remote learning protocols (e.g., scale up multifactor authentication, installing compensating controls for facility-based applications migrated to remote access like sensitive research data) • Educate students and faculty members about the increasing amount of phishing and malware attacks • Monitor increased cybersecurity threats (e.g., additional role for a faculty assistant to monitor for Zoombomb attacks) • Communicate processes that students and faculty should follow if a cybersecurity incident occurs

Current as of April 6, 2020

The longer-term approach to remote instruction shifts depending on COVID-19 recovery scenarios

Virus Contained

Spring & Summer mostly remote, face-to-face in Fall 2020

Spring 2020

- Triage summer programming for remote transition
- Identify readiness of faculty and students for summer programs
- Provide interventions and support where needed (e.g., student wifi, laptops, faculty training, etc.)
- Set up virtual career services to help with internship and job search

Summer / Fall 2020

- Conduct after-action analysis, including survey for stakeholders
- Identify areas that need to be improved
- Identify opportunities to leverage new online capabilities (e.g., new blended learning options, maybe grad programs online, virtual counseling, etc.)

Virus Resurgence

Fall 2020 remote, face-to-face resumes in Jan 2021 or later

Summer 2020

- Triage freshman programming for remote transition
- Communicate frequently with students and families about what to expect for the fall
- Identify readiness of faculty and students and provide interventions and support where needed (e.g., student wifi, laptops, faculty training, etc.)
- Provide pedagogical assistance for faculty to design classes for remote instruction versus just converting to remote

Summer / Fall 2020

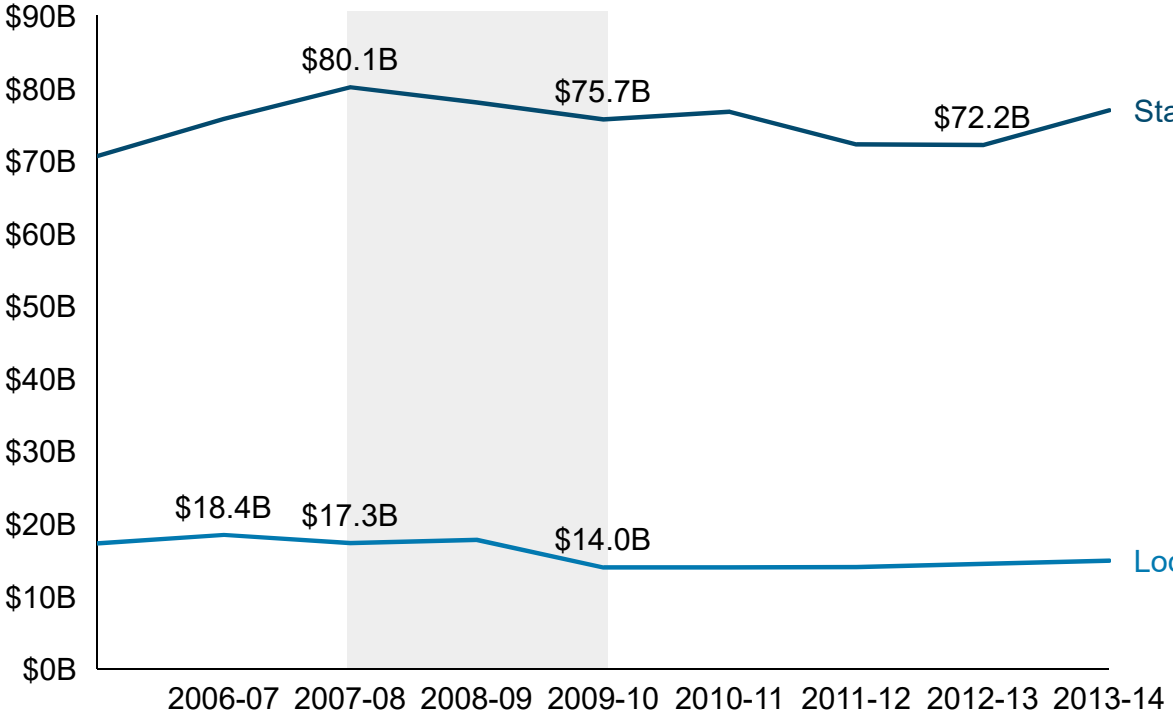
- Establish KPIs for online instruction success and set a review cadence with key stakeholders
- Bring faculty along throughout the process
- Assist key student groups with virtual presence and stay in frequent communication
- Update admissions, retention, and completion strategies for scenario where remote learning is the new normal

Appendix

Current as of April 6, 2020

State and local higher education funding typically declines during economic contractions

State and local funding for all higher education institutions, $B



State support

State funding decline	
2007-08 to 2009-10	Peak to trough
-5.5%	-9.9%

Local support

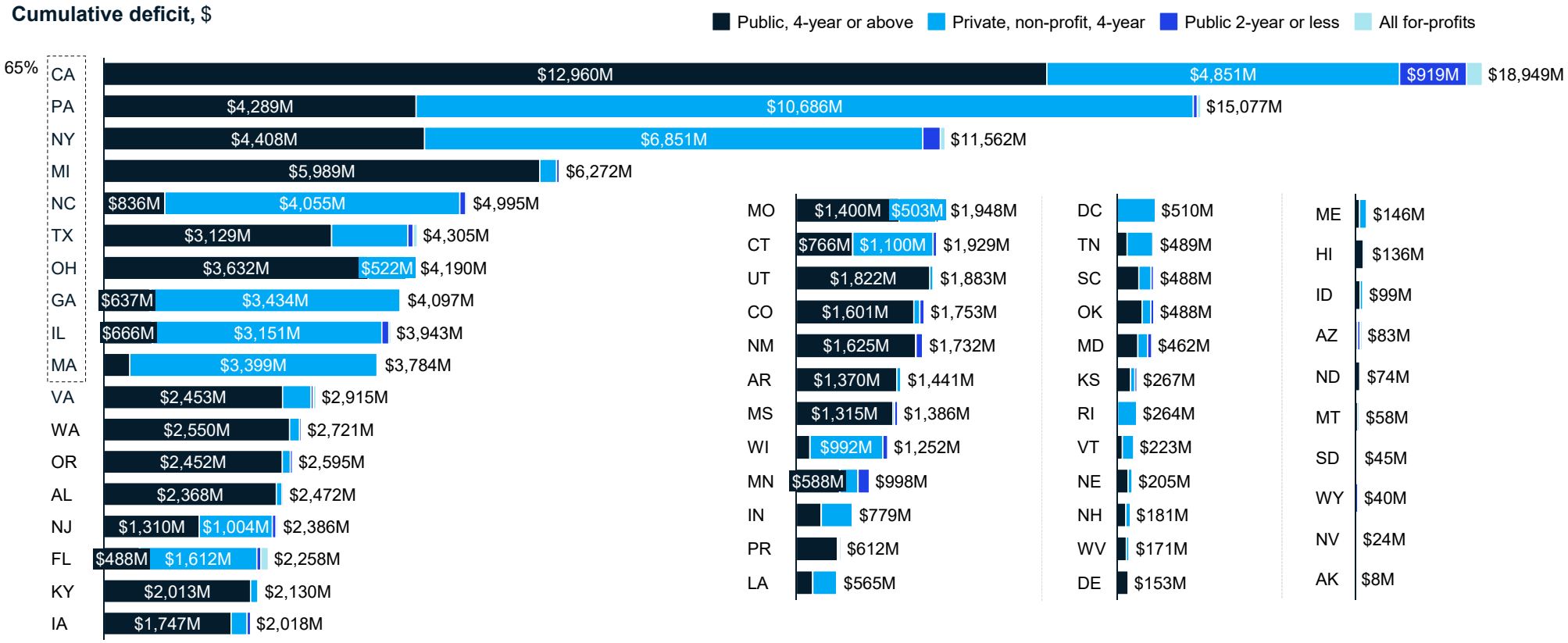
Local funding decline	
2007-08 to 2009-10	Peak to trough
-19.5%	-24.3%

Source: IPEDS

Current as of April 6, 2020

Ten states account for more than 65 percent of the estimated $115B+ in nationwide funding shortfalls[1]

Virus resurgence, cumulative 2020-21 funding deficit by state and institution type



1. These 10 states represent only 49 percent of student population

Note: Includes only institutions with projected 2020-21 deficit

Source: IPEDS, expert interviews, McKinsey analysis

SUBJECT TO CHANGE - BILL IS STILL SUBJECT TO REGULATORY UPDATE

Part of the CARES Act authorizes federal funding to higher education institutions to respond to coronavirus

Higher education provisions under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act)

Waives requirement that schools match funds to students under title IV including but not limited to Pell Grants and federal work study program; can transfer federal work study money to students in the program who are in need

Allows for the use of the supplemental education opportunity grants for emergency aid to students

Allows institutions with federal work-study to continue to pay students in the program who meet requirements of program virtually; matching requirements for schools still apply

Excludes semesters not completed due to COVID-19 from enrollment period for student loans or Pell Grant duration limit

Waives requirements on refunding loan payments from students who withdrawal due to coronavirus

Gives Secretary of Education ability to defer loan payments for HBCUs under title III

Suspends all student loan payments through September 30, 2020; no accrual of interest during this period

Waives bureaucratic requirements on funds for low-income and minority students and gives Secretary of Education ability to modify any matching requirements on these funds

SUBJECT TO CHANGE - BILL IS STILL SUBJECT TO REGULATORY UPDATE

The CARES Act funds education provisions by providing ~$14bn in funding through the Higher Education Emergency Relief Fund

Breakdown of the higher education emergency relief fund

90% (~$12.5bn) directly to institutions to prevent, prepare for, and respond to coronavirus:

- **Money will be disbursed to institutions based on the relative concentration of Pell recipients;** schools with higher concentration of Pell recipients will be preferenced 3:1 on federal funds
- Excludes share of students that were exclusively online prior to coronavirus

- **7.5% (~$1bn) in additional awards to HBCUs, Hispanic serving institutions, other minority serving institutions** to address coronavirus related expenses and for grants to students for what was in their cost of attendance that has now been lost (e.g., food, housing, course materials, technology, healthcare)
- **2.5% (~$350mn)** for institutions that the Secretary of Education determines to have unmet needs related to coronavirus

Additional federal guidance on use of funds

- **No less than 50%** of funds should be used to provide emergency financial aid grants to students
- There is an **additional $3bn flexible Governor spending pool** that can be allocated to higher education but will need to be petitioned for

SUBJECT TO CHANGE - BILL IS STILL SUBJECT TO REGULATORY UPDATE

Implications of the higher education emergency relief fund

Higher education institutions could help students understand what this means for them including getting emergency relief for food, housing, technology (e.g., WiFi, laptops), and healthcare

Institutions could think through procedures for students to request support funds, including a system for students to document COVID-19-related expenses

Expenses that may be covered by emergency funds include lost revenue, reimbursement for expenses already incurred, technology costs associated with transition to online education, faculty and staff trainings, and payroll

Student loan assistance could stem losses from tuition revenue and protect enrollment and retention

Title IV flexibility could allow institutions to continue paying students in the federal work-study program

Actions taken by universities in response to COVID-19 (1/2)

COVID-19 community response

UCLA, Yale, and others **converting campus locations into hospital facilities** for patients

Columbia **providing free rent to small businesses** under their real estate portfolio

Multiple universities **collecting personal protective equipment** for healthcare organizations

Vanderbilt establishing Public Health Advisory Task Force to **coordinate University and community response**

Commencement and gatherings

Many universities (e.g. Columbia, U. Arizona, U. Oregon, Emory) **cancelled in-person commencements** and are exploring alternative options

Some universities (e.g. Harvard, Cornell, U. Utah) have **postponed commencement** to later dates; others are still evaluating situation

Princeton, Harvard, and others have already **cancelled reunions** and other large gatherings

Grading

Dartmouth and others updated grading policy to **credit/no credit for all undergraduate courses**

Duke, UC Berkeley, Columbia and others updated grading policies to **credit/no credit as the default option**

Cornell, UPenn, Emory, Northwestern and others updated grading to **credit/no credit as optional**

U. Washington, Notre Dame **not allowing credit/no credit** option

Some universities (e.g. Stanford) **cancelled traditional final exams** in favor of quizzes and out-of-class assignments

Attendance and remote learning

Almost all universities have **suspended in-person classes in favor of remote learning**

Many universities have **removed attendance from grading criteria**

Actions taken by universities in response to COVID-19 (2/2)

Housing

Nearly all universities are **encouraging students to return home for the rest of the semester** or until further notice

Some universities (e.g. U. Utah) **limiting on-campus housing to international students, students experiencing homelessness, and other at-risk groups**

About half of the universities have **enforced key card/restricted access into certain campus buildings**

Most universities **offering pro-rated refunds for housing**, but some (e.g. Arizona State) are not

Travel and study abroad

Almost all universities have **suspended nonessential international and domestic travel** and university-funded travel

Many universities have **suspended 2020 spring/summer travel abroad programs** to impacted countries; some have suspended all programs, everywhere

Financials

Nearly all universities **are not refunding tuition**

Emory ($5M), U. Oregon, Vanderbilt **established funds to provide financial help to students** during crisis

Cornell established fund to **assist faculty and staff experiencing non-recurring or emergency-related hardship**

Stanford **increased financial aid packages** by $2,000 to account for food costs while living away from campus and transitioned work-based aid to scholarships

Carnegie Mellon **providing interest-free loans to students**

Operations

Many universities (e.g. Northwestern, Brown, Carnegie Mellon) mandating that **non-essential faculty and staff work from home**

Multiple universities have **suspended the tenure clock** for pre-tenure employees (e.g. CU Boulder, U. Washington)

Some universities (e.g. Oregon State, Vanderbilt) **offering extended employee leave**

Some universities are **continuing research operations**, where possible

Many universities **have closed campus to all outside visitors**, including tours and library facilities to the public

Sample cybersecurity actions to consider amidst the COVID-19 crisis

Secure the tools used teach, research, and learn	Accelerate patching for critical systems e.g., online learning applications, VPNs
	Scale up multifactor authentication e.g., online learning apps for students, work apps for staff & faculty
	Install controls for remote access to facility-based apps
	Account for shadow IT systems
	Quicken device virtualization e.g., cloud-based platforms, online learning applications
Build a resilient faculty and student body	Communicate creatively e.g., videos, Twitter, Instagram, tech FAQ related to COVID
	Focus on what to do rather than what not to do for applications e.g., collaboration tools, note taking apps
	Increase awareness of social engineering e.g., COVID-19 themed phishing, short videos on phishing
	Identify and monitor high-risk user groups e.g., HR and Finance teams, Admissions, researchers
Adapt how university works, teaches, and secures	Support secure remote-working tools e.g., add support capacity for help desk support of faculty & staff
	Test and adjust incident response and business continuity/disaster recovery capabilities
	Secure physical documents e.g., set norms for destruction of physical copies of faculty evaluations
	Expand monitoring activities e.g., update security-information-and-event-management systems
	Clarify incident response protocols e.g., response protocols for “zoombombings”
	Confirm the security of third parties e.g., common tools used to teach, video conference software
	Sustain good procurement practices e.g., ensure high quality selection process for vendors
Ensure sufficient capacity	Enhance web-facing threat intelligence monitoring e.g., conduct passive domain name scans
	Improve capacity management e.g., monitor application performance to identify suspected malware
Integrate & standardize security activities	Integrate fraud-prevention capabilities with the security operations group
	Account for increased costs e.g., as usage increases with online traffic, usage-based fees will increase
	Create how-to guides to help people solve issues themselves e.g., Yale tech website

Links to free resources supporting transition to remote instruction

The Chronicle of Higher Education's guide to teaching during coronavirus

Stanford University's Google doc on teaching effectively in a remote environment

Vanderbilt University's guide to putting course content online

Association of Higher Education and Disability's resources on higher education access during coronavirus

Educause collection of university instructional continuity plans and internet service provider (ISP) resources

Educause list of corporations providing discounted, free, or expanded services to higher ed institutions

Instructional design emergency response network connecting institutions to online learning professionals helping convert face-to-face courses or course components to online offerings