

COVID-19 Special Investigation Report: Higher Education in New England – Planning a Post-COVID-19 Recovery

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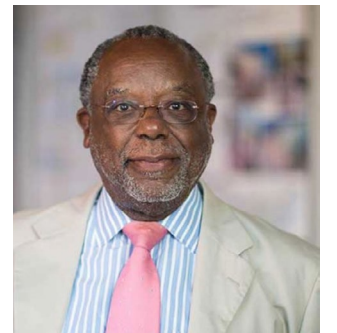
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Executive Summary

The New England Commission on Higher Education accredits over 200 public and private colleges and universities across the six states within the region, giving New England a larger per capita percentage of higher education institutions than any other region in the United States. COVID-19 has had enormous negative impacts on interconnected areas of education, employment, housing, social services, supply chains, food distribution, internet access needs, tourism, transportation, and health care. This impact creates an opportunity to envision a transformative new equilibrium that links higher education, community economic recovery, and racial justice in New England's college communities.¹ This paper focuses on developing collaborative, inter-dependent recovery strategies that reach the most affected people, institutions, communities, and affiliated industries.

The immediate health effects of CORONAVIRUS-19 will not likely be resolved during the 2020-21 academic year. New England college enrollments will likely decline, with negative effects on local economies. Because colleges and universities have intermittent revenue streams shaped by their enrollment cycles, longer-term economic, tax, housing, and educational impacts of the virus could have slow-recovering effects for multiple years, until 2025 or beyond.² This report acknowledges that many New England college communities have been sites of racial injustice demonstrations in 2020, and that higher education is a resource for addressing racial disparities in diverse populations across the region.

Educational success enables employment access, capital accumulation and investment, and a more resilient community. Resilient communities demonstrate the capacity of individuals, and institutions to withstand, respond to, and adapt readily to shocks and stresses, to recover stronger after tough times, and to live better in good times.³ Resilient communities demonstrate resourcefulness, robustness, reflectiveness, redundancy, flexibility, and inclusiveness, with integrated systems and institutions. The COVID-19 pandemic has tested these qualities in New England's cities and towns, and this paper provides guidance on three strategic stages of higher education's responses to the pandemic:

Educational success enables employment access, capital accumulation and investment, and a more resilient community.

Relief, including the implementation of short-term strategies for returning students to campuses in ways that benefit students, schools, and communities;

Recovery, including the convening of multi-sectoral planning entities to engage local stakeholders including residents, public officials, landlords, financial institutions, retailers, health entities, and non-profits in planning together to sustain and strengthen their communities from 2021 to 2025; and,

Reform, examining procedures and policies that will strengthen long-term community economic viability, redress inequalities, and provide greater education access and opportunity for the coming decade. The public education system in particular has faced major financial risks with the decline in public funds since the Great Recession of 2008. The high cost of higher education, coupled with the unprecedented economic recession, is changing the demographics of who can access higher education, with significant implications for employment growth in New England. A strategy for obtaining public and private investments in education will require that regional educational entities, states and communities:

1. Immediately convene higher education planning and economic development stakeholders, including community groups, local elected officials, non-profits, and experienced facilitators, to plan ways of bringing together schools and their communities to collaborate on regional strategies for recovery and economic development, and to advocate for massive investments in higher education;
2. Explore short-term initiatives to increase the interaction of colleges and their communities, with a goal of restoring and rebuilding the financial viability of locally impacted retail establishments and rental housing owners dependent on financially successful colleges and universities. The initiatives should leverage higher education's capacity to be a local economic asset, and a comprehensive social service provider with the local community, combining public and private resources;
3. Undertake an inclusive scoping assessment of the higher education landscape, based on the shared data that drives local economic development, with a focus increasing student financial supports, rationalizing capital investments in education using a medical facilities development model, and linking higher-education to job training, housing, and infrastructure investment in essential services such as broadband serving underserved communities;
4. Work together, utilizing New England's disproportionate national legislative influence, to advocate for debt relief and increased financial aid for students, subsidies for local landlords and small businesses, and initiatives for achieving region-wide racial inclusivity of under-represented groups in educational planning;
5. Focus on bi-partisan legislative action to attract public/private investments targeted at expanding collaborative infrastructure beneficial to public colleges and universities, and to their local communities. Such investments would be funded through short-term stimulus funding, mid-term Qualified Opportunity Zone and related legislation, and a longer-term a revival of the public investment principles of Neighborhood Stabilization, and Community Development Block Grant funding;

6. Establish higher education regional planning task forces to initiate planning for longer-term shared college/community initiatives to increase resilient and inclusive economic and planning interactions; and,
7. Finally,
 - a. *Students* should prepare for a future of on-line learning and seize this opportunity to obtain or to refresh their skills through public college enrollment using loans and Veterans or other public benefits;
 - b. *Colleges* should review their mission statements and strategic plans to diversify revenue streams and to work closely with communities on shared infrastructure investments such as broadband and health care facilities.
 - c. *Communities* should be incorporating the widest range of voices into school/community planning processes; and
 - d. *Elected and appointed educational officials* should examine the benefits of:
 - i. Increasing public funding for state and community colleges;
 - ii. Increasing financial aid for students, with a focus on diversity and equity audits;
 - iii. Expanding public higher education, including providing free community college education for all.

This paper provides an overview of how higher education in New England can meet the challenges brought on by COVID-19; impacts on host communities; approaches to considering race in planning for educational recovery; and recommendations for legislative advocacy, local planning, and achieving social resilience across the region.

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1. Introduction - New England's Characteristics

New England cities and towns have been resilient for two centuries or more, and many host distinguished colleges and universities. The New England Commission on Higher Education accredits over 250 public and private colleges and universities in New England with 37 (18 public) in Connecticut, 26 (13 public) in Maine, 99 (30 public) in Massachusetts, 20 (11 public) in New Hampshire, 12 (3 public) in Rhode Island, and 17 (4 public) in Vermont. These schools are located in 119 different cities and towns, giving the region the largest concentration of higher education institutions of any area in the United States. The economies of New England's cities and towns, and of the public and private higher education institutions within them, are more interdependent than in any other part of the United States. Colleges and Universities are often major land owners, cultural centers, housing impactors, service providers and users, and educators, bringing hundreds of millions of dollars into New England's economy annually.

The economies of New England's cities and towns, and of the public and private higher education institutions within them, are more interdependent than in any other part of the United States.

New England has been in a long downward trend in population, with the lowest birth rate of any region in the United States, the highest out-migration, and the greatest population influx from immigrants. Its' total population is 80% higher than in 1930, but the area has the slowest population growth rate in the United States, with national political implications. A population decline in Massachusetts caused it to lose a Congressional seat after the 2010 census. In 2017, the median ages in Maine, New Hampshire, and Vermont were the first, second, and third highest in the United States respectively.⁴ Four of the six New England states (Connecticut, Maine, New Hampshire and Vermont) have had native-born population losses largely overcome by immigrant in-migration.⁵

New England is a region of small states, with small to mid-sized cities where primarily smaller colleges and universities are located. The population of the six New England states is about 15 million people, placing the region's population roughly between the sizes of New York State and Pennsylvania, or twice the population of New York City. The states are primarily small in ranked population: 15th (MA), 29th (CT), 41th (NH), 42nd (ME), 43rd (RI), and 50th (VT). The geographic area of the combined six states is slightly more than the geographic area of Georgia, and somewhat less than the land area of Washington State, yet New England has 12 Senators and 21 Congressional representatives, giving it far more influence in Washington, D.C. than any other comparably sized region.

1.1 National Higher Education Trends 2005 – 2020 – Pre-existing Policy Challenges

Several related student recruitment trends have impacted college enrollments over the period from 2005 to 2020:

- i. There has been a rigorous national debate over the high costs and resultant debt burdens imposed by higher education's tuition and fees, as weighed against the perceived benefits of pursuing a higher education, particularly in the non-career-directed liberal arts;
- ii. There is a growing acceptance of the value of life-long learning, leading to a growth in enrollments of older adult students, students returning to college, career changers, and military veterans;
- iii. Distance learning technologies are evolved rapidly, particularly with asynchronous class time models, with attendant increased technology investment by the higher education institutions and consortiums;⁶
- iv. Community colleges in particular are centers for job training, English as a Second Language education, and career development, and less as centers for general educational enrichment;
- v. There has been a flattening of demand for professional education usually offered at larger universities, particularly in law, architecture, and similar professions where digital solutions and non-licensed career options are available.

2. The New England Higher Education Landscape

2.1 An Overview of New England's Schools and Communities

In 2020, nearly 800,000 undergraduates are enrolled in New England's higher education institutions, with about 60% from within the state of the college, and 25% from outside the region. Another 200,000 graduate and professional students are also enrolled in New England's higher education institutions. The communities most dependent on higher education tend to be smaller towns, with average population levels of fewer than 23,000 residents – in those towns, the institution, generally a small, private non-profit college, is usually the largest employer in town. In communities with populations larger than 56,000, about 6% of the town's employment is derived from higher education institutions. Overall, the institutions vary in size from fewer than 50 total students to more than 40,000. Three out of four colleges in New England enroll fewer than 5000 students.⁷

For decades New England's high concentration of public and private universities has been an engine of economic growth.

For decades New England's high concentration of public and private universities has been an engine of economic growth. The higher education sector has fueled the region's innovation economy and its world-renowned leadership in health research and medical innovation. This concentration has exposed New England to the economic consequences arising from the COVID-19 shutdown of university and college campuses, research labora-

tories, and clinical services.⁸ In New England cities and towns whose economics are heavily reliant on higher education, 45% of wages and 38% of jobs are directly derived from the local colleges and universities. The negative impacts are felt by the health sector; housing markets; local retail, dining, and hospitality businesses; the gig economy; and construction.⁹

For New England, the metro-Boston area is particularly important in the higher education sector. Boston is the world's leading center for higher education with 340,000 students enrolled in 52 colleges and universities. Overall, Massachusetts colleges and universities employ 136,000 faculty and staff, representing over 10 percent of the higher education workforce nationwide, and the schools annually generate \$24.5b in institutional expenditures. The Boston region's 8 research universities that are located within 9 miles of the city center attract nearly \$4b per year in federal and sponsored research funding. 74,000 Boston-area students live off campus, renting apartments and homes, and providing substantial sources of revenue for local restaurants, salons, coffee shops, stores and other small businesses. Colleges and universities are also one of Massachusetts top tourist attractions, with visiting parents and prospective students filling hotel rooms and restaurants.¹⁰

With a few exceptions, New England regional domestic student recruitment pools have been declining, placing some New England colleges and universities at financial risk, and weakening local economies as colleges closed, merged with other institutions, or reduced local operations.¹¹ According to the Federal Reserve Bank of Boston, the financially vulnerable colleges and universities include two-year, four-year, public, and private institutions. Public colleges have responded by increasing their marketing across state lines, and private schools have increased student recruitment from outside the region, including international students. International students bring assured revenues, and social challenges, as when they cannot return to their home countries due to travel restrictions and need extended housing and meal plan accommodations.

A significant proportion of New England's schools are private, receiving little state funding and relying primarily on tuition, housing, parking, endowment, and donations for operating revenues. The region has disproportionately more 4-year private nonprofit colleges than other regions, and such private non-profit colleges rely heavily on steady enrollments and generous endowments to cover their operating expenses. A much higher percentage of undergraduates enroll at private 4-year nonprofit institutions than in any other region of the country.

Graduate students tend to live off-campus in community-based housing. Compared with the rest of the United States, New England serves a smaller share of its graduate students at public colleges and private for-profit schools than at its private non-profit schools. Three quarters of the graduate students are enrolled at private non-profit institutions, with fully one quarter of those enrolled at just five institutions: Harvard, BU, Northeastern, UConn, and MIT. Nonetheless, graduate students, adult learners, veterans, newly arrived immigrant residents, and people completing degrees have a significant impact on local housing markets and rent levels.

2.2 Race, Immigrants, and Economic Opportunity

Immigrants and people of color are responsible for nearly half of New England's population growth, and immigrant naturalization rates are among the highest in the country, suggesting an intention to stay in the United States. The largest "minority" population across New England is Hispanic or Latinx (11%), and population changes have been dramatic in some areas – the Somali population in Belfast Maine grew from a few hundred individuals in 2000, to 10% of the population by 2010.

Racial and economic disparities abound in New England's higher education community. The region's distinguished private universities garner international attention and major research grants, while publicly-funded community colleges do much of the hard work of educating the regional population. Across New England, the benefits of a private college education are shared primarily by white and international students, and in Massachusetts, a leader in higher education nationally, only 18 percent of Latinx and 25% of Black adults have a bachelor's degree, compared to 45% of white adults.

. . . New England regional domestic student recruitment pools have been declining, placing some New England colleges and universities at financial risk. . .

Racial and economic disparities abound in New England's higher education community.

Nationally, community colleges enroll 12 million students, 29% of whom are in the first generation of their families to attend college.¹² In Massachusetts, only 16% of students in the public UMass system, including those enrolled in regional state universities such as Fitchburg State, come from families in the bottom 40% of the national income distribution. A deeper racial divide emerges from these numbers as only about 21,000 Black and Latinx students attend the state's four-year public colleges, while nearly 41,000 are enrolled in under-funded community colleges where only four in 10 students earn a degree within six years.¹³ Students at the 2-year public institutions where most students of color are enrolled, are more likely to receive Pell grant subsidies for low-income students, and are less likely to receive Federal loans, making up 28% of total enrollments but 38% of Pell grant recipients.

The majority of students of color, immigrants, and low-income students in New England attend public colleges and universities. Even though African American enrollment at four-year public institutions grew from 2010 to 2017, it did not grow at the same pace as overall enrollment.¹⁴ Elite private colleges, and graduate schools, have been largely ineffective at recruiting and retaining Black students; low-income and Black students are most under-represented.¹⁵ In 2017, at Masters and doctoral-level public institutions, only 4.5% and 3.6% respectively of students were African American. At highly selective private non-profit institutions, only 4.6 of Masters students, and 3.2% of doctoral students were African American.¹⁶

African American students are becoming less well represented in higher education in New England. African Americans stand out in the decline of the national student recruitment pool, with a significant related shift in colleges' Black enrollment patterns. While overall African American populations have increased nationally, both in total numbers and as a percentage of the American population, African American private non-profit and public college enrollments have declined. Black college enrollment hit a peak in 2010 (when 66% of Black high school graduates enrolled in college) and has declined by more than 13%; today, only 58% of black high school graduates enroll in college.¹⁷

Four-year public institutions were the only sector to see Black enrollment grow from 2010 – 2017. . .

Between 2010 and 2017, there has been a national decline of about 25,000 in the total number of Black high school graduates. The total number of Black college students declined by 365,000 during that seven-year period.¹⁸ The effects of the decline in Black high school graduates were felt most in private colleges and universities. Four-year public institutions were the only sector to see Black enrollment grow from 2010 – 2017, but that 6.4% growth

was below overall public schools' enrollment growth.¹⁹ New England's schools ran counter to this national trend, as three colleges saw substantial growth in Black enrollments during this period, driven largely by aggressive recruiting and strong retention efforts: Southern New Hampshire University (19,959%), New England College (553%), and the University of New England (264%).²⁰

Cultural resistance to inclusivity has impeded the development of effective processes for integrating all ethnic groups into New England's higher education planning models. Boston, for example, the region's capital city with the largest concentration of higher education institutions per capita, has a "progressive" national reputation while maintaining some of the most racially segregated housing, educational, and employment patterns in the United States.²¹

Higher education governance for public and private colleges is also not representative of the diversity of regional students being taught. Of New England's six state legislative boards overseeing the funding of public institutions, only New Hampshire and Rhode Island have a person of color serving on the oversight boards.²² Of the 18 members of the New England Board of Higher Education's Board of Delegates, 15 are white, two

are Latinx, and one is Indian. Of the 29 members of the accrediting Board of the New England Commission of Higher Education, 5 are people of color.

Accurate, current, and transparent baseline data on race is missing from an extraordinary number of New England workforce, professional, employment, housing, financial, health, and higher education areas, and higher education's data gathering and analytical capacities must be brought to bear immediately as a first step toward developing policies to redress the region's gross disparities in opportunities for people of color and immigrants in New England.

2.3 Colleges are Financially Vulnerable Across New England

Negative impacts of COVID-19 are expected to fall most heavily on New England's region-specific industries such as higher education, tourism, dairy production and distribution, fisheries, nuclear energy, and food supply chain management; many of these benefit from but do not require a college education for entry. Tenants and landlords are anticipated to suffer in New England's renter markets, particularly where colleges are located. New England's dependence on higher education as a regional economic driver is expected to exacerbate local economic development challenges.

Across New England, 57 cities and towns have been identified by the Federal Reserve Bank of Boston as heavily dependent on higher education's success, as at least 10% of the jobs in those communities are derived directly from the colleges, and/or the student to population ratios in those towns show a high reliance on student spending.²³ Such communities would suffer substantially from the reduction in economic viability of the colleges and universities in their midst, with housing impacts, local employment declines due to lay-offs and furloughs, impacts on local retail establishments due to lower enrollments, interruptions to research funding, higher digital costs due to increased on-line learning, the unavailability of international students, the financial impacts of early semester closures, and reduced revenues from sports and other activities.

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Higher education institutions in New England have received Federal COVID-19 funds in order to continue their basic operations through the Spring of 2020 and into the Fall of 2020.²⁴ Smaller institutions generally lack the financial resources to modify their housing and office spaces, to providing testing resources,²⁵ and to purchase equipment to transform their classrooms into safe learning spaces that incorporate social distancing and appropriate digital tools for on-line teaching. Major institutions are making such investments, but are still subject to the enrollment projection vagaries of student/parental choices on enrolling in the Fall, limits on international travel, and likely reductions in other revenue sources such as space rentals and food service declines.²⁶

2.4 Consolidations / Closures

For some institutions and their host communities, the financial strains created by COVID-19 may be too great for the educational institutions to survive more than another year or two.²⁷ *Edmit*, a recently formed higher education consulting firm, estimates that financially vulnerable colleges and universities will see

a 10% decline in tuition revenues as a result of the coronavirus.²⁸ Long-time higher education critic and NYU marketing Professor Scott Galloway, using his un-vetted value-to-cost/vulnerability index based on endowment values and reliance on international student enrollments, predicts that declining revenues, and uncertainties about enrollment levels, will lead a number of New England schools to “perish,” or be at high risk of closing in the near future. His criteria include subjective qualitative factors such as the school’s reputation and ability to serve as a career accelerant; the experience the school offers; and the caliber of its instruction, divided by tuition. Vulnerable New England schools on Galloway’s list include Brandeis, Clark, Lesley, Mount Holyoke, Quinnipiac, Sacred Heart, Simmons, the University of Hartford, and the University of New England, and in the public sector, UMass Boston and UMass Dartmouth. Officials at those schools dismissed Galloway’s assessment methods, and his assertion that the schools have failed to anticipate the coronavirus’ negative impacts or not introduced creative offsetting measures such as hybrid low-residency programs and on-line teaching.²⁹ These schools emphasize that they have sound, agile management practices that enable them to navigate and overcome global economic hardships.

71 financially vulnerable educational institutions in New England have experienced enrollment declines over the past decade. . .

71 financially vulnerable educational institutions in New England have experienced enrollment declines over the past decade, and these institutions also have limited endowments.³⁰ The greatest college enrollment growth over the past decade has taken place in the region’s heavily-marketed, technology-dependent, on-line remote learning institutions, with significant enrollment growth in other schools spurred by international student enrollments.

Consolidations and mergers are best initiated when the schools can project financial viability at least 18 months ahead, to avoid “fire sale” discussions of physical assets. Prior to the pandemic, public officials sought to implement legal protections against school closures brought on by financial instabilities;³¹ such efforts have largely been suspended even as the virus has placed more schools at risk. Connecticut, Maine, and Vermont continue to consider school consolidations within their public college systems to reduce costs and to enhance system equity.³²

Recent and projected college mergers, consolidations, and closures have encountered legislative resistance and made communities wary of entering into agreements with institutions that may fail:

- i. Planning for *institutional contraction*, recovery or collapse has imposed huge burdens and risks on institutional managers. The vagaries and uncertainties of knowing how many students may return,³³ and when, has confounded institutional budget planners across the region’s higher education sector. Managers cannot know how many existing dormitory rooms to reserve or hold open, or whether to seek additional off-campus housing to meet social distancing guidelines. Housing generates ancillary revenues for campuses over and above tuition; it also requires specialized management and social services support. Similarly, food services, health care, college stores, catering, space rentals, and parking can be major revenue sources; too few students living on campus can precipitate a collapse of key

Managers cannot know how many existing dormitory rooms to reserve or hold open, or whether to seek additional off-campus housing to meet social distancing guidelines.

revenue streams that enable colleges to keep their doors open. Many campuses cannot predict actual student numbers on campus until mid-September or early October, by which time other costly contractual obligations may not have been curtailed. Negative numbers in September cascade into potentially devastating budget scenarios by January, and institutions may find themselves facing cautious recoveries, major contractions in services, or Spring semester closures. Schools currently at risk may have to explore mergers or consolidations, or substantial compromises to their missions. It is likely that poor enrollments at schools with limited endowments will lead to closures.

- ii. Colleges across New England have embraced technologies that enhance *distance learning* and helped boost enrollments, but the institutions have also encountered technological and financial challenges in

In rural areas in particular, broadband dispersion has not kept pace with the requirements of facilitating on-line learning. In some areas, students simply have not shown up on-line.

making these systems work effectively. In rural areas in particular, broadband dispersion has not kept pace with the requirements of facilitating on-line learning. In some areas, students simply have not shown up on-line. At the elementary school level across New England, between 15% and 19% of students are without reliable internet connections and are unable to connect with their teachers or each other. This technological gap has exacerbated gaps in race and class,³⁴ yet it is clear that on-line learning is now a permanent fixture on campuses as budget concerns drive schools to innovate.³⁵

- iii. *Stake-holder engagement* has become a priority. Students are increasingly asking for operational changes on their campuses.³⁶ Students and parents are demanding greater transparency in communications from administrators, and communities dependent on student tax revenues are seeking more information on the financial standing of at-risk institutions.

2.5 Factors Influencing Post-pandemic Decisions for Schools

COVID-19 has brought on a new set of planning uncertainties and challenges for managers of higher education institutions,³⁷ and for the economies of the communities within which they sit. It is beyond the scope of this paper to advise on the myriad re-opening challenges faced by colleges and universities including: on-campus housing or alternative hotel placements that incorporate social distancing; refurbishing classrooms to accommodate new hybrid on-line teaching methods; limiting social gatherings; assuring that faculty and staff can work safely on campus; anticipating enrollments; managing communications with parents and students; overcoming the vagaries of international student rules; managing dining halls and recreational facilities; establishing predictable relationships with local vendors; etc.³⁸ What is clear is that no college has ever faced such a difficult set of logistical, financial, managerial and communications challenges with so many uncertainties in such limited time.

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A significant number of practical uncertainties affect higher education's planning for post-pandemic recovery costs:

- i. Health care costs, with or without the proposed repeal of ACC;
- ii. Increased social safety net costs as unemployment has driven many local residents, students, and laid-off staff below the poverty level;
- iii. Endemic segregation and inter-generational race-based poverty are major impediments to economic recovery, as New England has some of the highest racially-based income disparities in the United States;
- iv. Small business investment shortfalls and failures are devastating small businesses serving colleges;³⁹
- v. Educational access for public school has been sustained through the pandemic through the wide distribution of Chromebooks, and the placement of mobile hot spots in neighborhoods where broadband access has been inadequate;⁴⁰
- vi. Public safety coordination issues on and off-campus have been highlighted during the pandemic, as demonstration management has at times shown close working relationships between city police forces and on-campus security agencies;
- vii. Child care and elder care issues for campus employees have been accentuated as working parents lost employment and found themselves caring for multi-generational households;
- viii. Mental health issues brought on by unemployment, physical health fears, tension, PTSD, drug addiction, increased alcohol consumption and disrupted legal and illegal drug supply chains.

2.6 Factors Influencing Post-pandemic Communities Hosting Colleges

New England communities that are highly dependent on higher education, and are home to an institution at financial risk, are the most vulnerable to major disruptions in higher education, with attendant direct revenue and tax loss consequences. Small and mid-sized colleges in primarily small New England communities have outsized impacts on local economies, particularly as to local housing patterns, employment opportunities, tax revenues, and off-site retail economies. Declines in local community economic activity affect colleges' abilities to meet student needs and expectations, while declines in colleges' economic viability reduces local employment, job training, recreational, health, and social supports.

Small and mid-sized colleges in primarily small New England communities have outsized impacts on local economies. . .

COVID-19 has had devastating economic effects on smaller New England communities as schools shut down, students were sent home, and local retail operations lost one third to one half of student spending. While several states have announced their intentions to re-open public campuses in the Fall offering "blended model(s) of instruction with face-to-face and remote coursework,"⁴¹ local landlords, transportation companies, supply chain managers for restaurants, banks, cleaners, pharmacies, clothing stores, disposal

contractors, recreational facilities, and many others generating local taxes in cities and towns rely on student-based revenues for forecasting and achieving business revenue projections.

College towns are responding with tax increases, service reductions, and trepidations concerning a potential decade-long drop in town revenues. Amherst, MA proposed an increase in annual water and sewer fees of \$100 per household to offset the sudden drop in water usage by students at local colleges. Ithaca New York projected a 20% cut in its budget, and local unemployment increased from 3% to 10%. Unions are being approached to engage in staff cutting discussions, and public safety vacancies are being kept open in the event the local economy can support police officer wages.⁴² In Maine, the anticipated costs of responding to the global pandemic in the upcoming higher education budget will exceed \$20 million in lost event revenue, student safety allowances in dining and residence hall revenues, and investments in technology and safety equipment.⁴³

Most ominously, the decline in local student populations during the period of the 10-year national census count, could substantially undercount population numbers in a way that would negatively affect public funding for community development block grants, employment and training, and family and senior services for a decade. One Mayor projects that such a temporary student population absence would lead to a reduction of \$40 million over 10 years, making the virus's impact on small towns far greater than the immediate health concerns might suggest. Losses include:

. . . the decline in local student populations during the period of the 10-year national census count, could substantially undercount population numbers in a way that would negatively affect public funding.

- Financial losses due to declines in tax revenues, and varying mixes of retail and college-based revenue sources must be factored into economic models for towns dependent on college revenues for the coming 3 to 5 years.
- Environmental resilience factors weigh heavily across New England's college towns as energy costs are high, and colleges may not make sustainability improvements requiring capital expenditures as funds are shifted from capital to operational needs.
- Tourism declines are impacting New England college towns as events are canceled, parental and orientation visits are eliminated, and off-season tourism diminishes tax, hospitality, and retail revenues.
- Child care losses due to a need for social distancing is eliminating a basic necessity for care-givers in families in college towns already decimated by lay-offs and furloughs.
- Broadband inaccessibility has proven to be a problem in New England's urban and rural areas, as availability is unevenly distributed, with a greater focus on affluent areas than on areas of economic need.

3. Recovery Recommendations for Institutions and Education Oversight Entities⁴⁴

3.1 Sharing the burden

Each community should develop an inclusive institution/community task force to begin post-pandemic recovery strategic planning. That task force must prioritize and develop paths to overcome overlooked issues detrimental to implementing immediate actionable steps, e.g., local political or racial inertia. Task force discussions must focus on how critical interconnected and overlooked community issues, and on the mechanisms to overcome historic patterns of financing having not reached underserved and communities of color. These joint task force discussions should consider:

- Partnerships with local high schools;
- Regular community-focused text messages and notifications;
- Summer and year-round programming;
- Shifting admissions requirements and benchmarks for success; and,
- Mentoring.⁴⁵

Regional higher education planning entities, local institutions and their adjacent towns must plan for the practicalities and uncertainties of returning to “traditional” campus life including, policies of social distancing of students and faculty to reduce the spread or recurrence of the virus; scheduling the uncertainties of when students will arrive and depart, in order to reduce high concentrations of students in limited times and spaces; staffing levels and deployment affected by lay-offs and furloughs to increase efficiencies due to staggered schedules; operational issues of managing personnel benefits, retirement plan contributions, raises and new hiring; and the implementation of health, safety, and testing protocols that add significantly to college operating expenses.⁴⁶

Regional higher education planning entities, local institutions and their adjacent towns must plan for the practicalities and uncertainties of returning to “traditional” campus life. . .

There are often substantial and well-founded fears of the risks involved in coordinating economic development plans that engage higher education

institutions with local communities, based on long-standing town/gown relationships. Examples of positive joint initiatives are found in Savannah, Phoenix, Philadelphia, Cambridge, Milwaukee, and Minneapolis.

Student supports, community engagement, and regional networking must be prioritized in a collaborative economic development process for restoring confidence and re-building economic vitality in throughout higher education, and inclusive community planning and financing models must be implemented to assure that recovery strategies and funding incentives will reach the most affected and under-served communities, including diverse racial groups and new immigrant populations. Race and poverty must be addressed directly in setting metrics of success.

3.2 The Case for Making Investments in Publicly-funded Institutions

Public institutions have experienced sharply declining state contributions since the Great Recession of 2008, and most anticipate further revenue cuts in the post-pandemic era. Public colleges are the conduit for New England’s residents to achieve financial mobility. Community colleges in particular welcome diverse first-time students and immigrants, and provide the language and technical skills, and job training they need to enter new career paths. As community colleges have lost state funding for the past decade, there is an urgent need for public capital infusions into local higher education, to support or eliminate tuitions, provide more child care to parents in need, for job training, and for infrastructure investment in areas such as digital and broadband infrastructure, public health, and energy resilience.

Public colleges are the conduit for New England’s residents to achieve financial mobility.

The worst impacts of the coronavirus are anticipated in rural areas in the Fall of 2020, when the availability of Federal PPP and CARES funds is uncertain. The case needs to be emphasized that these rural and dense urban public campuses are regional assets that must increasingly provide:

- i. English as a Second Language classes;
- ii. Family supports such as child care for employees;
- iii. Services to address health disparities;
- iv. Youth education supports;
- v. Jobs and career training;
- vi. Technology dispersion and access;
- vii. Adult learning opportunities at flexible times;
- viii. Access to ladder employment opportunities on-campus and in growing career areas;
- ix. Racial sensitivity training for faculty and staffing;

- x. Repurposing existing higher education facilities such as health centers toward wider community uses may present transformative opportunities for both;⁴⁷
- xi. Urgent care centers that can be co-located, or relocated to college campuses to increase efficiencies, provide pre-existing parking and utilities, and increase campus usage to 24/7;
- xii. Immigrant populations are an increasingly large segment of public college enrollments, and such public schools should develop ways of listening directly to the stated educational needs of these emerging populations.

Funds directed toward these public campuses are essential investments in the region's future. Smaller public colleges can express entrepreneurial intentions as readily as large universities, and can excel at developing strategic partnerships to the mutual benefit of the institutions and the communities. Small and rural colleges can be particularly adept at engaging local families and children. Public higher education facilities can become local food distribution, adult recreation, and broadband distribution centers that serve families and children; seniors and others seeking soft exercise and recreation venues; and adults seeking rejuvenation who can be drawn to campuses for theater, music, indoor and outdoor recreation, and health enhancement venues. Such uses broaden the brand of the higher education facility as a shared community asset.

3.3 The Case for Investing in Private Higher Education

Fewer than half of the private schools have endowments valued at more than half of the amount of their annual expenses, making them highly vulnerable to closure in economic downturns.

Among communities with financially “vulnerable” colleges and universities⁴⁸ there are 10 private institutions and 9 that are public.⁴⁹ Of the 71 New England colleges and universities considered to be financially “at-risk,” 18 are private and 53 are public. Private colleges with large endowments and/or stable enrollments and applicant pools will likely weather the financial stresses of diminished enrollments better than will schools with marginal enrollment prospects and limited endowments. Fewer than half of the private schools have endowments valued at more than half of the amount of their annual expenses, making them highly vulnerable to closure in economic downturns.⁵⁰

Private schools have responded by increasing fund-raising appeals; consolidating operations or merging with other institutions; developing on-line teaching models; finding asset-based revenue streams like renting out auditoriums and parking, or setting up summer alumni programs; opening hospitality, health, and recreation centers that make the campuses more attractive; and developing specific new international student recruitment sources. The entrepreneurial efforts need to be conceptualized as potential private investment sites, and the student recruitment efforts often involve employing specialized recruitment agents.

Private college fund-raising impacts will likely include stabilized or reduced donor commitments to non-profits, and such social investments should be targeted toward developing resilient resources that can become self-sustaining, as well as those that meet immediate social and human services needs.

All of these initiatives require brand development and targeted marketing. Changes in marketing have increased operating expenses of New England's colleges and universities, while spurring rapid ancillary revenue and enrollment growth at schools such as Southern New Hampshire University and the University of New England. Two New England private non-profit universities are now in the top ten American institutions enrolling international students (Northeastern University is 3rd, and Boston University is 10th). During the decade from 2007 to 2017, the fastest growing private non-profit New England higher education institutions also had the highest rates of advertising spending:⁵¹

Southern New Hampshire University spent \$132,777,855, or \$1460 per student, to grow from 6400 students to 90,000, an increase of 1300%;

The University of New England spent \$3.3 million over this 10-year period, or \$401 per student, to grow from 3800 students to 8300, and increase of 118%;

The Worcester Polytechnic Institute spent \$1.2 million on marketing to prospective students over these ten years, or \$191 per student, to grow from 4100 students to 6600, a growth rate of 60%.

The rapid growth of these schools has proven financially beneficial to both the institutions and the communities that host them.

4. Key Conclusions

4.1 Civic

Colleges and universities are integral to New England's economic recovery from COVID-19, and are major players in local economies through direct investment and ancillary economic impacts.

Colleges and universities are first and foremost *educational institutions* with diverse community-impacting service functions, whose mission is to enhance educational and career development opportunities for their students. They are also legacy civic infrastructure in New England's communities.

Mutually beneficial *partnerships* with private companies, local agencies, Federal funding sources, and local community groups are essential to a strong recovery, and the institutions must be strategic in planning and adept in negotiating relationships with their partners.

Campus planners and service providers should work with faculty, students, and communities to bring focus to co-created campus *equity and engagement activities*.

Institutions must develop partnerships through the following mechanisms:

- Cultivate inclusive community-oriented leadership;
- Utilize their financial and political leverage;
- Communicate broadly and strategically;
- Stay focused on their educational, service, and research missions;
- Be an incubator for metrics-based innovation;
- Build on a human scale;

Colleges and universities are first and foremost educational institutions with diverse community-impacting service functions. . .

- Recognize they are equitably-based cultural and social entities, as well as employment, economic, and educational drivers in the local economy. They are integral to how a community projects its' economic value brand to a wider world.⁵²
- It must be accepted that there will be a continued social distancing in planning and implementation processes.

4.2 Financial and economic development:

Institutions can develop and share *complex technological resources* in ways that are directly beneficial to local communities, e.g., broadband hubs, clean energy centers, and innovative resilience incubators. These digital infrastructures such be widely available and subsidized so they are available to the general public for free.

Innovation districts around colleges can enhance institutional and community entrepreneurial business interests.

Declining on-site enrollments suggest that institutions may be over-building capital resources on campus, which may need to be *re-purposed*.

Housing development and management, energy management and resilience planning, cultural and recreational facilities development and management, transportation planning, food distribution, technology utilization, social equity and racial engagement planning, long-term employment and training, and medical facility planning are key immediate areas for collaborative recovery planning.

5. Short-term Steps to Recovery

5.1 Incentivizing a Resilient Economic Recovery Utilizing Higher Education’s Resources

Congressional actions by New England’s Congressional representatives are needed to address immediate needs:

Public community colleges help assess and support local community economic development needs, but are often dependent on shrinking state revenue support, leading to consolidations and mergers across the region. Such public colleges need legislative funding.

Small private, independent colleges in New England towns are generally dependent on financial resources from outside the region, and sometimes focus more on donors, research sources, alumni, and student recruitment strategies that do not focus on the needs of the immediate community. Such private colleges may need to consider consolidating their operations, technical resources and real estate with public entities. Federal and state actions may facilitate these collaborations.

In both public and private situations, a stimulus bill must protect student loan borrowers, who at 42 million adults, comprise one-sixth of the U.S. population over the age of 18. This public loan debt (not counting private bank loans), amounts to \$1.5 trillion. A further stimulus should include 1.9 million Perkins loan borrowers, and 7.9 million commercially-held Federal Family Education loans.⁵³

The *Rebuild America’s Schools Act* should be supported to provide funds for school facility revitalization.

Schools and communities should be conveners of community planning groups, working collaboratively with local stake-holders, the Federal Reserve Bank of Boston, and regional universities to assess projected revenue losses from the pandemic, and to coordinate with local banks and investment entities, and regional planning agencies, to develop parameters for specific revitalization efforts focused on stabilizing and increasing tax revenues and employment levels, and developing funding for essential support services such as child care, primary health care access, and affordable housing. Centers for English as a Second Language, literacy and skills training must be co-created between higher education institutions and their local communities.

Schools and communities should be conveners of community planning groups. . .

Colleges can independently address their revenue declines through:

5.1.1 Financial steps:

Cash flow challenges are emerging in light of higher education’s “three-moment” Fall/Spring/Summer cyclical revenue structure, and could be offset with new digital and broadband revenue sources;

Financing challenges for on-going capital projects will likely lead to delays or suspensions of campus construction and maintenance projects, but could be offset through partnerships with local developers and/or trade associations;

Bond ratings and credit challenges have likely brought on additional campus revenue drops and credit cost increases that could be offset through public/private funding instruments;⁵⁴

Fund-raising impacts as stock market dependent donors will likely reduce charitable contributions, requiring balance sheet reconfigurations and changes in endowment draw-down restrictions;

PPP / Resilience loans are scheduled to end in Summer, 2020, precipitating a need for additional temporary Federal bridge stimulus funding to sustain existing campus functions and operations;

Relationships with private financial resources (banks, etc.) are now strained as colleges and universities struggle with the uncertainties of predicting 2020-21 revenue streams, requiring restructuring of financial modeling for institutions;

Public/Private Partnerships must be developed to leverage the private sector’s access to capital with the University’s non-profit status for grants and fund-raising;

The economic impacts of higher education institutions on local economies must be assessed in light of the intellectual, service, real estate and training assets those communities hold, and need, in support of the institutions.

Dependencies or interconnections between local public and private economic sectors & higher education stake-holders can utilize government structures such as *Qualified Opportunity Zone* tax funding for public economic development purposes;

The economic impacts of higher education institutions on local economies must be assessed in light of the intellectual, service, real estate and training assets those communities hold, and need, in support of the institutions. The value of payments in lieu of local taxes must be assessed to better understand how non-profit status may affect local revenues that support employment and public services.

5.1.2 Re-purposing assets:

Dormitory re-configurations through new construction or the utilization of off-campus facilities that also social distancing requirements;

Dining, supply chain disruptions, and increasing community food needs will impact negatively on campus dining and food service revenues, but could be offset by colleges’ participating in local and regional federal feeding programs for the needy. Temporary homeless shelters can be accommodated within many campuses;

Job training and career development facilities already exist on most campuses, and will need expanding with Federal job training investments;

Postal facilities and Amazon/FedEx/UPS drops and distribution sites exist on many campuses.

5.1.3 Programming:

Library use, archiving, and data collection is intrinsic to most campuses such that data analysis for local entities will be more integral to development planning;

24/7 safe spaces exist on most campuses, with campus security available and urgent health care access possible;

Communications paths leading to trust building with local residents and businesses, parents, staff, and internal constituencies.

5.1.4 Teaching & Learning Priorities:

Distance and hybrid learning are economic development tools useful to local communities and potential college enrollees;

There is a continued need for on-line distributed teaching with increased experiential components in that teaching process;⁵⁵

Job training to enhance community strengths and resilience can be provided by higher education and funded nationally for unemployed and underemployed workers in health, tech, child-care, and for immigrants and new community arrivals.

5.1.5 Community Economic Development Initiatives:

The institution/community planning team must set metrics to assess how diverse social and economic eco-systems can be structured to include more of the future voices of the community in local development.

The planning team should prioritize how new demographic groups can help in embracing global markets through local enterprises (e.g., supply chain and local business development strategies).

Employment and educational boundaries across New England are permeable such that planning strategies for workers, energy utilization and resilience are regional planning issues. Maintaining the input of strong and diverse regional voices is essential in this geographically small but culturally diverse region.

6. Mid-term Steps Toward More Resilient Colleges and Communities - 2022-25

6.1 Public investments in public assets:

Capital and human infrastructure investments need to be made and assessed in light of what will nurture a resilient and self-sustaining community. FEMA can assist in overcoming policy barriers by convening local stake-holders and policy planning groups, as a neutral third-party facilitator.

The planning team must produce longitudinal performance indicators that:

Address barriers to unfair business competition;

Address incentives to collaboration between colleges, communities, and new constituencies;

Increase equitable access to financial resources and banking;

Support local asset-driven innovation;

Support community service entities and social equity;

Equalize access to housing, jobs, and recreational resources.

New England's legislators should encourage Congress to support the higher education budgets of states and state colleges that serve high numbers of low income students and students of color. This subsidization would avoid replicating events after the Recession of 2008, when limited Federal funding caused states to significantly reduce their contributions to support public higher education. 2008's "maintenance of effort" Federal support led to state budget cuts to public higher education, and to tuition increases that exacerbated a student debt crisis.⁵⁶

New England's legislators should encourage Congress to support the higher education budgets of states and state colleges that serve high numbers of low income students and students of color.

Planning must incorporate an understanding of the inevitable growth of life-long learning and re-training linking higher education and schools' communities.

WPA-like infrastructure investments should be considered and implemented, with a focus on developing future-oriented resilient and sustainable Green Jobs that meet local employment needs.

6.2 Private investments in public resources:

Advisors on higher education investment recommend that private investors should remember that:

Higher education revenues are based not only on tuition, but also on on-campus housing, dining halls, and parking fees that could qualify private investments for Opportunity Zone tax treatment or for the creation of new financial market investment instruments;

Public universities, community colleges, and private institutions which may be negatively impacted less than public institutions will be affected differently. Physical campuses with investment opportunities will be more attractive as investments than would on-line learning portals;

Investors should keep an eye on individual colleges' credit ratings, and read footnotes to financial statements and credit opinion reports;

Despite some recent closures, most colleges and universities are financially resilient; and

Investors should familiarize themselves with organizations and online platforms that provide financial data on the sector.⁵⁷

Small business investment strategies can be focused both on sustaining existing businesses, and on incentivizing the growth of new, entrepreneurial enterprises related to the college's mission, economic prospects, and focused on future-oriented skillsets.

6.3 Criteria for setting investment performance standards and accountability

Economic development outcomes must be based on assuring that equitable and just processes are employed to achieve equitable and just outcomes. Co-creation of goals and outcomes is essential.

Diverse community asset assessments and cultural infrastructure investments should be prioritized and assessed with data-driven metrics to achieve healthy, economically viable, and socially resilient communities.

Impediments to transformative change include local political inertia, pre-existing business and financial relationships, the absence of "honest brokers" (such as civic organizations or county governments with mediating authority) in the public or private sector who can negotiate or mediate agreements among parties holding divergent viewpoints; disdain for new arrivals in communities; a history of acerbic town/gown relations; language and cultural barriers, geography, lack of transportation or communication resources, and a sense that "things were better before or they're pretty good now." Neutral facilitators of these difficult conversations include university based and non-profit entities such as the Mayors' Institute on City Design, the Dukakis Center, the Metropolitan Area Planning Council, and other planning entities.

Diverse community asset assessments and cultural infrastructure investments should be prioritized and assessed with data-driven metrics. . .

In the longer-term, Congress should offer support for higher education that avoids cuts, encourages investment, and directs funds toward under-resourced public colleges. Congress should also provide relief to borrowers with a high risk of defaulting, and to borrowers of color.⁵⁸

7. Longer-Term Actionable Recommendations - Best Public Investment Alternatives

Decisions to solve one higher education problem may have cascading and perhaps unintended effects across other community functions. Delaying the return to campus of on-site student residents for health reasons, for example, has negatively affected local economies and could negatively affect long-term census counts with major impacts on Federal funding allocations. There may be fundamental

Delaying the return to campus of on-site student residents for health reasons has negatively affected local economies and could negatively affect long-term census count. . .

disagreements as to what resources are needed to incentivize a local economy, who those resources should be disbursed by, and who should receive those resources. Projections of impacts of economic planning investments on long-term under-represented communities have evolved as urban planners have reconsidered the effects of urban economic development strategies on racial minorities, gentrification patterns, financial segregation, and displacement.⁵⁹ Nonetheless, post-COVID-19 planning and recovery decisions must be made, and the following guidelines are suggested.

7.1 Policies

Listen to community-expressed needs for training. Studies indicate the added value of developing economic revitalization programs from the ground up, i.e., with the input and support of local community stakeholders. Local buy-in on projects is essential for the projects' long-term sustenance and viability. FEMA should work with local elected officials to immediately initiate community forums to receive and utilize local community thinking into the prioritization of investment initiatives.

Colleges and universities should be supported to conduct *racial and social equity audits*⁶⁰ of themselves, local planning entities and their impacts, and regional workforce and housing opportunities in their areas.

Higher education institutions should conduct *local forums* highlighting *best practices in corporate/civic training* for market expansion, product development, and consumer inclusivity, to inform and share information of private sector approaches to economic development, consumer services provision, supply chain management, personnel practices, and other elements of private sector growth that may be applicable to public sector revitalization.

Schools and community leaders should conduct a thorough *assessment of current and planned access to technological tools and digital skills*, and should meet in facilitated sessions to assure that recovery and

revitalization plans include educational and workforce training access, fair labor practices, and full and fair access to business financing opportunities.

Higher education institutions are small cities unto themselves. . .

Support schools as *centers for local research & development training*. Each local higher education institution supports some level of local research into economic and social development. Local short-term school/community councils should be convened to focus these research and service activities on coordinating recovery efforts.

Invest public funds in colleges as local *data centers for community development*. Libraries and archives in higher education institutions should become repositories of shared data on the history, current status, and economic prospects for recovery and growth in each community. Such initiatives should be clearly named as *recovery centers* and opened to area public use for planning purposes.

Assessment metrics based on historical baseline data can be established by local schools and included in economic development projections to measure local impacts on racial and social equity. Much useful qualitative information can also be gained from post-Works Project Administration and post-Civilian Conservation Corps, post-Great Society, and post-Great Recession investment failures and achievements, in assessing the potential negative impacts of large public investments in civic infrastructure.

Support schools as *facilitators of local supply chain analysis*. Higher education institutions are small cities unto themselves, with food, public safety, housing, material support, waste disposal, and other supply chain connections. Each community should be open to sharing and rationalizing such supply chain knowledge to bring efficiencies into future resource allocations. An example of such shared planning took place early in the pandemic as Boston's Medical Area Services Corporation worked with local universities to coordinate housing for emergency medical workers and to bring supply chain knowledge into the acquisition of medical supplies for the hospitals and universities.

Schools and civic planners should meet to set plans for providing *compensatory preferential access* to educational and professional growth and financing opportunities for historically under-represented and demographically growing populations, and for increasing racial, gender, and economic inclusivity in developing professional opportunities and increasing long-term investment successes. Examples include MassPort's public/private real estate development planning, or the Boston Planning and Development Agency's developer requirements to fund city-wide job training for under-represented populations.

7.2 Teaching & Learning

Invest in colleges as pipelines to local job training and employment. A number of higher education institutions are already engaged with their local communities in joint Federal and state-funded job training and career growth programs. These should be expanded with Federal support from FEMA and from private industries such as Amazon to increase employment opportunities.

Introduce worker based artificial education (AI) and digital fabrication skills training at colleges. Higher education institutions are at the forefront of developing AI and digital fabrication technologies. This is the moment to focus on these areas as employment generators in the 2 - 5 year time frame.

The key infrastructure investment over the coming year to three years must be in increasing the strength and reach of broadband for educational and economic development purposes.

Support college investment in IT and digital training for on-line learning. The key infrastructure investment over the coming year to three years must be in increasing the strength and reach of broadband for educational and economic development purposes. There are hard and soft costs associated with this expansion, and FEMA can help make the case to Federal, state, and regional development entities as to the added value of accelerating broadband access development.

Job training should be appropriate to the changing demographics of an area, with a five-year planning objective. Assessment tools should hold both the schools and the communities accountable for outcomes.

Develop *policies addressed at achieving racial and social equity* – communities and local higher education institutions should establish joint planning task forces to assess local racial equity issues and to develop, implement, and longitudinally assess (with 1, 2, and 5-year time frames) the impacts of specific initiatives in reducing racial and economic inequalities.

7.3 Facilities:

Re-frame what school facilities are, and *re-conceptualize facility functions* to include:

Health facilities that serve the communities.

Food distribution centers that serve the institutions and communities jointly.

Communications infrastructure hubs and local hot spots (e.g., broadband distribution) and computer facilities that jointly serve the higher education institutions and the communities.

Recreational and cultural facilities that are utilized by both the schools and the communities.⁶¹

Specific collegiate facilities should be designated as *24/7 safe spaces* for on-going community purposes. Emergency homeless shelter spaces should be designated and appropriately supplied on campus with medical equipment, short-term food, and child-care supplies. Facility modifications should be funded with FEMA recovery funds.

Specific collegiate facilities should be designated as 24/7 safe spaces for on-going community purposes.

Seven-day, 15 hour *postal facilities* and Amazon/FedEx/UPS package drops should be located on campuses to integrate school and community supply chain needs. On-campus convenience stores could be co-located with such facilities.

8. Conclusion

COVID-19 presents New England cities and towns with higher education institutions, with an opportunity to re-configure town/gown relations to establish innovative and collaborative entities and economic development relationships that draw upon combined public and private sector financial resources. The Savannah College of Art and Design, the University of Wisconsin/Milwaukee, Arizona State University, the University of Pennsylvania, and the University of Minnesota at Minneapolis have shown how colleges, and the communities they are in, can create economic development entities and work together on economic development and recovery strategies that leverage public and private resources to mutual benefit. The efforts must be well-planned, co-created, inclusive of changing demographic voices, business-friendly and non-profit aware, agile, visionary, and flexible. New England's colleges and their towns are on the cusp of such transformative planning and effective program initiation, tied to accountable metrics of success. We should not let the COVID-19 economic crisis go wasted as a planning tool for the future.

Works Cited

- 1 Lee Gardner, Preparing for the Fall. Chronicle of Higher Education, May 1, 2020. P.10-15. Beth McMurthrie, The Way We'll Teach Now. Chronicle of Higher Education, May 15, 2020. Scott Carlson, What's the Plan for Budgets Next Year? *Improvise*. Chronicle of Higher Education, June 12, 2020, pp. 20-25.
- 2 Jeanna Smialek, Fed Warns of Hurdles to Recovery. *New York Times*, July 30, 2020.
- 3 City Resilience Framework, The Rockefeller Foundation in conjunction with Arup, November, 2015.
- 4 Riley Sullivan, Aging and Declining Populations in Northern New England: Is there a Role for Immigration? Federal Reserve Bank of Boston, July 17, 2019.
- 5 US Census Ingrid Ellen, Erin Graves, Katherine O'Regan, and Jenny Schueta, Strategies for increasing affordable housing amid the COVID-19 economic crisis. Brookings, June 8, 2020.
- 6 Steve Lohr, Online Courses, Once a Flash in the Pan, Are Booming. *New York Times*, May 26, 2020, pp. B1, B4.
- 7 New England Board of Higher Education, 2012.
- 8 Sullivan, Riley, College Towns and COVID-19: The Impact in New England. Federal Reserve Bank of Boston, Regional Brief | 2020-23 | June 25, 2020, p. 1.
- 9 Stephen Flynn, Global Resilience Institute proposal, July 6, 2020.
- 10 Stephen Flynn, *ibid.*
- 11 Colleges that have closed or merged include the Boston Conservatory, Bradford, Episcopal Divinity, Green Mountain, Marlboro, Mount Ida, Northern Vermont, and Wheelock.
- 12 Marcella Bombardieri, The Best Route for Moving Up. *Boston Globe*, June 28, 2020.
- 13 Marcella Bombardieri, Massachusetts excels at higher education – for the white and well off. *Boston Globe*, January 28, 2020.
- 14 Megan Zahneis, Why Has Black-Student Enrollment Fallen? *Chronicle of Higher Education*, Almanac 2019-2020, August 23, 2019, p. 44, 54.
- 15 Dana Goldstein, Elite Colleges Struggle to Meet Diversity Goals. *New York Times*, September 18, 2017, p. A15. Jeremy Ashkenas, Haeyoun Park, Adam Pearce, Even With Affirmative Action, Blacks and Hispanics Are More Underrepresented at Top Colleges Than 35 Years Ago. *New York Times*, August 24, 2017.
- 16 *Chronicle of Higher Education*, Almanac 2019-2020, August 23, 2019, p. 54
- 17 *Chronicle of Higher Education*, Almanac, August 23, 2019, pp. 44, 52.
- 18 *Chronicle of Higher Education*, Almanac, August 23, 2019, p. 44.
- 19 *Chronicle of Higher Education*, Almanac, August 23, 2019, p. 44.
- 20 *Chronicle of Higher Education*, Almanac, August 23, 2019, p. 53.
- 21 In June, 2020, Boston's Mayor Marty Walsh declared racism to be a public health crisis in the city.
- 22 New England Board of Higher Education, Fast Facts, 2020.
- 23 Sullivan, Riley, pp. 6-7.
- 24 Nationally, significant first-round education-related provisions in the Coronavirus Aid, Relief, and Economic Security (CARES) Act provided \$3.3 billion for Child Care Development Block grants, \$750 million for Head Start, \$8.8 billion for child nutrition programs, \$3 billion for Governor's Emergency Education Relief including higher education, \$13 billion for elementary and Secondary School Emergency Relief, \$14 billion for a higher education stabilization fund, and temporary relief to borrowers with direct student loans owned by the Department of Education. Viviann Anguiano, Marcella Bombardieri, Neil Campbell, Antoinette Flores, Steven Jessen-Howard, Laura Jimenez, and Simon Workman. *Congress Needs to Ensure Educational Equity in the Wake of the Coronavirus Pandemic*. Center for American Progress, April 2, 2020.
- 25 Deidre Fernandes, Colleges express uncertainty over testing capabilities. *The Boston Globe*, May 28, 2020, pp. A1, A10.
- 26 Shawn Hubler. At Colleges This Fall, A Patchwork of Plans, But Will Students Be There? *New York Times*, May 15, 2020. Deirdre Fernandes, Colleges looking for answers in the fall get a reality check. *Boston Globe*, May 13, 2020, pp. A1, A8. Laura Krantz and Deirdre Fernandes, Colleges optimistic for fall, but experts balk. *Boston Globe*, May 21, 2020, pp. A1, A7. Patrick Thomas, Fewer M.B.A. Students Expected. *Wall Street Journal*, May 9-10, p. B3. Anemona Hartocollis, Face Masks Instead of Frisbee: One College Envisions the Fall. *New York Times*, May 20, 2020, pp. A1, A12.
- 27 The Coronavirus Impact on College Financial Health, Edmit, via Inside Higher Ed, [www.insidehighered.com](http://www.insidehighered.com/blog) blog, May 8, 2020.
- 28 Rick Seltzer, Public and private measures of colleges' financial strength spark more discussion. *Inside Higher Ed*, May 8, 2020.
- 29 Hilary Burns. Clark University, Mount Holyoke College, UMass Boston and Dartmouth are most likely to 'perish,' according to new analysis. *Boston Business Journal*, July 22, 2020.
- 30 Riley Sullivan, *ibid.*
- 31 Laura Krantz, Baker sees protections from school closures, *Boston Globe*, July 17, 2018, pp. B1, B4.
- 32 Lee Gardner, More States Are Looking at Consolidating Their Public Colleges. Does It Work? *Chronicle of Higher Education*, July 30, 2020.
- 33 Deirdre Fernandes, Students facing wait-list shuffle. *Boston Globe*, May 26, 2020. Pp.A1, A8.

- 34 Tawnell D. Hobbs and Lee Hawkins, American's Grand Experiment in Remote Learning Fails, Wall Street Journal, June 6-7, 2020, pp A1, A10. Dana Goldstein, Virus Closures Leave Students Falling Behind, New York Times, June 6, 2020, p. 1. The Digital Campus. The Chronicle of Higher Education, April 11, 2017. The Robot has Arrived. The Digital Campus. The Chronicle of Higher Education, April 13, 2018. Stephen G. Pelletier, Creating the 'Smart' Campus, The Chronicle of Higher Education case study, 2019.
- 35 Robert Frank, Despite Hiccups, Online Courses Are Here to Stay. New York Times, June 7, 2020, p.5.
- 36 Students lead push for change on campuses, Laura Krantz and Deirdre Fernandes, Boston Globe, June 27, 2020, p. 1.
- 37 Kevin Carey, Many Private Colleges Face Financial Troubles, The New York Times, May 28, 2020, p. B5. Stan Yoshinobu, The Case Against Re-opening, The Chronicle of Higher Education, May 29, 2020. Pp. 9-10.
- 38 A thorough review of the challenges facing higher education can be seen in the Boston City Council hearing on Fall 2020 college re-openings, where Northeastern University senior administrators presented plans for re-opening. Boston City Council archives, July 9, 2020.
- 39 Anissa Gardizy, For restaurants that cater to students, worries about the Fall. Boston Globe, June 19, 2020, p. C1.
- 40 Dana Goldstein, The Class Divide – Two Schools, Private and Public, Illustrate the Gap in Remote Learning. New York Times, May 10, 2020, p. A15. Bianca Vazquez Toness, Remote classes leave students disconnected. Boston Globe, May 24, 2020, pp. A1, A10. Editorial, How well is remote learning working in Boston schools? Boston Sunday Globe, May 17, 2020. P. K6.
- 41 Boston Globe, June 19, 2020, p. B4. Laura Krantz, Diverse campuses, but still few black students, Boston Globe, April 25, 2015. Sam Fulwood III, Race, Class or Place, Convergence: Diversity & Inclusion, Chronicle of Higher Education, March 20, 2015. Jeremy Ashkenas, Haeyoun Park, and Adam Pearce. Affirmative Action Yields Little Progress on Campus for Blacks and Hispanics. New York Times, August 25, 2017, pp A1, A15. Nicole Dungca, Lost on Campus, As Colleges Look Abroad, Boston Globe, pp. A1, A6. Rochelle Sharpe, Are You First Gen?, New York Times, November 5, 2017, Education Life, p. 16. 'Trickle-up' diversity and the 21st-century workforce, Boston Globe Editorial, November 30, 2017, p. A12. Juan Miro and Edmund Gordon, Diversity in higher ed is about making amends for past sins. Boston Globe, August 12, 2018, pp. K1, K4. Deirdre Fernandes, Diversity Lags at Harvard's Grad Schools. Boston Globe, March 3, 2019, pp. A1, A14,
- 42 Shawn Hubler, For Homes of Colleges, Bleak Future May Await. New York Times, June 29, 2020, p. A6.
- 43 University trustees approve tuition hike, Boston Globe, June 27, 2020, p. B2.
- 44 Scott Carlson. The Campus as City. The Chronicle of Higher Education, 2019.
- 45 Megan Zahneis, Why Has Black Student Enrollment Fallen? Chronicle of Higher Education, Almanac, August 23, 2019, p. 44.
- 46 Deidre Fernandes, Seniors struggle to accept not being accepted to colleges, Boston Globe, March 28, 2018, pp. A1, B9. Laura Krantz, A crisis for students at higher ed's entry level, Boston Globe, A1, A12
- 47 Riley, Richard, and Gordon, Donald. Commentary: We Must Act Now to Dismantle Structural Racism, Charleston Post and Courier, June 16, 2020.
- 48 Sullivan, Riley, College Towns and COVID-19: The Impact in New England. Federal Reserve Bank of Boston, Regional Brief | 2020-23 | June 25, 2020.
- 49 Sullivan, Riley, p. 8
- 50 Sullivan, Riley, pp. 4-5.
- 51 Chronicle of Higher Education, Almanac, August 23, 2019, p. 27.
- 52 Scott Carlson, *ibid.*
- 53 Viviann Anguiano, Marcella Bombardieri, Neil Campbell, Antoinette Flores, Steven Jessen-Howard, Laura Jimenez, and Simon Workman. Congress Needs to Ensure Educational Equity in the Wake of the Coronavirus Pandemic. Center for American Progress, April 2, 2020.
- 54 Moody's Investors Service's analytic reports have kept close tabs on potential revenue fluctuations for higher education in the Fall 2020/Spring 2021 academic year. Since the advent of the Coronavirus-19 in the United States, Moody's ratings for non-profit organizations overall have been downgraded to a negative status (March 26, 2020), as the investment service predicted that the global coronavirus will lower international student demand for American college education and increase costs for universities (April 7, 2020). While college debt issuers were found to be well positioned to weather the coronavirus's effects on potentially slower higher education debt repayment (May 12, 2020), and community colleges that have diversified their revenue streams may see some enrollment increases (May 20, 2020), student shifts in collegiate preferences could benefit some colleges and harm others as individuals may choose locations closer to home (June 24, 2020), and revenue declines are anticipated for colleges overall (June 3, 2020).
- 55 David Scharfenberg, Disrupting College. Boston Globe, May 24, 2020, pp. K1, K4.
- 56 Viviann Anguiano, *ibid.*
- 57 Denise-Marie Ordway, Reporting on colleges' finances amid COVID-19: 6 tips from Moody's Investors Service. Journalist's Resource, Shorenstein Center on Media, Politics and Public Policy, Harvard Kennedy School, May 4, 2020.
- 58 Viviann Anguiano, *ibid.*
- 59 Richard Florida and Jeffrey Selinger, A Crisis for Urban Universities. Wall Street Journal, May 11, 2020
- 60 Marcella Bombardieri, Equity Audits: A Tool for Campus Improvement, Center for American Progress, April 3, 2019, references the College Equity Act and Beyond Tuition.
- 61 An example is Northeastern University's shared development with the Boston Parks Department of playing fields and an inflated bubble used by the university and the adjacent community to meet the needs of local children, teens, and families; seniors seeking exercise and health improvement; and adults seeking cultural, performance, theater, and recreational activities.

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