7 Forces Reshaping the Economy

A KENAN INSTITUTE REPORT

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CONTENTS

Overview

The COVID-19 pandemic has had a massive impact on how the global economy operates. Powerful forces are both accelerating long-standing existing trends (e.g., the demise of brick-and-mortar retail) and driving major new trends (e.g., remote work and onshoring). These forces are currently quite pronounced and will persist as long as the pandemic restricts normal activities, and will result in lasting consequences. With these forces come winners and losers. It is increasingly important for business and government leaders to understand how the economy will be transformed over the coming months and years so we can begin to take advantage of new opportunities and assist those individuals and businesses who have been, and will continue to be, economically dislocated through no fault of their own.

This report catalogs work by the Kenan Institute of Private Enterprise, in conjunction with the North Carolina CEO Leadership Forum, to distill insights from top academic researchers, business leaders and policy experts on how the economy is changing and what this means for the future of North Carolina. We describe seven forces currently reshaping the U.S. (and in some cases, global) economy:

1	Changes in work, travel and migration patterns
2	Accelerating shifts toward on-demand and at-home retail
3	Onshoring and widening of supply chains
4	Renewed focus on diversity and dismantling systemic racism
5	Upending of education and childcare
6	Shocks to health care and pharmaceutical demand
7	Risk reassessment by capital providers

Why seven forces, and more important, these seven? Our research has identified more than two dozen important economic effects of the pandemic, but additional analysis indicates that many of these are derivative. In fact, many of the seven forces we discuss are related in some important ways (and we highlight these interactions). Yet these seven seem more distinct than the rest and also yield specific proposals for policy prescriptions. So while it is not a magic number, the seven forces we discuss seem to characterize the majority of important trends in current economic activity.

Table 1. National Employment Statistics (Condensed)

	August 2020	Change from August 2020
Unemployed		
Total, 16 years and over	13,742	7,539
Unemployment rates		
Total, 16 years and over	8.5%	4.7%
Adult men (20 years and over)	7.7%	4.5%
Adult women (20 years and over)	8.9%	5.1%
Teenagers (16 to 19 years)	15.8%	3.7%
White	7.5%	4.0%
Black or African American	13.1%	7.6%
Asian	10.7%	7.8%
Hispanic or Latino	10.5%	6.3%
Less than a high school diploma	11.8%	7.1%
Some college or associate degree	8.3%	5.1%
Bachelor's degree and higher	5.6%	3.2%

Source: U.S. Bureau of Labor Statistics (Current as of August 2020)

In addition, data from the U.S. Census Pulse Survey shows that those in poor health, divorced or separated and in lower-income households are much more likely to have not worked in recent weeks.[1] A high percentage of people who have not worked recently are relying on selling assets, borrowing from friends and family and using credit cards to meet spending needs.

When we examine changes in unemployment by industry, the greatest impact has been in the service sector. The leisure and hospitality industry alone accounts for more than 40 percent of year-over-year job losses, though every major industry has lost jobs.[2] Overall, the pandemic has elevated the pressure of systems that were already under significant stress: healthcare access and payment; public transit and city design; childcare and funding for public schools. Some of these problems can be mended with patches for the short term, but many need to be fundamentally re-examined (and redesigned), which will take long-term planning as well as smart financial investment. In some ways, as we are forced to examine what is most essential to us and how there were systemic failures at a most critical time, the pandemic is an opportunity to imagine the next 20 years of evolution of the American economic system.

While it may be hard to think in 20-year increments with so many pressing needs, it is still vital to consider long-term trends so we can maximize the value of current investments. For example, we believe that there are currently significant upskilling opportunities while labor markets are slack and that these will facilitate above-average future income growth for those currently out of work. Investing in human capital now helps solve both short-run and long-run problems.

1 Data from week of July 16-21, see U.S. Census Bureau, (2020)

2 Data through August 2020, see U.S. Bureau of Labor Statistics, (2020)

Force 1 Changes in Work, Travel and Migration Patterns

By far the most significant change driven by the pandemic has been on where people go — to work, to play and even to live. These changes have had an immediate economic impact, but will also have long-term effects such as shifts in business travel activity and on where people prefer to buy homes.

The Future of Cities

Urbanization has been a powerful force in the modern economy and much has been written on what appears to be growing economies of agglomeration.[3] However, the pandemic has forced important experimentation. Some industries, particularly with workers in higher paying jobs requiring a college education — so-called "knowledge workers," have learned that many such workers remain productive at home. We have also learned that working from home is not a viable option for other jobs, especially for those designated as essential workers. This distinction carries socioeconomic implications, as 70 percent of essential workers do not hold a college degree and are more likely to have a household income of less than $40,000.[4]

3 For an overview, see Glaeser (2010)

Table 2: Demographics of Currently Employed Workers

	Essential	Nonessential
By race/ethnicity		
White, non-Hispanic	61%	72%
Black, non-Hispanic	15%	5%
Hispanic	16%	11%
By household income		
Less than $40K	31%	19%
$40K-<$90K	35%	27%
$90K or more	29%	49%
By education		
High school or less	35%	17%
Some college	35%	22%
College +	30%	61%

Source: KFF.org[5]

In addition, research suggests that even for many knowledge workers there exists a healthy balance between remote and traditional work.[6] This likely reflects benefits from things like the free flow of ideas and other "soft" aspects of relationships with coworkers.[7] Gains to at-home work are very industry- and job-specific, so while there will be a long-run increase in demand for at-home work, the current environment is neither permanent nor optimal.

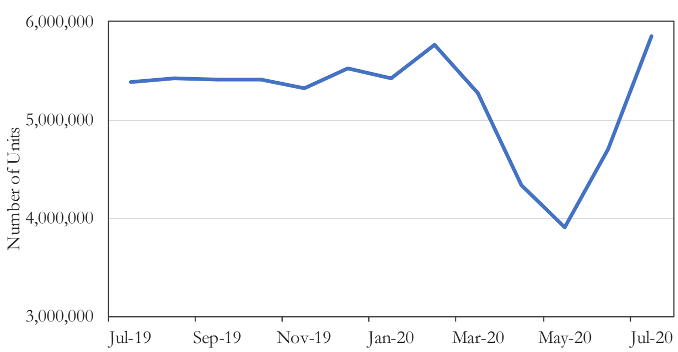
The pandemic will affect demand for retail space in two ways. First, the trend away from brick-and-mortar retailing has accelerated. However, there will be a short-run bump in renovations that facilitate delivery, curbside pick-up and showroom/customer services. Second, restaurant and entertainment spaces will eventually expand in square

4 See Kearney & Muñana (2020)
5 Source: KFF.org
6 See Bartik et al (2020) and OCED (2020)
7 Employees working from home are also more susceptible to "burnout." See Fox (2020)

footage because of a change in preference toward less crowded spaces.[8] Demand for residential renovation and new home building was strong in July 2020, as more people needed the space to both work and live from home.[9] In July, existing home sales bounced back to pre-pandemic levels (See Figure 1). Knowledge workers also want the amenities that come with living in or near a central business district (CBD) and those amenities will quickly return once the health crisis is over.

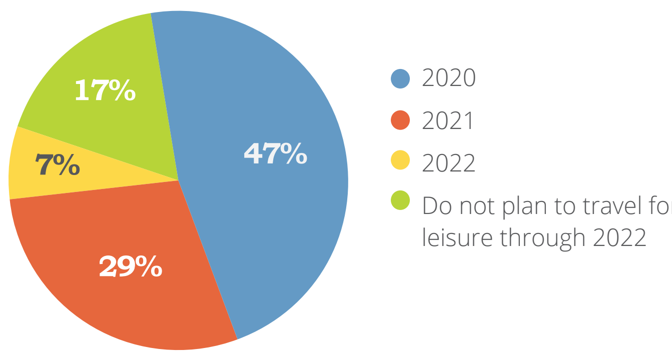
Outside of cities, demand is increasing for second homes that can serve as "escape pods" or part-time work-at-home locations.[12] The trend of families with school-age children leaving urban areas to be near relatives (often aging parents) will accelerate. Altogether, given countervailing forces on central cities, there will be less drastic net changes in the workplace and urban environments now that a vaccine is in sight. New opportunities in real estate will be outside dense urban areas and in new residential construction and renovation.

Figure 1. Monthly Existing Home Sales in U.S.



Source: National Association of Realtors[10]

Figure 2: When Do People Expect to Travel for Leisure?



Source: The Harris Poll survey conducted online within the United States from June 25-29, 2020 among 2,000 adults ages 18 and older [13]

Because public transit is especially hard to make safe, commuters are shifting away from mass transit toward driving to work (and thus increased commute times). Commuters will tend toward closer housing and even walking or other "personal transit" options (like bikes and scooters), especially as more cities have improved and increased pedestrian and biker pathways during pandemic lockdowns.[11]

Away-From-Home Travel

Travel is a major cost for many professional businesses and can have a large impact on profitability, and businesses now have clear picture of what types of travel are most essential. The swift and widespread pivot to online meetings has changed how businesses operate, and we expect further innovations in technology that will allow for more personal virtual interactions and collaboration.[14] Likewise, conference hosting is a business that relies on high density populations and travel and will be severely affected even in the long-run. That said, there is still a vast business need

8 Yet even with less retail, there will be an expansion of bars, restaurants, and other establishments that serve people near their neighborhoods as people will want nearby locations for familiarity and speed of service. See for example, Fulton (2020)

9 See National Association of Home Builders. (2020

10 See National Association of Relators (2020)

11 See Bliss et al. (2020).

12 See Olshan (2020).

13 See The Harris Poll (2020)

14 See Sindreu (2020).

for conferences, so new technological solutions will help satisfy this demand.

Vacation travel will rebound more rapidly, but the demand will shift toward places where families can easily drive.[15] Many consumers will find areas they like and develop habits (which are traditionally very persistent for vacationers). Families will substitute away from more crowded destinations like amusement parks and urban destinations and toward family resorts, outdoor adventures/tours and "residential" vacations such as rental homes.

Force 2 Accelerating Shifts Toward On-Demand and At-Home Retail

During the past decade, retail has seen a growing movement away from brick-and-mortar to online – yet some physical stores continue to play a pivotal role for consumers.[16] Even as the move to online retail was shuttering physical retail doors prior to the outbreak, the ensuing pandemic has dealt a death blow to many more retailers than could have been imagined prior to January. Retailers have already been fighting the market-wide (and many times uneven) implications of increased online shopping due to stay-at-home orders and intensified public health concerns. Smaller establishments within an affected market tend to face a greater impact by the growth of online retail.[17] The potential bankruptcy of so many retailers may benefit others because of lowered competition, but this will not make up for permanent shifts in demand brought on by the pandemic (e.g., the reluctance of older consumers to engage in online shopping pre-COVID-19, who have now embraced grocery and restaurant delivery in unprecedented numbers).[18]

The rapid adjustment of supply chains in the wake of COVID-19 has expanded capacity and improved the customer experience in many ways. Examples include new remote services in telehealth (more below), on-demand entertainment, exercise, and auto maintenance. Evidence also suggests that individual preferences are changing toward expenditures on personal enrichment, family connection and hobbies. These changes have major implications for the workforce since retail is a large employer, especially of lower-income workers.[19] Some retail workers have found work in other parts of the retail supply chain (e.g., warehouses and deliveries) [20] but many more new jobs are "gig-economy" positions employing independent contractors who lack regular hours or benefits.[21]

Table 3. Monthly Changes in Employment: Warehouse and Storage

As of June 2020	Net Change (in thousands)	Percent Change in Employment
1 month	-5.7	-0.5%
3 month	67.3	6.0%
6 month	-11.7	-1.0%

Source: U.S. Commerce Department, Bureau of Labor Statistics [22]

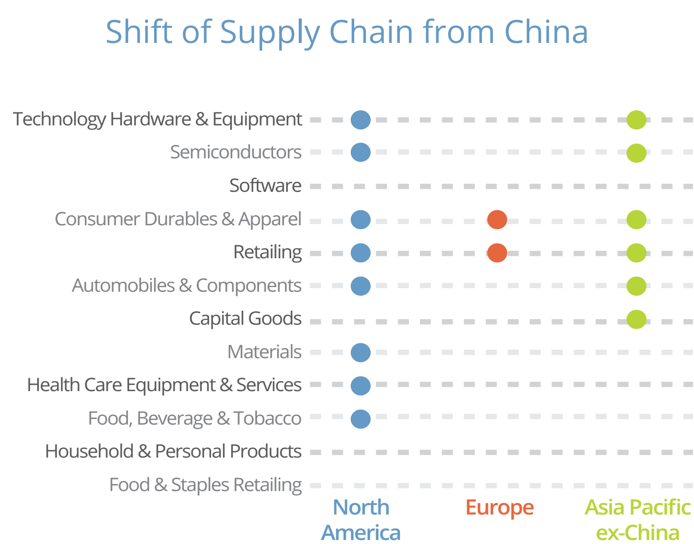
15 See Sampson & Compton (2020).
16 See Dekimpe et al.et al. (2020) and Hortaçsu & Syverson (2015).
17 See Goldmanis et al. (2008).
18 See Kang (2020).
19 See Lai (2020). Roughly 40 percent of consumers are planning to reduce overall spending
20 See Bureau of Labor Statistics (2020)
21 See Hasija et al. (2020).
22 See Bureau of Labor Statistics (2020)

Force 3 Onshoring and Widening of Supply Chains

From its first materialization in China, the COVID-19 pandemic has upended and highlighted serious vulnerabilities in the global supply chain.[23] The initial supply chain shock derived from the closure of manufacturing facilities in Asia,[24] but quickly migrated to interruptions in transportation and closure of domestic facilities with the proliferation of stay-at-home orders and outbreaks in facilities such as meat processing plants.[25] In addition, significant increases in demand for some items such as PPE, cleaning supplies, food to be consumed at home and delivery/transportation services resulted in widespread shortages. In response, companies have undertaken full-spectrum analyses of their supply chains with an eye to two primary considerations: agility and resiliency.[26]

To increase agility, companies are seeking to source critical components (including labor) from more flexible suppliers and bring more operations in house.[27] Companies also want to simplify logistics so change is easier to manage. To increase resiliency, companies are making operations more robust to external shocks by moving production closer to markets and increasing buffers (e.g., inventories). In addition, companies have become more aware of secondary and tertiary supply chain dependencies, and especially their reliance on China.[28] While the trend in recent years has been toward more efficient supply chains, the focus has shifted to more robust supply chains. In sum, the results of these changes will include onshoring more production (and expanding existing domestic facilities), diversifying supplier relationships, increasing investment in inventories and materials, and bringing certain operations in house (through de novo operations or vertical M&A).

Figure 3: North American companies are ahead of their Asia Pacific (ex-China) and European counterparts in moving their supply chains out of China



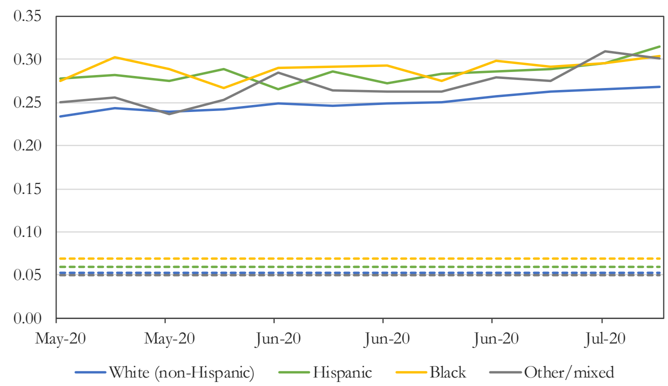
Source: BofA Global Research

23 See Bank of America (2020).
24 See Mickle (2020). For example, Apple closes facilities in China.
25 See Areddy (2020)
26 See Sheffi (2020)
27 See Maidenberg (2020).
28 See Shih (2020).

Force 4 Renewed Focus on Diversity and Systemic Racism

Traditionally, to avoid alienating customers and limit internal discord, most businesses have attempted to stay on the sidelines of seemingly controversial issues. However, with the growing awareness of systemic racism in the U.S., unequal impact of the pandemic on people of color and gut-wrenching scenes of violence against Black people mounting, business leaders — encouraged by employees, customers and investors — have increasingly realized the need to take a public stance.[29] In some cases, companies have committed to new initiatives related to more equitable treatment of diverse populations, and especially people of color. Such corporate positioning benefits from the growing evidence supporting the business case for corporate diversity and inclusion policies. Specifically, businesses with more diverse workforces, leadership and boards tend to out-perform less diverse businesses.[30] However, there is a growing movement toward "stakeholder capitalism" (as described by the Business Roundtable) that has set the stage for a broader range of policies than would have been considered by many companies even just a few years ago.[31]

Figure 4. Socioeconomic Adversity Index for U.S. by Race & Ethnicity



Source: Kenan Institute of Private Enterprise[32]

Reactions by corporations have resulted in two general types of initiatives: those looking internally at how the business treats various employees from a diversity and inclusion standpoint and those that look at the environment outside the company, including relationships with other businesses and the broader community. These are not mutually exclusive, and we consider these in turn.

New internal policies have focused on such topics as diversity training and reexamining compensation practices. Increasingly, companies are setting internal benchmarks for diversity at all levels of the organization and more carefully benchmarking promotion and pay. Because companies better understand the business case for diversity, they are now willing to implement programs that mentor diverse junior employees, drive a sense of belonging by employees and allow for more credible recruitment of diverse talent. Businesses also understand that industry leaders are increasingly valuing diversity, and this can lead to competitive (and branding) advantages.[33] Ironically, these shifts come after an apparent pull-back in diversity initiatives at the onset of the pandemic (see Figure 5).[34]

29 According to a Pew Research Center survey conducted in early June, 67% of all adults either strongly or somewhat support the BLM movement – a substantial increase from 43% in 2016. See Parker et al. (2020) and Menasce & Livingston (2016).

30 See for example, Gompers and Kovvali (2018), and citations therein.

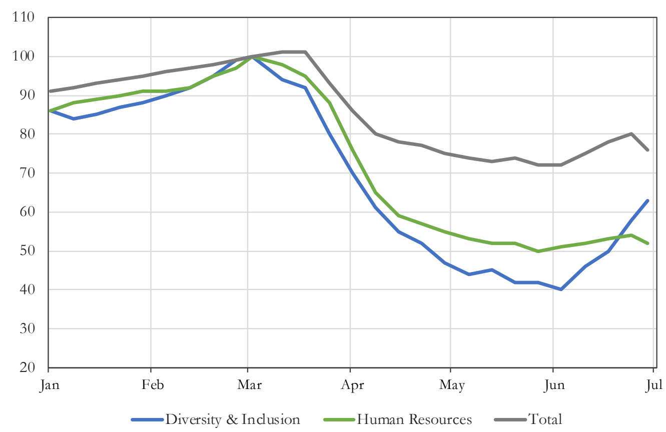
31 See Business Roundtable (2019).

32 See Kenan Institute of Private Enterprise (2020)

33 See Dolan et al. (2020).

34 See Stansell & Zhao (2020)

Figure 5. D&I Job Openings



Source: Source: Glassdoor, U.S. job openings. Data through June 29, 2020.

New externally focused policies have been announced by some large companies in the last two months that seek to address inequities experienced by stakeholders outside the company and could have more immediate and noticeable economic impacts. There are again two general types of actions. The first is to stop policies that perpetuate systemic racism, such as drugstores discontinuing the practice of locking up haircare products typically used by "multicultural" customers, and tech companies such as Amazon and Microsoft banning the use of their facial recognition software by police (with IBM exiting the business entirely).[35] Another interesting example has been the commitments by a wide range of technology companies to eliminate insensitive terminology like master/slave for storage devices from their products and product documentation.[36] The second type of external policy concerns active engagement in programs designed to stimulate diverse economic activity. This includes investing in minority-owned businesses as well as allocating procurement dollars to diverse businesses and certain communities. Examples include major new commitments by IBM to its supplier diversity program and Bank of America's pledge of $1 billion to address racial inequality in small business, housing, health and employment.[37]

Force 5 Upending of Education and Childcare

As a new school year starts, the experience for almost all students is quite different from previous years. Students are trading in composition notebooks for iPads and bus rides for dinner tables doubling as school desks. For parents, the next academic year is causing anxiety-inducing questions about the health and well-being of their children, the quality of remote learning and how to handle the loss of reliable childcare. Students spend more than 30 hours per week in school, not including extracurricular activities and after-school care.[38] With two-thirds of students starting the school year remotely, parents have been left scrambling — and though it is a complication for all affected, it undoubtedly has greater impact on some than others.[39]

The Pandemic Could Widen the Achievement Gap

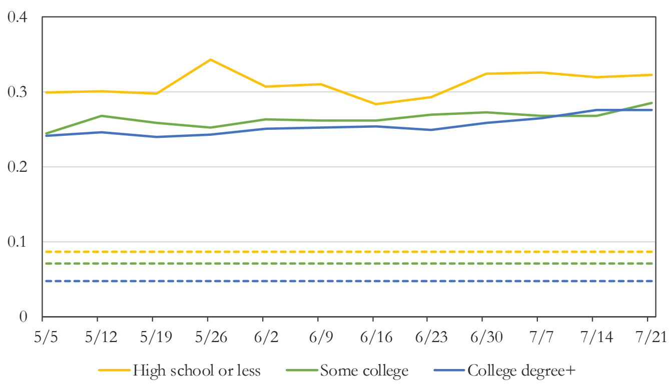
The "achievement gap" refers to the longstanding disparities in academic performance or education attainment between subgroups of students, in particular groups defined by

35 See Associated Press (2020) and Crumpler (2020)
36 See Cimpanu (2020)

37 See Nyugen (2020).
38 See National Center for Education Statistics. (n.d.)
39 See North Carolina School Board Association. (2020)

race/ethnicity and/or socioeconomic status.[40] These disparities are often measured through standardized test scores (an imperfect measure, to be sure) but can also be seen through dropout rates, college enrollment and other academic factors.

Figure 6. Socioeconomic Adversity Index for the U.S. by Educational Attainment



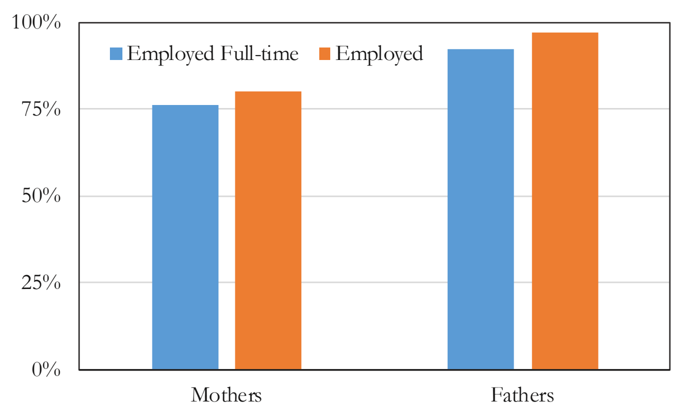
Source: Kenan Institute of Private Enterprise[41]

Some fear the pandemic will only exacerbate these inequities due to the ineffectiveness of current online tools and the potential decline in the number of students reached.[42] In particular, access to computers and broadband may be a barrier for some, especially low-income or rural students (a phenomenon known as the "homework gap").[43] Nearly 12 million school aged children live in homes without broadband access.[44]

Women Shoulder Much of the Burden of a Childcare Crisis

Most parents with school-age children work — and with many students now schooling from home, working parents will have to balance their own work responsibilities while supervising and instructing their children. Many families also are experiencing financial challenges created by the economic downturn and mass unemployment. This nearly impossible balancing act will have some short- and medium-term impacts on the labor market at large — and the shock could cause long-standing implications for the career trajectories of women, who shoulder much of the childcare responsibilities. Additionally, there are roughly 15 million households headed by single mothers, accounting for 70 percent of single-parent households.[45]

Figure 7. Percentage of Employed Mothers and Fathers in 2019



Source: U.S. Commerce Department, Bureau of Labor Statistics

However, there may be a silver lining. Existing studies have shown that women need more flexible work schedules, and that they often prefer jobs that offer greater flexibility even if that means a pay decrease. Changing social norms around remote work and flexible hours formed during the pandemic could benefit women over time.[46] In addition, some companies are offering benefits for emergency childcare and online tutoring of children.

40 See National Assessment of Education Progress. (2020)
41 See Kenan Institute of Private Enterprise (2020)
42 See Dorn et al. (2020)
43 See Bacher-Hicks, Goodman, & Mulhern (2020) and Vogels, Perrin, Rainie, & Anderson (2020).
44 See U.S. Congress Joint Economic Committee (2017)

45 See Alon, Doepke, Olmstead-Rumsey, & Tertilt (2020a)
46 See Alon, Doepke, Olmstead-Rumsey, & Tertilt (2020a) and Alon, Doepke, Olmstead-Rumsey, & Tertilt (2020b).

Strategies to Best Meet Student and Parent Needs

More effort needs to be put into solutions that get children back to school quickly, and there is clearly a need for more robust delivery of K-12 education. Higher education has experienced similar issues. Nonetheless, schools are already integrating the lessons they have learned from operating virtually in the spring into the traditional education model. To meet student needs in a blended academic experience at a level of quality that students should expect, schools must focus their attention and resources on three key areas: technology infrastructure, strategies for effective online instruction and increased student services accessibility.

- Technology infrastructure: The shift to online education has highlighted equity gaps in access to technology and internet connectivity, among others, which will remain a challenge for both K-12 and higher education. Addressing these could have broad and long-lasting positive economic and social effects.

- Strategies for effective online instruction: As many students and teachers learned this spring, simply moving a class to Zoom is not an effective replacement for the traditional classroom experience. That said, deliberate full-scale adoption of technology solutions can provide a high-value learning experience, if teachers are supported and prepared with effective techniques to successfully engage students on virtual platforms. Without pedagogical support, equity gaps in student outcomes are likely to widen.

- Student services accessibility: In addition to core education, schools and colleges now have to consider carefully how students interact with broader services, including health services, career counseling, social/athletic activities and financial aid (for higher education). The solutions to these problems are wide-ranging and require thoughtful planning to reimagine services and ensure access, but in many cases existing technologies can be leveraged.

Force 6 Shocks to Healthcare and Pharmaceutical Demand

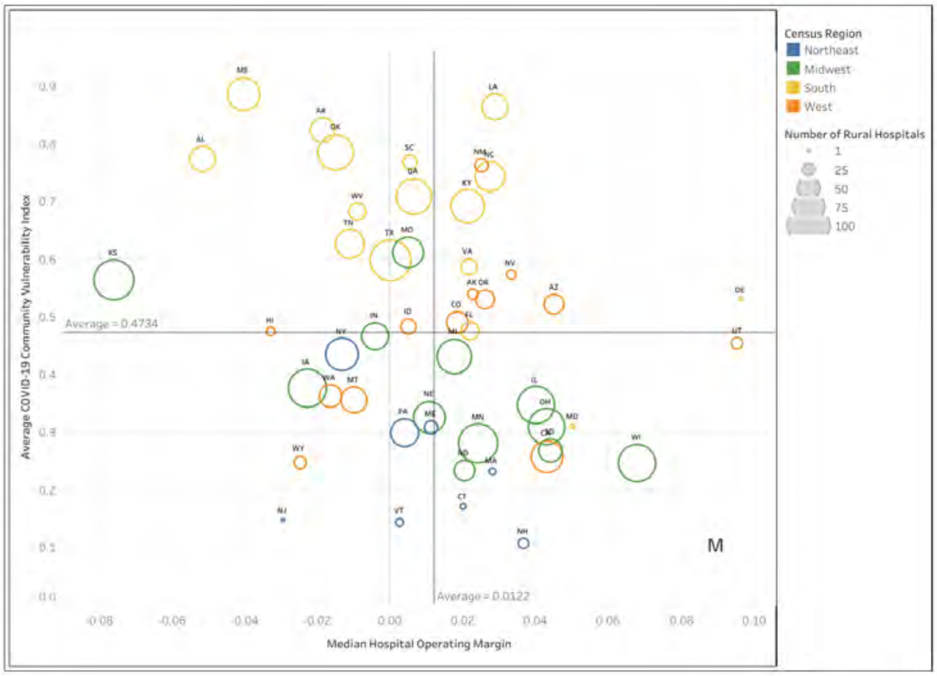
The healthcare services industry has been severely affected by the pandemic.

Covid Impacts to Hospitals and Healthcare Providers

The COVID-19 pandemic is putting a serious strain on America's hospitals and healthcare systems. Treating the coronavirus has been costly for many hospitals, with increased operating costs due to additional labor needs and rising costs of medical equipment like PPE and ventilators.[47] Additionally, early in the COVID-19 response, the Centers for Medicare and Medicaid Services recommended that

47 See Curran(2020a)

Figure 8. COVID-19 Vulnerability for Rural Hospitals by State



Source: The Cecil G. Sheps Center for Health Services Research[53]

"all elective surgeries, non-essential medical, surgical, and dental procedures be delayed during the 2019 Novel Coronavirus (COVID-19) outbreak."[48] These elective procedures are important revenue-generating activities for hospitals and other healthcare providers. According to the American Hospital Association, hospitals and healthcare systems faced an estimated total four-month (March to June 2020) financial impact of $202.6 billion in losses.[49] Although Congress was quick to respond with emergency relief funding, it may not be enough to support a system that was already financially stressed prior to the outbreak.[50]

Rural Hospitals Hit Hard

As the pandemic spreads outside of urban centers and into more rural parts of the United States, local hospitals may fall victim to the added burden of dealing with the virus. Rural hospitals have lower per capita capacity, especially with respect to ICU beds, compared to their urban counterparts. Additionally, residents in rural areas are, on average, older and less healthy, increasing the likelihood of the need for intensive care for COVID-19 complications.[51] Rural hospitals are also at higher risk of closure. Going into the pandemic, many were extremely financially constrained, with most, on average, having less than a month's worth of cash on hand.[52]

Innovation and Opportunities Growth in the Healthcare and Life Science Sectors

The pandemic has also presented some unique opportunities to innovate within the healthcare space. The COVID-19 vaccine will likely be developed in record time, putting on display the capabilities of well-funded scientific

48 See Centers for Medicare & Medicaid Services (2020)
49 See American Hospital Association, (2020)
50 See Hayford et al. (2016)

51 See Orgera et al. (2020)
52 See The Cecil G. Sheps Center for Health Services Research, (2020)

endeavors and highlighting the importance of public-private partnerships. In the U.S., the federal government is assuming most of the financial risk, and lowering the barriers to market entry for vaccine developers. In what is pointedly named "Operation Warp Speed," the Department of Health and Human Services (DHHS) and Department of Defense (DoD) are overseeing vaccine development and distribution with private sector drug companies.[54] As the race for the vaccine continues worldwide, its development and distribution will undoubtedly test global ingenuity. In the meantime, healthcare systems have had to adapt to more creative, often digital, solutions to deliver their services.

Biopharmaceutical Research and Production

One of the bright spots in the healthcare industry, and an area for long-term growth and job creation, is within biopharmaceutical research and production. Biopharma will expand with the willingness to address other risks and the desire to onshore pharmaceutical production capacity and the related supply chain.[55] In addition, COVID-19 is highlighting the importance of vaccines — an area that has seen modest growth in recent years. According to BCC Research, in the next five years the global vaccine market is expected to grow at a moderate compound annual growth rate (CAGR) of 6.3 percent. The primary driver of recent growth is increasing interest by governments, which assume some of the financial risks, in various parts of the world due to outbreaks of major diseases such as Ebola, the Zika virus, chikungunya, avian influenza, the H1N1 virus and COVID-19.[56] Conversely, a reversal or refinement of interest in these diseases by governments could change the prospects for economic growth.

53 See The Cecil G. Sheps Center for Health Services Research (n.d.)
54 See Lopez, C.T. (2020)
55 For example, Kodak recently announced the formation of a new division focused on producing active pharmaceutical ingredients. See Kodak (n.d.)
56 See BCC Research (2020)

Table 4. Global Market for Human Vaccines, by Type, Through 2025 ($millions)

Type	2020	2025	Annual % Change 2020-2025
	9,908	14,654	8.1
Inactivated (killed) vaccines	5,518	7,395	6.0
Attenuated (live) vaccines	6,065	7,276	3.7
Recombinant/ recombinant DNA (rDNA)/DNA vaccines	4,288	6,797	9.7
Subunit vaccines	2,899	4,601	9.7
Toxoid vaccines	1,380	1,638	3.5
Other/combination vaccines	4,725	5,435	2.8
Total	**34,785**	**47,797**	**6.6**

Source: BCC Research

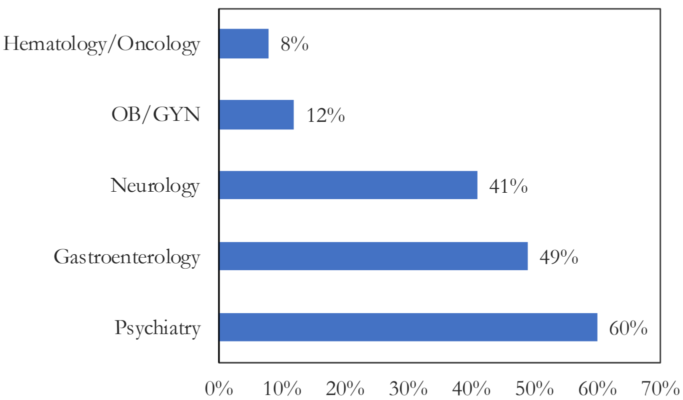
Healthcare Teleservices

Another significant near-term shift has been the increase in healthcare teleservices, an industry that has seen rapid expansion in the last five years.[57] Due to a number of factors exacerbated by the pandemic, telehealth industry revenue is expected to grow at an annualized rate of 8.3 percent to roughly $4.8 billion over the next five years. Its growth can be attributed to rising healthcare costs, medical professional shortages and an increased demand for medical care for an aging population. Since March 2020, many healthcare providers have replaced traditional appointments with telehealth visits because of stay-at-home orders and infection risks to healthcare facilities. Growing acceptance of such technologies will lead to long-term opportunities, which will result in new products for healthcare status and compliance monitoring, as well as for mental health services. There has been an immediate and substantial shift toward greater acceptance of remote expertise, but the likelihood of a more permanent move to telehealth/virtual visits is uncertain. While payers have

57 See Curran (2020b)

shifted in the current environment to meet the need, hospitals have started marketing and pushing patients to come back to traditional care settings. Hospitals and doctors do not make as much money using telehealth, and with their current financial circumstances, they will likely resist permanent changes.[58]

Figure 9. Increase in Telehealth Use by Medicare Patients Since COVID-19

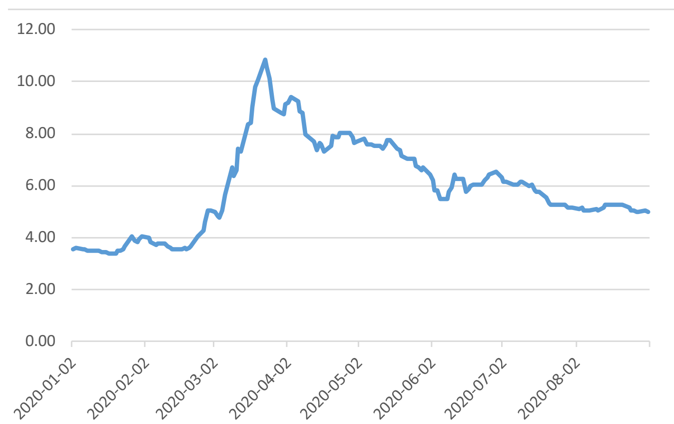


Source: U.S. Department of Health and Human Services

Force 7 Risk Reassessment by Capital Providers

Achieving pre-pandemic output levels will require substantial financial investment. Since March, a large fraction of new capital entering the economy has come from government sources. More than $3 trillion in federal fiscal stimulus has already been provided directly to households and businesses and more is likely on the way. In addition, the Federal Reserve has instituted unprecedented support programs for credit markets (and indirectly, public equity markets).[60] However, private sector providers of capital will necessarily be part of long-run business investment, and the pandemic has caused a massive change in the risk profile of many businesses. A risk reassessment by capital providers will fundamentally change the amount, type and mix of capital allocated to private sector businesses.

Figure 10: U.S. High Yield Index Spread over US Treasuries (Percent, Option-Adjusted)



Source: Bank of America Merrill Lynch

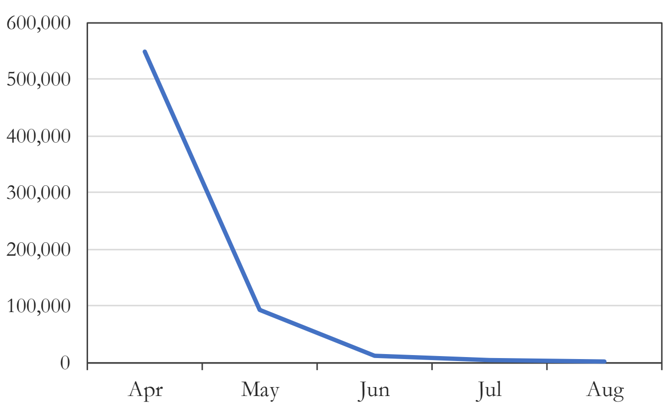
To date, public companies have benefited from the Fed's massive liquidity injection, and fortunately public equity and debt markets are now functioning normally. Capital access for private companies is more of a mixed bag. There is substantial liquidity at the large end of the institutional private equity market, supported by record levels of committed but undeployed capital at the start of 2020. Deals volume in the first half of the year was slow but will accelerate in the second half and likely reach record levels in 2021. Increasingly, this capital will also be available to middle-market companies as conditions further stabilize. However, the lower-middle market and

58 See Tozzi (2020)
59 Source: U.S. Department of Health and Human Services
60 See Martin (2020)
61 See Federal Reserve Bank of St. Louis (2020)

many small companies are in dire financial shape (further exacerbated by the supply issues discussed previously).[62] Many businesses will not be viable until the recovery fully takes hold, and the increasingly uncertain timeline is holding back capital.

This fundamentally is an issue of shifting risks in the economy brought about by the pandemic. Companies that were once assumed to have very predictable cash flows even through a recession have instead experienced previously unimaginable shocks to revenues.[63] Furthermore, the radical uncertainty around the pandemic's future course generates more financial risk than many investors can tolerate. For example, banks' commercial and industrial (C&I) loan books have been battered, and the six largest U.S. banks have set aside $36 billion in reserves to date for future loan losses.[64] Banks were very efficient in doling out PPP loans to small businesses, but with these funds drying up, there will be a very careful assessment and scaling back of C&I lending activity. The banking sector overall is unlikely to be a source of new capital for most small businesses desperately in need of it. This decline in capital supply is exacerbated by low levels of private fund institutional capital (both debt and equity) in the lower-middle market.

Figure 11. Total Count of PPP Loans in loans ranging from $150,000 - $10 Million (April-August 2020)



Source: U.S. Small Business Administration

Given this severe dislocation, the lack of current funding sources is a great opportunity for new capital providers who can solve two problems. First, investors must be able to ascertain forward-looking business risks and, in many cases, provide operational expertise in navigating these risks. There is no existing playbook for the type of evaluation needed in many industries, but savvy investors will be able to devise new methods and management practices. Second, investors will need to identify what structures and platforms can quickly obtain capital from investors not currently active in the lower-middle market and small business segments. These may take the form of new traditional private credit and private equity funds, new small business investment companies (SBICs) and even entirely new structures currently under consideration in federal legislation to support small businesses.[65]

62 Caniato et al (2020).
63 See Akers & Nicum (2020)
64 See Forsyth (2020)

65 See for example, section 321 of the HEALS Act: Coronavirus Response Additional Supplemental Appropriations Act. S. 4320 116th Cong. (2020)

Summation and Proposed Next Steps

- While the seven forces outlined above have many unique features, they share common threads vital to businesses and investors as they decide how best to mitigate the associated risks and leverage the opportunities amid and beyond the pandemic — an effort that will require coordinated governmental policies informed by private sector business. A sampling of proposed next steps follows:

- The need for workforce development through upskilling, reskilling and traditional education. Improvements require traditional education investments in high schools, community colleges, four-year colleges and advanced university degree programs. These advances do not always require additional resources, and can instead be derived from focusing on existing capabilities. The private sector can also provide significant upskilling through worker training.

- Expanding the quality and access to broadband is a requirement for realizing many of the opportunities discussed above. Without better broadband, especially outside major metropolitan statistical areas (MSAs), the gains from new opportunities will be limited to a few regional hubs.

- Residential and infrastructure construction is needed in many areas. The increase in physical capital will facilitate growth in the intellectual capital that supports many opportunities. For example, beach and mountain communities are very attractive to a subset of workers more likely to work remotely on a permanent basis, but these workers will demand high-quality housing and superior public infrastructure and services (e.g., broadband and K-12 education). In addition, onshoring of various supply chain components and biopharmaceutical production will require substantial commercial construction.

- Intellectual capital is a necessary ingredient for everything from healthcare research to high-tech manufacturing. Private and public sector investment in research and development (and associated human capital) are required for almost all growth opportunities.

- Government processes should be streamlined and made proactive instead of reactive. The economic fallout from the COVID-19 pandemic has highlighted stark differences between the "haves" and "have nots," and in many cases, the government response to the pandemic has inadvertently exacerbated the disparities between large and small businesses. In particular, government needs to specifically consider what can be done to support the many small businesses and entrepreneurial firms across the country — such as offering confidence that the regulatory environment and other economic policies will support investment. A prime example is onshoring activity. Investors accustomed to relatively looser offshore regulations will need assurance from domestic policymakers that they will not impose onerous onshoring restrictions and regulations.

- Finally, some additional factors need to be considered as we contemplate how the economy will perform over the coming months and years. Change is indeed happening, though the full transition will take years in many cases. For example, manufacturing projects requiring substantial capital investment and construction may take several years to become fully operational. In some cases, though, timelines may be accelerated by repurposing existing assets (e.g., utilizing abandoned factories) and this should be a consideration for additional stimulus policy.

Contributors and References

To access the companion report Seven Forces Reshaping the Economy: Opportunities for North Carolina, please click here. This report contains a complete list of references and contributors.

About the Kenan Institute of Private Enterprise

The Frank Hawkins Kenan Institute of Private Enterprise develops and promotes innovative, market-based solutions to vital economic issues. With the belief that private enterprise is the cornerstone of a prosperous and free society, the institute fosters the entrepreneurial spirit to stimulate economic prosperity and improve the lives of people in North Carolina, across the country and around the world. Learn more at kenaninstitute.unc.edu.

About the North Carolina CEO Leadership Forum

The mission of the NC CEO Leadership Forum is to provide private sector leaders with a voice in navigating the complex issues that North Carolina faces in restarting the state's economy. The work of the forum is non-partisan and data-driven by nature, leveraging a diverse group of business leaders and UNC faculty experts to develop actionable recommendations for the state's leadership and the business community at large. The ultimate goal of the forum is to promote the health and economic well-being of North Carolina's citizens and to be a model of public-private cooperation for other states around the country. For a full list of forum members, please visit: **kenaninstitute.unc.edu/sevenforces**

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