



SUSTAINING CAPITALISM

2020 Election Series

A series focused on nonpartisan
reasoned solutions in the nation's
interest to the central challenges
we face in order to provide prosperity
for all Americans.

SUSTAINING CAPITALISM

Achieving prosperity for all Americans could not be more urgent. Although the United States remains the most prosperous nation on earth, millions of our citizens are losing faith in the American dream of upward mobility, and in American-style capitalism itself. This crisis of confidence has widened the divide afflicting American politics and cries out for reasoned solutions in the nation's interest to provide prosperity for all Americans and make capitalism sustainable for generations to come. In 1942, the founders of the Committee for Economic Development (CED), our nation's leading CEOs, took on the immense challenge of creating a rules-based post-war economic order. Their leadership and selfless efforts helped give the United States and the world the Marshall Plan, the Bretton Woods Agreement, and the Employment Act of 1946. The challenges to our economic principles and democratic institutions now are equally important. So, in the spirit of its founding, CED, the public policy center of The Conference Board, is releasing the Sustaining Capitalism 2020 Election Series. These briefs address today's critical issues, including health care, the future of work, education, technology and innovation, regulation, China and trade, infrastructure, inequality, and taxation.

Sustaining Capitalism by Making It Work For All Americans: A Decision Year

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Executive Summary

In January 2020, the Committee for Economic Development of The Conference Board (CED) embarked on this 2020 election project, releasing monthly Solutions Briefs that have been updated to address the dramatic impact of the COVID-19 pandemic and are compiled in this Compendium. Our objective is to analyze the most important business and economic issues and detail a bipartisan road map that could address the American crisis of confidence in capitalism and make capitalism sustainable for generations by providing prosperity and equal opportunity for all Americans.

This project builds on the research and analysis in CED's multi-year research project on sustainable capitalism launched in 2008. That effort resulted in CED's 2017 book *Sustaining Capitalism: Bipartisan Solutions to Restore Trust and Prosperity*, which in the wake of the Great Recession laid out a plan for business leaders and policy makers to generate prosperity while making capitalism work for all Americans. The 2020 Solutions Briefs included in this Compendium of election issues focus on health care, workforce training and upskilling, infrastructure, regulation, technology and innovation, early education and childcare, K-12 and postsecondary education, China and trade, US fiscal health, debt and deficits, and a realistic blueprint for reopening the economy from the COVID-19 pandemic.

2020 opened with the release of a sweeping global survey that found that a majority of people around the world believed capitalism was doing more harm than good. This was a stunning turn of opinion for the economic system that has been the basis of post WWII prosperity and stability, but it was building on the disillusionment stemming from the Great Recession and was compounded by decades of slow wage growth.

In the US, slightly less than a majority of people, 47 percent, believed that capitalism does more harm than good. That was a troubling percentage for the world's most prosperous nation built on free markets and democracy. Millions of Americans were losing faith in the American dream of upward mobility and in American-style capitalism itself. And among Millennials, our next generation of leaders, capitalism had plunged in popularity mainly due to concerns about widening inequality. Only one out of two millennials supported capitalism, according to a November 2019 poll.

And then the COVID-19 pandemic began. The premise of the 2020 Solutions Briefs series was that 2020 would be a time of crucial choice. The pandemic's devastating impact on Americans lives and livelihoods, combined with the historic protests for social justice, makes that premise even more true today. Although capitalism was already under siege, the turmoil of the past six months has made nonpartisan analysis and comprehensive and sustainable solutions critical to address the current crisis of confidence. COVID-19 has shone a spotlight on many of the underlying disparities of our economy. In the few short months since COVID-19 unleashed its havoc, the US economy has been changed massively, and Americans' work and personal lives have been altered dramatically and swiftly in ways that could not have been anticipated.

COVID-19's tragic health consequences are still unfolding and are compounded by a continuing surge; and a second or third wave during the annual flu season this fall and winter could worsen consequences. The economic downturn has been truly precipitous, idling about one sixth of the US economy. In the Great Depression, employment lost an estimated 23 percent of its 1929 peak by 1932 and remained below that 1929 peak until the outbreak of World War II. In the financial crisis, the economy lost more than 8 percent of its November 2007 peak employment by the trough of January 2010 and did not return to its prior peak until June of 2014. In the coronavirus pandemic, the economy lost almost 14 percent of its employment—much more than the financial crisis, and most of the three-year job loss of the Great Depression—in one month. Obviously, the pandemic job loss was imposed by stay-at-home orders from coast to coast to protect the public health, and the hope is that it will be much more short-lived than in the two past episodes. But that decline is a fair measure of the economic pain thus far, with most of the job losses by the end of May hitting workers without a high school education the hardest.

While it is too soon to fully understand the long-lasting impact of COVID-19 on determining the future economy, we have learned some important lessons. We know that economic recovery may take time before employment levels return to their highs of January 2020. As The Conference Board has detailed, after the catastrophic job loss in March and April, the economy recovered quickly but only partially in May and June, and this recovery may be short-lived. Most states have since experienced a large rise in new COVID-19 cases, and many states and localities have slowed or stopped their reopenings. As a result, in December 2020, economic activity in the US is expected to still be about 6 to 9 percent below prepandemic levels. To put that in perspective, the entire drop from fourth quarter of 2007 to second quarter of 2009 during the Great Recession, which was the deepest recession in the post-war era, was 4 percent. It is also clear we are not returning to the economy of January 2020. For example, we do know that many businesses are predicting more workers will continue to work remotely, and that our society—our work and home lives—will be much more integrated with technology.

And that circles back to the danger of the current crisis, stacked upon the discontents of the last decades. Sustaining capitalism faced complex challenges at the beginning of 2020, and with the attack of COVID-19, those challenges have only become more intense. Sustaining capitalism must become a purposeful priority of business leaders, policy-makers, and the American public. Following is a summary of the Solutions Briefs included in this Compendium, intended to achieve that objective.

Meeting the Upskilling Challenge: Training in the Time of COVID-19

COVID-19 has left tens of millions of Americans out of work or uncertain about the future of their current jobs, with thousands of firms urgently reassessing their own viability and paths forward. This brief lays out how the pandemic's whirlwind destruction has first and foremost hurt less-educated workers, with most of the job losses to date occurring in manual services, and has accelerated the innovative use of technology in the workplace—threatening to deepen inequality and add to the urgency of the upskilling and training challenge.

Recommendations:

I. In response to the immediate demands of the COVID-19 crisis:

- Provide tuition support for workers without four-year degrees (who are working reduced hours, are furloughed, or have been laid off) to pursue training at low-cost, broad-access institutions—for example, either by direct support to the recipient or to the institution or organization providing the training, similar to Pell Grants. Pell Grants themselves can be temporarily modified or modeled and adjusted for these purposes.
- Provide grants to strengthen instructional quality and capacity at community colleges that engage in private-sector partnerships.
- Incentivize employers to upskill their employees through tax credits for additional employer-sponsored training of low- and middle-wage employees, especially workers on reduced hours or furlough, to qualify the workers for higher-paying roles.

II. As part of a longer-term post-COVID-19 strategy:

- Encourage public-private collaboration to align training programs with new job skills that improve outcomes for workers and their future employers.
- Build an information ecosystem to help adults navigate training options.
- Support the most effective training models to meet the needs of a wide range of workers.

Developing the Future Workforce: Revitalizing Postsecondary Education and Training after COVID-19

This brief outlines the challenges facing colleges, job training programs, apprenticeships, and other forms of postsecondary education and training amid the COVID-19 pandemic, calls on Congress to offset the one-time economic shocks and adjustment costs associated with the pandemic—particularly for those institutions best positioned to improve the career outcomes of the largest numbers of students affordably and effectively—and points the way toward a postsecondary education and training ecosystem of broader, more affordable

access that improves individual career outcomes and more responsively meets the evolving needs of business and advances the national interest.

Recommendations:

- Provide federal funding to postsecondary providers to help offset the one-time economic shock and adjustment costs imposed by COVID-19.
- Provide grants to community colleges which could strengthen their capacity to provide courses, additional slots, and effective remote delivery during the remaining days of the pandemic and beyond.
- Foster innovation in postsecondary education by utilizing flexibilities and rigorous evaluation to help nurture, test, and spread new innovative models of affordable, broad-access education and training, and by updating legislation to support the most promising and effective approaches.
- Increase the accountability and transparency of education and training providers, reforming oversight while improving the information and protections available to would-be students.
- Encourage private-sector collaboration to ensure that postsecondary education and training providers are aligning their offerings with marketable, in-demand job skills that will improve students' and trainees' employment outcomes. This should include requiring that training providers that receive public support can demonstrate how they seek out and develop partnerships with employers to improve their offerings.
- Employers should further advance policies and practices that propel students to complete additional postsecondary education and training, including investing in education and training benefits as recruitment and advancement tools in their own firms, and clearly communicating the skills they need to would-be students and trainers.

Early Education and Child Care: The Essential Sector

During the COVID-19 crisis, early childhood learning programs and the childcare industry have suffered staggering and widespread disruptions that have jeopardized the availability of care as an indispensable work support. These developments have highlighted the fragility of the childcare industry's financing model. This issue brief depicts the devastation facing the childcare industry, describes the critical role early care and education play in preparing our future workforce, and provides a guide to bolstering the childcare industry and strengthening early care and education in the future.

Recommendations:

- Promote high-quality childcare and publicly supported pre-K as a public good and treat it as an integral part of education and workforce preparation.
- Ensure that all children, especially the most disadvantaged, have high-quality early-learning opportunities from birth.
- Implement a sustainable financing system capable of supporting affordable access to high-quality childcare and public pre-K.
- Invest in a high-quality early education workforce through such initiatives as state tax credits to reward professional training.
- Modernize childcare regulations to deliver quality and encourage innovation.
- Leverage business leaders to make the national interest case for investing in early learning.

K-12: COVID-19 Disruption Must Lead to Overdue Reform

This brief addresses the importance of safely resuming in-school learning as quickly as possible while preparing for the likelihood that many students may not be in classrooms full time this fall. Continuity of learning to ensure student achievement and successful outcomes during this crisis will require federal support for rapid improvements in remote education delivery and access to high-speed internet connections and appropriate internet-enabled devices before the start of the 2020–2021 school year. Additionally, the US needs to continue to strengthen K-12 education to improve the college and career readiness of all students, ensuring that US education lives up to its full potential.

Recommendations:

- Immediately facilitate improvements in remote learning, including ensuring universal student access to high-speed internet and devices for the start of the 2020–21 school year.
- Federally fund the additional pandemic costs to states and localities, avoiding cuts to education.
- Reform the K-12 education system to foster innovation and improve outcomes, creating a system that better prepares all students to enter the workforce. This should include providing K-12 students with opportunities to learn and practice in-demand skills as part of the standard curriculum and supporting high-quality career guidance, informed by up-to-date labor market realities.
- Pilot and test new educational models, learning what works under what conditions for which students, especially in places where traditional approaches already fail to deliver improving outcomes.

Technology and Innovation Solutions Must Lead the Way to COVID-19 Recovery

As outlined in this brief, the COVID-19 crisis has shone a spotlight on the “digital divide” in America, regulatory barriers to innovation, and the limitations of existing public sector technology—requiring urgent action to improve our response to the current pandemic and better prepare the nation for future crises.

Recommendations:

- Fund states and localities so all Americans have access to affordable broadband. This is especially critical during these times of restricted movement and distance learning.
- Adapt regulations to support innovation and experimentation to address public health needs, including speeding vaccine development, expanding telemedicine, and improving monitoring and tracking of an outbreak.
- Remove unnecessary roadblocks to effective adoption of digital tools to improve remote work, medicine, and learning while protecting data privacy.
- Replace outdated public-sector IT systems to increase flexibility and reliability in providing relief and serving families and businesses.

Smart Regulation in a Post-COVID-19 Economy

Nowhere is a “smart” approach to regulation more immediately needed than for health care and small business—two sectors that have scrambled to cope with the COVID-19 pandemic. As outlined in this brief, the COVID-19 emergency has prompted the easing of regulations affecting critical hospital, lab, and telehealth practices. Meanwhile, restrictions imposed for public safety have exacted a financial toll on small businesses and likely will have a lasting impact on individual proprietors. The US will need to take quick action and leverage the adoption of a regulatory framework designed to nimbly respond to an unpredictable and ever-changing landscape if it hopes to better position itself to navigate the COVID-19 pandemic and prepare for a post-COVID-19 economic future.

Recommendations:

- Regulators should continuously review and revise regulation to respond to changing times and needs.
- Regulators must weigh costs and benefits in a rapidly changing environment and anticipate future needs.

- Regulators should be conscious of “regulatory overload” on small business and consider the effect of incremental additions to an existing regulatory burden.
- Where possible, “safe harbors” should create standards for good-faith compliance to provide flexibility for small business.
- Regulations should focus on minimizing compliance costs and recognizing the impact of compliance on households and businesses.
- Regulators must carefully review which regulatory waivers issued during the crisis should remain permanent. One example of potentially permanent deregulation might come in the field of pharmaceuticals, particularly for the search for drug treatments and vaccines.

Today’s Infrastructure Improvements Will Drive Tomorrow’s Economy

The COVID-19 crisis has made US shortcomings in investing in modern infrastructure even more pressing. As described in this brief, efficient investments in cutting-edge infrastructure connect businesses and workers to more opportunities; advance the capabilities for remote work, education, and e-commerce; increase productivity; and fuel American competitiveness—critical to putting the US economy back on solid footing.

Recommendations:

- Improve infrastructure planning and decision making by prioritizing broader societal needs over narrow parochial interests.
- Encourage innovation by creating the flexibility for businesses to fully take advantage of breakthroughs in science and technology.
- Break down state and local funding silos and increase autonomy to respond to community- or region-specific needs.
- Remove regulatory burdens to eliminate duplication and maximize the public benefit.
- Prioritize private-sector involvement through greater use of public-private partnerships.
- Explore alternative approaches to leverage private investment resources.
- Move toward user fees to allocate the cost of operating infrastructure to the people who most directly benefit from it.
- Incorporate climate risk into evaluations of potential infrastructure investments.

The China Trade Challenge: Phase II

The signing of a Phase I trade agreement between the US and China briefly eased trade tensions but also set the stage for discussions on the more important economic disputes in the US-China relationship, including central US concerns about forced technology transfer and cyber theft of intellectual property (IP), industrial policies, state subsidies, and new technology. As outlined in this brief, the US needs to reengage with China through a consistent, comprehensive, and strategic multilateral approach that realistically assesses US economic and security interests and combines firmness and conciliation to achieve a stable and mutually beneficial economic relationship—a constructive, though surely competitive, relationship that mitigates risk and avoids unnecessary conflict.

Recommendations:

- Establish a task force to undertake a comprehensive “decoupling assessment” of US-China trade relations to provide clear guideposts for how to further restrict harmful transfers of advanced technology to China through the Export Control Act, which supply chains should be decoupled for national or economic security, and in what areas trade can continue to grow without posing risk.
- Determine how US businesses and interests are restricted in China and gradually move to ensure that China’s interests in the US are similarly restricted until Beijing opens its economy in those spaces. In nonsensitive industries with reciprocal openness, Chinese investment should be welcomed.
- Hold China to WTO global standards, which include opening its borders to foreign direct investment and imported goods and services. This should be the basis for US agreements with China.
- Reexamine antimonopoly rules that prevent industries from standing as one against China’s demands to transfer technology in exchange for market access.
- Reach a common understanding among advanced-economy allies on a technology-security treaty before bilateral talks begin so that China cannot offer preferred terms to one nation or firm.
- Align tariffs with actions of Chinese state-sponsored entities that put US firms and US workers at a disadvantage.
- Unite the world trading community to repair, update, and upgrade the WTO treaty and related systems, especially enforcement procedures, including clearly defined penalties.
- Insist on “snap-back” provisions should China again fail to live up to its commitments.
- Treat IP theft and forced technology transfers as crossing “red lines” that result in severe economic penalties. All free-market nations should recognize that China would not have the leverage to demand surrender of IP as a condition of market

access if China allowed direct foreign investment according to world rules—and negotiate accordingly.

- Involve European, Japanese, Korean, and Australian representatives in urging China to reform its approach to cross-border trade and investment.
- Immediately begin negotiating our reentrance into the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, or CPTPP. Expand efforts toward economic integration and support in the Indo-Pacific region.

We Need a New Path on Health Care

The well-being of every American and the long-term economic and fiscal well-being of the United States require an efficient, high-quality, patient-centered health care system—one to which all Americans should have access. This brief addresses the rising costs of health care, which continue to overwhelm the budgets of American families, businesses, and governments alike. It points to the need to activate the private market to aggressively improve the current health care system through cost-responsible consumer choice among competing private health care plans. That would drive the US health care system toward better quality, more affordable health care for all Americans.

Recommendations:

- Replace the complex and confusing subsidy system set out in the Affordable Care Act (ACA) with an easy-to-understand, refundable tax credit for families.
- Broaden and simplify the geographical barriers inherent in the ACA exchange system and enable plans to be administered across state lines, with larger risk pools.
- Increase consumer choice among health plans.
- Expand care-delivery models that are consumer-focused and align incentives to increase quality and reduce costs.
- Enact fair tort reforms that slow the growth of health care costs.

US Health Care in the Pandemic

This brief describes the challenges COVID-19 has posed to the structure and basic foundations of the US health care system and how it has put US health care workers, public health officials, and health care industry leaders into the front lines of the nation's defense against the virus. It also offers a path forward for addressing significant shortfalls in the health care system both to ameliorate the current crisis and prepare for future pandemics.

Recommendations:

To address the current public health crisis:

- Restock and maintain the Strategic National Stockpile with both sophisticated materials, such as pharmaceuticals and ventilators, and everyday supplies, including masks, gloves, and surgical gowns, to guard against the prospect of a reinvigorated pandemic or a second wave in the fall. Sound management includes ensuring that long-lived materials are usable and renewing expired items before they are needed. Develop protocols for allocation where supplies are most needed.
- Increase testing, which is demonstrably insufficient to identify affected populations and track outbreaks. Improve the quality and reliability of serology testing. Invest in tracking and tracing confirmed victims and their contacts and in the capacity to isolate infected persons where needed.
- Develop vaccines and therapeutic drugs robustly, first maintaining safety, and then achieving efficacy. In particular, multiple vaccines will be needed for adaptability and rapid manufacture, and the best scientific judgment will be needed to choose among the many candidates. The cost will be considerable, but the benefit could be orders of magnitude greater.
- Engage in regional contingency planning to provide adequate hospital capacity and provide emergency regulatory relief as necessary.

To prepare for future pandemics:

- Establish true international cooperation and openness for worldwide early warnings.
- Formulate well-thought-out and well-funded stockpiling policy.
- Obtain or establish the ability to obtain physical facilities for treatment and separation of the infected, the symptomatic, and their contacts on short notice.
- Build capacity (including skilled personnel) to develop and deploy massive testing as well as trace and isolate the infected.
- Develop new multipathogen vaccines and therapeutics for likely future viral outbreaks.
- Establish trust in government as a source of reliable and sound guidance.

US Fiscal Health: Is There Life after Debt?

Even before the current crisis required an unprecedented federal fiscal intervention, historically large annual deficits had begun piling up debt faster than the economy was growing, posing a potential future threat to US growth in the years ahead. The deficit has been further exacerbated by the pandemic and an aging population. This brief outlines the need for US policymakers to develop a long-term plan for turning the rising tide of debt once the US economy begins to recover post-COVID-19.

Recommendations:

- Reform the health care system by implementing affordable consumer choice among competing private health care plans to cover all Americans and incentivize providers to deliver quality, affordable care.
- Reform the US income tax by following the model of the 1986 Tax Reform Act to raise revenue by eliminating tax preferences, including those for capital income, and reducing tax rates to encourage economic efficiency.
- Refinance Social Security—the largest cost driver in the budget after health care—to recognize the improved status of longer-living, healthy seniors while providing greater protections for the least well-off.
- Budget diligently to ensure adequate funds for national defense and domestic investments necessary to support a growing economy.
- First negotiate a maximum acceptable level of debt as a percentage of the GDP, and then hammer out the policy steps to stop the growth of debt before it reaches that point.

Paying for the COVID-19 Catastrophe

Public debt has rapidly proliferated as part of the US response to the COVID-19 pandemic, approaching a level that will soon reach and then exceed 100 percent of the nation's GDP. Balancing and timing fiscal stabilization against how the US accumulates and pays for the extraordinary but necessary cost of COVID-19 requires a near-term plan from policymakers. This brief details when and how the US should address this enormous addition of public debt.

Recommendations:

- Segregate the new debt (incurred from recovery costs and financing) from normal government finances into a single separate financial entity (probably organized as a public corporation).
- Finance the recovery debt with bonds of the longest maturity—a 40- or even 50-year maturity if possible—even longer than the longest 30-year bonds the Treasury sells today.
- Pay the interest through an addition to current revenues—a tax increase—that would be cleanly segregated from other revenues.

A Realistic Blueprint for Reopening the Economy by Sector while Ramping Up Testing—April 2020

America is going back to work. It must be done safely. And it can be done safely, even with the limited testing capacity available today. With the approach described in the brief, the economy would start reopening, but at the slower pace allowed by its current testing capacity while ramping up its testing and tracing capabilities for more extensive reopening as soon as is safely possible.

- First, reopening the economy will put more lives at risk unless the federal government plays a greater leadership role:
 - Rationalize acquisition of essential supplies and equipment. Under the current guidelines, the states compete not only with each other, but also with private businesses to acquire personal protective equipment, tests and testing equipment, cleansing materials, and other supplies. Such an approach will result in price inflation, acquisition chaos, and supply shortfalls, as well as opportunities for fraud and abuse, particularly in testing devices. Greater use of the Defense Production Act, which enables the President to compel businesses to produce essential goods, may be the only recourse.
 - Increase personnel to carry out testing and contact tracing and funding for the states—particularly for increased hospital capacity and implementation of the testing guidelines.
 - Provide sufficient funding—at a Manhattan Project scale—and smart regulatory relief to quickly and safely find treatments and a vaccine and achieve reliable testing capacity for both the disease and its antibodies.
- Second, federal guidelines should state how low the infection rate must be before a state or local economy is reopened. The confusion that results can be seen already, as some states and localities are opening quickly and haphazardly.
- Third, the most realistic approach for governors would be to carefully scale the opening of the economy by sector in keeping with the public health infrastructure's capacity to test, track, and isolate. This process demands close cooperation and collaboration with business leaders. Governors should first reopen businesses that fall into three categories: 1) those in sectors that meet a broadening definition of "essential," based on the sector's importance to the economy; 2) those most able to effectively implement social distancing in the workplace—this could include construction, and a federal and state infrastructure program that could help put Americans back to work; and 3) those that can operate effectively with employees working remotely, with a limited physical presence in the workplace. Under this approach, the sectors that closed first—because they were hotbeds for the spread of the virus—should be among the last to reopen.
- Fourth, the federal government must provide clearer guidelines for employers so they can develop their business plans to reopen with the best advice from public health officials. Ideally, the government could soon develop comprehensive safe

harbors, adaptable to firms in different industries, that establish standards for conscientious businesses to safeguard their employees and customers.

- Finally, federal and state government leaders need to help strengthen our most vulnerable communities that are taking the brunt of this economic and health crisis. They can accomplish this by ensuring that small- and minority-owned businesses receive the economic relief promised to them and that health institutions serving diverse populations most urgently receive financial support.

Conclusion

In 2020, unprecedented challenges are dramatically upending our lives, our livelihoods and the public's confidence in capitalism. These 2020 Solutions Briefs bridge divides with reasoned solutions and provide a realistic framework for a post-COVID, market-based economy and a post-COVID society with high levels of employment, production, and consumption, and with equal opportunity for all Americans. Making capitalism work for all Americans requires future orientation and collaborative leadership from policy makers and business in an informed public debate, and a recognition that we, as Americans, are all in this together. Only by working together will we find solutions that will meet the historic challenges of these times and deliver greater growth, prosperity, and equal opportunity here at home and around the world.

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Meeting the Upskilling Challenge: Training in the Time of COVID-19

COVID-19 has left tens of millions of Americans out of work or uncertain about the future of their current jobs, and thousands of firms urgently reassessing their own viability and path forward. Much remains unknown about the economy that will follow COVID-19. But clearly the pandemic's whirlwind destruction has, first and foremost, hurt less-educated workers the most, with most of the job losses occurring in manual services, and has accelerated the innovative use of technology in the workplace. These two trends threaten to deepen inequality and add to the urgency of the upskilling and training challenge.

Even before the pandemic led to the highest national unemployment rate since the Great Depression, American businesses and workers were anxious about how emerging technologies could potentially change which skills are in demand, and challenge workers to navigate careers requiring continual learning and adaptation.¹ Both public policy and private sector leaders must prioritize support for building a US workforce with the necessary skills to outmaneuver this disruption.

During pandemic-induced mass unemployment, the first task of policy is to restore as many Americans as possible to gainful employment as soon as the public health emergency allows. But after what is clearly the US' second sizable economic downturn in barely a decade, workers cannot afford a slow recovery or one that leaves them just as vulnerable as they were before COVID-19 to technological innovation and job displacement. With innovative programs, this current crisis that has idled so many workers can be turned into an opportunity to meet this training and upskilling challenge.

Public- and private-sector leaders must respond and provide immediate training and upskilling opportunities for dislocated and economically vulnerable workers. They must also devise a comprehensive, collaborative longer-term strategy for training the US workforce through partnerships between public- and private-sector actors, including academia, to meet employers' needs and ensure that workers can secure good jobs that are in demand, with prospects for continuing training and advancement, enabling them to contribute to and share in recovery and growing prosperity in the years ahead.

This report explains the challenges to training and upskilling the US workforce even prior to COVID-19, and how COVID-19 has increased the need for these programs. It then presents a US job training system capable of meeting the challenges of a post-COVID-19 economy.

Specifically, this report recommends the following near- and longer-term actions to achieve workers' goals and build a modern, highly skilled workforce:

- Most immediately, in response to the demands of the COVID-19 crisis, the US relief and stimulus efforts should include:

Tuition support for workers without four-year degrees who are working reduced hours, are furloughed, or have been laid off, to pursue training at low-cost, broad-access institutions—for example, either by direct support to the recipient or to the institution or organization providing the training, similar to Pell Grants. Pell Grants themselves can be temporarily modified or modeled and adjusted for these purposes.

Grants to strengthen instructional quality and capacity at community colleges that engage in private-sector partnerships.

Incentivizing employers to upskill their employees through tax credits for additional employer-sponsored training of low- and middle-wage employees—especially workers on reduced hours or furlough—that would qualify the workers for higher-paying roles.

- As the economy emerges from this crisis, public- and private-sector leaders, including from academia, need a comprehensive, collaborative, longer-term training strategy. Such public-private–supported large-scale training efforts require fundamental improvements in US job training, including:

Public-private collaboration to align new job skills with training programs to improve outcomes for workers and their future employers.

An information ecosystem to help adults navigate training options.

Support for the most effective training models to meet the needs of a wide range of workers.

Mass worker disruption challenges sustaining capitalism

Even prior to COVID-19, skills disruption challenged the US workforce. While constant change in skill demands is nothing new, in February 2020, the Committee for Economic Development of The Conference Board (CED) identified why future disruptions were potentially more daunting for workers:²

First, changes in technology increase the chance of job displacement rather than gradual adjustment. Displacement events are difficult for workers to recover from. Between 2000 and 2014, for example, only slightly more than half of displaced workers returned to employment within one year.³ Adults returning to work for a different employer after involuntary job loss typically suffer large earnings losses.⁴ Additionally, particularly during employment downturns, workers who lose jobs tend to suffer poor health outcomes, which may make it more difficult to find high-paying new jobs.⁵ Second, economically vulnerable workers—those least likely to be able to afford time out of the labor market—are the most likely to be negatively affected.

The COVID-19 pandemic has confirmed those concerns. The full extent of its impact will be clear only in hindsight, but after only four months, already the equivalent of over 1 percent of the February workforce has reported a permanent job loss.⁶ The unemployment rate has been highest in some of the lowest-paying job sectors, like retail and hospitality.⁷ Employment was down roughly 30 percent for workers in the lowest wage quintile between February and June, compared to less than 10 percent for those in the highest quintile.⁸ Compared to a year earlier, the June 2020 unemployment rate for workers with only an associate's degree or high school education was roughly 8 points higher, compared to less than 5 points higher for workers with at least a four-year degree, exacerbating the education divide in employment outcomes.⁹ Since February, women, black, and Hispanic workers have also experienced larger increases in unemployment than other Americans on average.

And pre-COVID-19 concerns—that an increasing pace of changing skill demands will require more frequent or substantial worker adjustments, and that growing uncertainty will make charting a career path more difficult—have not gone away. Instead, the public health emergency is already accelerating experimentation with and adoption of cutting-edge technologies—for example in robotics and AI—and rethinking of skills and positions employers need to remain competitive and resilient. The CARES Act has played a part by offering funding for technology upgrades. The US Food and Drug Administration, for example, is working in partnership with the National Institutes of Health, the Department of Veterans Affairs, and America Makes to support nontraditional manufacturing approaches, such as 3D printing, to address shortages of devices including personal protective equipment (PPE).¹⁰

The economic fallout of the pandemic will likely increase the pace of business failure and, eventually, new business formation.¹¹ As of late June, more than a third of small businesses reported large negative effects from COVID-19, and Chapter 11 bankruptcy filings sharply increased in the first half of 2020.¹² In such uncertainty, even workers most concerned about their current or former roles may not see which attainable skills and credentials will be valuable in coming years. With the risk and expense of pursuing retraining on their own, many disconnected or at-risk workers may hesitate to pursue available opportunities.

Policymakers must ensure that all workers share in the economic turnaround and in future prosperity. But some workers had relatively poor outcomes even at the tail end of the previous expansion. Almost a decade of steady improvement since the Great Recession—including wage growth in blue-collar and manual services jobs above prerecession rates—still left many Americans working full time in relatively low-income jobs.¹³ Nearly a quarter of full-time workers aged 25 to 64 earned less than \$15 per hour in 2018, and workers in the bottom three-fifths of the earnings distribution were more likely to remain in the same or fall to a lower earnings quintile after a job change, rather than climbing the income ladder.¹⁴

Economic disruption related to COVID-19 could exacerbate inequality because, by many measures, economic outcomes had become increasingly polarized over recent decades, despite progress before the pandemic that included all-time low unemployment rates for black and Hispanic workers.¹⁵ For example, educational attainment increasingly predicted participation in the labor force. In the 1980s, men between 25 and 54 years old with at least a bachelor's degree were, on average, roughly 3 percentage points more likely to be working or looking for work than men of the same ages without a four-year degree. But in the 2010s, the annual gap between those two groups was more than 8 percentage points on average.¹⁶ Only a third of workers without a bachelor's degree were either in jobs that paid at least the median local salary or were in entry-level positions that, based on historical job-switching patterns and projections, were expected to lead to such a job within 10 years.¹⁷

To achieve widespread prosperity and the long-run sustainability of capitalism as the US economy reopens and Americans return to work, policymakers should build pathways to more promising, higher-paying work opportunities to lift up the most economically vulnerable workers and those least well served in the previous expansion.

Job training will be a critical element of the COVID-19 response

As in the past, US global competitiveness and business success require consistent access to a deep pool of talent whose skills adapt and grow as the workplace constantly evolves. As outlined in [K-12: COVID-19 Disruption Must Lead to Overdue Reform](#) and [Developing the Future Workforce: Revitalizing Postsecondary Education and Training after COVID-19](#), reorienting secondary and postsecondary education to better prepare students to meet employers' evolving needs is essential. The US needs to leverage innovation and competition in a workforce development system that leaves all students career- and college-ready. However, at the same time, many current and displaced workers must add new skills, transition to new roles, and pursue different careers in the wake of the COVID-19 pandemic.

Over 100 million Americans between the ages of 25 and 54 were in the labor force in February 2020, nearly all expecting to remain working in some fashion for much of the next 10 to 40 years, and few likely planning to return to a degree-granting institution.¹⁸ Helping those workers to navigate disruption—now in response to the pandemic, but then on an ongoing basis—will be the task of employers, training providers, and the individuals themselves. For most of these workers, employers will be the frontline providers of, or conduits to, further training and education. But mass economic dislocations like COVID-19—or when individual workers fall through the gaps of the training and education system or become disconnected from employment—require public efforts, informed by or in partnership with employers.

Job training is important to help workers navigate disruption and achieve growing prosperity, but for many workers, training will be insufficient on its own. The CED [Sustaining Capitalism - 2020 Solutions Briefs](#) series points to the range of policies required to ensure that US businesses remain globally competitive and support growing prosperity for all Americans. Good work opportunities leading to improved career trajectories are likely the most important ingredient. Without the promise of return on effort, job training will fail to attract or support those workers.

To earn public financial support, job training programs must improve outcomes for the most economically at-risk workers. Even before the pandemic, economic or family situations made many low-income workers, as well as would-be workers who were unemployed or out of the labor force altogether, vulnerable to financial shocks and unable to pursue training opportunities.¹⁹ Effective job training programs will often need to circumvent such barriers. For example, reliable access to affordable, quality child care may be essential for parents to complete training.²⁰ The COVID-19 pandemic likely presents its own unique barriers.

Additionally, effective models for skill building and training that do not rely on employer-centered work will be critical for workers without traditional employee-employer relationships.²¹ In mid-June, more than a third of Americans receiving unemployment benefits were not covered by traditional unemployment insurance, which is based on past employment.²² In many instances, the workers disrupted and idled by the pandemic were not wage employees. These self-employed independent contractors and other entrepreneurs will also need assistance in developing or upgrading their skills. Workers who are not employees have likely been underserved by the US' heavy reliance on employer-provided training in the past.

Achieving a modern, highly skilled workforce

The COVID-19 pandemic has been an unprecedented shock to the US economy, leaving tens of millions of workers furloughed or laid off. While the US must address the public health threat quickly and help as many workers as possible to rapidly return to their previous employment, millions of workers will likely be permanently displaced. Policymakers and business leaders must help those workers prepare for the post-COVID-19 economy as a top priority for recovery and sustaining the promise and opportunities of capitalism.²³ After displacement, a large cohort of workers will need to develop their skills, but with fast-paced technological disruption, this need may be increasingly common well beyond COVID-19. The existing US training system has not shown itself up to the task.²⁴

To meet the training challenge presented by COVID-19's fallout, the US needs a comprehensive job training, retraining, and upskilling strategy centered around public- and private-sector collaboration, including:

Expanding eligibility for and access to publicly supported training in a time of crisis

COVID-19 has partially or fully idled millions of Americans, disproportionately lower-wage workers.²⁵ While many face barriers to training, the public interest in helping as many displaced workers as are able to train for future skills and jobs is strong. While the US invests significant sums to cushion the immediate economic shock of unemployment, it should be

making additional funding available to help workers on reduced hours, furlough, or layoff from low-income jobs to pursue training. With many low-cost, broad-access community colleges set to operate virtually this fall, covering tuitions could help a cohort of dislocated workers without four-year degrees—whose prepandemic earnings may make them otherwise ineligible for Pell Grants—quickly and affordably build new skills during their time out of the workforce. Tuition support could be provided either by direct support to the recipient or, similar to Pell Grants, to quality educational institutions providing the training—including but not limited to community colleges. Pell Grants themselves could be temporarily modified or modeled and adjusted for these purposes.

In addition, the federal government should provide grants to community colleges to strengthen their capacity to serve additional students with high-quality instruction and effective remote delivery for the remaining days of the pandemic and beyond. Grants should be particularly targeted to community colleges that can demonstrate private-sector partnerships that increase the labor market relevance of their offerings.

Going forward, the US should rethink its approach to publicly supported job training which, outside of institutions of higher education, too narrowly focuses on workers affected by trade-related disruption rather than those who are unemployed for other reasons.²⁶ Increasing access to job training, and the range and generosity of support provided, will come at a cost. Policymakers must experiment to find the most cost-effective approaches to reach more at-risk workers after the pandemic.²⁷

Encouraging and incentivizing employers to upskill their employees

While the public school system first prepares workers for careers that may include continual learning and adaptation, employers are the most important providers of *training*—helping new hires and long-standing employees to develop evolving skills. Employers benefit when workers are trained to meet particular job demands and should bear those costs.²⁸ Prior to the pandemic, many large companies—as many as 92 percent, according to one study—used tuition assistance programs as a way to attract top talent.²⁹

But as many employers try to manage costs, these programs are being scaled back. The nation benefits when employees receive training and strengthen employer-employee matches, particularly when many companies are reassessing what skills are critical to their future operations. The US should use tax credits to incentivize additional employer-sponsored training that would qualify low- and middle-wage employees—especially those on reduced hours or furlough—for different, higher-paying roles.³⁰ Employers who demonstrate during this uncertainty that they can advance employees within the company—or even outside of it—will likely better attract, retain, and develop the talent they need.³¹ The high cost of turn-over is another incentive for an employer to develop the skills of its existing workforce.

In devising longer-term collaborative solutions, public-private, large-scale training needs fundamental improvements, including:

Encouraging public-private collaboration to align training programs with new job skills

The job training incentives of businesses and trainees are often aligned. Just as employers need workers with relevant skills to fill critical open roles from entry level up the experience chain, adults enter training midcareer to improve their earnings. Employers can and should help to shape training options—partnering with broad-access educational institutions, workforce training boards, and other training providers—to ensure offerings reflect current and future market needs and convey relevant skills and experience. Employers—whether assessing and projecting job training needs; providing input into curricula; or supplying labor market data, training equipment, instructors, or on-the-job learning opportunities—are critical to helping workers who successfully complete training achieve their goals.³² Similarly, training providers—particularly those with public funding and limited resources—must ensure that their offerings match changing labor market demands in close to real time, providing value and opportunity to advance careers.³³ Publicly supported training providers, and especially broad-access educational institutions, must seek out and develop partnerships with employers, employer associations, unions, and other entities to leverage data, expertise, and resources. The growing need to update or upgrade skills requires energetic innovation in the postsecondary sector, including less expensive, competency-based alternatives to traditional “seat-time” approaches to awarding credentials.³⁴

Developing an information ecosystem to help adults navigate training options

In the words of Professor Paul Osterman, existing job training options for midcareer workers, outside of the most expensive and time-intensive university programs, are typically “complicated, hard to navigate, and under-funded.”³⁵ Even at a “big-picture” level, it can be challenging to plot a career path when existing labor market opportunities and the “return on investment” in training remain unclear. While different models for training and accreditation have proliferated and enabled experimentation, customization, competition, and choice, participants often have little information to validate the quality of training, understand how it may affect a career, or improve short- or long-term earnings. Better information is needed so that workers can be informed customers as they shop among training paths and providers. For example, large employers could create online portals that show workers what jobs are available and what skills are required.³⁶

Evaluating and supporting the most effective training models for a wide range of workers

Policymakers and business leaders should pursue training approaches that are most effective over the long run. In practice, different workers will face different constraints and different needs.³⁷ In each instance, policymakers should look for success, not the form of training or its provider. Whether training is provided by a union or an industry association, by an employer-community college partnership, or by a private provider, the most effective models should receive support and be shared across industries and locations.³⁸ Funding the assessment of existing models and the evaluation of promising approaches, while supporting wider experimentation, will be a critical federal role.

Endnotes

1. Speculation about the “future of work”—neither new nor limited to the US—often centered on how emerging technologies could potentially change which skills are in demand, what jobs exist, which sectors will thrive or shrink, and how employee-employer relationships may shift. For example, concerns about technological advances leading to widespread job loss date back at least to the Industrial Revolution. An example of public policy attention from more recent US history can be found in President Lyndon B. Johnson convening a “Blue-Ribbon National Commission on Technology, Automation, and Economic Progress” in 1964. But the policy implications of the changing nature of work have been the focus of much recent work, including both the World Bank’s 2019 World Development Report and the Organisation for Economic Co-operation and Development’s (OECD) Employment Outlook 2019. While technology was often central, potential changes in demographics, globalization, politics, culture, and society also play a critical role. See: David Autor, “Why Are There Still So Many Jobs? The History and Future of Workplace Automation,” *Journal of Economic Perspectives* 29, no. 3 (Summer 2015): 3-30; “World Development Report 2019: The Changing Nature of Work,” World Bank, October 12, 2018 and “OECD Employment Outlook 2019: The Future of Work,” OECD, April 25, 2019.
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3. “Back to Work: United States: Improving the Re-employment Prospects of Displaced Workers,” OECD, December 6, 2016. Even excluding the post-Great Recession period, only roughly 6 in 10 displaced American workers were reemployed within 12 months in the 2000 to 2006 period.
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11. “Weekly Update on COVID-19’s Impact on Business Formation and Entrepreneurship,” Economic Innovation Group, June 25, 2020. Through mid-June, high-propensity business applications were down 7 percent year-to-date compared with 2019 but showing signs of recovery.
12. “Small Business Pulse Survey Data: Week 9,” Census Bureau, July 2, 2020; Aisha Al-Muslim, “Chapter 11 Business Bankruptcies Rose 26% in First Half of 2020,” *Wall Street Journal*, July 15, 2020.
13. Gad Levanon, Elizabeth Crofoot, Frank Steemers, and Robin Erickson, *US Labor Shortages: Challenges and Solutions*, The Conference Board, January 27, 2020. For example, the weekly earnings of a worker in the 25th percentile of earnings improved over the past six years but still remained below pre-Great Recession levels when adjusted for inflation prior to the COVID-19 pandemic. See: Jed Kolko, “Better News on Job Quality,” *jedkolko.com*, January 7, 2020.
14. Paul Osterman, “Employment and Training for Mature Adults: The Current System and Moving Forward,” Brookings Institution, November 2019; Marcela Escobari, Ian Seyal, and Michael Meaney, “Realism about Reskilling,” Brookings Institution, November 7, 2019.
15. For example, economic mobility appears to have declined for more recent cohorts of Americans, likely driven by comparatively greater inequality in the distribution of economic growth experienced by younger workers. Professor Raj Chetty and coauthors find that absolute income mobility has fallen across the entire income distribution, and especially for middle-class families. Looking at age 30 incomes, roughly 90 percent of children born in 1940 outearned what their own parents had made at age 30 compared to roughly half of children born in 1980. They find that roughly 70 percent of the decline in absolute mobility between the 1940 and 1980 birth cohorts is driven by a comparatively more unequal distribution of economic growth. Additionally, black-white income disparities have also persisted, tied to substantially lower rates of upward mobility and higher rates of downward mobility for black Americans. The driving factor appears to be large differences in wages and employment rates between black and white men. See: Raj Chetty, David Grusky, Maximilian Hell, Nathaniel Hendren, Robert Manduca, and Jimmy Narang, “The Fading American Dream: Trends in Absolute Income Mobility Since 1940,” National Bureau of Economic Research Working Paper No. 22910, December 2016; and Raj Chetty, Nathaniel Hendren, Maggie Jones, and Sonya Porter, “Race and Economic Opportunity in the United States: An Intergenerational Perspective,” *Quarterly Journal of Economics* (forthcoming), December 2019.
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24. Dana Rotz, Paul Burkander, Mary Grider, Kenneth Fortson, Linda Molinari, Elias Sanchez-Eppler, and Lindsay Cattell, [“Providing Public Workforce Services to Job Seekers: 30-Month Impact Findings on the WIA Adult and Dislocated Worker Programs, Technical Supplement,”](#) *Mathematica*, May 30, 2017.
25. Kinder and Ross.
26. [“Back to Work: United States,”](#) OECD. For instance, one element of that rethink will need to focus on workers who do not fit within a traditional employee-employer relationship. Additionally, the US may need to change how it supports workers during periods of job transitions. Among those who have separated from employment, relatively few unemployed workers receive unemployment insurance benefits—in 2018, only 26 percent of unemployed people who had worked in the previous 12 months applied for unemployment insurance benefits since their last job ended—and many recipients, roughly 35 percent in 2019, exhaust their benefits prior to returning to work. See: [“Most Unemployed People in 2018 Did Not Apply for Unemployment Insurance Benefits,”](#) Bureau of Labor Statistics, October 1, 2019; [“Monthly Program and Financial Data: State UI Program Data - US Totals,”](#) US Department of Labor, Employment and Training Administration.
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34. [“Tackling Economic Inequality, Boosting Opportunity: A Blueprint for Business,”](#) CED, April 6, 2016.
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37. Some workers may be able to step out of the workforce for a period of extended training, while other workers will need to pursue skills that can be acquired in short, stackable bursts or while continuing to work. The needs of a late-career worker hoping to remain in the workforce for a few more years may differ from the needs of an early-career worker looking to transition out of a shrinking industry or occupation, which may differ from the needs of an adult who has already fallen out of the labor force completely.
38. Osterman.

SUSTAINING CAPITALISM

A series focused on nonpartisan reasoned solutions in the nation's interest to the central challenges we face in order to provide prosperity for all Americans.



Developing the Future Workforce: Revitalizing Postsecondary Education and Training After COVID-19

Education and training programs prepare not only better citizens but also skilled workforce entrants with in-demand, cutting-edge abilities and knowledge. That preparation is key to ensuring that employers remain globally competitive and that all Americans share in broad-based and growing prosperity. The COVID-19 pandemic has upended the nation's education and training. [Early Education and Child Care: The Essential Sector](#) and [K-12: COVID-19 Disruption Must Lead to Overdue Reform](#) outlined the acute disruption to early childhood education and services and elementary and secondary education, but the fallout from COVID-19 has shaken all levels of education and training.

As they struggle in the pandemic environment, colleges, job training programs, apprenticeships, and other forms of postsecondary training face many of the same health and service-delivery challenges as education providers at earlier ages.¹ Attempting to follow the type of guidelines for safe operations outlined by the Centers for Disease Control and Prevention (CDC) will require schools and providers to significantly modify nearly every aspect of how they function and organize to better enforce social distancing and ensure the health of students, staff, and the surrounding community.² These modifications will change how students congregate and interact with instructors in classrooms, labs, lecture halls, and other learning environments.

But postsecondary education providers also face unique challenges. Although there are tentative indications that young children may be significantly less susceptible to severe COVID-19 symptoms and less likely to infect others, college-age students do not appear to share in those characteristics.³ Many colleges also face the challenge of safely providing on-campus housing and other campus-based services. The College Board

estimates that more than a quarter of all full-time undergraduates who took courses in classroom settings lived on campus in the 2015–2016 school year.⁴

For many providers of postsecondary education and training, especially those who were struggling to adapt to or overcome dim financial prospects prior to the pandemic, additional financial losses or expenses due to COVID-19 pose an existential threat to the viability of their continued operations. But COVID-19 threatens to weaken the quality of educational services and the long-run fiscal health of many institutions that were high-performing before the crisis.

However, merely weathering COVID-19 would be a setback to the postsecondary sector. Long before the pandemic hit, it was in need of greater innovation and accountability for students of all backgrounds to help them develop and prosper from their talents. After a decade of slow recovery and expansion from the last economic crisis, too many working-age Americans remained economically vulnerable and seemingly stuck in low-income jobs. And for too many students with low-income job prospects, time in the postsecondary education and training system represented a financial risk out-of-proportion to its likely benefits, given the costs involved and the odds of noncompletion.

As outlined in this report, policymakers, business leaders, and educators must address COVID-19's near-term disruption but also transform how we train the future workforce. Solutions in the national interest should move us toward a system of broader, affordable access and improved individual outcomes—in which business, education providers, the government, and individual students more fully share in the cooperative enterprise of preparing and supporting the workforce.

To shore up the US economy, prevent cuts in critical education services, reduce lay-offs, and mitigate long-lasting economic harm from the COVID-19 pandemic while strengthening the long-run effectiveness of education and training programs for a successful 21st-century economy, policymakers and business leaders should:

- Provide federal funding to postsecondary providers to help offset the one-time economic shock and adjustment costs imposed by COVID-19;
- Provide grants to community colleges to strengthen their capacity to provide courses, additional slots, and effective remote delivery during the remaining days of the pandemic and beyond;
- Foster innovation in postsecondary education—utilizing flexibilities and rigorous evaluation to help nurture, test, and spread new and innovative models of education and training;
- Updating legislation to support the most promising and effective approaches—particularly focused on broad-access education and training;
- Increase accountability and transparency of education and training providers, reforming oversight while improving the information and protections available to would-be students;

- Encourage private-public collaboration to ensure postsecondary education and training providers are aligning their education and training offerings with marketable, in-demand job skills that will improve students' and trainees' employment outcomes, including requiring that publicly supported training providers—and especially broad-access educational institutions—demonstrate to would-be students how they seek out and develop partnerships with employers, employer associations, unions, and other entities to leverage data, expertise, and resources to improve education offerings; and
- Advance policies and practices in the workplace that propel students to complete additional postsecondary education and training, including investing in education and training benefits as recruiting and advancement tools and clearly communicating the skills needed for advancement.

Postsecondary education during the COVID-19 pandemic

In the midst of the COVID-19 pandemic, a fundamental question for colleges is whether they can deliver what students want and have come to expect. Postsecondary education is not compulsory. Though states subsidize roughly half the cost of operating public two- and four-year colleges, even public schools have become increasingly tuition-dependent since the Great Recession. Inflation-adjusted state funding in 2018 was still below 2008 levels, and many schools at risk of further cuts due to state budget pressures from COVID-19's economic fallout.⁵ Increased expenses or decreased tuition dollars threaten education quality, state budgets (in the case of public schools), and viability (especially for nonpublic institutions).

Beyond the obvious uncertainty about the future health risks or inconveniences of attending classes in-person, up to a third of high school seniors indicated in recent surveys that they would consider deferring or forgoing enrollment in postsecondary education if the fall semester goes online only, with similar shares of current college students less likely to re-enroll under those conditions.⁶ Another survey found that one in six high school seniors who had planned to start a four-year college program full-time in the fall now seek to reduce course loads, start out in a two-year program, or delay enrollment until at least the spring.⁷

The strong student preference for in-person classes may be driven, in part, by the past failure of some institutions to provide high-quality, online-only learning and the challenges of colleges with limited experience in virtual education to provide online learning in the spring.⁸ More than 40 percent of students in one survey reported a drop in education quality when classes moved online in response to the virus.⁹ Some instructors share this concern. On a 2019 survey, nearly 40 percent of faculty at two-year and four-year institutions who taught virtual courses for credit did not believe they could achieve “comparable learning outcomes” through online-only education, though that percentage has declined over time.¹⁰ Of course, the quality of existing online postsecondary course offerings, and the support provided in the execution of those classes, likely varies substantially by subject and institution, making it difficult to draw broad conclusions.

However, the average student does not currently view the online education options they expect to be offered if campuses are closed next fall to be of equal value to on-campus offerings. Ninety-five percent of surveyed high school seniors expected schools to lower prices if classes moved even partially online in the fall.¹¹ However, it is not clear that high-quality online education is necessarily less expensive for colleges to provide.¹²

Whether motivated by student expectations, budgetary pressures, challenges of online education, or a simple desire for normality, many schools are working towards on-campus re-opening by the fall. On a May survey, nearly 85 percent of university and college presidents indicated that they were at least somewhat likely to resume on-campus activities for at least part of the fall semester.¹³ Among schools tracked by the Chronicle of Higher Education, only 7 percent have committed to an online-only fall semester.¹⁴ Even some colleges that already provided some online education—and so are presumably better prepared to offer a high-quality online substitute for their in-person offerings—are seeking to re-open their campuses rather than going online-only.¹⁵ This suggests that high-quality education delivered online is itself a challenge for faculty and programmers.¹⁶ However, on-campus offerings will likely be more resource-intensive and provide a different experience than in the past.¹⁷

Some campuses that are reopening are limiting class sizes or moving lecture-hall style classes online while continuing smaller in-person group sessions. Some colleges are dividing students into groups with rotating in-person or virtual attendance. Some colleges are offering the choice of in-person or virtual attendance for students who are cautious or at high risk of severe illness from COVID-19.¹⁸

Reopening campuses safely will also require significant public health resources. For example, Connecticut, in its guidelines for reopening state college campuses, requires testing of all students and employees upon return to campus, with tracing capacity in place to prevent community spread and back-up plans for a significant outbreak on campus or statewide.¹⁹ The state estimates that in the initial weeks of the fall semester, its public colleges would need to conduct between 200,000 and 300,000 tests—about half the number administered daily nationwide as of mid-June.²⁰

Even if schools can operate in-person in the fall, it is likely there will still be a sharp decline in matriculation of international students. In 2018–2019, roughly 6 percent of all higher education students in the US came from abroad.²¹ International demand for US education is expected to decline due to: potential restrictions on student work visas or postgraduation work opportunities; public health concerns in traveling to and studying in the US (compared with domestic or other foreign options); and uncertainty about disruptions to studies or travel restrictions in the year ahead.²² One industry group has predicted that the number of international students coming to US colleges will decline by 25 percent in 2020–2021, sapping an important source of tuition revenue.²³

As a result, regardless of whether safe, in-person education soon proves feasible, higher education faces a dire financial outlook—and many colleges had significant budgetary challenges before the pandemic. College enrollment has declined by over 10 percent since 2012.²⁴ Declining enrollment could become the norm because of demographics: falling birth rates over the past decade have shrunken the number of potential future students.²⁵ For schools outside the “top tier” of desirability, there are extra burdens:

increasing competition for students and a geographic mismatch between the location of older schools and locations where college-going students come from or wish to work. Roughly 20 percent of small private colleges faced “fundamental” financial stress because of declining revenues and increasing expenses before the pandemic.²⁶ And among all private, not-for-profit colleges with enrollments of at least 500 students, more than two-thirds were “tuition-dependent,” with increasing debt or shrinking endowments on a year-over-year basis.²⁷

The education sector, from early childhood through higher learning, is looking to the federal government for relief. Policymakers should think carefully about how aid is targeted and where it is most needed. For postsecondary education and training providers, federal funding could help offset the one-time economic shocks and adjustment costs associated with the pandemic. Given the importance of many institutions of higher education as employers, exporters, and contributors to regional economic strength and long-run productivity—as well as the public returns to advanced education—such an investment may be well justified, particularly given that it would also help to reduce a contraction of consumption in a time of general economic weakness.²⁸ But policymakers must think hard about aid to institutions that were fundamentally weak prior to the pandemic. Instead, policy should improve the quality of education at institutions—particularly community colleges but including nontraditional service providers—that are best positioned to improve the career outcomes of the largest numbers of students affordably and effectively.

Improving education, post-COVID-19

COVID-19’s shocks to business-as-usual have highlighted areas of complacency throughout education and training—and the entire US economy and society. [Reform](#) is needed for all Americans to share in growing prosperity, with genuine opportunities for upward mobility to uphold belief in American-style capitalism for generations to come.

Even prior to the pandemic, with low measured unemployment, education could have better served the career of many Americans and their potential employers. In 2018, nearly a quarter of full-time workers aged 25 to 64 were earning less than \$15 per hour, and low-income workers changing jobs were more likely to lose ground than move up the salary scale.²⁹ Labor force participation of American workers between the ages of 25 and 54 remained stubbornly low.³⁰ Employers worried about the preparedness of the workforce, with nearly 40 percent of employers reporting that they couldn’t attract workers with the skills they needed, even for entry-level jobs.³¹

As outlined in [Improving Noncollege Pathways to Skills and Successful Careers](#), too many Americans are neither completing postsecondary education nor being prepared for a successful career without it. A third of recent high school graduates did not enroll in college in October of 2019, and based on past studies, only about forty percent of students who do enroll in college will complete a degree within six years.³² The increasing but still insufficient numbers of American college graduates continue to significantly out-earn and enjoy more employment security than nongraduates.³³

Postsecondary education should improve career prospects for individual workers and build a stronger workforce, but for too many students higher education is a significant financial risk. Students who begin but do not complete college, or who secure a certificate but not a degree, forgo earnings and pay tuition and fees that leave them vulnerable to economic shocks. Of students who began their postsecondary educations in 2003–2004 and incurred student loans, 45 percent of “noncompleters” and 44 percent of certificate “completers” defaulted on a student loan within twelve years. By comparison, only 22 percent of associate degree earners and 8 percent of bachelor degree earners had similar defaults.³⁴

Reforms are required to move the US toward a postsecondary education and training ecosystem of broader, more affordable access and improved individual career outcomes that more responsively meet the evolving needs of business and advances the national interest. The appropriate division of responsibilities—including government-funded incentives and subsidies where necessary; financial and in-kind support from businesses benefiting from employees better trained to meet and adapt to their needs; and instruction informed by the demands of the labor market and provided by institutions accountable for maximizing the long-run success of their students—should align with the public need for a system of workforce development that delivers the best result for business, society, and the students themselves. To move toward such a system will require the US to leverage its strengths: fostering innovation, increasing accountability and transparency, and drawing on business partners for collaboration and leadership.

Fostering innovation

Addressing the needs of students and employers in this unprecedented moment can guide needed education reform thereafter. The COVID-19 crisis, with its forced adjustments for economic dislocation, is likely to be an emblematic moment. Many workers who have been furloughed, laid off, or assigned reduced hours, and who were economically vulnerable prior to the pandemic, may add in-demand education and skills as a bridge to future opportunities.³⁵ But to take advantage of an alarming moment of economic uncertainty, such would-be-students need access to education that they can afford, that can be completed in a timely manner, and that they can trust will reliably help them obtain and retain work that supports them and their families. Too few institutions of postsecondary education—whether colleges or nontraditional providers—currently and credibly meet these needs.

Policymakers, business leaders, and educators should position postsecondary education, in its many forms, to deliver high-quality learning that fills this gap. As the pandemic pushes many institutions to innovate for effectiveness, colleges and other education providers should also learn from and improve upon the most effective uses of technology in supporting or supplementing learning. The US benefits from prior experimentation and experience with online learning. Roughly a third of college students took some form of online courses before the pandemic.³⁶ Even if, on average, online education experiences do not yet live up to their potential for providing high-quality education with flexibilities as to learners’ physical location, speed of progress, and scheduling convenience, much can be learned from the best or most innovative programs. Policymakers should capture and incorporate that learning into the education mainstream through rigorous evaluation,

regulatory flexibilities, and supportive legislation. With many broad-access education institutions like community colleges planning for online-only semesters in the fall, advances in the effectiveness of such models should be keenly monitored.

Increasing accountability and transparency in higher education

If higher education is to become responsive throughout workers' careers rather than just at the onset, it must increase accountability and transparency. As outlined in [How to Reinvigorate Higher Education for the 21st Century](#), the diversity of offerings and providers that is a great strength of American higher education should work as an effective marketplace. Students and their families need clear understanding of what they are buying in terms of quality and expected employment outcomes, for what price, and in comparison to other alternatives. They need the types of consumer protections—from misinformation and predatory practices—desired in transactions with similar high stakes in terms of time and future earnings.

Policymakers should improve access to and understanding of key metrics by requiring standardized key performance indicators of cost and student outcomes. Additionally, accreditation reform must improve oversight of and transparency in the accreditation process. Reforms need to both incent accreditors to protect the interests of students and allow innovative providers to grow as they demonstrate success.

Encouraging private-public collaboration to improve postsecondary education and training

As outlined in [The Future of Work: How America Can Meet the Upskilling Challenge](#), businesses should be an essential source of input into the process of designing and executing postsecondary programs since they serve as the future employers of the workforce that postsecondary providers are seeking to help develop. The incentives of businesses and postsecondary program participants are often closely aligned. Just as employers hope that students and trainees complete programs with the relevant, in-demand skills they desire, many students and trainees enter programs with the goal of improving their career options and earnings trajectory. Employers can and should play a critical role in shaping available training options—partnering with broad-access educational institutions, workforce training boards, and other training providers—to ensure offerings are continually updated to reflect current and future market needs and convey relevant skills and experience.³⁷ The heavy involvement of employers—whether through assessing and projecting job training needs; providing input into curricula; or supplying labor market data, training equipment, instructors, or on-the-job learning opportunities—is critical to helping workers who successfully complete education and training achieve their career goals. To best serve their students, postsecondary education and training providers have an obligation to ensure that their offerings evolve to match changing labor market demands in as close to real time as possible, providing the highest value and greatest chance of success to those relying on them to launch or advance in their careers. Providers should be pushed to disclose to would-be participants how they seek out and develop partnerships with employers, employer associations, unions, and other entities to leverage data, expertise, and resources.

The role of business leaders in improving education

CED has long maintained that business plays a critical role in promoting educational attainment.³⁸ Partnering with education providers, business leaders can shape the pipeline of future employees, providing a valuable guide to labor market demand and opportunities for learning and experience based on the “real world” of work. As employers, businesses can build a modern, skilled workforce by investing in education and training benefits that will serve as an effective recruiting tool while strengthening the company’s workers and advancing the nation’s interest. They can also encourage students to enroll in and complete postsecondary programs as a necessary pathway to future success.

Business leaders are also uniquely well positioned to advocate for investment and innovation in education to deliver the skilled future workforce they depend on to be globally competitive.³⁹ The business community understands that public policy innovation is essential to create the conditions to induce transformation of the postsecondary system of education and its effectiveness. Businesses must make the case to local and state policymakers and school officials for the value of those investments and support partnerships between business and education to spur future economic and civic growth.

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SUSTAINING CAPITALISM

A series focused on nonpartisan, reasoned solutions in the nation's interest to the central challenges we face in order to provide prosperity for all Americans.



Early Education and Child Care: The Essential Sector

The COVID-19 crisis has been a nearly unprecedented disruption to American education at all levels. By early May, according to one estimate, 45 states and the District of Columbia had ordered or recommended school closures through at least the end of the current school year, affecting close to 50 million public school students.¹ Many colleges and universities closed campuses or moved to online-only instruction in March. Disruptions to early childhood learning have also been widespread. Public pre-K programs attended by 1.6 million children nationwide were closed to help stop the community spread of COVID-19.² Roughly one-third of children under age five typically receive services in an organized child care facility—including preschool classrooms.³

Past crises, like the Great Recession, permanently reduced achievement and attainment among American students, with negative effects particularly concentrated in lower-income school districts.⁴ These disruptions may be especially acute for younger, disadvantaged children who would likely have had the most to gain from high-quality early childhood education and services.

A growing body of research points to lifelong benefits from investment in children at the earliest stages in life, when the foundation is built for future social, emotional, cognitive, and physical development.⁵ Several concerning trends make the investment in early learning for children even more important, including the long-expected demographic shifts resulting in an older and slower-growing workforce, compounded by COVID-19's

Recommendations

US investments in access to high-quality public pre-K and child care strengthen the US economy—expanding the size and deepening the capacity of the US workforce while helping all families to achieve growing prosperity. The US should:

- **Promote** high-quality child care and public-supported pre-K as a public good and treat it as an integral part of education and workforce preparation.
- **Ensure** that all children have high-quality early learning opportunities from birth, including child care and public pre-K education, especially for the most disadvantaged.
- **Implement** a sustainable financing system capable of supporting affordable access to high-quality child care and public pre-K.
- **Invest** in a high-quality early education workforce, including through state adoption of early educator workforce investment tax credits.
- **Modernize** child care regulations to deliver quality, reduce burdens, and encourage innovation.
- **Draw** on business leaders to make the national interest case for investing in early learning.

impact on businesses across sectors intensifying their use of technology and cutting-edge innovative practices. Thus, the US needs an increasingly well-educated and trained workforce that can meet employers' changing demands and ensure the nation's economic strength and global competitiveness. COVID-19 has only made it clearer that the nation must invest so that all American children reach their full potential.⁶ This is fundamental to sustaining capitalism and to our democracy.

Of equal importance has been COVID-19's devastating impact on the child care industry as a whole. COVID-19 has highlighted the fragility of the current child care financing model, as well as the indispensability of such care for supporting the work effort of parents.⁷ Throughout the country, child care programs have closed, and those that are open are operating far below average enrollment levels, typically restricted to serving only the children of essential personnel.⁸ A nationwide survey of child care providers in March found that, without public investment, nearly half of respondents did not believe they could financially survive a closure of more than two weeks.⁹

While forthcoming Solutions Briefs from the Committee for Economic Development of The Conference Board (CED) will address recommendations for the later stages of the education continuum, this Solutions Brief focuses on the early learning years. To support a successful 21st-century economy and recovery from the COVID-19 pandemic, policy makers and business leaders must take timely action as partners to:

- most immediately, tackle the destructive impact of COVID-19 on child care, an industry that is critical to helping Americans return to work; and
- advance high-quality care and education for children under five, ensuring that all children have access to high-quality early learning opportunities, including a durable financing system, appropriate support and training for staff, and private sector leadership and participation.

INVESTMENTS IN EARLY LEARNING AND CARE PROMOTE OPPORTUNITY AND PROSPERITY FOR ALL

For over five decades, CED has provided reasoned solutions in the nation's interest to improve the educational prospects of children starting prior to elementary school entry.¹⁰ CED has been a national thought leader, issuing the first call from the business community for universal access to high-quality preschool education for all children in 2002.¹¹ In 2012, CED's *Unfinished Business* report called for a nationwide strategy to ensure that all children from birth to third grade have access to high-quality child care and early education that promotes their learning and development while strengthening and engaging families in their children's education.¹² Since that time, the evidence for the importance and effectiveness of investments in high-quality early learning and care for producing a stronger future workforce has only increased. Accessible and affordable high-quality early learning and care services are essential infrastructure to support the development of children, the work and training efforts of families, and a wider talent pool for employers, supporting increased opportunity and a stronger economy.

To advance the national interest, CED has married its policy advocacy with on-the-ground efforts to help build partnerships between the private and public sectors in support of early learning on the state and local levels. CED believes that business leaders, often starting in their own communities, can play a crucial role in ensuring these investments reach all children and has built business champions to support CED's on-the-ground efforts to advance state policies. CED's initiatives include expanding pre-K education in Mecklenburg County, North Carolina; partnering with the Mississippi Economic Council (MEC) to support the first-ever state public pre-K program for four-year-old children; developing local policy convenings, such as New Mexico's first-ever Child Care Business and Policy Summit in 2016, which brought together state legislators and business leaders; and providing resources for supporting advocacy and policy makers. (For a more detailed listing of CED's initiatives, see the summary on page 10.)

HIGH-QUALITY EARLY LEARNING AND CARE PROGRAMS CAN BE IMPORTANT CONTRIBUTORS TO CHILDREN'S FUTURE SUCCESS

The importance of a child's early years for later development can be seen in the substantial negative impacts of even relatively mild shocks—let alone more significant adverse childhood experiences, including trauma—in early life, as well as by the degree to which later labor market outcomes can be explained by a child's characteristics upon entry into elementary school.¹³ A wide range of academic research has found extraordinary cognitive and physical growth in early childhood, subject to the influence of a child's environment. For example, studies have found that the brain reaches roughly 90 percent of its adult volume by age six, while synapses develop very rapidly in the first few years of life.¹⁴ A child's earliest years form the foundation on which future learning depends.¹⁵ Early childhood programs can help children to establish and improve these "foundational" skills—like executive function and self-regulation—and contribute to the acquisition and development of complex social and emotional skills.¹⁶ Employers across industries highly value such executive function skills.¹⁷

While parental factors are important, high-quality early childhood programs also strongly affect outcomes, particularly for children from disadvantaged backgrounds.¹⁸ Participation in one to two years of developmentally appropriate center-based early childhood education prior to age five is associated with significant gains in early language, literacy, and mathematics skills.¹⁹ For low-income children, participation in higher-quality child care services, starting as early as infancy, is associated with relatively higher math and reading achievement scores in elementary school.²⁰ Access to high-quality early learning and child care also seems to have beneficial long-term effects on health and health-related behaviors, even beyond programs like Head Start that provide a package of health screenings.²¹

Quality in early learning and care programs appears to be important to the size and duration of gains.²² Quality is typically measured based on the characteristics of interactions between staff and children, and the provision of consistent instructional support to prompt children to engage in higher-order thinking and “warm, responsive teacher-child relationships.”²³ However, average quality across existing preschool programs appears to be inconsistent and presents a clear opportunity to improve effectiveness and cost efficiency.²⁴

Long-running studies of “model” demonstration programs like the Carolina Abecedarian Project and Perry Preschool have found substantial effects of high-quality preschool programs on labor market outcomes like future earnings and employment, as well as related outcomes like reduced incarceration and improved health. These benefits suggest a high return on investment. For example, the Abecedarian Project and Perry Preschool interventions appear to have increased average future participant earnings by roughly a fifth to a quarter.²⁵ Research by Nobel Prize-winning economist James Heckman estimates that the Abecedarian Project and the identical Carolina Approach to Responsive Education (CARE) program delivered a 13 percent per year return on investment for children served in the 1970s.²⁶

Given that there were few alternatives available to children not enrolled when those programs were created, the positive measured effects likely reflect something close to the full benefit of high-quality preschool. Today, even the most disadvantaged children not enrolled in preschool programs probably receive greater support or stimulation than similarly situated children in previous generations.²⁷ Evaluations of high-quality early childhood interventions suggest a healthy return on investment even excluding the Abecedarian Project and Perry Preschool results, though the magnitude of the return is somewhat less eye-popping without them.²⁸ A 2017 analysis of nine programs with formal benefit–cost accounting found that every dollar invested typically returned \$2 to \$4 from a societal perspective, including increased productivity and revenues and reduced social service spending.²⁹

Early learning and care programs are important investments in US workforce competitiveness, support increased opportunities and work effort for parents today, help children reach their potential, and strengthen the US workforce of the future. The demand for a workforce with “higher” cognitive skills—critical and creative thinking, and collaborative problem solving—was already projected to grow even without the spur of the current crisis.³⁰ These outcomes will be even more crucial after the COVID-19 pandemic. However, despite the strong evidence of returns on early childhood investments, the US continues to lag behind its international peers. US public spending on child care and early education as a share of GDP was less than half the OECD average in 2015.³¹ While children from lower socioeconomic backgrounds in the US are relatively more likely to attend early learning programs prior to school entry compared to similarly situated children in other OECD countries, they are still less likely to attend than higher-income children, and the quality of services they receive may be much lower.³²

EARLY LEARNING AND CARE PROGRAMS ARE CRITICAL WORKFORCE SUPPORTS

As outlined in CED's *Child Care in State Economies: 2019 Update*, early learning and care programs are also critical work supports, particularly for parents of young children who work or hope to pursue additional education and training. In 2017, more than 15 million children under age six had working parents; an estimated 72 percent of mothers with children under age six were in the labor force.³³ Prior to the COVID-19 crisis, among families with children under age five, nearly 9 out of 10 families in which both parents worked full time relied on paid child care, as did more than 8 in 10 working single parents.³⁴

A lack of child care can be a significant barrier to work. Pre-COVID-19 crisis, over 1 million part-time workers cited child care problems as the reason for not working more hours.³⁵ In a 2016 survey, the families of roughly 4 in 10 children under age six reported at least some difficulty finding care, with lack of supply, affordability, and quality the primary challenges.³⁶ The parents of roughly 1 in 7 preschool-age children reported being unable to find a desired care program.³⁷

US workforce participation rates by women ages 25 to 54 are lower than in other OECD countries. Some analysts have pointed to a lack of family-friendly workforce policies as a potential reason why.³⁸ A significant body of research suggests that reductions in the cost of child care, including through increased subsidies, can increase maternal labor force participation rates, particularly for single mothers, mothers with young children, and mothers in low-income households.³⁹ The design of early learning and care programs also likely determines how effectively such programs support work.⁴⁰ Those potential work support benefits should be part of the evaluation of the cost-effectiveness of early learning and care programs and should be considered in program design.

Prior to the COVID-19 outbreak, there was already a shortage of child care in many communities throughout the nation, and the child care industry's financial model was already fragile.⁴¹ As many states gradually relax public health restrictions in the weeks ahead and parents attempt to return to working outside of the home, finding available, quality child care may be difficult for the millions of parents of children under age five who typically make use of such arrangements.⁴² This challenge will be exacerbated by many other parents who need to find child care arrangements for children whose public schools or summer camps may be closed.

Unlike public schools, which are publicly funded and will most likely reopen in the fall, the child care industry faces a far more uncertain future.

Child care is a business. Programs are primarily funded by private pay from parents whose fees compose the operating budgets that fund staff and fixed costs such as mortgages or leases, utilities, and insurance. While it is difficult to determine how many child care programs have been affected by the pandemic, a recent survey of parents with children under age five throughout the country who previously paid for child care found

61 percent using child care centers said their center had closed, and 48 percent using a family child care home said their home-based program had closed.⁴³ It is quite possible, and realistic, that after months of no revenue, many of these programs may not be able to reopen. In some states, such as Rhode Island, where the governor has closed child care programs through the end of May, and New Jersey, where only 12 percent of child care centers remain open (serving essential personnel), the future supply of child care is even more precarious.⁴⁴

For child care programs that have remained open, average enrollment is well below the levels at which most providers planned to operate when constructing their business models. In nearly 60 percent of states, governors have limited the number of children who can be in a child care classroom setting to 10 or less to promote social distancing and reduce the likelihood of coronavirus spread.⁴⁵ This certainly makes sense from a public health perspective. However, reducing a classroom that held 18 to 20 children before COVID-19 to 8 to 10 children means a significant loss of revenue for the program. And, loss of revenue for open programs has led to an equally significant loss of staff because of resulting layoffs.

Another consequence of reducing the number of three- and four-year-old children in a program is the inability to underwrite or reduce the cost of care for parents with infants or toddlers. Because more adults are needed in the classroom to ensure the safety and health of infants and toddlers, staffing costs are generally more expensive compared to care for three- and four-year-old children, where fewer adults are needed per child. Typically, this means that the infant and toddler rooms operate at a deficit, but revenue from the three- and four-year-old rooms helps keep the overall program in balance. Therefore, a reduction in the number of three- and four-year-old children enrolled in centers may have the collateral impact of closing infant and toddler rooms, which were already in short supply.

As parents return to work in the weeks and months ahead, the availability of child care programs that enable them to participate in the workplace is in question. The current economic model for child care is not the economic model under which programs originally opened. Governors will be reopening state economies, but for parents with young children, whether child care programs will reopen or whether they can stay open as viable businesses requires new temporary public support to help stabilize the industry and transition to the new normal (until a vaccine or treatment is developed for COVID-19).

High-quality child care is a public good. It is an essential service, as has been seen throughout states where child care has been at the forefront to support the children of essential employees (parents who work in hospitals, public safety, grocery stores, and other jobs upon which the public depends). Child care not only facilitates the ability of parents to work, but it is also an early learning setting for children that helps promote their school readiness.

RECOMMENDATIONS: ADVANCING HIGH-QUALITY EARLY LEARNING AND CARE PROGRAMS

CED has long recognized the need for a large and highly skilled workforce and has consistently recommended policies and practices to ensure that Americans of all backgrounds more fully develop and flourish from their talents. To ensure the nation's employers can be bolstered by that available talent and that our citizens of all backgrounds achieve growing prosperity, helping to sustain our US market-based system of capitalism for another generation, policy makers and business leaders should advance early education, including:

Promote high-quality child care and public-supported pre-K as a public good and treat it as an integral part of education and workforce preparation. The US must integrate high-quality child care for children from birth into its concept of foundational and necessary education and invest in these programs. Integrating and implementing early learning standards beginning at birth within all child care and preschool programs will help parents, teachers, and caregivers identify and work toward common goals, helping even the youngest children build a foundation for continued success and development.

Ensure that all children have high-quality early learning opportunities from birth, including child care and public-supported pre-K education, especially for the most disadvantaged. Fundamentally, the US must ensure that all families, at their preference, have affordable access to high-quality child care and to publicly funded, full-day pre-K education as a bridge to school-based learning. Just as broad-based access to high-quality secondary and higher education has been a critical part of US success, public investment in a world-leading early education system will be critical to safeguard US competitiveness in the future.

Implement a sustainable financing system capable of supporting affordable access to high-quality child care and public pre-K. The current fragile economic model for child care—based largely on private-pay parent fees—is a barrier for access to, and supply of, high-quality care. Increased public and private investment—including innovative public-private partnerships or employer-subsidized child care benefits—will be necessary. There are several ways in which Congress can bolster child care in the next economic stimulus legislation. First, Congress can provide states with temporary funding to support program stabilization during the next year as the economy transitions to more parents returning to work. Second, for programs that have closed, Congress can provide start-up grants so that programs can reopen and help meet community needs.

Invest in a high-quality early education workforce, including through state adoption of early educator workforce investment tax credits. Recruitment and retention challenges for employers of the early education workforce—driven in part by low compensation; low provision of benefits like sick pay, health insurance, and retirement savings contributions; limited professional development; and few career ladders—make delivering access to high-quality care nearly impossible. A sustainable financing model,

which should be supported through public-private collaboration, must include higher pay, minimum benefits, better training, and clear career pathways for the early learning workforce without making services unaffordable for families. One way that states can help invest in that outcome is by adopting the model of Louisiana's successful school readiness early educator tax credit.⁴⁶ The credit, which is earned based on specific educational achievements attained by the early learning workforce, incents professional development and boosts wages. State tax credits can also be used to expand local community pre-K collaboratives, incentivize employers to participate in securing or assisting with care, and make child care more affordable for parents. Additionally, improvements in the preparation and training of early education teachers will be a critical aspect of lifting up and maintaining the high quality of the early education workforce. Evaluation of, and investments in, promising models of preparation, including nontraditional pathways like apprenticeship, will be necessary to ensure the provision of high-quality training programs capable of building early educators and caregivers at the scale of national need.

Modernize child care regulations to deliver quality, reduce burdens, and encourage innovation. Regulators at the state and local level should work together to harmonize overlapping or competing requirements and allow providers in a range of settings to innovate in organizing and delivering safe, high-quality care. For example, there may be opportunities within states or communities to engage in shared services, which could result in program operational savings and greater efficiencies in administration.

Draw on business leaders to make the national interest case for investing in early learning. As the CED business champions program has demonstrated, business leaders are uniquely positioned to understand and articulate the importance to US competitiveness of affordable and accessible high-quality child care to support working families and the development of tomorrow's workforce. They can lead through commitment to family-friendly policies in their own organizations, and build public-private partnerships, such as shared services, that deliver high-quality early learning opportunities in their own communities. Additionally, they must make the case to policy makers and the public for increased investments in early childhood education, particularly when many existing investments may be threatened by budget pressures resulting from the COVID-19 crisis.

CED Builds Business Champions and Advances State Policy

CED believes that investments in access to high-quality public pre-K and child care are of critical importance to the vitality of the US economy and that business leaders, often starting in their own communities, can play a crucial role in ensuring these investments reach all children. To advance the national interest, CED has married its policy advocacy with on-the-ground efforts to help build partnerships between the private and public sectors in support of early learning, including:

Mecklenburg County For the past four years, CED has partnered on an initiative to expand pre-K education in Mecklenburg County, North Carolina. This effort involved completion of a 12-month feasibility study and focused community engagement—building an understanding of early learning and fostering public support of pre-K education among county residents, plus developing a local financing strategy. With approved funding from the County Board of Commissioners, over 1,200 additional four-year-old children are being served to date in 69 classrooms located in child care centers. This expansion of pre-K education could not have been successful without the leadership and direct involvement of the business community through the Charlotte Executive Leadership Council, which includes CED Trustee representation and participation.

Mississippi Economic Council Partnership CED has supported public forums to educate and engage business leaders about the importance of child care and public pre-K in numerous states across the nation. In 2013, CED partnered with the Mississippi Economic Council (MEC) to support the first-ever state public pre-K program for four-year-old children. CED worked closely with MEC on two consecutive statewide “road shows”; each traveled to 10 cities in five days and helped to gather over 1,000 signatures from business leaders to support investment in early learning and presented these signatures to the governor.

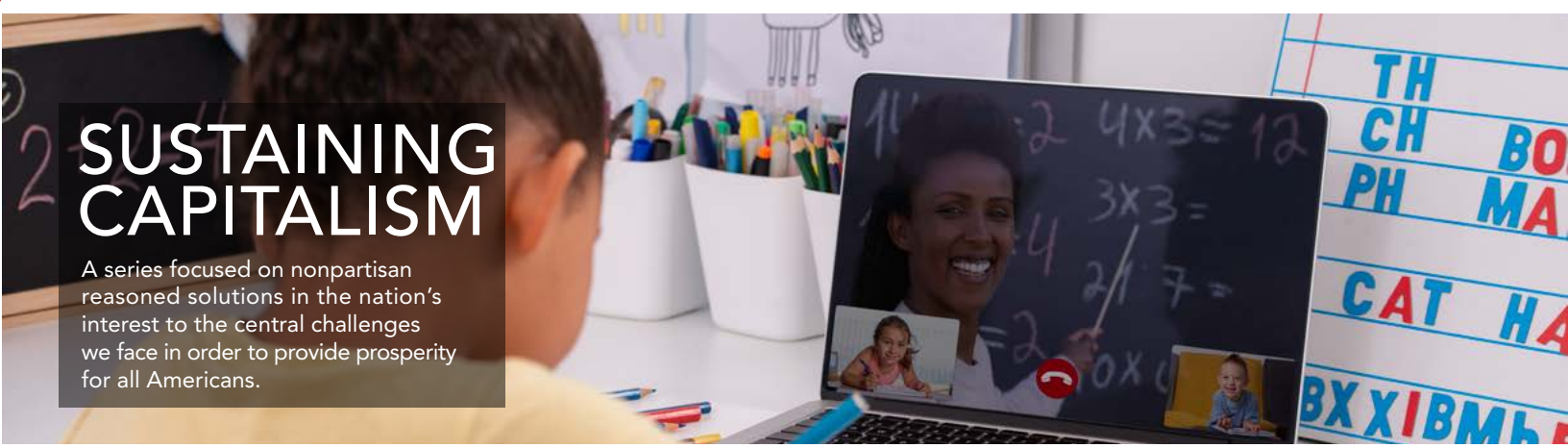
Policy Forums CED has developed local policy convenings, such as New Mexico’s first-ever Child Care Business and Policy Summit in 2016, which helped to bring together state legislators and business leaders. CED partnered with the National Academy of Sciences (NAS) to include a business panel, which addressed the quality of the early learning workforce and child care system financing that featured CED Trustee business leaders from Virginia and Pennsylvania. CED regularly presents at state-based events about innovative solutions to strengthen the quality of child care and improve access to high-quality programs, and serves as a direct convener able to bring together policy makers, advocates from the business community, and practitioners from across the country to advance early education discussions through panels at CED’s biannual Policy Conferences. CED staff also takes the lead in delivering critical messages and expertise drawing on our business community learning and perspective at both state and federal levels. For example, over the course of February and March 2020, CED testified before the US House Small Business Subcommittee on Rural Development, Agriculture, Trade, and Entrepreneurship for a hearing, [“Taking Care of Business: How Childcare is Important for Regional Economies”](#); appeared before the [Vermont House Commerce and Economic Development Committee](#) to discuss CED’s [2019 Child Care in State Economies](#) report; and presented to the Early Childhood Iowa State Board’s Committee on Private Public Partnerships about child care tax credits.

Resources for supporting advocacy and policy makers CED has developed numerous communications tools and resources to help local business champions and practitioners educate, advocate, and engage on behalf of high-quality early learning. For example, CED has created online resources and toolkits to support the early learning field such as [Clearinghouse of Resources: High-Quality Early Educators](#), [Early Childhood Workforce: Tax Credit Toolkit](#), [ECE Workforce Digital Engagement Toolkit](#), and [Coronavirus Resources for Child Care Providers](#).

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SUSTAINING CAPITALISM

A series focused on nonpartisan reasoned solutions in the nation's interest to the central challenges we face in order to provide prosperity for all Americans.

K-12: COVID-19 Disruption Must Lead To Overdue Reform

High quality education is a critical pathway to career success and economic mobility, particularly for students from low-income backgrounds.¹ An education system that invests in children beginning at the earliest ages and supports their development as both citizens and skilled workforce entrants of the future—with both in-demand cutting-edge abilities and knowledge and the tools to continue to upgrade their education and training across the course of their career—is a necessity to ensuring that US employers remain globally competitive and that all Americans share in broad-based and growing prosperity in the 21st century.

Pre-pandemic, even with low measured unemployment, there were reasons to be worried that US education was failing to live up to its full potential to better serve many students. Employers remained worried about the preparedness of the workforce, with nearly 40 percent of employers reporting that they couldn't attract workers with the skills they needed, even for entry-level jobs.² Despite the lure of higher average wages and employment rates for college graduates, a third of recent high school graduates did not enroll in college in October of 2019, and based on past studies, only about forty percent of students who do enroll in college will complete a degree within six years.³ In 2018, nearly a quarter of full-time workers aged 25 to 64 were earning less than \$15 per hour and the labor force participation of American workers between the ages of 25 and 54 remained stubbornly low.⁴

Policymakers, educators, and business leaders were already faced with the task of improving the status quo; as outlined in [Early Education and Child Care: The Essential Sector](#) and [Developing the Future Workforce: Revitalizing Postsecondary Education and Training After COVID-19](#), the COVID-19 pandemic has upended the nation's education

and training at every level. Elementary and secondary education is no exception. The disruption to date has already set back student learning, widened existing educational disparities, and placed K-12 schools under enormous pressure to chart a viable path forward through the end of the pandemic even as local conditions remain subject to rapid change.

Even best-case scenarios require schools to significantly modify operations to balance the safety of students and staff with successful learning. Those schools that are able to resume in-person operations must still be prepared for severe outbreaks in the fall or winter requiring the resumption of stricter public health measures or complete shutdowns and a return to fully remote instruction. The past and near-certain future costs of preventive public health measures may make business as usual simply unaffordable.

To strengthen the effectiveness of education and training programs for a successful 21st-century economy, policymakers, educators, and business leaders concerned with the national interest must both draw lessons and warnings from this spring's disruption to address the immediate concerns COVID-19 poses for the upcoming school year, as well as take action to strengthen K-12 education in order to improve the college and career readiness of all students, including:

- Facilitate improvements in remote learning, including universal student access to high-speed internet and devices for the start of the 2020-2021 school year
- Fund additional state and local pandemic costs, and avoid cuts in educational services
- Create a true workforce system—beginning prior to K-12 entry and continuing through K-12 and beyond—that fosters innovation and improves outcomes, better preparing all students for initial workforce entry, including:
 - Supporting high-quality career guidance informed by up-to-date labor market realities and relationships with potential employers
 - Providing K-12 students with opportunities to learn and practice in-demand skills as part of the standard curriculum
- Support innovation and competition by piloting and testing new educational models, learning what works under what condition for which students, particularly in places where traditional approaches are failing to deliver improving outcomes—including drawing from, and further refining, the most successful practices incorporating technology-enabled supports for remote or asynchronous instruction deployed during the COVID-19 pandemic

The COVID-19 pandemic has disrupted elementary and secondary education

The COVID-19 pandemic forced closure of nearly all US elementary and secondary schools, affecting students and their families.⁵ Although many school districts attempted

to shift learning online and to other remote tools, concerns about disruption of student achievement, especially for younger learners, were widespread. There are now early indications of challenges ahead if schools cannot quickly resume normal operations.

Time out of the classroom has already impacted learning, depending on how successfully remote education replaced in-person instruction. Past time out of school—whether because of absenteeism, summer breaks, or weather or natural-disaster-enforced closures—has typically been shown to reduce student achievement. Extrapolating from such studies, by the start of the 2020-2021 school year, students may return having achieved as little as one-third to two-thirds of the typical learning in reading and math in the prior year on average, with variability in student outcomes—some performing much better or much worse—larger than normal.⁶

Expectations of the help from remote learning and summer initiatives are somewhat restrained by past evidence that online-only models of K-12 education have struggled to match the results of in-person education. For example, a 2017 review of online education in Ohio found that students in “e-schools” performed significantly worse across all subjects and grade spans than similar students in other school settings.⁷ One review of 100 school districts found that, by the beginning of June, only 61 planned to provide any summer school, and less than half planned to offer summer school to students younger than high school.⁸

The ultimate reach of remote learning opportunities in the spring is also unclear. Although more than four-fifths of surveyed parents reported that their children were engaged in an online learning program at the beginning of April, a survey of teachers found that less than 40 percent of them were interacting with students on a daily basis.⁹ A Center on Reinventing Public Education analysis found that only one in three districts required that teachers “provide instruction, track student engagement, or monitor academic progress” for all students, though many teachers outside of those districts likely did so.¹⁰

One online math program showed a deep and durable drop in student participation after mid-March, as well as a drop and then gradual recovery in the pace of coursework completion.¹¹ Of further concern, the drops in participation and completion were larger and more permanent for students attending schools in lower-income ZIP codes. By comparison, the pace of online math coursework completion by students in higher-income areas increased substantially in the pandemic period, presumably because more learning was shifted to the online program.¹²

The COVID-19 pandemic and its economic impacts also likely hurt academic achievement among students already at the highest-risk of falling behind or who are the most directly affected by the pandemic. By July 9th, COVID-19 had already killed over 132,000 Americans and compromised the health and well-being of many more. A Data Foundation survey in early June reported roughly five percent of all respondents, but 11 percent of Black respondents, having a family member or close friend die from COVID-19.¹³ Research suggesting that some children affected by Hurricane Katrina experienced effects of trauma and disruption that weighed on their academic achievement more than two years after the

hurricane points to potentially long-lasting effects COVID-19 could have on children who lose family members, friends, or teachers to the virus.

Despite hopes for rapid economic recovery, COVID-19 is clearly creating economic harm and stress for many families.¹⁴ Looking to the past, some researchers have found that the Great Recession significantly reduced student achievement in the places most affected, with negative effects concentrated among children attending schools serving higher shares of low-income or Black families.¹⁵

How elementary and secondary schools plan to adjust to the COVID-19 pandemic

One attempt to model the impact of disrupted education finds that, regardless of the quality of remote learning, the “lost” learning during the pandemic-affected period will worsen and the number of school drop-outs will increase the longer the gap in receiving normal, consistent in-person education. However, the impacts are likely to be worst for the students receiving lower quality or no remote instruction the longer the COVID-19 disruption in education lasts. For instance, students receiving lower-quality remote instruction could lose the equivalent of 7 to 11 months of learning if they do not resume full-time, uninterrupted in-person instruction until January 2021. Under the January 2021 resumption scenario, on average, students can lose the equivalent of a year’s worth of lifetime income as a result of COVID-19–related learning losses—an aggregate annual hit of \$110 billion in lost earnings across the current K-12 student cohort’s working lives.¹⁶ These projections drive home the urgency of two goals for policymakers and school officials preparing for the start of a new school year: increase the quality of remote learning options and engagement for all students, and resume in-classroom learning as safely and quickly as possible.

Improving remote learning

Even school districts that plan in-school learning to begin the 2020-2021 school year should prepare for remote learning. The path of COVID-19 is deeply uncertain, with new breakouts, recurrences, or mutations always possible later in the year. Avoiding a repeat of the unexpected and rushed March closures should be a priority, and plans for remote learning could prove essential for other unanticipated closures or disruptions in the future.

A critical first step for remote learning is ensuring that all elementary and secondary students have high speed internet connections and appropriate internet-enabled devices. As outlined in [Technology and Innovation Solutions Must Lead the Way to COVID-19 Recovery](#), lack of reliable internet connections and devices was likely a significant barrier to many students’ remote learning in the spring, and will continue an impediment to successful online learning until it is addressed.

Resource challenges may be partly why the Los Angeles Unified School District—which serves more than 600,000 students—reported in late March that one-third of its high school students were not regularly participating in its online offerings, and 13 percent

had no connection with teachers online during the first three weeks of distance learning.¹⁷ A poll of California parents conducted in late March had more than 40 percent express concerns related to having enough devices in the home to participate in online learning programs and nearly 30 percent worried about reliable access to high-speed internet.¹⁸ Nationwide, surveys suggest that roughly one-third of families with school-age children at home and annual incomes below \$30,000 lack broadband.¹⁹ A little more than half of superintendents estimated that at least ten percent of students in their districts are unable to participate in online learning because of a lack of high speed internet access or necessary devices.²⁰

Even prior to the pandemic, a lack of appropriate technology in the home was likely contributing to worse learning outcomes for the predominantly low-income or minority students going without.²¹ On a 2018 survey, 17 percent of 13- to 17-year-olds reported at least sometimes being unable to complete homework assignments because of a lack of access to the internet or a computer.²² Prepandemic, a lack of universal access to high speed internet and devices may have slowed, or even prevented, adoption of technologies that could potentially improve K-12 student outcomes, including by helping teachers devote their time and attention where it is needed most.²³ Experimentation, experience, and improvements in online learning during the pandemic should help schools to incorporate technology going forward, but universal access will be necessary to prevent widening existing disparities.

Although durable improvements of access may take longer, some short-range strategies could quickly expand access to high-speed internet and necessary devices for the start of the 2020-2021 school year. Expanding computer lending programs, retrofitting school bus fleets with Wi-Fi connectivity, or creating lending libraries for individual Wi-Fi hot spots that could go to students without home connections all have merit.²⁴ Federal funding should allow, and states and localities should expeditiously pursue, the hardware and connectivity solutions that would best suit the challenges facing their communities. At the same time, the federal government should connect states and school districts pursuing similar strategies to identify the most effective practices and negotiate together for the lowest prices and quickest procurement.²⁵ Business leaders should also play a constructive role in their communities, expanding on efforts by some private companies in the spring—and often prior to the pandemic—to help address shortages of laptops and tablets and access to Wi-Fi, among other needs.

Solving access and device issues is the first, and potentially most straight-forward, step in improving remote learning. But K-12 schools also need to improve the effectiveness and quality of remote learning. While educators quickly responded to the unexpected need for extended, fully remote education at the end of the 2019-2020 school year, all school districts should provide clear expectations of teachers, parents, and students for any continued remote learning in the new school year.²⁶ School staff must continually reconfigure their work so that all students are actively monitored, engaged, and assessed. In a spring 2020 survey, nearly 80 percent of superintendents cited special education and related services as difficult to provide equitably as part of their COVID-19 response.²⁷

Best practices and lessons learned from the end of the past school year and from summer sessions need to be widely disseminated across K-12 schools and thoughtfully processed and integrated into learning plans. Instruction in the new school year—whether fully or partially remote, or under safety-modified in-person teaching—will require significant support and training for teachers and other school staff. Because remote learning could continue for an extended period or be a recurring need—and with an eye toward better incorporating technology-based learning practices into regular instruction postpandemic—evaluation of different programs should be a priority. Given the expense and other challenges of high-quality evaluation, federal dollars could be smartly invested and clearly serve the local and national interest.

Returning to in-classroom learning

Given the generally inferior student outcomes from extended remote learning, ideally, most K-12 students should safely return to in-person instruction for the entirety of the 2020-2021 school year. But even under optimistic scenarios, schools will need to adapt their operations to ensure the health of students, staff, and the surrounding community. To that end, the Centers for Disease Control and Prevention (CDC) have released guiding principles for schools to reopen for in-person education before the end of the current pandemic.²⁸

In addition to procuring sufficient supplies and personnel for routine cleaning and medical testing, CDC recommends, for instance, that student desks be six feet apart with all students facing in one direction, school buses be limited to one student per row, and school meals be served individually in classrooms rather than communally in cafeterias. To limit the contact between different students and staff, CDC recommends that students stay with the same class of children and staff as much as possible, rather than rotating between subjects taught in other classrooms or with other student groups.

The costs of such modifications could be significant. The School Superintendents Association estimates that it could cost as much as an additional \$1.8 million dollars for an average-sized school district to follow CDC guidelines for the full 2020-2021 school year.²⁹

In Massachusetts—where state guidelines require no more than ten students to a classroom to allow for social distancing—some school districts are considering rotating students between in-person classes one week and participating remotely the next, to reduce the need for additional facility space, personnel, or transportation, while giving all students at least some in-person education.³⁰ Such a hybrid approach may be difficult for teachers, because they would need to serve both in-person and remote learning students simultaneously. It would also pose a continuing challenge for working parents. Schools would likely need additional funding relative to the prepandemic model; but additional school funding will be hard to come by without Federal help.

For the fiscal year just ended in June, state governments have already had a revenue shortfall due to COVID-19 of as much as \$120 billion relative to year-ago expectations,

and may have a shortfall nearly three times as large in the current fiscal year, according to estimates by the Center on Budget and Policy Priorities.³¹ The projected annual shortfall for the 2021 fiscal year would be the largest this century. Based on past relationships between unemployment and state revenues, the state revenue loss in calendar year 2020 due to COVID-19 has been estimated to be 20 percent in an average state, but as high as 40 percent in some states.³²

Having become increasingly reliant on state funding, many school districts will suffer from this shortfall in state revenues even if local sources of school funding—typically heavily dependent on property taxes—endure the initial economic hit from COVID-19.³³ After the Great Recession, inflation-adjusted per-pupil spending declined 9 percent between 2008 and 2013, likely worsening student outcomes.³⁴

While CDC COVID-19 guidance seemingly requires additional staff to enforce social distancing with smaller class sizes, already state and local government education employment, including public postsecondary institutions, was 9 percent lower in May 2020 compared to a year earlier, reaching its lowest level since 2001.³⁵

A few schools will begin modified operations during in-person summer sessions. Some states—including Illinois, New Jersey, and Texas—will permit in-person summer school under health and safety limitations, though many school districts in those states will continue to operate remotely.³⁶ International examples of school reopenings present adaptation ideas and preview challenges.³⁷ Schools should also respond to new learning about the virus and its spread. A return to in-person operations, even with precautions and modifications, may not be safe for all students and staff; some are at heightened risk. For example, nearly a fifth of all elementary and secondary teachers are at least 55 years old and an unknown number have, or live with someone who has, underlying conditions like asthma or diabetes that make them more susceptible to serious harm from COVID-19.³⁸

Schools must be thoughtful and creative in addressing the health and education needs of their communities cost-effectively. The national interest will not be served in the short or the long run if school decisions jeopardize either health or learning outcomes in pursuit of cost savings. While Congress already provided roughly \$13 billion to K-12 to address COVID-19 costs through state education stabilization grants enacted in March, additional funding for states and localities will be necessary to meet incremental costs imposed by the pandemic and avoid cuts in educational services.

Improving K-12 education, post-COVID-19

COVID-19's shocks to business-as-usual have highlighted areas of complacency throughout education and training – and the entire economy and society. *Reform* is needed for all Americans to share in growing prosperity, with genuine opportunities for upward mobility to uphold belief in American-style capitalism for generations to come. A return to the prepandemic status quo for K-12 education would represent a lost opportunity to improve the strength of the US workforce, the competitiveness of US businesses, and the economic mobility of many Americans. Instead, policymakers, educators, and business leaders must

drive changes that improve the quality of K-12 education to better match the needs of the 21st century.

Creating a workforce system that begins prior to high school graduation

As described in [The Future of Work: How America Can Meet the Upskilling Challenge](#), Americans need education that prepares them to upgrade and add new skills throughout their adult lives. An attempt to bifurcate education and work, or college preparation and vocational training—like many of the rules of curriculum and higher education funding in the 20th century—is increasingly unhelpful to students. CED believes that the foundation for successful careers begins long before students enter the workforce—and, with high-quality early learning, even before formal school entry—which motivates the recent more-nuanced approach of simultaneously preparing students for both college and career.

As discussed in [Building Supports for Successful Transitions Into the Workforce](#), the vast majority of secondary students clearly value opportunities for college learning and want well-paying jobs. However, to improve outcomes, schools must prepare students to enter the workforce as well. This requires high-quality career guidance informed by up-to-date labor market realities and relationships with potential employers, and providing opportunities to learn and practice in-demand skills as part of the standard curriculum. Some promising efforts, such as so-called “pathways” models, utilize career-focused counseling and goal setting, teach academic and employability skills, and offer exposure to college academics and hands-on work-based learning experiences.³⁹

Competition has been an important driver of innovation and excellence in the US in many fields, with education no exception. As outlined in [Charting a Path Forward for Charter Schools](#), the US needs “labs” to pilot and test new educational models, learning what works under what condition for which students. The COVID-19 pandemic has created unfortunate but extraordinary circumstances for experimentation and testing of alternative approaches of reaching students and advancing learning using technology-based tools. Post-COVID-19, removed from the life-and-death pressures of a public health emergency, policymaker needs to continue to find ways to incentivize, support, and embrace the pursuit of ambitious and promising reforms to education-as-usual in the places where traditional approaches are failing to deliver improving outcomes.

The role of business leaders in improving education

CED has long maintained that business plays a critical role in promoting educational attainment.⁴⁰ As partners with pre-Ks, elementary and secondary schools, training providers, and institutes of higher education, business leaders can shape the pipeline of future employees, providing valuable signals of labor market demand and opportunities for learning and experience based on the “real world” of work. Business leaders are also uniquely well positioned to advocate investment and innovation in education to deliver the skilled future workforce that they depend on to be globally competitive.⁴¹ Businesses must make the case to local policymakers and school officials for the value of those investments, and support partnerships between business and education to spur future economic and civic growth.

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SUSTAINING CAPITALISM

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Technology and Innovation Solutions Must Lead the Way to COVID-19 Recovery

The COVID-19 pandemic is disrupting the US and world economy with unprecedented speed and scope, drastically altering the daily experiences of millions of Americans.¹ As private and public leaders in the US race to suppress the outbreak and begin reopening the economy, educators, employers, and service providers are seeking new or different ways of doing business to preserve learning, productivity, and well-being.

Aided by US capitalism's long history of boundary-pushing advancements in science and technology, the US response—ranging from tracking the virus's spread to shifting commerce to virtual tools and platforms—will draw on rapid adoption, adaptation, or improvement of technologies as well as faster-paced innovation.² Under pressure of the public health crisis, many organizations will accelerate technologies in their daily practice, advancing the timeline for cutting-edge business and social services. America is in a strong position to innovate to address this and future pandemics. However, it must also address the spotlight COVID-19 has shone on critical shortcomings with US technology, its accessibility, the regulations governing its application and use, and the privacy and public health trade-offs for policy makers and private sector leaders.

As this report explains, policy makers and business leaders must address these critical shortcomings with new approaches including:

- Funding states and localities so all Americans have access to broadband during lockdowns to access services and distance learning; a “digital divide” that was problematic before the crisis is crucial during social and economic restrictions when even some basic services are provided only remotely;

- Changing regulations—some temporarily, others permanently—to support innovation and experimentation to address the immediate and potential future public health crises, including relaxing restrictions to speed vaccine development, expanding telemedicine, and improving monitoring and tracking of the outbreak;
- Removing unnecessary roadblocks to faster and more effective adoption of digital tools to improve remote work, medicine, and learning capabilities while protecting data privacy; and
- Replacing outdated public-sector IT systems to increase flexibility and reliability in providing relief and serving families and businesses.

After this crisis, technological innovation will remain critical to the nation's economic strength—ensuring that the US remains globally competitive and achieves prosperity. The US must use this moment as a turning point, not only to address the immediate crisis but to bolster its technology and innovation edge to compete globally and respond to unforeseen challenges and crises in the long term.

COVID-19 IS EXACERBATING THE DIGITAL DIVIDE

Even prior to the COVID-19 crisis, the US faced a significant digital divide, because affordable access to relatively high-speed internet connections is a prerequisite for economic and educational opportunities as well as quality of life improvements like telemedicine.³ Studies have shown that access to, speed of, and competition in broadband are associated with regional economic growth and lower levels of unemployment.⁴

The degree of access to broadband is a meaningful measure of economic disparity. Research by the Federal Reserve Bank of Kansas City found that little more than half of adults with incomes less than \$30,000 have broadband at home, compared with 95 percent of those with incomes above \$75,000.⁵ Federal Communications Commission data suggest that roughly 25 million Americans live in census blocks with no broadband customers and where internet service providers either do not provide access or *could not* “without an extraordinary commitment of resources.” Moreover, when measured in practice, research by Microsoft suggests that 163 million people do not use internet at speeds that would qualify as broadband.⁶

As a result, economic and social restrictions aimed at addressing the COVID-19 epidemic will disproportionately disadvantage Americans without reliable broadband access, especially those who may not be able to do their jobs remotely. Although precrisis estimates vary, most find that a minority of Americans could plausibly perform their jobs remotely full time. Workers in the top half of the income distribution were roughly three times more likely to report in surveys that they have an option to work from home.⁷ High-speed internet access is not the only determinant, but because employers increasingly want their workforces to be productive remotely, workers without broadband may risk furlough or job loss. And workers currently in jobs that do not allow remote work will likely want such opportunities but will face roadblocks in identifying and securing such work without high-speed internet in their homes.

Similarly, without broadband, students and workers on shutdown cannot access education and training delivered virtually, whether provided by local schools or more generally. By the end of March, more than 90 percent of students worldwide had school closures due to COVID-19.⁸ And, as of the middle of April in the US, all 50 states had formal school closure. While the US has led online education (about 16 percent of higher education degree students in 2017 enrolled exclusively in online or distance learning), nearly every US student has been affected by the outbreak.⁹

Online learning will challenge students who have less reliable internet connections and devices. Surveys suggest that roughly one-third of families with school-age children at home and annual incomes below \$30,000 lack broadband.¹⁰ Even households with internet access may not have enough devices for all their students and workers. The push to remote learning already leaves some students behind. For example, the Los Angeles Unified School District—serving more than 600,000 students—reports that one-third of its high school students do not regularly participate in its online offerings, and 13 percent had no connection with teachers online during the first three weeks of distance learning.¹¹

A lack of high-speed internet has costs beyond employment and education. For example, telemedicine potentially can provide health services to rural Americans far from doctors' offices. However, a 2019 study found that less than 40 percent of Americans who live at least a 70-minute drive from the nearest primary care physician have internet speeds and equipment to support telemedicine.¹² With the COVID-19 outbreak, access to many other critical services has moved almost entirely online. But, as with telemedicine, those on the wrong side of the digital divide can lose all access.

For example, the New York City Mayor's Office estimated that 1.5 million residents had neither a home broadband connection nor a mobile internet connection at the beginning of 2020.¹³ Those New Yorkers are not likely helped during the pandemic by telemedicine options.

In financial services, roughly 60 percent of internet users use online banking, which provides an alternative when bank branches are temporarily closing or offering reduced hours and a way to avoid travel to ATMs.¹⁴ Low-income families without internet access are about 11 percentage points more likely to be unbanked—lacking a checking or savings account—than otherwise similar low-income families, which will pose additional challenges during economic and social restrictions.¹⁵

Additionally, much of the relief the federal government has enacted to support families and small businesses economically harmed by the crisis overwhelmingly relies on digital means—including applications that can be accessed or completed online—to help deliver it quickly. And, with 70 percent of Americans reporting that they have looked online for information about COVID-19, communicating public health and social service information to Americans without access to broadband poses an additional challenge.¹⁶

Recognizing the importance of addressing the digital divide to avoid disparate economic, educational, and health crisis outcomes, many individual cities, school districts, and businesses have tried to increase access to high-speed internet and digital devices, particularly for disadvantaged students, despite the restrictions related to the pandemic.¹⁷ For example, some school districts in South Carolina are deploying Wi-Fi-enabled buses to create mobile hot spots, allowing students without home internet access to get online.¹⁸ However, overall, current aid is too patchwork, and students in the districts with the most resources could benefit while students in poorer or more rural districts are left behind.¹⁹ Additionally, much less is being done to close the digital divide for adults, and many public libraries and other “anchor institutions” that help Americans without home access are closed. These adults could go without internet connections while out of work, working reduced hours, or earning reduced income, when connectivity could help them access training, services, or economic opportunities.

POLICY MAKERS AND BUSINESS LEADERS SHOULD SUPPORT UNIVERSAL ACCESS TO BROADBAND DURING RESTRICTED ECONOMIC AND SOCIAL ACTIVITY AND TAKE LESSONS LEARNED INTO ACCOUNT FOR THE FUTURE

Though the US must resolve disparate access to high-speed internet in the future, policy makers and business leaders should seek immediate improvements while the nation faces restricted social and economic activity that could stretch through, or recur in some fashion during, the next school year. More far-reaching improvements in access that will take longer to deploy should be included in future-oriented infrastructure legislation.

For students, proposals to expand computer lending programs, retrofit the school bus fleet with Wi-Fi connectivity, or create lending libraries for individual Wi-Fi hot spots that could go to students without home connections all have merit.²⁰ But policy makers should balance federal funding and oversight with state and local flexibility to pursue solutions that expeditiously suit each community and to continue to work with private companies that are stepping in to help address shortages of laptops and tablets and access to Wi-Fi, among other needs.

As districts prepare for any COVID-19 disruptions in the fall, they should learn from and adopt the most successful current distance learning approaches relevant to their needs. Federal funding should allow states and localities to invest in hardware and connectivity solutions that best match those strategies. At the same time, the federal government should connect states and school districts pursuing similar strategies to negotiate together for the lowest prices and quickest equipment in volume by the fall.²¹

But efforts should not be limited to students. The historic numbers of Americans who could remain out of work while economic and social restrictions remain in place will need to connect to search for jobs and training.

REGULATORS SHOULD FOSTER INNOVATION IN THE COVID-19 RESPONSE

As outlined by the Committee for Economic Development of The Conference Board in *Smart Regulation in a Post-COVID-19 Economy*, all levels of government are rapidly reevaluating longstanding regulations to respond to the COVID-19 outbreak.²² Risks to safety and privacy must be reweighed against uncertain potential benefit from innovative interventions against the virus.²³

Standards related to test production and processing, the credentialing of out-of-state health care workers, telemedicine, and the production and use of ventilators have already been relaxed or changed at the federal and state levels.²⁴ The US Department of Health and Human Services has accelerated its normal processes in the development of vaccines and serological treatments for COVID-19.²⁵ The Centers for Medicare and Medicaid Services has temporarily relaxed standards for what counts as a hospital bed and what kinds of services can be delivered at home to stretch existing capacity and quarantine infected patients.²⁶ At the request of governors, some medical schools are permitting early graduation to increase the supply of physicians.²⁷

Educators have similarly reassessed and adjusted regulations to leverage technology-assisted options during open-ended school closures. For instance, federal authorities have changed professional development requirements to help schools prepare and train staff and redeploy federal funds to support distance learning.²⁸ In higher education, admission standards, graduation requirements, and exam proctoring have been altered to accommodate restricted movement and closed campuses.²⁹

Some regulations could potentially support or hinder creative, technology-enabled approaches to the epidemic. For example, 3-D printing could potentially address a supply shortage of critical but simple health care equipment parts.³⁰ Regulators must still ensure necessary levels of quality and sterility but may need to alter standards to match available options and risks.

Drones and autonomous vehicles could potentially reduce public health risks while increasing deliveries. Already, in Florida, a Mayo Clinic processing center has used autonomous shuttles to deliver COVID-19 tests while limiting human exposure.³¹ However, tapping those technologies on a wide scale would require federal and state regulators to waive or adjust regulations to approve experimentation.³²

US government consideration of tracking smartphone owners to contain the spread of COVID-19 illustrates the tension between the health response and risks to privacy.³³ Similarly, the rapid adoption of video-conferencing software for use in health care and distance working and learning has suggested privacy and data security vulnerabilities especially for patients or young students that may outweigh the benefits.³⁴ Greater transparency on precise data used could increase public buy-in for such difficult trade-offs. Disclosures could also draw a road map for restoring privacy protections when the crisis is over.

State and federal regulators should also consider temporary approvals based on approvals of other trusted regulators through “reciprocal approval” or “mutual recognition.” For example, eighteen states have recognized out-of-state medical licenses during declared emergencies.³⁵ Many states also formed compacts that confer reciprocal recognition for some health care disciplines to practice in all participating states. Federal regulators should also consider conditional, temporary approvals for products or drugs that have received rigorous approvals overseas and could address the pandemic. Such presumptive approvals could save scarce time and research resources otherwise spent in duplicative trials.

The crisis shows that the US needs more innovation at every level of health care. Narrowly, in the short term, the federal government should leverage the power of markets and competition to act as a broker for critical information and breakthroughs to drive innovation as a public good. For instance, the US could incentivize innovation through COVID-19-related prize competitions and make successful breakthroughs rapidly and widely available.³⁶ Also, the US could purchase patents for promising drugs or treatments to share critical research and learning with all scientists and researchers on COVID-19.

The need to review and modernize regulations in light of the pandemic is not just about stripping out rules and incentives that may impede innovation. The US must also improve regulations that could help incentivize some critical manufacturing to remain on-shore, reduce obvious vulnerabilities in global supply chains, and create a well-managed national stockpile and domestic just-in-time surge capacity for necessary supplies including pharmaceuticals like the vaccine for this virus.

PUBLIC-SECTOR STRUGGLES WITH TECHNOLOGY UNDERCUT THE COVID-19 RESPONSE

Years of inefficient or neglected public investment in technology have eroded the flexibility and capacity of public health and benefit systems to respond to a crisis. Notably, resources to generate and disseminate data are deficient.

The Government Accountability Office has long highlighted security risks and unnecessary costs in aged, legacy federal IT systems.³⁷ State systems are likely even worse. A 2018 study by the Center for Digital Government found that roughly a third of 250 business-critical state IT systems reviewed were at least seventeen years old and “currently unable to meet user demands.”³⁸

Now, with timely service delivery critical, many federal and state systems have fallen short.³⁹ In one particularly glaring instance, Florida’s executive director of its Department of Economic Opportunity apologized for the “fiasco” of its Unemployment Insurance (UI) enrollment website, which a local newspaper described as “essentially broken” and “dogged by longstanding glitches” that led the state to revert to mail-in applications.⁴⁰ But Florida was only one of many states where call centers and benefit systems were reportedly overwhelmed by high demand.⁴¹

Outdated state systems constrained the design of federally expanded UI benefits, resulting in wage replacement levels less well-targeted to workers' previous earnings.⁴² Computer system crashes at the Small Business Administration slowed lending and economic relief programs targeted to small businesses.⁴³ Internal Revenue Service call centers have reportedly been unresponsive or unavailable, and relief payments targeted to nearly all Americans could take months to reach those without up-to-date direct deposit information on file with the IRS.⁴⁴

With delays in securing benefits and relief, or concerns that relief will not be available, businesses and individuals are reluctant to shelter in place and prioritize public health. Trust in government erodes precisely when government must communicate convincingly on behavior needed to safeguard public health. Inability to adjust benefit systems to handle new claimants and changes in law constrains the effectiveness of program design and the speed of delivery of aid.

At a time when policy makers should be focused on innovative ways to address the crisis, they are constrained by flaws in public systems and will struggle merely to upgrade systems to handle status quo approaches under the pressure of a pandemic.

Congress has tried to modernize federal systems, and efforts have included funding for administration of state UI systems in legislation in March, but more must be done. The federal government should help states to replace aging legacy benefit systems, and support procurement best practices and securing private-sector management expertise. While states should have flexibility to contract for replacement systems that suit their needs, they should know what has worked well in other states. With sharp state revenue shortfalls, the "moral hazard" of federal investment in state systems will likely never be lower, and more responsive, reliable, and flexible systems could pay both quick and lasting dividends in the current crisis and beyond.⁴⁵

Better and faster data gathering would also be invaluable in decision making and service delivery.⁴⁶ Congress should explore technology investments to increase the timeliness and accuracy of reporting to state vital statistics agencies. Policy makers should better leverage the federal government's data collection resources to aid researchers, health workers, policy makers, and entrepreneurs trying to suppress the epidemic and improve data sharing among federal agencies.⁴⁷ The US needs infrastructure for quickly tracking and sharing testing results within and among states while maintaining privacy protections.⁴⁸ For example, FDA publication of its vaccine trial data in real time could inform the work of other health researchers.⁴⁹

Finally, some researchers have suggested the federal government launch a new, pandemic-specific daily survey using a blend of public- and private-sector methods.⁵⁰ While expensive, the price could be well justified by better and more timely data, which could be shared widely. Statistically, even a 1 percent better response would significantly improve decisions for public health and economic recovery. The Census Bureau announced plans to launch a new, much-needed 90-day "Household Pulse Survey" that would collect information on COVID-19 impacts related to employment status, food security, housing security, education disruptions, and physical and mental well-being beginning in late April.⁵¹

POWERING AMERICA'S INNOVATION AND TECHNOLOGY EDGE

The US has benefited enormously from its long-running leadership in technology and innovation—the product of strong public, private, and academic partnerships, world class education, entrepreneurial opportunity, unmatched support for foundational science and defense-motivated research and development, and openness to immigration.⁵² The US edge continues, but is feared to be eroding.⁵³ The technology-related challenges in the US response to the COVID-19 pandemic suggest new concerns about the state of US technology policy making.

The continuing immense digital divide suggests that the US has not recognized the fundamental importance of access to high-speed internet for modern education, commerce, and living. The consequences in the COVID-19 crisis are painful for the economy and for the disadvantaged.

A 2007 National Academies of Sciences report concluded that an “open, dynamic market is the source of US competitive strength in a range of industries.”⁵⁴ However, the COVID-19 crisis has surfaced numerous examples of regulations that hinder new technologies, even in normal times. Thus, the US needs smart regulation and must consistently update regulations for changes in facts and circumstances. However, although the crisis has motivated reevaluation of existing regulations in extraordinary circumstances, fresh thinking will be needed to strike the right balance among innovation, personal freedom, privacy, health and safety, cybersecurity, and property rights in the years ahead.

Finally, failure to maintain technological modernization for critical systems has hampered the crisis response, with potentially significant consequences for Americans’ health and economic well-being. This is an unfortunate indication of a failure of the public sector to invest in technology more generally.⁵⁵

But the COVID-19 epidemic should be a spur that drives the adoption and adaptation of innovation across sectors and accelerates new technologies and practices worldwide. The response to the epidemic and the planning it motivates will increase the use and further development of technologies in areas like work environment, internet connectivity, virtual communities, global supply chains, surveillance technology, and payment systems. Opportunities for innovation in each of these areas, and many more besides, will necessarily follow from private-sector leadership but must be encouraged by public policy and public-private partnership.

This pandemic is one of the sharpest social and economic disruptions in the nation’s history and may beget further disruption. But, as innovation in technology accelerates, the US must be the country that generates and captures the economic opportunities from that disruption—preserving global leadership and allowing all Americans to achieve and share in the prosperity generated by that success—if the nation is to sustain capitalism for another generation.

The COVID-19 outbreak should drive the US to pursue the evidence-based policies that will position American businesses and workers to thrive during sustained technological innovation and unforeseen challenges. CED research will clearly define success in this environment, with reasoned solutions in the nation’s interest to meet the specific, critical policy challenges for the US to remain the world’s economic leader.

Endnotes

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SUSTAINING CAPITALISM

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Smart Regulation in a Post-COVID-19 Economy

The COVID-19 pandemic has put regulation issues front and center in every American's life. Within a few short weeks, 41 out of 50 states have issued stay-at-home orders,¹ and regulations governing many other aspects of all Americans' public lives are now imposed because of COVID-19. Among a long list of constraints, nonessential businesses, many of them small businesses, have been required to cease or sharply curtail their services. Schools have been closed, access to parks and outdoor spaces has been restricted, and other staples of all Americans' public lives, including large gatherings, have been restricted.

On the other hand, and more than ever before, Americans have seen other regulations lifted rapidly, particularly in the heavily regulated health care sector. Constraints on testing, laboratories, out-of-state health care workers, vaccine R&D, telemedicine, ventilator production, and infrastructure expansion have been relaxed. Even more extensive relief has addressed the unprecedented havoc that COVID-19 has unleashed on American society, public health, and the economy. Restrictions on work at home, online courses at colleges and universities, the transport of food and alcohol, and hours truck drivers can be on the road are all being lifted or relaxed to meet the demands of the crisis. Restrictions on the production of hand sanitizer and the amount that the Transportation Security Administration (TSA) allows passengers to carry on airplanes have also been relaxed.

In 2020, the American public's awareness of the direct linkage between regulation and both public safety and the economy has never been put into such stark relief. The practical problems that we face are new in our lifetimes. But the pandemic also highlights enduring challenges that regulations bring, and addressing those problems will require applications of principles and long-standing techniques² to the enduring problems of measuring and weighing costs and benefits under conditions of enormous uncertainty. As America grapples with the challenge of combatting the health crisis, easing strain

on the health industry, and reopening the economy, many of these problems will rest most heavily on small businesses which employ almost 50 percent of the workforce, and it is here that policy consideration may be most difficult and most important. Prior to 2020, small businesses had their own unique problems, but now they face new and unprecedented burdens without the economies of scale to devote specialists to deal with rapidly changing regulations. The COVID-19 economy and its aftermath will have a severe impact on small businesses.

The following *Solutions Brief* provides background on regulation and examines its impact on two of the sectors most heavily impacted by COVID-19: health care and small business. It delineates key considerations for our nation's leaders in the private and public sectors as they combat the COVID-19 crisis and establish smart regulations for a post-COVID-19 economy. These tasks will require a comprehensive reassessment and overhaul of regulations to determine how to address urgent, complex issues, including how to shorten technology cycles, accelerate R&D for cures, provide infrastructure to address changing needs, aid business and individuals in a rapidly changing environment, and provide job flexibility.

ORIGINS OF ECONOMIC REGULATION

US regulation originated in the nineteenth century. In those early days, railroad freight haulers were widely seen as a destructive monopoly. Railroads violated the fundamental assumption of economics: "perfect competition," in which the presence of many buyers and many sellers ensures that no one buyer or seller can control the market, and collusion to control the market is impossible.³ This competition drives prices down to the lowest feasible level and maximizes output. In contrast, with monopoly or oligopoly, one seller or a few sellers control a market, raise prices (even at the cost of reducing sales somewhat), and increase profits at the expense of consumers.⁴ In fact, the railroads were a particular kind of monopoly—a "natural" monopoly—because it would not be feasible for another firm to build a second, parallel set of tracks to compete against the "first mover." In the 19th century, the monopoly position of the railroads seemed unassailable. They used their "deep pockets" and "crony capitalism" to influence legislation and regulation to protect their monopoly power, harming small-business customers in the process.⁵

There is a key lesson for today. Technology can intensify competition and reduce the power of any individual firm to monopolize a wide range of markets. Apart from perhaps a few local markets, no one today would think of railroad freight haulers as a powerful monopoly. Instead, they struggle to satisfy customers under intense competition from other modes of transportation. Their monopoly fell in the face of rapid technological and economic change with the rise of vigorous competitors in truck and air transportation. Similarly, online retailers have revolutionized the retail industry and driven prices down, challenging the positions of brick-and-mortar firms that were once powerful in local markets.

Technology is not the only variable in the economy and the society; other conditions or events may affect business conditions and hence regulation. The COVID-19 pandemic changes the economy, especially for smaller businesses. These changes are a crucial part of the outlook for regulation, and by their very nature, they entail enormous uncertainty.

REGULATION CHANGES: SOCIAL REGULATION

Traditional economic regulation dates back to the nineteenth century. But a new strain of “social” regulation has progressed rapidly from its emergence in the 1970s to a major place in US regulation today. “Social” regulation is not always clearly distinguishable from “economic” regulation. It is often labeled “health, safety, and environmental” regulation—and it is an essential part of life today.

Unlike economic regulation, social regulation’s benefits are not easily measured directly in dollars. For example, economic regulation of, say, electric power generation, is imposed to tame a natural monopoly (it wouldn’t make economic sense to build a second power grid and duplicate plants), increase the production of electric power, and lower its price. The lower price and greater output have clear monetary benefits. But the aim of simultaneous social regulation of electric power is to reduce emissions of pollutants (like sulfur dioxide) and carbon. This social regulation’s aim is to improve health and safety for years and even decades into the future.

A key problem in social regulation is the uncertainty and nonmonetary nature of the benefits. Consider the example of the requirement of seatbelts in automobiles. Some lives are saved. How much are those lives worth, in dollars? (Working people? Children? The elderly?) Some injuries and associated pain and suffering may be avoided or lessened. What is that worth? Then the truly complex or speculative: Are any accidents caused by restraint on drivers’ movements, or by a sense of invulnerability because drivers are wearing seatbelts?⁶ Are the costs of seatbelt regulations worthwhile, considering that there are other potential life-saving uses of those same dollars (as well as uses with purely economic value)? Solid answers to these cost-benefit questions are elusive. Complete data gathering and careful analysis are essential, both of which cost money.

The novel coronavirus outbreak raises troubling tradeoffs between safety and economic activity, with enormous uncertainty about the choices. Keeping the economy shut down saves lives; reopening it saves livelihoods; when is the right time to reopen the economy, and how should it be done? Small businesses will be among the most intensely affected. But the most important regulatory decisions in all dimensions must begin with the public health threat.

COVID-19: THE TRADEOFF BETWEEN SOCIAL BENEFITS AND ECONOMIC COSTS

Today’s COVID-19 pandemic is at the epicenter of an intense, multidimensional, society-wide challenge. And yet, what we do not know about this public health problem is crippling. The virus is “novel” because it has never appeared before, and so there are no known cures or a preventive vaccine. In time, there is no question we will develop them. But for now, COVID-19 presents a public health challenge of the highest order.

Given all of these characteristics, this outbreak has been described as a “black swan,”⁷ or a “once-in-a-century pathogen.”⁸ Whether the world will see another virus pandemic soon is subject to enormous uncertainty, but it is highly material to the choices we must make going forward.

In short, the classic lessons of regulatory policy remain crucial: The comparison of costs and benefits, and managing uncertainty, are key for making sound decisions in this trying time.

COVID-19 and Health Care Regulations

The COVID-19 pandemic has pushed the delivery of health care up against a long list of regulations that have previously been accepted without question as essential to public safety and integrity. Here are a few examples:⁹

Lifting regulations for hospitals Hospitals are at the epicenter of this trying environment. Because any missteps in hospital procedure or administration could have tragic impacts on public health, hospitals are subject to extensive regulation. Under the current circumstances, many of those regulations have been reconsidered with feedback from hospitals themselves, in real time. Under the pressure of the COVID-19 outbreak, the massive patient load has required the “construction” of temporary hospitals—some in temporary structures, others in temporarily repurposed permanent buildings that could not have been used as hospitals under normal conditions (to prevent “fly-by-night” or uncaring institutions). Some small facilities with limited physical capacities (such as ambulatory facilities) were previously not permitted to deliver advanced levels of care. Such restrictions have been relaxed. One application of this regulatory relief has been to loosen the standards that limit the conditions for Medicare reimbursement. In such instances, private insurers are likely to follow suit.

It has become essential to separate potentially contagious patients with COVID-19 symptoms from others. Thus, some hospitals have become all-COVID-19 or non-COVID-19, as patients have been sent to newly specialized institutions. (Other hospitals have used the increased freedom to establish new temporary facilities to separate patients among their buildings.) This separation has raised another regulatory issue: hospitals had been required in normal times to see and stabilize indigent patients *before* releasing them or sending them to public institutions. That requirement today runs afoul of the need for separation. So regulations have been loosened, so that a patient with, say, an injury who arrives at a COVID-19 institution can be transported without treatment to an institution without coronavirus patients to avoid spreading the disease.

Care providers gain more flexibility Volunteer personnel, notably retired health care professionals, have been pressed into immediate service, without recertifications that were required previously, thanks to regulatory relief. Professionals who previously have been allowed to practice certain skills only under in-person supervision have been allowed to work with remote supervision or no supervision (including the practice of home health care). Medicare had previously restricted the extent to which it will reimburse for services provided by non-Medicare-participating physicians. Under the pressure for emergency care, Medicare has loosened those restrictions.

The outbreak has clearly raised the need for interactions between the many sick people and medical personnel. At the same time, the outbreak has increased the risk for those medical personnel, and indirectly for society at large, because every interaction raises

the odds that the next interaction will spread the disease. In response, regulations have eased on indirect delivery of medical care. Medicare will pay for more telemedicine services. For the elderly without computer and internet connections, telemedicine can be practiced by phone. Medicare is now more lenient as to the degree of prior contact between a patient and a telemedicine physician; in urgent situations, an unfamiliar doctor can practice telemedicine with a Medicare patient. To keep a patient at home rather than out and possibly exposing others, medical personnel can perform in-home tests, which previously were not permitted. Such internet-based services have been restricted in part out of fear of data privacy violations. But under the pressure of the outbreak, data sharing is much less restricted in the interest of learning more about the virus and its spread.

Other regulatory easing Regulations have been eased in many other respects. Requirements for written provider policy statements, audits, filings for quality ratings, and prior written Medicare approval have been eased. What were perceived to be ethical restrictions—limits on the sizes of doctor-owned hospitals and on the provision of personal benefits to hospital personnel—have been eliminated. A policy has been announced to ease the intensity of the enforcement of regulations.

WILL TEMPORARY EASING BECOME PERMANENT?

All of this comes back to the fundamental tenets of regulation: the comparison of cost and benefit and the management of uncertainty. Some of the easing of regulations seems clearly intended for the current emergency only and will almost certainly be rescinded when the pandemic ends. But other steps may be seen by some experts as tests of deregulation that should continue even beyond this emergency.

One example of such potentially permanent deregulation might come in the field of pharmaceuticals. Although the virus has no known treatments—precisely because the virus is novel—there are medications that are known to be safe for treatment of well-understood ailments that have some commonalities with the virus. Under normal circumstances, the use of an existing drug to treat a new disease would require an extended period of clinical trials, which might cause a delay of a year or more. Such trials are mandated under existing regulations to ensure that the drug is safe in that application, and less ominously, that it actually is beneficial. The same is true of the earliest attempts at vaccines. Some say that prescribing such drugs without completed trials could save lives; others fear that using them could even cost lives or postpone better treatments. In the current pandemic, regulations are being altered and stretched to allow the use of potentially helpful drugs without the previously accepted regulatory protections. What degree of regulatory easing is appropriate, given the enormous uncertainty?

Similar easing has been seen with testing regulations—who can develop the tests and what labs can perform the tests. Testing will be at the center of the effort to reopen the economy, and questions about whether to reimpose stricter regulations or allow easing permanently are important.

A second relevant field is telehealth. Utilization has been restrained because of fears about data security, as well as the possibility of error because of the lesser information available to remote practitioners. Could the experience in this emergency be reviewed in calmer times to make more precise judgments as to the costs and benefits of greater use of telemedicine under normal circumstances after the outbreak?

And more broadly: the world has gone decades without a pandemic, certainly without one of this virulence. Regulatory easing during the emergency is clearly warranted. But once this outbreak is over, what can our expectations be for future episodes: is this a harbinger of repeated infections or a once- or twice-per-century event? In the past, vaccines have been generated within two years or so. This coronavirus appears to have been stable (that is, it has not mutated), and so a vaccine will likely be available. But there is uncertainty. Will this virus circulate around the world, and then come back even after the infection has apparently ended here? Will a vaccine be available by that time? With current experience, will we be able to restrain the spread of a reinfection? And what are the implications for the longer-term desirability of all of the regulatory changes undertaken thus far?

COVID-19 AND SMALL BUSINESS

The coronavirus is transmitted through interpersonal contact (though the precise means is unclear), meaning that service businesses are a primary issue. And many (but not all) service businesses are small businesses. The economic fallout is difficult to manage precisely because it encompasses so many small units—in contrast to the financial crisis, which impacted only financial institutions, and at least did not prevent people from convening to conduct business.

Uncertainty is key for the regulation of small business as the pandemic ends. To what degree must “social distancing” be maintained, given that we can only estimate the likelihood that this virus will return or another virus of equal virulence will appear?

Consider the quintessential small-business restaurant. The measure of success is usually the degree to which the house is full. The capacity of the house is determined by local or state regulation, often in reference to fire safety.¹⁰ A common recent local regulatory restriction, before total lockdown, has been reducing the permitted capacity of restaurants by 50 percent.¹¹ If such a restriction were to be deemed permanently necessary, it would change the economics of the industry forever. For all manner of retail establishments, stiffer requirements for disinfection will have economic implications.

Social distancing does not apply solely to restaurants; it is also relevant for public entertainment, for example. What will happen to theaters and concert halls? Will social distancing within such facilities need to be permanent, or can we have confidence that at some nonremote date, with a vaccine, COVID-19 will no longer pose a threat (like polio or smallpox), and there is no reason to expect another similarly dangerous virus to appear? This same issue applies outside of services. Even manufacturing can require close proximity of people, to an extent not safe in this pandemic. How should manufacturing activity be organized in the winding down of this pandemic, given the potential for reinfection or the rise of a new pathogen?¹²

Several key issues of small-business regulation will be important going forward:

- Small businesses lack the economies of scale and specialized regulatory talent that larger firms can muster. Regulators must be conscious of that vulnerability throughout their work.
- Small businesses continue to report that regulations are written in language for fellow regulators, not nonspecialist business persons. Plain-language regulation must be more widely and effectively practiced.
- Regulators should be conscious of “regulatory overload” on small businesses and consider the incremental increase in the mass of regulations as a cost in cost-benefit analysis. Such consideration could not only minimize compliance cost but also improve compliance itself.¹³
- Currently, “economically significant” regulations—those that have impacts of \$100 million or more, or raise important policy issues—must undergo a cost-benefit analysis. This condition should extend to regulations potentially burdensome to small businesses, where even smaller dollar costs may be critical.
- Where possible, “safe harbors” should be created, such that compliance can be assured and penalties waived if small businesses take clearly defined steps and provide appropriate certifications.¹⁴
- Regulations do not remain necessary or pertinent forever in times of rapid change. Systematic, retrospective review should prioritize and give early attention to regulations that are particularly burdensome to small business.

And airlines, though not small businesses, require a thought. The “Black Death” (or Bubonic Plague, 1347–1351) spread around the known world without mass transcontinental transportation. The “Spanish Flu” (1918–1919) was driven by the rush of post-World War I travel. But jet air transportation today can spread an infection far faster. What regulation will be needed to reduce such disease transmission with respect to sanitation and information sharing? And what about requiring social distancing by reducing the number of passengers or “load factors” on an aircraft at enormous economic cost versus other technologies such as breathing or filtering equipment that might reduce the potential transmission of disease among passengers? And how far would such restrictions need to go, given the uncertainty of another infection, after the end of a “once-a-century pathogen?”

REGULATION AND COVID-19: FACING NEW CHALLENGES ARMED WITH ENDURING PRINCIPLES

The COVID-19 crisis has clearly demonstrated today's enormous and almost totally new regulatory challenges. It has made clear that a comprehensive regulatory overhaul must be undertaken to prepare for an uncertain future. The race for cures, the need for rapid infrastructure expansion, and the need for flexible work environments are just a few of the lessons that have been learned in just the few weeks of the COVID-19 shock in the US.

However, the tools with which they must be addressed are not new, and are fundamental.

The fundamental tool of regulatory evaluation is cost-benefit analysis. Regulation is worthwhile for society as a whole if benefits exceed costs, but even regulation that passes a cost-benefit test can leave some businesses and individuals worse off. And measuring benefits and costs is exceedingly complicated. The coronavirus outbreak offers a stark example, as costs and benefits may change over a matter of days; health care providers and product suppliers need quick action, negating cautions once deemed essential.

The regulatory challenge today, as always, is to maximize society's well-being by capturing opportunities and avoiding contingencies. This must be done while minimizing compliance costs and recognizing the impact of regulation on households and businesses, both large and small. Regulators must weigh costs and benefits—especially when a rapidly evolving environment continuously changes the equation. And they must anticipate a future that was never knowable, but today is far more uncertain than before with the unprecedented complexity of reopening an economy that is dependent on public health.

But perhaps most importantly, the unprecedented challenges that COVID-19 has unleashed demand smart regulation that is reviewed and revised continuously. And that requires bipartisan support and collaboration between the public and private sectors.

Adapting tested, decades-old regulatory tools to these new challenges will be a crucial task in the months and years to come and must be a part of the nation's calculus as it moves forward in this decision year.

Endnotes

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14. Penalties for regulatory violations can be severe. For example, OSHA imposes a penalty of \$13,494 per “serious” violation, with the same amount per day for “failure to abate,” and 10 times that amount for “willful or repeated” violations. Differences of perspective can conceivably lead to existential issues for small businesses.

SUSTAINING CAPITALISM

A series focused on nonpartisan reasoned solutions in the nation's interest to the central challenges we face in order to provide prosperity for all Americans.

Today's Infrastructure Improvements Will Drive Tomorrow's Economy

Few issues enjoy such broad bipartisan consensus as the failings of American infrastructure. Roughly two-thirds of Americans rate their own local roads as only in fair or poor condition, and a similar proportion say that the country is not doing enough to meet infrastructure needs, making infrastructure a top-tier issue in 2020.¹ With Treasury Secretary Steven Mnuchin signaling that infrastructure spending is a priority for the administration if economic stimulus is required to address slowdowns in the economy due to COVID-19, the US approach to infrastructure projects is poised to become an even more pressing issue.²

Modern, effective infrastructure is an essential requirement for national commerce—and for growing and widely shared prosperity—even as changes in technology drive changes in infrastructure requirements. While definitions vary, a 2019 Trump administration executive order defined infrastructure projects as those relating to surface transportation; aviation; ports; water resources projects; energy production, generation, storage, transmission, and distribution; broadband internet; pipelines; stormwater and sewer infrastructure; drinking water infrastructure; and cybersecurity.³ Efficient investment in cutting-edge infrastructure connects businesses and workers to more opportunities, increases productivity, and undergirds American competitiveness. Thus, US infrastructure is vital to sustain capitalism and maintain US economic leadership. However, the US routinely lags other advanced nations in infrastructure quality and, when considering the size of its economy, infrastructure investment.⁴

As in 2016, both major party 2020 presidential election candidates are campaigning on improving US infrastructure, and both the Republican administration and Democratic congressional leaders have proposed significant increases in investment.⁵ In his Fiscal Year 2021 budget proposal, the president proposed a new, roughly \$200 billion infrastructure initiative to increase near-term investments in key priorities, as well as

Recommendations

The US needs world-leading infrastructure to facilitate the global competitiveness of US businesses and create opportunities for prosperity for more Americans. This will require appropriate and sustainable finance and flexible adaptation to changing needs and priorities. The US should:

- Improve infrastructure planning and decision making through adherence to credible cost-benefit analysis and increased stakeholder coordination and collaboration to prioritize the broader public interest.
- Encourage innovation, including goal and outcome-oriented approaches to state and local funding that break down silos and increase flexibility for responding to the needs of emerging or developing technologies.
- Modernize and streamline regulatory burdens to reduce duplication and maximize the public benefit.
- Improve private-sector involvement through greater use of public-private partnerships.
- Explore alternative approaches for utilizing private investment resources to advance public infrastructure goals.
- Move toward user fees to more sustainably support a greater share of the US' infrastructure portfolio.
- Incorporate climate risk into evaluations of potential infrastructure investments.

a 10-year, \$810 billion reauthorization of existing surface transportation programs equivalent to a roughly 4 percent annual increase in nominal funding levels.⁶ Democratic leadership in the House has proposed a framework for spending \$760 billion on infrastructure over the next five years.⁷ But the relevance of infrastructure investment, and competing infrastructure proposals, across multiple election cycles reflects a continued failure to reach bipartisan agreement.⁸

Continued delays in investment have increased the urgency of the commonsense solutions needed to upgrade and modernize US infrastructure. But policy makers and business leaders should not be content with short-term patches or quick fixes. Instead, leaders in the private and public sector should be unified in advancing policies that are focused on delivering world-leading infrastructure on a sustainable basis, continually meeting the US' evolving needs, and supporting widely shared economic growth. The possible inclusion of infrastructure spending in an economic stimulus package further highlights the importance of achieving reforms that will make it an even more powerful source of long-run return on investment. To advance an agenda for more effective infrastructure investment, this report highlights reasoned approaches—stretching across categories of infrastructure—that policy makers should adopt to increase the impact of US infrastructure spending, including: 1) improving infrastructure planning and decision making through cost-benefit analysis and increased coordination, 2) encouraging and facilitating more innovation, 3) modernizing and streamlining regulatory burdens, 4) improving private-sector involvement through a greater use of public-private partnerships (PPPs), 5) exploring alternative approaches for utilizing private investment resources, 6) moving toward user fees as a source of more sustainable funding, and 7) incorporating climate risk into evaluations of potential infrastructure investments.

US INFRASTRUCTURE IS A CRITICAL COMPONENT OF EXTENDING ECONOMIC OPPORTUNITIES TO ALL AMERICANS

Infrastructure is called the “backbone” of the economy, connecting people and businesses to jobs, goods, services, information, and customers in and outside of the US.⁹ Access to high-quality infrastructure expands economic opportunities to more communities, improves quality of life, and boosts international competitiveness.¹⁰ Ports, waterways, railroads, airports, roads, reliable electricity, and internet connectivity are critical for the arrival of necessary inputs and the delivery of finished products, and thus for creating jobs. Infrastructure equally contributes to achieving a safe, healthy, mobile, and educated workforce.

In the US, most public infrastructure funding comes from state and local governments, with the federal government providing additional support through direct spending, grants, loans, and tax preferences.¹¹ Federal funding is a significant source of support for transportation and water infrastructure, where the Congressional Budget Office estimates that it accounts for more than a fifth of annual investment.¹² The Highway Trust Fund, financed primarily by motor fuel taxes and subsidized by general revenues, is the largest source of federal funding for infrastructure.¹³ Private-sector involvement in the

development and operation of public infrastructure also has a long history in the US. However, PPPs currently account for less infrastructure investment in the US than in other advanced economies.¹⁴

While comparisons between countries are difficult given divergent needs and the challenges of measuring quality, the relative state of US infrastructure appears to have declined since a period of strong public investment during the Great Depression and following World War II, including the construction of the federal highway system.¹⁵ Analysis of International Monetary Fund data suggests that, compared to other advanced economies, the US had much-higher-than-average stocks of public capital as a share of GDP in the 1960s but had fallen to below-average levels by the mid-1980s.¹⁶ By 1988, a congressionally chartered study of public works rated US infrastructure as only average in terms of its performance and capacity.¹⁷ While the US economy has remained strong, in part on the basis of past infrastructure investments, infrastructure is no longer a world-leading booster of its performance. For example, one set of global competitiveness rankings that placed the US second overall, only ranked the US 13th in terms of its overall infrastructure and 23rd in terms of its water and electric utilities infrastructure.¹⁸

Because infrastructure is critical to the strength of the US economy, improvements or degradations in infrastructure have enormous consequences for economic and fiscal health. Preliminary data from the Bureau of Transportation Statistics and the Census Bureau suggest that over \$14 trillion worth of goods were shipped domestically and abroad utilizing US transportation infrastructure in 2017.¹⁹ Infrastructure is also critical to household finances, through its effect not only on jobs, wages, and consumer prices, but also on spending. In 2017, the average household spent an estimated 13 percent of its pretax income on transportation, the second-largest category after housing.²⁰ That US households generally pay less for electricity than other advanced economies has much to do with natural resources but is also related in part to differences in infrastructure and its regulation.²¹

As the Committee for Economic Development of The Conference Board (CED) explained in its 2017 report, *Fixing America's Roads & Bridges: The Path Forward*, smart infrastructure investments raise economic growth, improve productivity, and increase land values.²² Sound upgrades in infrastructure also can create positive long-term spillovers through increased public health, higher energy efficiency, more robust economic development, and other improvements.

Many potential benefits from smart infrastructure investment are future oriented, helping to boost global competitiveness and innovation in the long run. Infrastructure also influences where businesses locate, with important knock-on effects in economic opportunities that might otherwise go abroad. Infrastructure investment can attract and retain highly educated workers and businesses seeking to employ them, and thereby help struggling communities to create jobs and raise wages.²³ Some analysts have estimated that, holding everything else equal, an additional dollar of public infrastructure investment generates on average over 10 cents of output per year over the long run.²⁴

Inaction can also be costly. It can degrade road or rail transportation, increasing congestion, delivery times, environmental impacts, and repair costs for vehicles, and imposing additional risk to the safety or health of drivers and passengers. The average American worker spent 225 hours commuting to and from work in 2018, a record high.²⁵ One analysis found that congestion costs urban Americans extra travel time and extra fuel worth \$166 billion annually.²⁶ The estimated average congestion time lost per auto commuter has increased over 40 percent since the turn of the century as capacity and alternative transportation options failed to keep up with growing numbers of commuters in population centers. Congestion also adds uncertainty to travel time, which harms both commerce and quality of life. A 2014 analysis by the US Travel Association suggested that air travel delays and cancellations stemming from airport congestion could motivate up to 38 million fewer plane trips annually, with a potential economic loss of roughly \$36 billion.²⁷

Similar problems arise outside of transportation. The poor condition of US water and wastewater infrastructure is estimated to cost \$2.6 billion per year through water main breaks, with one industry group in 2013 having projected annual costs to businesses and households managing unreliable water delivery and wastewater treatment in the tens of billions of dollars.²⁸

Failing to invest in internet capability also comes with a likely cost, with one industry-aided study finding that doubling broadband speeds in OECD countries is associated with an 0.3 percent increase in annual growth.²⁹ In addition to forgone improvements in speed, the failure to expand broadband penetration more widely can also be viewed as a form of forgone infrastructure investment with economic consequences. Workers living in communities with unreliable or limited access to high-performance broadband will miss out on opportunities for education, skill building, and employment that could increase their prosperity, while businesses employing such workers will have less flexibility in how they function without reliable options for remote work.³⁰ A 2009 study estimated that a 10 percentage point increase in broadband penetration in high-income economies would lead to a 1.2 percent increase in the growth rate of GDP per capita.³¹

Delayed maintenance also imposes expense, as needed repairs become more costly and catastrophic failure more likely. Lower-quality infrastructure also adds business costs that reduce profits and productivity or raise consumer prices—eventually lowering effective wages and employment, economic growth, and the tax base.

Mistakes in infrastructure management are also costly. For example, one study found that the public health crisis resulting from mismanagement of the Flint, Michigan drinking water supply not only harmed the short- and long-term health of residents and incurred over \$340 million in ameliorative state and federal spending, but also at least temporarily depressed the value of Flint's housing stock by between \$350 million and \$500 million.³² Similarly, the 2007 collapse of the Mississippi River bridge in Minnesota not only caused injuries and loss of life but also had estimated negative economic impacts in the state of up to \$60 million spread across two years.³³

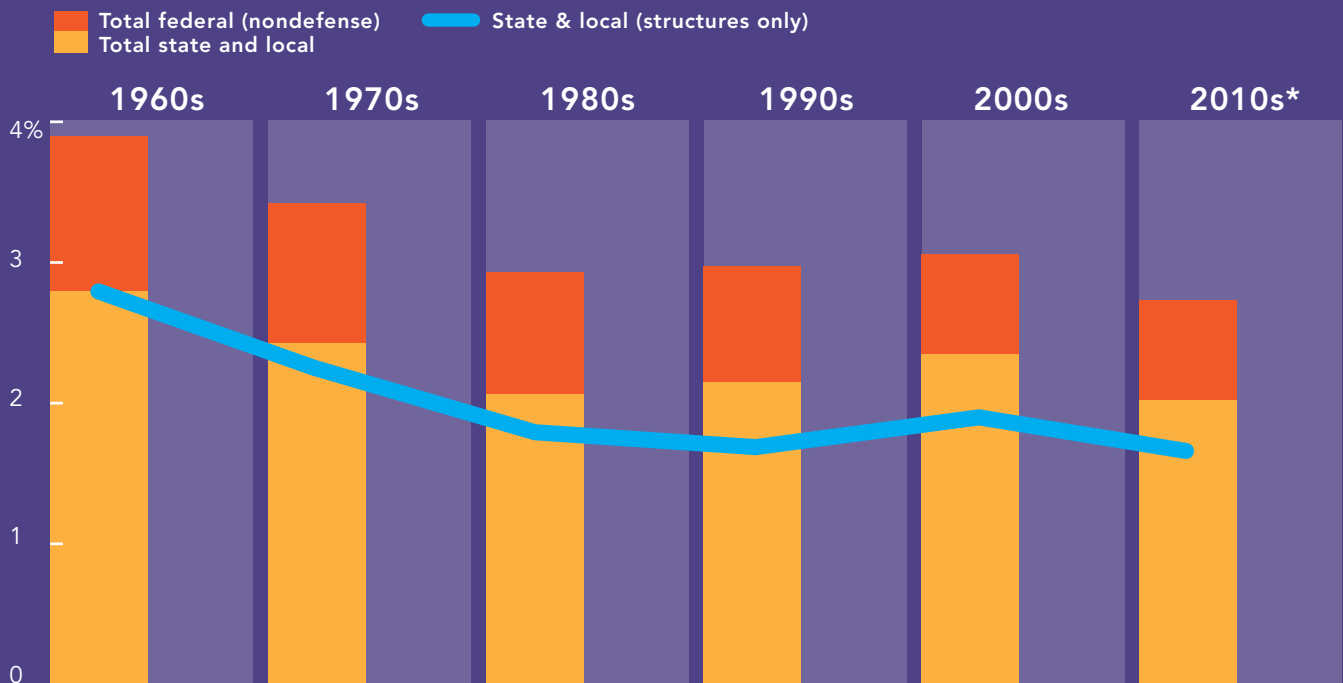
PUBLIC INFRASTRUCTURE INVESTMENT FACES CHALLENGES

Despite large economic benefits of smart infrastructure spending, public investment has fallen. According to Bureau of Economic Analysis data, the average annual investment in nondefense public infrastructure fell from 4 percent of GDP in the 1960s to 2.7 percent in the 2010s.³⁴ Although federal spending, including transfers to states and localities, is a minority of public infrastructure investment overall, the relative decline in federal support—as the economy and population have grown—contributes to declining total public investment. Average annual federal nondefense investment in major public physical capital, including transfers, declined by roughly 30 percent from 1960-1979 to the 2010s.³⁵

Declining infrastructure investment could lead US businesses and communities to miss out on or be slow to adopt new technologies that provide critical advantages in assessing markets or delivering services more efficiently or more widely. Infrastructure plays an enormous role in connecting Americans, and American products, to each other and the world, both physically and digitally. In recent decades, connectivity to broadband is credited with changing how companies operate and how business is conducted, but adoption remains incomplete, with some US communities and their

Investment in public infrastructure has declined significantly since the 1960s and 1970s

Average annual investment in government fixed assets as a share of GDP, by source



Source: Bureau of Economic Analysis

Note: Federal investments exclude defense spending; *Through 2018

economic competitiveness disadvantaged by unreliable or low-quality service.³⁶ The Federal Communications Commission estimates that more than 20 million Americans still lack access to broadband connections of a minimum speed capable of originating and receiving high-quality voice, data, graphics, and video telecommunications, including roughly a third of Americans who live in rural areas.³⁷

The US has not only forgone productivity-enhancing infrastructure improvements, but also under-invested in maintenance and repair. Some analysts have estimated that executing all currently deferred maintenance for public infrastructure at the state and federal levels combined could cost as much as \$1 trillion.³⁸ However, simply increasing resources without significant improvements in how the US allocates and finances those resources would be shortsighted. Instead, the US needs to confront the fundamental challenges to effective, efficient, and sustained investment that led to the current predicament. Additionally, the US should not only repair all existing assets but also adapt, upgrade, and modernize US infrastructure to meet the long-run needs of a cutting-edge, 21st-century economy. The US is in a different position now than it was during large infrastructure investments in the mid-20th century:

Cost challenges

The cost of infrastructure investment in the US has grown significantly and appears to be higher than in other advanced economies, though the drivers are not clear.³⁹ One study found, after adjusting for inflation, the cost of building a mile of interstate highway in the US tripled between the 1960s and the 1980s, while labor and materials prices did not increase much.⁴⁰ Similarly, studies have found US rail projects to be significantly more expensive than comparable projects in other advanced economies.⁴¹ Slow productivity gains may also be restraining US infrastructure purchasing power. One 2016 study found that US construction sector productivity, which was largely stagnant in the 1990s, declined significantly and steadily after 2000.⁴²

Regulatory burdens

Health, safety, and environmental standards have increased over time, leading to longer review times that slow planning and add costs, attracting attempts at reform.⁴³ A 2018 analysis found that the median time for review of a federal project under the National Environmental Policy Act (NEPA) in the 2010s was more than three and a half years, with an average completion time of more than seven years for Federal Highway Administration and Federal Aviation Administration projects.⁴⁴

Resilience and adaptability concerns

The life cycle of many infrastructure investments is measured in decades. Yet the pace of technological and environmental change could accelerate significantly in the half century ahead. Investment decisions made today will likely lock in certain technologies, carbon footprints, and weather and climate resilience postures. Given uncertainty, analyzing and pricing such risks will be critical for informed infrastructure decisions, and options that preserve flexibility may be preferable as a result.

ADVANCING INFRASTRUCTURE POLICIES IN THE NATIONAL INTEREST

To sustain capitalism for another generation, the US will need to foster world-leading infrastructure that facilitates the competitiveness of US businesses and increases opportunities for more Americans to share in growing prosperity. To further that goal, CED is undertaking research throughout 2020 focused on providing reasoned solutions in the nation's interest to the specific, critical challenges facing policy makers trying to improve the quality of key US infrastructure assets. Successfully addressing those challenges will require the US to maximize the benefit of its infrastructure investments, which should be characterized by: 1) prioritized funding for the highest-value projects, 2) flexible adaptation to shifting needs and demands, and 3) appropriate and sustainable financing. Specifically, the US should:

Improve infrastructure planning and decision making through cost-benefit analysis and increased coordination

Smart investment requires serious cost-benefit analysis that goes beyond narrow, parochial interests to advance projects with the greatest net benefits through increased coordination in long-term design and planning, bringing together private and public stakeholders across different levels of government and political or geographic boundaries. Improved project selection would reflect data-driven asset management of both already existing and planned infrastructure resources, uncovering the true scope of needs, benefits, and life cycle costs—and trade off the relative value of maintenance or upgrades to existing infrastructure against the construction of a new capacity.⁴⁵

The US approach to infrastructure project selection has been, and should remain, decentralized. State and local decision makers can identify needed and high-value infrastructure improvements. But decision makers at all levels should face scrutiny and accountability for funding choices. Standardized metrics should guide project selection, incentivize cooperation among private and public stakeholders, and encourage best practices in financing and management with federal infrastructure funds. Additionally, developing an experts' list of top-priority infrastructure projects nationally could illustrate the application of cost-benefit analysis across regions and types of projects, encourage discussion and critiques, and build support for high-value projects that may be difficult to execute under current jurisdictional arrangements.⁴⁶

Encourage innovation

Infrastructure investments will both shape and be shaped by technological innovation. Providing an environment where US businesses can more quickly and fully take advantage of improvements and breakthroughs in science and technology will maximize economic opportunities and prosperity for all Americans. Federal policy, particularly within transportation, should encourage goal- and outcome-oriented state and local funding—investment decisions that are not constrained to particular categories of infrastructure and, instead, push spending to assets and solutions that best achieve a community's or region's particular needs. For example, dedicated funding for roads or rails will lead to rigid road- or rail-based solutions in proportion to the funding provided even if a different

balance or approach—perhaps one not yet recognized or that places more emphasis on data infrastructure, including access to high-performance broadband, over physical mobility—could better achieve the region’s goals.

In some sectors, a lack of affordable, high-quality access to globally competitive broadband is likely already restraining potential productivity growth. For example, a 2019 USDA analysis found that deploying existing agricultural technologies at scale—requiring high-performance broadband connectivity—would result in “economic benefits equivalent to nearly 18 percent of total production” on farms.⁴⁷

The places that best, and most quickly, adopt the regulatory and infrastructure investment posture needed to facilitate the economic opportunities and gains from new technologies will be at a considerable advantage in the decades ahead.⁴⁸ Take a potentially key technology like autonomous transport, which could reorient how we organize and conduct many business and consumer activities. A city or a nation that recognizes and accommodates the necessary infrastructure changes—digital and physical—for progressing the use of autonomous transport may gain significant early mover benefits if the technology proves to be as central as some analysts predict.⁴⁹ Changes in the physical landscape—including the standardization of road markings and the design of curbside spaces—and the regulatory environment—with respect to safety standards, cybersecurity standards, insurance rules, and the harmonizing of potentially confusing jurisdictional issues—may each be critical aspects of early success.⁵⁰

Additionally, given large existing investment needs and slow productivity growth in construction, the US should review its research and development efforts in infrastructure. Increasing investment in innovation, perhaps from other parts of the nation’s research portfolio, could well spur quicker long-lasting improvements in economic opportunity and quality of life.

Modernize and streamline regulatory burdens to reduce duplication and maximize benefits

CED has consistently advocated for investing in “smart regulation,” reviewing and modernizing regulatory regimes to enhance efficiency, yielding both greater benefits and lower costs.⁵¹ With long delays between project conception and execution, and often multiple layers of jurisdiction and review, a smart regulation approach could ensure that the rules governing reviews and permitting of projects address important concerns and ensure that net benefits are maximized over time at all levels of government. The federal government and states should bring together stakeholders and public entities throughout a region to ensure that the oversight process is stripped of duplication and optimized for the national interest across all levels of government. Consistent with other efforts aimed at encouraging innovation, a successful regulatory regime should also facilitate faster deployment of new technologies and easier upgrades to existing infrastructure assets to capture economic opportunities, increase resilience, and reduce environmental impact. In areas like broadband, regulations should be reviewed to ensure that pro-competitive rules are in place so that businesses compete over customers based on innovation, quality, and price rather than rely on barriers to entry.

Better utilize private-sector involvement through public-private partnerships

Well-designed PPPs incentivize efficiency, innovation, and long-term performance while transferring certain financial risks—like cost overruns and delays—from the public to private investors.⁵² PPPs vary in form, with private-partner responsibilities ranging from the execution of simple operation and maintenance contracts for fixed periods of time to accepting ground-up involvement in the development, delivery, and long-term management of a new public asset. Private-sector investors and operators expect to recoup their costs and profit from users directly or from government payments for the development or upkeep of an asset. As a result, the clearest cases for PPPs arise when a project can be funded, directly or indirectly, from a revenue stream derived from users. This includes the case of some existing assets where privatization or private-partner operation could encourage innovation, efficient operations, and sustained upkeep and modernization.

Florida's I-595 corridor project is often held up as a model PPP, where periodic performance-based payments to the private-sector builder, operator, and maintainer of the project have primarily come from public revenues levied through tolls on the express lanes constructed as part of the improvement project.⁵³ The use of a private-sector provider helped speed completion of the asset by several years, more rapidly benefiting drivers and allowing the state to begin collecting express lane toll revenues sooner.⁵⁴

PPP agreements are not riskless—since private-sector partners may fail to complete a project or contract—and private financing cannot increase overall infrastructure funding, but it can speed the funding process and, when user fees are the expected future revenue source, help signal that project benefits are expected to exceed costs.⁵⁵ Additionally, by establishing the financing of operations and repairs upfront, PPPs can be a kind of credible commitment by public entities to the long-term upkeep of infrastructure assets. A 2020 Congressional Budget Office review concluded from limited evidence that PPPs appeared to lead to faster design and build times and lowered costs compared to public-sector equivalents but only “by small amounts on average.”⁵⁶

While most sound infrastructure projects will not suit PPP-style collaboration, policy leaders should take full advantage of PPP models when appropriate. American governments at all levels should encourage private-sector participation with proper oversight, including against manipulation.

Explore alternative approaches to utilize private investment resources

PPPs are one way in which private investment resources can be utilized to improve public-sector infrastructure investment, but not the only way. Private-sector funding, particularly through tax-exempt municipal debt issuances, is a central element of the current US approach to infrastructure financing. However, creative financing mechanisms like Transportation Infrastructure Finance and Innovation Act assistance and the currently lapsed Build America Bonds program have also been successful in encouraging the efficient upfront utilization of private investment resources, including by expanding

which nongovernmental investors can participate in infrastructure project financing.⁵⁷ Policy makers should continue to explore, evaluate, and support creative alternatives that could broaden the range of investors, lead to gains in cost efficiency, or otherwise improve the set of available options for drawing private-sector capital into public infrastructure investment.⁵⁸

Move toward user fees to sustainably support a greater share of the US' infrastructure portfolio

In theory, a push toward “user-pay” models, often embedded within PPP arrangements, can help promote efficient outcomes and sustainable financing by ascribing the cost of operating infrastructure to the people who most directly benefit from it. In practice, because infrastructure can have spillover benefits like increased property values, improved environmental outcomes, or decreased congestion for alternative assets, identifying actual beneficiaries is more complicated.⁵⁹ But generally, user-pay models yield better and fairer outcomes. As sustainable long-run funding for the maintenance, improvement, or replacement of infrastructure assets remains hard to come by, governments should be exploring options for funding a greater share of infrastructure needs through user-based fees. In some instances, like highway investment and repair, the US should take action to restore more of the funding burden to direct users. While motor fuel taxes served as an effective user fee and the predominant source of funding, the per gallon federal “gas tax” has been frozen since 1992, and increases in fuel efficiency have reduced revenues per mile traveled without reducing wear and tear.⁶⁰ CED has in the past called for an increase in gas taxes, or some other user-fee-based alternative, to more sustainably fund needed investments.⁶¹ However, additional opportunities for new or improved user-pay approaches to financing should be considered across infrastructure assets, including for rail, airports, and ports.⁶²

Incorporate climate risk into evaluations of potential infrastructure investments

Changes in climate pose potentially striking risks to the value proposition of long-lived assets, even while the timing and severity of those risks remain uncertain. Preparation for climate-related stresses or hazards—including more extreme weather events; increased flood, wildfire, and drought risks; and other negative outcomes—have pushed some private-sector actors to lead the way in incorporating long-run climate risks into their investment decision making.⁶³ Business leaders concerned about the national interest must also lead the way in encouraging policy makers to similarly recognize and incorporate those risks—as well as learning from the private sector—when they evaluate potential infrastructure investments. Serious cost-benefit analysis requires that policy makers attempt to grapple with the resilience and adaptability, as well as the potential climate impact, of competing choices.

Endnotes

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SUSTAINING CAPITALISM

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The China Trade Challenge: Phase II

The signing of the Phase I US-China trade deal has eased trade tension in the short term but has also set the stage for discussions on the more important economic disputes in the US-China relationship, including the central US concerns on forced technology transfer and cyber theft of intellectual property (IP), industrial policies, state subsidies, and new technology. China's fast paced economic rise and its flouting of globally accepted market rules, combined with the unknown impact of the coronavirus (COVID-19) on the global economy, has put the Phase II negotiations near the top of the critical issues facing the US postelection. Then, tensions over China's alleged role in the creation of the pandemic, combined with the economic stresses the pandemic unleashed on China, knocked even compliance with the Phase I accords off track.

To meet this growing challenge, the US needs to reengage with China through a consistent, comprehensive, and strategic multilateral approach that realistically assesses US economic and security interests and combines firmness and conciliation to achieve a stable and mutually beneficial economic relationship—a constructive, though surely competitive, relationship that mitigates risk and avoids unnecessary conflict.

We are at a unique juncture in US-China relations. The US and the dominant post-WWII market-based economies have to deal and compete with a massive and coordinated non-market-based economic superpower.¹ In the past 50 years, China has advanced from the very first geostrategic opening of its doors to the US in 1972 to interacting with virtually every government and thousands of businesses around the world. Since China launched its economic reforms in 1979, the country's economic growth has been historic both in terms of magnitude and pace. In 1980, China did not even rank in the top 10 of the world's largest economies. By 2010, it had surpassed Japan as the second-largest economy, and by 2015, it had raised over 800 million people out of extreme poverty.

Recommendations

To succeed in the Phase II trade negotiations with China, the US needs a consistent and comprehensive trade policy that draws on all the levers of its power through the following actions:

- Establish a task force to undertake a comprehensive “decoupling assessment” of US-China trade relations to provide clear guideposts for how to further restrict harmful transfers of advanced technology to China through the Export Control Act, which supply chains should be decoupled for national or economic security, and in what areas trade can continue to grow without posing risk.
- Determine how US businesses and interests are restricted in China and gradually move to ensure that China’s interests in the US are similarly restricted until Beijing opens its economy in those spaces. In nonsensitive industries with reciprocal openness, Chinese investment should be welcomed.
- Hold China to WTO global standards, which include opening its borders to foreign direct investment and imported goods and services. This should be the basis for US agreements with China.
- Reexamine antimonopoly rules that prevent industries from standing as one against China’s demands to transfer technology in exchange for market access.
- Reach a common understanding among advanced-economy allies on a technology-security treaty before bilateral talks begin so that China cannot offer preferred terms to one nation or firm.
- Align tariffs with actions of Chinese state-sponsored entities that put US firms and US workers at a disadvantage.
- Unite the world trading community to repair, update, and upgrade the WTO treaty and related systems, especially enforcement procedures, including clearly defined penalties.
- Insist on “snap-back” provisions should China again fail to live up to its commitments.
- Treat IP theft and forced technology transfers as crossing “red lines” that result in severe economic penalties. All free-market nations should recognize that China would not have the leverage to demand surrender of IP as a condition of market access if China allowed direct foreign investment according to world rules, and negotiate accordingly.
- Involve European, Japanese, Korean, and Australian representatives in urging China to reform its approach to cross-border trade and investment.
- Immediately begin negotiating our re-entrance into the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, or CPTPP. Expand efforts toward economic integration and support in the Indo-Pacific region.

For details, see *The Solution: Policy Recommendations*, page 8.

China became and remains a formidable geostrategic force, with a military rapidly and steadily increasing in capability and global reach. And China has often stretched international norms and rules to seek its own advantage. Consequently, addressing the China challenge in the second phase of the trade negotiations will demand the coordinated use of all of the levers of US power to ensure the continuation of a rules-based economic order.

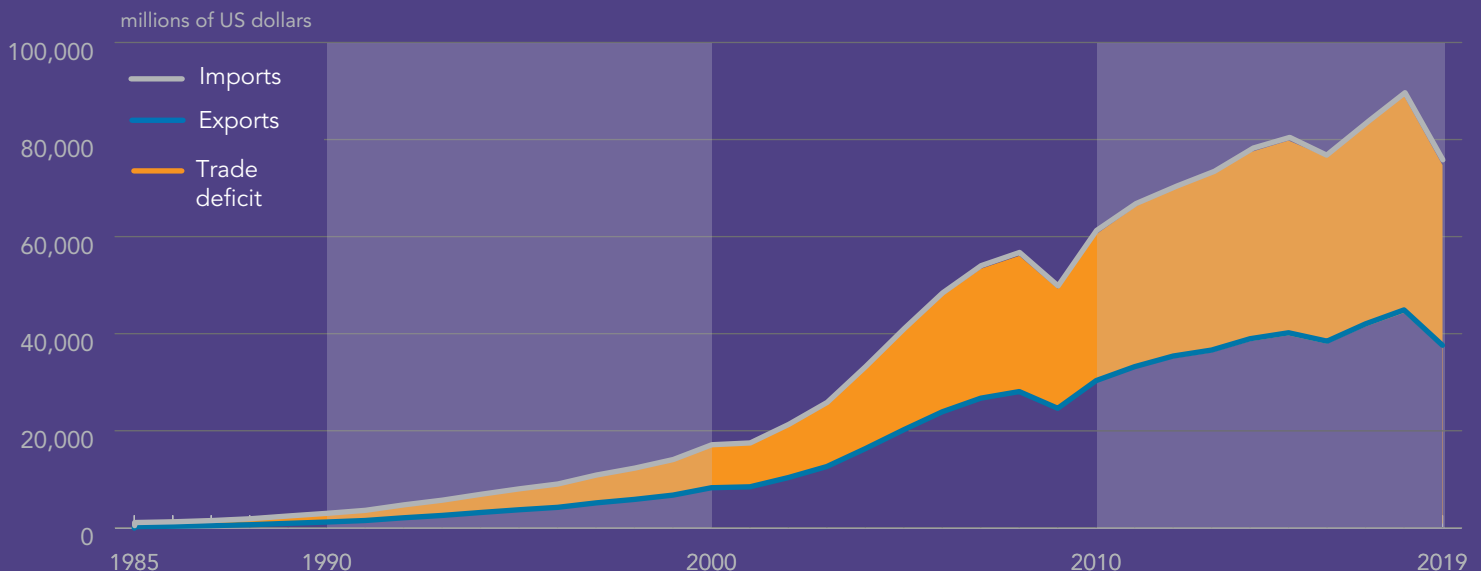
THE ISSUES

China's meteoric rise as an economic power has made China a major economic partner of the US. China is the US's largest merchandise trading partner, its biggest source of imports, and its third-largest export market. China is also the largest foreign holder of US Treasury securities; their purchases help fund the federal debt and keep US interest rates low. But as China's economy grew and its global economic influence expanded, China also made clear that its market reforms would be limited and that it would leverage state control of its economy to become a dominant global player in many sectors, including advanced technologies. Its form of capitalism would include mercantilist policies disadvantageous to the US.

In 2017, the Trump Administration launched a Section 301 investigation of China's innovation and IP policies deemed harmful to US economic interests, which was the first step in its efforts to recalibrate the US-China economic relationship. It subsequently raised tariffs by 25 percent on \$250 billion worth of imports from China, while China increased tariffs (ranging from 5 percent to 25 percent) on \$110 billion worth of imports from the US.

Figure 1

US trade with China has grown dramatically since the 2000s



Source: US Census Bureau

The trade dispute continued to escalate as the trade relationship became more hostile. The accumulated measures sharply decreased bilateral trade in 2019 and disrupted global supply chains. US exports to China dropped by nearly \$30 billion, while imports from China fell by over \$70 billion, for a decline of over \$100 billion in total trade.²

In January 2020, the US and China signed an initial Phase I trade deal which reduced some US tariffs on Chinese goods in exchange for Chinese pledges to purchase \$200 billion of American farm, energy, and manufactured goods. The Chinese also pledged to avoid currency manipulation, crack down on IP theft and forced technology transfers, and establish an enforcement system to ensure implementation. In the wake of the conflict over the COVID-19 pandemic, the implementation of the Phase I agreement is left in doubt.

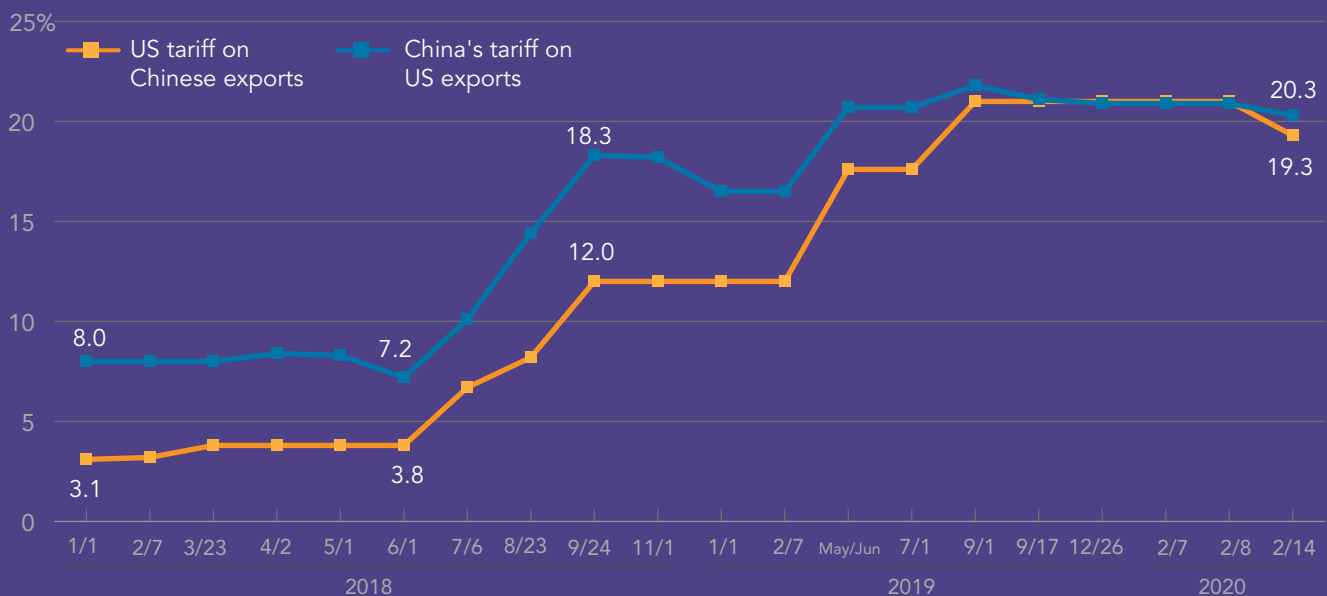
But even assuming full implementation of the Phase I trade deal, that agreement left unaddressed the following issues that the US seeks to resolve in the expected Phase II talks:

State capitalism As China grew and emerged to assume a global role in the 1990s, some public and private US actors, as well as global players, clearly presumed that China would become more democratic, more market-oriented, and more commercially open.

But China's development has taken a different course. Its state capitalist system controls all critical sectors of the economy. It owns many large firms and decides which businesses will receive subsidies, favorable loans, and protections in the marketplace—in contrast to market economies, where open competition generally determines economic outcomes.

Figure 2

Higher US and China tariffs persist despite the Phase I deal



Source: Peterson Institute for International Economics (PIIE)

China's economic success has strengthened its confidence in its system as a model, particularly after the global financial crisis. And since 2012, with the transition of power from the Deng years, China has increased its internal control and repression; rejected some of the most important political reforms, including term limits for its head of state; and openly unveiled an ambitious strategy to become the leading global power by 2050.

When China entered the global commercial community with its accession to the World Trade Organization (WTO) in 2001, it was already one of the world's largest economies, a unique occurrence for a "newborn" trading nation. In 2000, China ranked sixth among nations in gross domestic product (GDP), just ahead of Italy. Today, China's GDP either approaches or already exceeds that of the US, depending upon the method chosen to adjust for the two nations' different currencies.³ China is already the world's largest exporter, selling about twice the dollar value of goods as the US. It is the second-largest importer, buying about three-fourths of the dollar value of US imports.⁴ It ranks in the world's top-two countries for both undertaking and receiving foreign direct investment and is the second-biggest spender on research and development at some \$300 billion last year.

China has a large and growing private sector, rooted in its entrepreneurial culture and stimulated by economic reforms in 1978. That economic strength allowed it to avoid fallout from the collapse of communism in Europe. China's private sector, surprisingly to some, produces most of its gross domestic product (GDP)—70 percent by some estimates. Nevertheless, some large private companies, and in particular the giant Chinese tech companies, have very close ties with Beijing, often appearing to their overseas rivals as virtual arms of the state.⁵

China's old-line, state-owned enterprises (SOEs) produce less but provide more domestic jobs than the private firms because of their inefficiency. The SOEs rely on a broad range of government support, including public subsidies and loans from state-owned banks, to compete with often more efficient private businesses around the world. China's central government controls more than 50,000 SOEs employing more than 20 million people.⁶

China places a high priority on maintaining state control of critical sectors of the economy (such as petroleum and mining, telecommunications, utilities, transportation, and various industrial fields) through its SOEs, which are subsidized and shielded from competition in violation of WTO rules.⁷ China violates a wide range of other WTO rules and broader norms, including determining which foreign sellers and investors are allowed entry into its domestic markets and perpetrating extortion and outright theft of foreign businesses' advanced technology.⁸ Under the current ruling group of President and Chinese Communist Party Secretary Xi Jinping, economic market reforms have slowed, and the Party is leveraging the country's economic strength to promote an authoritarian, state-capitalist economic model at home and abroad, driven by strict government planning and market management.

Technology extortion and theft In explicit violation of WTO regulations, China has engaged in ongoing violations of copyrights and patents (often referred to collectively as IP), sometimes extorting IP in exchange for access to markets, and sometimes obtaining IP through cyber misdeeds that likely are, in many instances, state-sponsored cyber thefts. Curbing this behavior has been a long-standing US goal, and progress was recently achieved in the US China Phase I Trade Deal. The deal makes it easier to identify and punish IP theft and counterfeiting. But enforcing these agreements and extending the provisions will be an important part of continuing negotiations with China.

Noncompliance with WTO rules According to the United States Trade Representative (USTR), the US has brought 23 WTO challenges against China, covering a wide range of important policies and practices: 1) local content requirements in the automobile sector; 2) discriminatory taxes in the integrated circuit sector; 3) hundreds of prohibited subsidies in a wide range of manufacturing sectors; 4) inadequate intellectual property rights (IPR) enforcement in the copyright area; 5) significant market access barriers in copyright-intensive industries; 6) severe restrictions on foreign suppliers of financial information services; 7) export restraints on numerous raw materials; 8) a denial of market access for foreign suppliers of electronic payment services; 9) repeated abusive use of unjustified trade “remedies;” 10) excessive domestic support for key agricultural commodities; 11) opaque and protectionist administration of tariff-rate quotas for key agricultural commodities; and 12) discriminatory regulations on technology licensing. While the US has routinely prevailed in these WTO disputes, they take years to litigate, consume significant resources, and often require further efforts when China resists complying with panel or appellate body rulings.⁹

Global influence As China’s GDP grows, so do its sales to and purchases from its neighbors and nations around the world. Potentially, the more dependent other countries become on either selling to or buying from China, the greater the dilemma for those countries when confronted with the choice between supporting China or the US geopolitically.¹⁰

Figure 3

China increases global influence through its Belt and Road Initiative



Source: World Bank

China's "Belt and Road Initiative" (BRI), an ambitious infrastructure project launched by President Xi in 2013, is potentially one of the geopolitical game-changers of the 21st Century. But infrastructure is only one of BRI's five components which also include strengthened regional political cooperation, unimpeded trade, financial integration, and people-to-people exchanges.¹¹

BRI is one of the main pillars of China's bold and assertive strategy. While there has been pushback against the Chinese by various participating or potentially participating nations, over 60 countries accounting for over two-thirds of the world population have signed on or indicated interest.¹² The project has been estimated to cost over \$1 trillion dollars by 2027, which is more than 10 times the size of the Marshall Plan.

Technological dominance China is willing to make massive inefficient investments, even for very low returns, to dominate a market and win the technology competition. For example, China is attempting to establish the global standard for 5G communications, which will enable its companies to start out ahead in building the infrastructure hardware necessary for first-mover implementation and domination of future generations of hardware and software.¹³ Technology dominance also has important national security implications for China, potentially allowing them hidden access to data and information otherwise not available to them. To this end, China has not only financed enormous R&D (Huawei reportedly outspent Apple, falling short only of Amazon among individual enterprises¹⁴), which may prove to have been premature and unproductive, but also provided substantial credit subsidies to prospective customers to get its "foot in the door." This is the kind of advantage that was contemplated in the controversial "Made in China 2025" initiative, which many in the US and around the world saw as a bold statement of China's intention to dominate every key field of technology development. Despite these efforts, China still relies heavily on American companies to provide cutting edge technical infrastructure for both hardware and software. Huawei and ZTE, despite being globally competitive megaconglomerates, were on the verge of collapse when disconnected from their US suppliers.¹⁵

National security threat China's strategy has gone beyond economic competition to areas that challenge stability and security—witness their building out of their navy, increased aggressiveness in dealing with Southeast Asia territorial rights, and engaging in war-game operations with Russia. China has manufactured islands in the South China Sea, encroaching on the sovereign territories of regional claimants.¹⁶ With respect to actual military activity, China's intentions in either the short or especially the long term are, of course, matters of speculation. However, according to at least some scholarly opinion, China is consolidating its position in its own region while apparently biding its time as its capability grows to match its larger ambitions.¹⁷ According to this perspective, China recognizes that its current strength does not allow it to compete with the US as a globally present superpower. Its immediate ambition, therefore, is to leverage its "soft power" to create a broader presence and look toward future opportunities as its military might grows.¹⁸

THE SOLUTION: POLICY RECOMMENDATIONS

The challenge today, in a global economy and a US-China relationship deeply impacted by the COVID-19 pandemic, is for US policymakers to maintain the benefits of free and fair market competition, uphold the values that have stood the free-world community in good stead since World War II, and convince China that it has a stake in this system that propelled their advancement and growth.

The Phase II negotiations, when they begin, will encompass critical challenges to both US national security and economic policies. To prepare for and succeed in these negotiations, the US needs a consistent and comprehensive trade policy toward China that draws on all of the levers of its power.

- The US should establish a high-level task force to undertake a comprehensive “decoupling assessment” of US-China trade relations and dependencies to 1) clearly delineate for domestic regulators how to further strengthen the Export Control Act to restrict transfer of advanced technology to China, which ultimately harms US prosperity and national security; 2) determine which supply chains need to be decoupled for national or economic security reasons; and 3) identify the areas of commerce where trade can continue to grow without posing risk. Such an effort will provide clearer guideposts for US trade and economic policy and a more predictable playing field for business.
- Prior to launching the Phase II negotiations, the US should reach a common understanding among allies with advanced economies on a technology-security treaty. Discussions are underway but require a common set of principles between the US and its allies before bilateral talks with the Chinese begin. The common set of principles should include technologies which all firms and nations will refuse to share with China, so that China cannot offer preferred trade and investment terms to one nation or firm to obtain technology that threatens the security of all.
- Policymakers should reexamine antimonopoly rules that prevent industries from standing as one against Chinese government pressure. Resisting demands to transfer technology in exchange for market access would be easier if US companies were allowed to agree with one another that no one would take such a deal.
- A careful survey should determine where and how US businesses and interests are restricted in China, with gradual moves to ensure that China’s interests in the US are similarly restricted until Beijing opens its economy in those spaces. Conversely, in nonsensitive industries with reciprocal openness, Chinese investment should be welcomed.
- China should be held to global standards set forth in the WTO rules which include opening its borders to foreign direct investment and imported goods and services. This should be the basis for US agreements with China and should mirror the terms and conditions in global multilateral organizations, including the WTO.

- The White House and Congress should unite the world trading community to repair, update, and upgrade the WTO treaty and all its related systems, especially enforcement procedures. Clearly defined penalties (e.g., restriction of access, fines, and the like) with proscriptive timetables, benchmarks, and oversight processes will improve effectiveness.
- The US should treat IP theft and forced technology transfers as crossing “red lines” that will result in severe and immediate economic penalties. All free-market nations should recognize that China would not have the leverage to demand surrender of IP as a condition of market access if China allowed direct foreign investment according to world rules and norms, and negotiate accordingly.
- US negotiators should involve European, Japanese, Korean, and Australian representatives in urging China to reform its approach to cross border trade and investment.
- To counter China’s expansion of its economic and political influence through the BRI and strengthen the US effort to ensure China’s adherence to global rules in trade and commerce, the US Trade Representative should immediately begin negotiating our re-entrance into the TPP-11 (now called the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, or CPTPP). To further these objectives and counter BRI, the US and its regional and global allies should also expand and strengthen their efforts toward economic integration and support in the Indo-Pacific region.
- Where tariffs are used, the US should align them specifically with areas where Chinese state-sponsored entities are putting US firms and US workers at a disadvantage.
- The US should also insist on “snap-back” provisions should China again fail to live up to its commitments.

Endnotes

- 1 While the prior Soviet Bloc was formidable, it never developed nor did it maintain the economic strength, the necessary organizational effectiveness, or the geostrategic acumen of China today. As indicated by its ultimate collapse, the Soviet Union's best moments were not maintained long enough to achieve the prominence of China's current place in the world, despite episodes of effective leadership. (Stalin was arguably internally and organizationally effective, and Soviet leadership was geopolitically effective at times for most of the Cold War until Afghanistan and the impact of aging leadership and a failing economy.)
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SUSTAINING CAPITALISM

A series focused on nonpartisan reasoned solutions in the nation's interest to the central challenges we face in order to provide prosperity for all Americans.

We need a new path on health care

The well-being of every American, and the long-term economic and fiscal well-being of the United States, require an efficient, high-quality, patient-centered health care system. It is clear that the US can, and often does, deliver the finest care in the world. However, it is inaccessible or unaffordable to too many Americans. We must do better. And all Americans must have access to health care.

The COVID-19 pandemic has exposed the system's structural flaws. The unsustainable cross-subsidization of providers and insurers with centrally administered prices has broken down under a pandemic illness whose treatment requires costly care but few reimbursable services. The remedies for the immediate response to the pandemic, and for preparedness for the next one, are addressed elsewhere in this series. But when the pandemic is behind us, we will still need ongoing structural reform. That is the topic of this Solutions Brief.

Beyond the pandemic, the nation debates four alternative paths: the status quo, which is unaffordable and which has not met its ambitions on access to coverage and care; "repeal and replacement" of the Affordable Care Act of 2010 ("Obamacare" or "ACA"), with as yet no defined alternative; "Medicare for All," with highly uncertain consequences; and repairs within the structural boundaries of the ACA.

This policy Solutions Brief will present its own vision, using cost-responsible consumer choice among competing private health care plans, which arguably can drive the US health care system toward quality, affordable health care for all.

A better way...

A better way to address the cost and quality of health care would be to activate the private market through aggressive improvement of the current system. Such a proposed health care system would use cost-responsible consumer choice among competing private health care plans to drive the US health care system toward quality, affordable health care for all. Households would receive single-purpose refundable tax credits sufficient to purchase efficient comprehensive health plans. Consumers would seek their own self-interest by pursuing greater quality at a lower price. Plans, and their providers, would need to reduce cost and improve quality to compete—the same motivation that drives progress in virtually every other industry in the US economy.

This vision is an aggressive revision of the ACA that would achieve the following improvements over the current system:

Replace the ACA's complex subsidy mechanism, which puts a heavy compliance burden on and may mislead families with modest incomes and has proved difficult to administer accurately. At the same time, provide relief from any plan cost sharing for lower-income households.

Restructure the ACA exchange system to align more closely with cohesive geographic health care market areas and to provide better information and decision support.

Broaden the exchange populations to increase the numbers of enrollees and also their risk diversity, especially in small geographic areas.

Expand the ACA's increase in consumer choice of insurance plans—which is the key to competition and innovation.

Further challenge fee-for-service medicine, which continues to shackle competition and process improvement to almost the same unfortunate degree as under the pre-ACA system.

Go further than the ACA to promote potentially valuable disruptive care-delivery models and tort reform.

Reorient the ACA's Independent Payment Advisory Board (IPAB) to provide information for, rather than inject remote government judgment into, the physician–patient relationship. This would include expanding data gathering and research to inform physicians and patients in their own decision making.

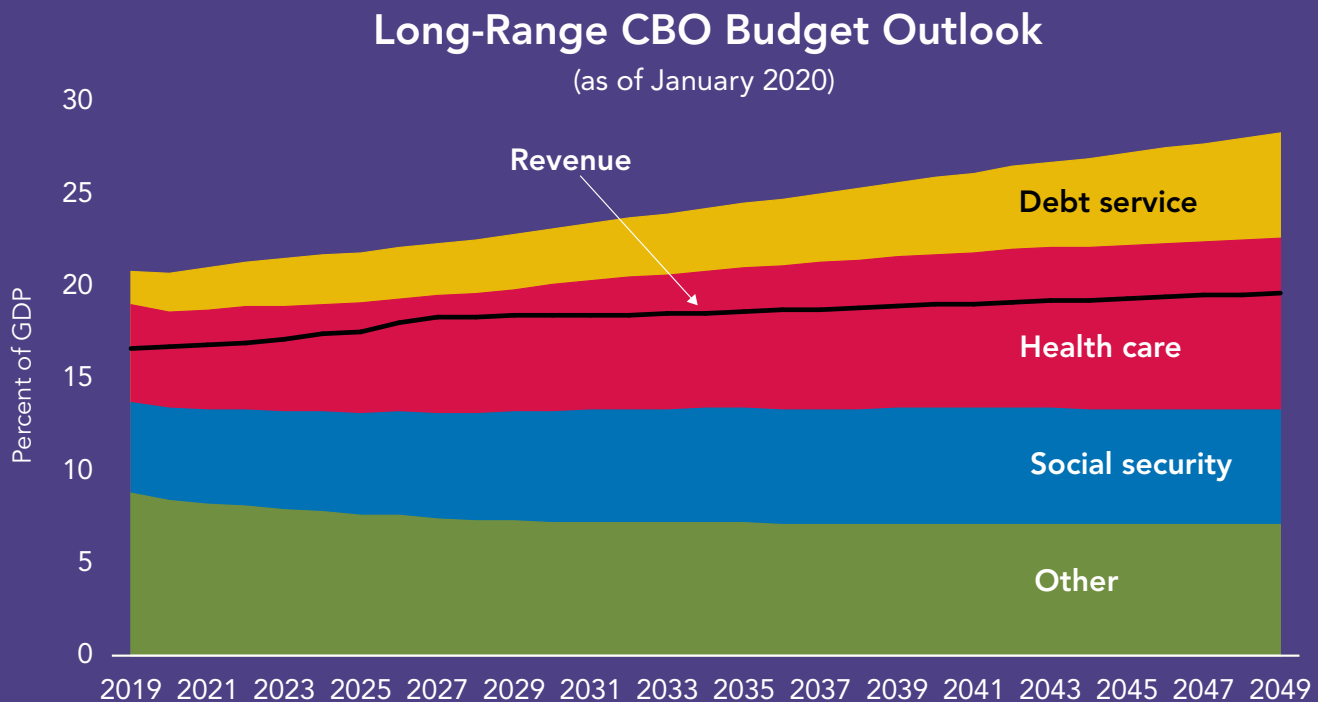
Reduce the ACA's reliance on a system of state regulation that inhibits essential competition and market entry.

THE UNSUSTAINABLE COST OF HEALTH CARE

Even before the pandemic, and surely after it, the rising cost of health care was overwhelming all American budgets: household, employer, and governmental—federal, state, and local—catapulting the issue to the top of the policy agenda among American voters. A promise of universal coverage in an unchanged US care-delivery system would soon be shown to be empty, as society proved unable to pay the bills, and therefore unable to summon the human and physical resources to care for its citizens.

The United States spent \$3.65 trillion on health care in 2018,¹ which accounted for 16.9 percent of the nation's gross domestic product.² This is significantly more than any other developed nation in the Organisation for Economic Co-operation and Development (OECD). US health care costs are also growing at a rate that is faster than the broader economy.^{3, 4} Yet, despite these high expenditures and although measurement is difficult and controversial, there is ample evidence that the US performs worse than some other OECD countries in critical areas such as life expectancy, infant mortality, and unmanaged diabetes.⁵ Consequently, it is not surprising that according to a Pew Research Center 2019 poll, reducing health care costs ranks among the top tier of public priorities.⁶

The figure below shows that all programmatic (i.e., noninterest) federal spending other than health care (and including Social Security) is projected to grow more slowly than revenues. However, federal spending on health care is projected to grow far faster—and



Medicare is by far the largest contributor to that growth. Although our aging population is an important cause, the cost of delivering care is an even stronger driver.⁷ This rising health care spending creates a rising deficit, which accumulates into a fast-growing public debt, which in turn creates a potentially even faster-growing debt-service bill, and a burgeoning, potentially exploding, public debt.

This problem cannot be solved by increasing revenues or cutting other spending (though those steps are clearly needed). Taxes would need to be increased, and other spending would need to be cut, year after year, in a vain attempt to keep up with the exponentially growing health care costs. Rather, and eventually, the growth of health care costs must be slowed—and the longer reform is postponed, the more difficult it will be.

THE PUBLIC'S ASPIRATIONS FOR THE US HEALTH CARE SYSTEM—COST VERSUS COVERAGE

A growing number of Americans believe that our nation's failure to provide health insurance for all of its citizens is unfair. The share who say health care is a government responsibility is significantly higher than it was from 2008 through 2016 (51 percent in 2016, rising to 60 percent in 2018).⁸ Providing near-universal coverage was the dominant objective of the Affordable Care Act.⁹ But while the ACA did extend coverage to 20 million more Americans,¹⁰ implementation proved extremely disruptive, expensive, and difficult, leaving almost 30 million Americans uncovered.¹¹ The extent of coverage remains a hotly contested issue.

But the cost of health care limits the ability to provide coverage at the same time as it reduces standards of living for even those with insurance. Many uninsured adults, even under the ACA, cite the high cost of insurance as the main reason they lack coverage.¹²

STUCK IN THE ROUNDABOUT

The health care debate in the US has been going in circles, leaving the nation without reasoned solutions. The current system is not financially sustainable. But even unaffordable sums today (and for the foreseeable future) do not buy our nation acceptable levels of quality and access.

Promises to repeal and replace Obamacare have fallen short on the identification of an acceptable replacement. As of this writing, there is no apparent viable proposal.

The most widely debated way of achieving universal health insurance coverage—and avoiding the looming health cost tsunami—is “Medicare for All.” Under the current Medicare program, today's seniors, as well as an expanded group of permanently disabled and those with certain advanced diseases, are guaranteed insurance coverage. So, for other working-age Americans who cannot afford coverage, the Medicare brand is appealing—despite important weaknesses in Medicare's quality in some settings and its unsustainable cost.

But the Medicare for All concept has many flaws. Its truly fatal flaw is that it would make providing quality, affordable health care coverage for all Americans infinitely more difficult. Despite its intended promise, it does not provide a solution on health care that would achieve our nation's shared objectives. There is a better way.

RAISING THE QUALITY OF CARE

Knowledgeable observers have their own short lists of the best health care delivery systems in the United States. Intermountain Healthcare, the Henry Ford Health System, the Geisinger Health System, Sentara Healthcare, Kaiser Permanente, and many others will be mentioned.¹³ Medicare, as a system, will not. A common element of many top-tier plans is finding ways to compensate physicians on salary or on measurable delivery of quality care, breaking the incentive to provide more services in order to collect more fees. The extant Medicare for All proposals would prohibit private health insurance, and thereby would literally outlaw many of the highest-quality health care systems in the United States. All such high-quality health care systems would need to change their business models fundamentally—and in ways that would destroy the incentives and the efficiencies that make such plans successful.

Although there are approximately 30 million Americans without insurance coverage,¹⁴ there are 173 million who have private coverage (either from their employers or purchased in the individual market—including under Obamacare). A large majority of those are happy with their health care.¹⁵ The existing Medicare for All bills would outlaw all private insurance and place all Americans onto a new public plan.¹⁶ Forcing those 173 million people to find new health care in order to extend coverage to 30 million would not only create disruption and increase cost, but also risk the quality of care.

Medicare, of course, is not a coordinated health care program, but rather a collection of all of the US providers—good, bad, and indifferent—that are willing to participate at Medicare’s low schedule of reimbursements for specific services.¹⁷ Medicare for All would follow traditional Medicare (and the fee-for-service part of today’s private system) as a deliverer of uncoordinated care by solo practitioners—with the risk of medical errors (including conflicting prescriptions), incomplete care, duplicative care, and primary-care physicians making potentially self-interested referrals to specialists.¹⁸ And all of this would be on a fee-for-service basis, under which every individual service must be accounted for and billed. The fundamental incentive would be to provide more services rather than to practice patient-centered care.

Some Medicare for All advocates claim that current private insurance denies care to increase profit. They see Medicare as a beneficiary-driven government program.¹⁹ But Medicare is government insurance coverage, not government provision of care. Care under Medicare is subject to the good will and judgment of private providers, each of which seeks “profit” in the form of a higher income for the individual physician or the organization (such as a hospital, even if it is nominally “nonprofit”). The ACA includes provisions that prohibit practices that avoid the provision of care.^{20, 21}

Just about every health care expert—even those who favor Medicare for All—would argue that the nation must move away from uncoordinated fee-for-service care and toward coordinated care under incentives such as those fostered by capitated prepayment, rewarding sound management of care.²² If plans and providers bear the risk from providing low-quality care, they deliver high-quality care. Putting the entire nation under the system of traditional Medicare would be precisely retrograde by that standard. The prospects are far better if the marketplace for health care plans is improved.

SLOWING THE GROWTH OF THE COST OF CARE

The cost of care today is not only high, but rising rapidly. The status quo is therefore unsustainable. Medicare for All would likely increase and accelerate that growth, for seven significant, substantive reasons:

First, if Medicare for All achieved true universal coverage, it would add perhaps 30 million beneficiaries of care. All Americans should be covered, but the cost of doing so cannot be ignored.

Second, the existing Medicare for All proposals would eliminate all copays and deductibles for services and for pharmaceuticals; health care would become totally free. Such cost relief for the most affluent is excessive. That would increase the demand for care. The result would be lower supply and what is experienced elsewhere around the world (e.g., Canada and UK): a triage on treatment and longer wait periods, especially for basic conditions.²³ Third, Medicare for All would widen the range of covered services under most health care plans (including dental and vision coverage, among others), further exacerbating cost in an already unsustainable economic model.

Fourth, and looking now at the current Medicare program, Medicare for All would eliminate the promising cost-effective private alternative of Medicare Advantage. Fifth, Medicare for All would eliminate copays and deductibles not only for current private coverage, but also for all Medicare beneficiaries. Sixth, Medicare for All would pay by the service, and so would encourage the delivery of more services. The incremental cost would be exorbitant.

And seventh, even Medicare for All advocates recognize that current Medicare reimbursement rates would not be tenable for the entire US health care system.²⁴ Under current law, providers lose money delivering Medicare services under low government reimbursement rates (government reimbursement rates for Medicaid are even lower), but make that up by charging higher prices to private patients. Providers—especially small rural hospitals—could not survive at current low Medicare reimbursement rates. Thus, reimbursement rates would have to rise above current Medicare levels, increasing Medicare costs proportionately.²⁵

All of these changes would increase total US health care costs substantially. One current estimate is that total costs would increase by 20.6 percent when a generic Medicare for All proposal was fully phased in. All of that increase in total spending, and more besides,²⁶ would be added to the federal budget, whose health care spending would more than triple. Federal revenues would need to increase by a rough order of magnitude of three-quarters, or equivalent spending cuts would need to be imposed. Such enormous changes necessarily would have adverse effects elsewhere in society.

Against all of this added cost for the US health care system, Medicare for All could save money mainly by making its reimbursement rates lower than the average currently paid under private health care. In other words, Medicare for All would attempt to balance its books by cutting the pay of the nation's physicians, hospitals, and other providers.

The question then becomes just how much physician and hospital reimbursement rates possibly could be cut without breaking the US health care system. Some might believe that US doctors and institutions have nowhere else to go, and therefore can be forced to accept those large pay and reimbursement cuts. However, current older physicians could respond to the reduced reimbursement by retiring early, and students could choose not to pursue careers in medicine; hospitals could be closed, and fewer new hospitals opened.²⁷ Thus, the supply of care would not increase with the demand, resulting in increased waiting times for care, and upward pressure on prices, hurting those at the lower ends of the economic ladder most.

Some Medicare for All advocates believe that there can be significant savings from the elimination of insurance company administrative expense, advertising, and profit. As one example of such claims, a paper advocating Medicare for All estimates that private insurance administrative costs equal approximately 8.5 percent of total spending, and refers favorably to Medicare governmental administrative costs of only 2 percent.²⁸

This is an incomplete picture. Private insurance administrative costs are necessary to ensure accurate billing and reimbursement. Medicare administration prioritizes prompt payment over accuracy, and as a result, inaccuracy (including fraud) is a constant problem. The Government Accountability Office estimates improper payments by Medicare (and Medicaid) at 8.6 percent of total spending, and notes that the Medicare fee-for-service improper payment rate was estimated by the Centers for Medicare & Medicaid Services at 11 percent.²⁹ Thus, arguably more is lost through fraud and other improper payments than is saved by low Medicare administrative spending. Medicare for All would extend these losses from Medicare to all medical services.

Furthermore, traditional Medicare's reliance on fee-for-service medicine requires that every individual Medicare service must be accounted for and billed. Thus, administrative cost under Medicare is not limited to that undertaken by government, but rather includes the costs of detailed billing by physicians, hospitals, and other providers.³⁰

Medicare for All advocates also cite the elimination of health insurance company profit as a potential saving under their vision. Of course, every provider under Medicare for All would seek a "profit"—physicians to feed their families, and hospitals and other institutions to keep the lights on. Even a "nonprofit" hospital needs an "operating surplus," because the alternative is losses and ultimate financial failure. Furthermore, profit is the reward to economic actors for discovering better ways of doing things, and it is the incentive for them to do so. If "profit" is a net loss to society, then the federal government should be the only entity to build automobiles, deliver haircuts, and provide every other good and service in the economy.

Some who are favorable to Medicare for All have suggested that the federal government offer a public insurance plan—a "public option"—to compete with private plans. Their assumption is that the public plan would be cheaper and of higher quality, and so would gradually attract an ever-growing block of customers, and would eventually drive private insurance out of business and achieve Medicare for All without a cataclysmic, instantaneous transition. The putative objective of a "public option" would be to create competition to the benefit of consumers.

However, for the same reasons as for Medicare for All, a public option would be inefficient. The traditional Medicare model involves uncoordinated, fee-for-service care, utilizing “every willing provider” regardless of quality. There is no reason to expect that a public option would be any different. Furthermore, it would be impossible to price a public option fairly so that it could compete on a level playing field with private insurers. No one could assess the value of the federal government’s name recognition or of the administrative support of the entire federal bureaucracy. The federal government could easily miscalculate its prices and take large losses, but there could be no adequate compensation to the private plans that lost their customers in the process. And finally, there could be reasons for either healthy persons or sick persons to choose disproportionately the public or the private side. The result would be adverse risk selection, and a death spiral for whichever plan attracted the sickest patients. If the public option were to attract disproportionately sick enrollees, year after year the federal government would run growing losses, which would add to, not ease, the federal budget and debt problem.

A BETTER WAY FORWARD

A better way to address the cost and quality of health care would be to activate the private market through aggressive improvement of the current system. Such a proposed health care system would use cost-responsible consumer choice among competing private health care plans to drive the US health care system toward quality, affordable health care for all.³¹ Households would receive single-purpose refundable tax credits sufficient to purchase efficient comprehensive health plans. Consumers would seek their own self-interest by pursuing greater quality at a lower price. Plans, and their providers, would need to reduce cost and improve quality to compete—the same motivation that drives progress in virtually every other industry in the US economy.

This vision is an aggressive revision of the ACA that would achieve the following improvements over the current system:

- Replace the ACA’s complex subsidy mechanism, which puts a heavy compliance burden on and may mislead families with modest incomes and has proved difficult to administer accurately. At the same time, provide relief from any plan cost sharing for lower-income households.
- Restructure the ACA exchange system to align more closely with cohesive geographic health care market areas and to provide better information and decision support.
- Broaden the exchange populations to increase the numbers of enrollees and also their risk diversity, especially in small geographic areas.
- Expand the ACA’s increase in consumer choice of insurance plans—which is the key to competition and innovation.
- Further challenge fee-for-service medicine, which continues to shackle competition and process improvement to almost the same unfortunate degree as under the pre-ACA system.

- Go further than the ACA to promote potentially valuable disruptive care-delivery models and tort reform.
- Reorient the ACA's Independent Payment Advisory Board (IPAB) to provide information for, rather than inject remote government judgment into, the physician–patient relationship. This would include expanding data gathering and research to inform physicians and patients in their own decision making.
- Reduce the ACA's reliance on a system of state regulation that inhibits essential competition and market entry.

Notably, this approach is similar to several existing highly successful systems: the Federal Employees Health Benefits Program, the California (CalPERS) and Wisconsin state employees systems, the Stanford University employees system, and several others. Each of those systems has resulted in high enrollee satisfaction and lower costs.³² However, such a system would be vastly more successful if extended nationwide, forcing all health plans and providers to compete, rather than allowing them to retreat to noncompetitive segments of the health care market.

The above recommendations would force health care plans, like all other enterprises in the US economy, to improve quality and hold down cost to attract customers. However, even the recommended plan would not constitute a full and instant answer to our nation's health care problems. Local monopoly power of plans, hospitals, or other providers could prevent the beneficial competition that CED's vision would seek, and such market power must be corrected under any reform. Clearly, the US faces a daunting health care challenge even after the pandemic is vanquished. America's voters must be fully informed and must demand clear and achievable action from our political candidates as we collectively choose a future. These recommended reforms can set us assuredly on a reasoned course in our nation's interest.

Endnotes

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- 5 Peterson Foundation, [“How Does the US Health Care System Compare to Other Countries?”](#); Julie Potyraj, [“The Quality of US Healthcare Compared with the World,”](#) *AJMC Managed Markets Network*, February 11, 2016. The US performs well in some areas of care, especially complex acute care, and some of our nation’s poor health outcomes can be assigned to social factors (poverty, violence) or even affluence (our high incomes and comparatively cheap food can contribute to obesity).
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- 24 Both current Medicare for All bills would establish new processes to set reimbursement rates, rather than adopting the current fee schedule (see: [S. 1129, To establish a Medicare-for-all national health insurance program, Section 612](#); [H. R. 1384, To establish an improved Medicare for All national health insurance program, Section 612](#), Congress.gov).
- 25 In addition, the current House Medicare for All bill would cover custodial long-term care as well as acute and preventive care, which would increase demand substantially.
- 26 Health care spending by state governments and households would be substantially reduced, and spending by employers would be eliminated.
- 27 In addition, much of the current health care system—including the training of physicians, and the construction and acquisition of hospitals and equipment—has been financed at least in part by debt. Cutting reimbursements runs the risk of cascading defaults and bankruptcies, which would not well serve the affected providers or the public.
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SUSTAINING CAPITALISM

A series focused on nonpartisan reasoned solutions in the nation's interest to the central challenges we face in order to provide prosperity for all Americans.



US Health Care in the Pandemic

Within a few short weeks in early spring, the COVID-19 pandemic began to unleash its devastation on the health and economic well-being of the American public. With this attack, it challenged the structure and basic foundations of the US health care system. In response to the growing deluge, US health care workers, public health officials, and health care industry leaders were the front line of defense against the virus. The whole country witnessed their extraordinary courage, fortitude, and rapid and unyielding response. A government stagnated by partisan politics joined to swiftly pass unprecedented relief and support legislation, waive regulation, and launch a historic, large-scale vaccine and treatment development effort in collaboration with the private sector.

The US health care system has not collapsed. But as the US emerged from the initial weeks of the swift, unprecedented, and devastating destruction of the COVID-19 global pandemic, several significant shortfalls in the health care system became clear: the ability of the structure of the system to handle the challenge; the nation's preparedness when the pandemic began; and finally, how the system has performed given the resources we have on hand.

These three problems could be restated as:

- 1 How should the nation change the fundamental structure of the health care system?
- 2 What should we do now to respond to the current pandemic?
- 3 And what should we do, once the smoke clears, to prepare for future pandemics?

1. The Structure of the US Health Care System

It has become almost a cliché to say that the COVID-19 pandemic has exposed preexisting weaknesses in the structure of US health care system, and that is certainly true. But different observers have seen different weaknesses and drawn different conclusions.

Between 12 and 16 percent of Americans reported lacking health insurance over the six years 2014–2019,¹ and many more people have lost jobs and thus employer coverage during the pandemic,² testing our system of employer-based insurance. However, our nation's deficient pandemic response went beyond lack of insurance. Certainly, many uninsured feared the financial consequences of seeing a doctor or going to a hospital, and so may not have received care.³ But doctors and hospitals were unable to cope with the number and condition of people who did show up.

Certainly damaging to the health care system, and therefore all the people it serves—whether they pay or not—were the layoffs of doctors, nurses, and other health care workers, and the shutdowns of service delivery apart from COVID-19 treatments, because of the financial stresses on hospitals and other institutions. In part that was because COVID-19 and other patients could not be served together to prevent contagion, but regulatory relief allowed the opening of new temporary facilities to facilitate separation of patients. More importantly, the health care system's fee-for-service core, based on administratively determined reimbursement schedules, did not have predefined reimbursable services for a novel coronavirus with no known cure.⁴ The White House had to improvise a response, and there was considerable confusion over the practical effect.⁵

The financial stresses on hospitals while they were filled to capacity illustrate our unsustainable system of cross-subsidization between different groups of people for whom different providers deliver different services, which are reimbursed by the piece—with profitable services covering the costs of other services delivered at a loss. But more profitable procedures have been crowded out by the focus on COVID-19 care.⁶

In short, we have a reimbursement design failure. We need a system that reimburses providers for maintaining health, including such prosaic tasks as badgering patients to be personally responsible, rather than for maneuvering an administrative price list. Such a “population health” approach or focus on “the social determinants of health” could respond to the inequitable outcomes of US health care among vulnerable and disadvantaged groups, which are driven by, for example, unsafe living conditions in the event of contagious disease, or a lack of access to healthful food. However, so investing in a healthy population is antithetical to the fee-for-service system, and will not be driven by it.

The 2020 Solutions Brief entitled [A New Path on Health Care](#) describes a comprehensive alternative to the current system that would incentivize the formulation of plans to reward the delivery of quality, affordable care. Such a system would deal better with future pandemics, or merely deliver affordable care to all should we be spared another trial like this one.

2. Addressing the Current Pandemic

The US pandemic is changing constantly. New cases peaked in early April, and thereafter slowly declined. The comparatively large states around the New York international transit hub endured their pandemics first, and incidences there are generally declining.⁷ But a resumed rise began in early June. The virus spread slowly, and now, as the economy reopens, parts of the country that at first saw few infections are beginning to see their own aggressive first waves. State economies outside of the initial hot spots reopened quickly, some with insufficient testing data and with confusing and conflicting public health policies and messaging. Hospitalizations are rising,⁸ and there is significant risk of breaking hospital systems in the regional hot spots, exceeding their available capacity and going back into “crisis mode,” to the detriment of public health broadly. Death rates have been down, in part because the care response and treatments are improving and, in places, the demographics of the infected have shifted to a younger cohort. But deaths are a lagging indicator.

We have learned much about the coronavirus, but there is much left to learn. We know with imprecision that many people have been infected and survived, but unfortunately, the results of “serology” or “antibody” tests (which detect past, defeated infections) are erratic and inaccurate. Thus, we do not know the extent of immunity of recovered infected people; there is some evidence of reinfections.⁹ So as the pandemic travels the country, leaving the initially hard-hit Northeast and moving elsewhere, we cannot know whether it could circulate indefinitely. Public health officials have raised concerns about a second wave coinciding with flu season overrunning the capacity of our health care systems and infrastructure. And, if the 1918 “Great Influenza” serves as an example, a third wave is also of concern.¹⁰ Therefore, we do not know what continuing level of resources will be needed until the virus is finally defeated. And as the pandemic touches every part of this large country, every part needs adequate resources of all kinds in a timely manner.

SUPPLIES. In the near term, supplies of personal protective equipment (PPE) must be replenished and ample; there must not be a replay of health care professionals putting themselves in harm’s way without proper equipment. And for the infected, all manner of therapeutic supplies and equipment likewise must be readily available.¹¹ Over time, the health care system is learning how to manage the virus, if not to cure it.¹² Better management can reduce the need for supplies. However, the old adage to “hope for the best and plan for the worst” remains appropriate.

At the outset of the pandemic, there were multiple shortages.¹³ Supply shortages anywhere can spark panic buying by hospitals, governments, households, and businesses that provide for their employees. Such rush demand forces individual institutions to bid against each other and drives up prices.¹⁴ Now, the health system is learning to deal better with COVID-19 cases.¹⁵ However, if the current regional upswing continues and spreads, the need for supplies will grow again, and without proper policy, panic buying could recur. The Department of Health and Human Services reported recently that the Strategic National Stockpile has only about 12 million N95 respirators and 30 million surgical masks—about 1 percent of the estimated 3.5 billion masks the nation would need in a severe pandemic. Another 5 million N95 masks in the stockpile are expired.¹⁶ The stockpile has not been substantially replenished since the last virus outbreak in 2009.

The nation needs a serious ongoing assessment of the short-term availability of drugs, sophisticated equipment, and even basic items such as masks, face shields, and surgical gowns. Justifiable market management can include purchase by a single government buyer at fair market prices (which must be agreed to by the sellers), coupled with government allocation among users according to need (which in an emergency will be contentious).¹⁷ One example of justifiable government market involvement is invocation of the Defense Production Act (DPA).¹⁸ Among its authorities, this law empowers the federal government to require acceptance and priority performance of contracts or orders and to allocate materials, services, and facilities to promote the national defense, including the public health. Presumably, the prospect of its invocation could lead a private firm to work with the federal government voluntarily. However, the utility of the DPA has its limits. A randomly selected manufacturer, however skilled at its own line of business, might not necessarily be capable of producing a complex, regulated supply or device in quantity and in time during massive emergency demand. Therefore, planning before a critical shortage is important, as is discussed below in the context of preparation for future pandemics.

TESTING. There are varying assessments of the need for testing for both active and past infection. After identifying an active infection, necessary follow-up includes tracing recent contacts, given the possibility of asymptomatic spread of the disease, and isolation of the infected, to prevent further spread. Testing of those who frequent “hot spots” and other vulnerable locations is productive. Although different reasonable methodologies prescribe vastly different levels of testing, the US has lagged behind even the lowest.¹⁹ One benchmark is that a relatively high percentage of positive test results indicates that testing is not broad enough, and that other vulnerable populations have not been tested and should be identified to contain the virus.²⁰

An accomplished test requires specialized swabs, reactants, equipment, and trained personnel. Testing kits are not standardized, and should not be so long as the technology is improving. Different tests might work better for different disease strains and different individuals, and also enable different manufacturers to produce test kits to meet the large need. However, a particular laboratory may or may not be able to analyze the output of a particular testing kit, which can add a bottleneck to testing.²¹ In the short term, cooperation among existing labs should include expanding capacity and adaptability.

The nation has not yet capitalized on the information that testing yields. Contact tracing requires many skilled and trained personnel. Furthermore, people who test positive can be unwilling to reveal their contacts.²² Cell phone apps that could identify contacts of people who test positive are powerless if people do not have cell phones, fail to install the apps, or refuse to self-identify as having tested positive. Isolation facilities are needed for people whose home situations do not provide adequate isolation.

Meanwhile, assuming that it can be made reliable, serology (antibody) testing can help to assess community spread, which can in turn help to assess the safety of reopening schools and other vulnerable locations. However, the US Food and Drug Administration and the Centers for Disease Control and Prevention have cautioned against using serology test results for public policy decisions. Serology tests for COVID-19 are new and of questionable reliability. Furthermore, testing in populations with generally low infection rates can yield a high percentage of false positive results, and even if positive test results are accurate, infection with this coronavirus may not yield the expected immunity.²³ Thus, antibody testing

that suggested either individual or “herd” immunity could instill a false sense of security for a particular individual. However, as the technology improves and good tests drive out bad, results from large populations can contribute to the ultimate defeat of the virus.

PHARMACEUTICALS. Many firms struggle to develop vaccines and therapeutic drugs. This coronavirus may not yield an effective vaccine. Assuming it does, the challenge remains monumental. The highest priority is safety. The US public is unprecedentedly skeptical of expertise in general, science in particular, and vaccines specifically. Widespread adverse reactions to a vaccine could set back public health dangerously. And localities will face a fraught decision over whether to add a COVID-19 vaccine to any list of vaccines required for school attendance.

Assuming that a vaccine is safe, its efficacy requires that it stimulate specific physiological reactions rather than many possible ineffective alternative reactions. There is some evidence of reinfections among recovered COVID-19 patients, which clouds whether such efficacy is attainable, and if so, how long it would last. If vaccinated individuals subsequently contract the disease, the renewed outbreak and the loss of public trust would be devastating.

Vaccine development has been accelerated because of the widespread public harm. The scientific community insists that not the science, but the production process, is being accelerated. At financial risk, which is being subsidized by government, vaccines that show initial promise will be manufactured before they are proven effective. If the trials are ultimately unfavorable, the vaccines will be thrown away, and the cost of production will have been wasted, but policymakers have accepted this risk. However, the scientific task is not trivial. Production facilities are limited. Only so many among the well over 100 candidates can be chosen for early production. Given that several vaccines will be needed to suit different patients and circumstances as well as to facilitate high production, the early choices based on only limited information will be critical. Additional bottlenecks in the process include high-quality glass and stoppers for the vials to distribute the vaccine.

Prospects for therapeutic drugs are somewhat more favorable. Whereas a vaccine must be developed specifically for this virus, preexisting antiviral and antisymptom treatments may work. Searches of the pharmaceutical industry’s preexisting inventory found remdesivir, for example, which shortens the duration of moderate COVID-19 cases (although it may not reduce mortality). And the steroid dexamethasone reduces mortality in severe cases (but is of no benefit in more moderate infections). Other existing therapeutic drugs may be identified, and new ones may be developed.

Unless this virus subsides more quickly and quietly than it appears willing to do, the nation faces a significant challenge. If the apparent current surge in cases should continue and spread, all progress to date is at risk. Public policy faces a painful and frustrating slog against widespread frustration with self-quarantining and enormous economic loss. However, progress against the disease could yield enormous benefits, both human and economic, that would well justify the cost.

HOSPITALS. Techniques used in the initial outbreak of the virus may well be needed in the continuation of a nationwide rolling first wave, or in a second or third wave in the fall or beyond. Over such short time frames when conventional construction is not possible, temporary facilities that would not normally pass regulatory muster can be essential. These can include new temporary structures where local conditions permit, or repurposing of existing vacant buildings. Military hospital ships were deployed near the initial hot spots. Existing hospitals can operate jointly to concentrate contagious people away from other emergency patients. Regulatory relief is necessary for many such emergency adaptations.²⁴

To defeat the current outbreak, difficult necessary steps include:

- 1 Restock and maintain the Strategic National Stockpile with both sophisticated materials, such as pharmaceuticals and ventilators, and everyday supplies, including masks, gloves, and surgical gowns, against the prospect of a reinvigorated pandemic or a second wave in the fall. Sound management includes ensuring that long-lived materials are usable, and renewing expired items before they are needed. Develop protocols for allocation where supplies are most needed.
- 2 Increase testing, which is demonstrably insufficient to identify affected populations and track outbreaks. Improve the quality and reliability of serology testing. Invest in tracking and tracing confirmed victims and their contacts, and in isolation capacity where needed.
- 3 Develop vaccines and therapeutic drugs robustly, first maintaining safety, and then achieving efficacy. In particular, multiple vaccines will be needed for adaptability and rapid manufacture, and the best scientific judgment will be needed to choose among the many candidates. The cost will be considerable, but the benefit could be orders of magnitude greater.
- 4 Engage in regional contingency planning to provide adequate hospital capacity, and provide emergency regulatory relief as necessary.

3. Prepare for the Next Pandemic

If the nation is to be ready for future outbreaks, a purposeful and self-critical evaluation of the response to the current pandemic, with experts from all relevant disciplines, will be essential. Many aspects of contemporary life (rapid international travel; ecotourism and the expansion of densely populated urban areas that increase human-to-animal contact, which can spread viruses; climate change that causes animal migration to new human-inhabited locations; conflict that creates refugee populations and stresses water supplies and sanitation systems) could make pandemics more frequent. Notably, the world has seen three coronavirus outbreaks in the last 20 years, and the earlier two (SARS and MERS) were more frequently fatal than COVID-19; mankind was saved from worse outcomes only by their lesser transmissibility.

In no way prejudging what an ultimate review will show, several challenges are already apparent.

International cooperation will be essential. The current pandemic is extraordinary because of the latency of the disease before symptoms emerge and the likelihood of presymptomatic contagion. However, the same or even worse could recur. Without constant information flow around the world, the next pathogen could again arrive on our shores before the email. After this painful experience, a substantive review should yield not finger-pointing, but rather intense self-interested cooperation.

The Strategic National Stockpile of PPE and other essential supplies was inadequate for this pandemic. The stockpile should cover immediate emergency national needs, before surge production can begin, and beyond what private institutions and states can be asked to fund, store, and maintain. Scenario plans must be shared so that states, localities, and health care providers can plan accordingly. Cooperation among states and institutions should be encouraged, but public investment must provide for low-resource institutions that serve poor and vulnerable populations. Decisions regarding the division of responsibility between private and public institutions raise fundamental questions about the nature of our market-driven economic system and the role of government, which this planning process should recognize and address head on.

The stockpile has been addressed in legislation, but a long-term response requires both money and smart management. Part of the current failing was misjudged priorities. Quantities of basic supplies like masks, gloves, and surgical gowns were not sufficient. And though experts have maintained (accurately) that the greatest pandemic threat is a virus, and future science should prioritize the development of multipathogen vaccines and therapeutics for viruses, those drugs do not exist at this time. Thus, for the pandemic contingency, there should have been less emphasis on drugs (which could not address a virus), and more on simple supplies to treat patients with the limited available therapeutics. Furthermore, among those supplies, masks proved the hardest to obtain and should have been given higher priority in the stockpile beforehand.

Supply chains need a detailed assessment. Global pandemics tend to be exactly that—global—so sole or major sources of essential supplies overseas can be expected to be unavailable in an emergency as production is slowed by the pandemic, the home countries demand that necessary items be kept at home, or transportation is interrupted. The US can certainly use global supply chains to achieve adequate and affordable stockpiles before an emergency, but must have supply-chain redundancy and flexibility *during* an emergency that demands additional surge capacity.

To be so prepared, the US should have contingent contracts with domestic producers, just as we have contingent personal commitments from the National Guard and military reserves. These contingent contracts will entail costs, which are necessary for the public safety. Similarly, achieving adequacy in the Strategic National Stockpile is not a one-time expense; the stockpile must be maintained, and items must be replaced as they exceed their useful lives.

Physical facilities for treatment are needed, including surge hospital space—which must allow separating potentially contagious pandemic victims from other patients—and isolation capacity for people who have contacted the infected. US regulation has waived restrictions on temporary repurposing of vacant buildings and permitted construction of temporary facilities that would not normally be allowed.²⁵ Those regulations should be parsed, perfected, and perhaps made contingent for future emergencies. However, the nation should be better prepared, including plans and locations for temporary facilities, and inventories of usable active and inactive hospital facilities. Military hospital ships could again be deployed. Such surplus facilities must be maintained, at an ongoing cost which should be borne by the public through government, not as part of the cost of ongoing private health care.²⁶ Contingency planning should include and involve all medical facilities and their managements, so that they can cooperate to (for example) separate contagious patients in separate facilities while continuing treatment of others with nonpandemic health problems, and respond in regionally differentiated ways based on the incidence of the pandemic. At the same time, nursing home standards must be evaluated in light of the contagions that occurred in this outbreak.

Telehealth has proved invaluable in facilitating treatment with less risk of contagion. Some recent successful regulatory easings and extensions of insurance coverage might be continued indefinitely, while others should be suspended when the pandemic ends, but be ready in the event of another outbreak.²⁷ Providers need consistency in insurance coverage so that they can make sound treatment decisions.

Testing, tracing, and isolation must be better in the next pandemic. Any novel coronavirus will require some new testing materials that cannot be stockpiled. However, as pharmaceutical science sorts out the current testing innovations, stockpiling of components that could be used in different types of test kits should be undertaken.

Public health infrastructure and workforce development needed for the labor-intensive testing and tracing, and public health generally, must be strengthened. In the public debate, when substantial increases in testing and tracing are proposed, the lack of skilled personnel is as worrisome as the lack of supplies and hardware. (And although technology could facilitate tracing, privacy concerns and the lack of deployment of cyber tools must be resolved.) More broadly, emergency regulatory easing to allow personnel to practice outside of their areas of primary expertise should include liability protection.

Vaccines and therapeutic drugs can be developed ahead of a pandemic, but the task is challenging. For both, the nature of viruses has hitherto required a unique response to each pathogen—“one bug, one drug.” However, science is pursuing drugs that could treat multiple types of viruses and so could be stockpiled in advance.²⁸ Notably, however, there is little market incentive for advance development of such wide-ranging antiviral vaccines or therapeutics; with no early outbreak, there is no financial return. Therefore, the taxpayer must demand and fund pharmaceutical preparation for the next pandemic.

In sum, after the current pandemic is vanquished but well before the next one arrives, the nation must achieve:

- 1 True international cooperation and openness for worldwide early warnings.
- 2 A well-thought-out and well-funded stockpiling policy.
- 3 Possession of, or ability to obtain on short notice, physical facilities for treatment and separation of the infected, the symptomatic, and their contacts.
- 4 Capacity (including skilled personnel) to develop and deploy massive testing, and to trace and isolate the infected.
- 5 Development of new multipathogen vaccines and therapeutics for likely future viral outbreaks.
- 6 Trust in government as a source of reliable and sound guidance.

Conclusion

The COVID-19 pandemic has imposed an enormous cost. US preparation can be improved. The nation must manage its current situation intelligently and learn to minimize the costs of likely future pandemics. Today's experience was hard earned and must not be squandered. US leadership is truly on the line as we react now and plan for tomorrow.

Endnotes

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SUSTAINING CAPITALISM

A series focused on nonpartisan reasoned solutions in the nation's interest to the central challenges we face in order to provide prosperity for all Americans.

US Fiscal Health Is There Life After Debt?

Even before the COVID-19 pandemic of 2020, the United States faced the most serious fiscal threat in its modern history. The economic devastation wrought by the outbreak has made the problem far worse. Despite the very serious threat to US fiscal health, this issue does not rank among the top five for American voters in the 2020 election campaign.¹

CED addresses the direct impact of the pandemic elsewhere in this series. This CED Solutions Brief will explain why even the prepandemic threat must be a public policy priority.

The United States was born with a legacy war debt, and no mature public institutions to manage it. However, our nation found its footing, in large part through a public pronouncement that it would honor that debt. On several occasions since, we have accumulated substantial debt. However, in every instance that debt has resulted from the costs of a war, and once that war ended, the debt quickly subsided (Figure 1, page 3).²

For the last 40 years, however, the public debt has been mounting in a time largely of peace, when we have had only smaller military engagements.³ The debt jumped sharply during the global financial crisis of 2007–2009 and has continued to grow faster than our nation's collective income (our gross domestic product, or GDP), even during the continued economic expansion over the last 10 years. This vicious spiral in good economic times is unprecedented.

But this current and ongoing US fiscal challenge, which existed before the pandemic, is new and different in several dimensions beyond just its broadest historical outlines. Past war-related episodes of threatening debt and deficits have certainly required forbearance from gratifying tax cuts and spending increases. But in each of those instances, once wartime military expenditures ended, the inertia of budgetary forces—the “baseline” of customary public expenditures and revenues—naturally brought the deficit down.

Recommendations

Reform the US health care system. Health care costs are growing unsustainably, bloating the public debt, inhibiting business hiring, and eroding household incomes, especially for low- and moderate-wage workers. The US needs to implement cost-responsible consumer choice among competing private health care plans to cover all Americans and incentivize all providers and plans to deliver quality, affordable care. The same general approach can control costs in Medicare, through expansion of the successful Medicare Advantage program.

Reform the US income tax. Revenues today are running lower than the average of the last 70 years, including years of recession, and significantly lower than they were when the budget was last in balance. Even the best plan to right the incentives in the health care system will take years to rebuild the market and reduce costs. Greater revenues will be needed to slow the unsustainable growth of the federal debt. A better tax system after the general model of the Tax Reform Act of 1986 will eliminate tax preferences, including for capital income, and reduce tax rates across all income brackets. The earned income tax credit should apply more broadly to enhance work incentives for low- and moderate-wage workers. If the revenue gain from such tax reform is insufficient, as CED has predicted, an additional value-added tax (VAT) would be needed.

Refinance Social Security. After health care, Social Security is the largest cost driver in the budget because of the aging of the population. At the same time, Social Security is a lifeline for seniors who have earned low wages over their lifetimes, and for widows and divorced older women, especially those who worked in the home or had only intermittent spells in the workforce. A revitalized Social Security program would recognize the improved status of longer-lived healthy seniors while providing greater protections for the least well-off.

The remainder of the budget. The long-term pressure on the budget is heavily concentrated in health care and Social Security. However, the budget problem is so large, and programs focusing on seniors so slow to change, that savings must be found in other entitlement programs and annual appropriations. Still, the public and elected policymakers must be realistic, and be informed that the miscellaneous programs in the budget are small, are not growing rapidly, and cannot supply all the savings needed to head off the rising federal debt. Diligent budgeting must provide for our national defense in a hostile world and for the education, research, and infrastructure necessary to support a growing economy.

The budget process. As budget experts have long noted, “The process is not the problem; the problem is the problem.” Rules cannot substitute for political will. However, elected policymakers have not sat down together and addressed the problem. The CED has suggested that initial negotiations center on a simple and unavoidable question: What level of debt, expressed as a percentage of GDP, is too high to be acceptable? (An 85 percent of GDP maximum exclusive of pandemic costs surely would not be too strict.) With that question negotiated and answered, our elected leaders will themselves have demonstrated that they must agree on a plan that will stop the growth of the debt before it reaches that limit. The PAYGO budget process was successful when it was enacted in 1990, 1993, and 1997, yielding budget surpluses from 1998 through 2001. It can be modified to require future pay-as-you-go savings to overcome the current rising baseline deficits. Through such a system, our elected policymakers can mandate the savings that they must achieve. And in this time of stagnant incomes and inequality, this process must be open, transparent, and responsive to the least well-off.

The degree of restraint needed to reach that baseline increased from episode to episode over time, but even in the latest fiscal challenge (in the early 1990s), once firm remedial steps were taken, time came to be our friend.

That is not the case today. Even before the pandemic and the financial crisis, the federal budget had begun to slowly deteriorate from year to year. Now, that deterioration is accelerating. This time, the budget problem will not solve itself. It will take serious action, beyond the scope of past remedies, to turn the rising debt tide. And there are risks—of low but nontrivial probability—that the problem could worsen quickly and uncontrollably. Prudent public stewards must face up to this issue before it gradually or suddenly threatens the solvency of the United States.

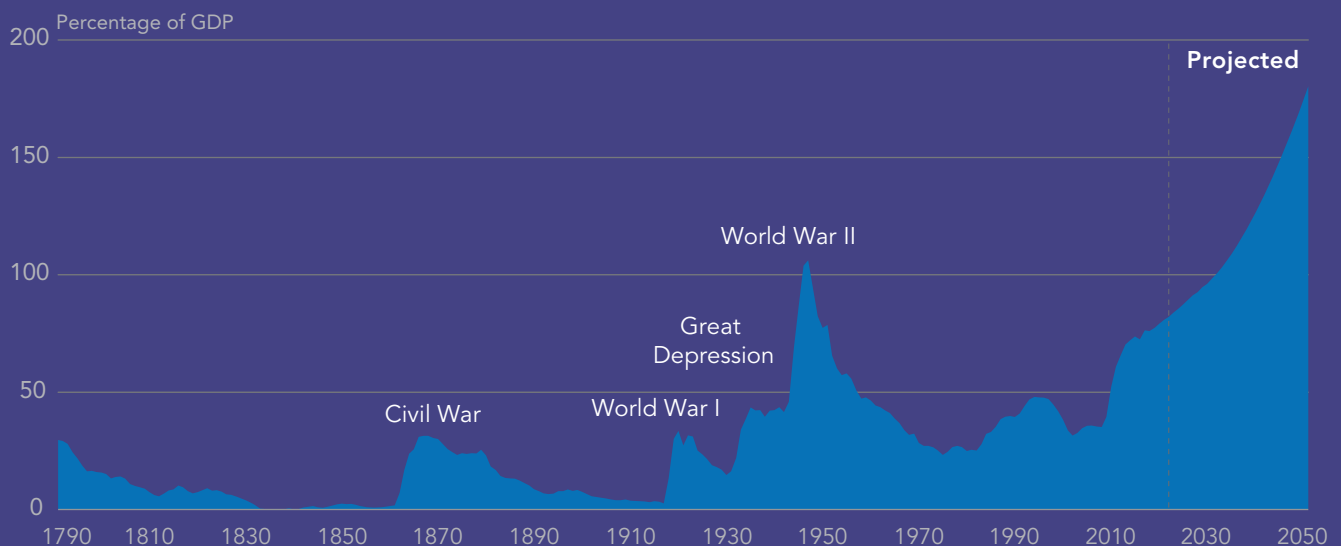
DIMENSIONS OF THE PROBLEM

The nation's large annual deficits are piling up debt faster than the economy is growing. It is as though a family's home mortgage balance were rising faster than its income. This cannot continue indefinitely.⁴

According to the January prepandemic outlook of the Congressional Budget Office (CBO), the federal budget deficit was projected to rise from \$0.984 trillion in fiscal year 2019 to \$1.742 trillion in fiscal year 2030—from 4.6 percent to 5.4 percent of GDP.⁵ Those excessive deficits would drive the public debt to rise from 79.2 percent to 98.3 percent of GDP, which would be the highest level since 1946, in the immediate aftermath of World War II, which in turn was the highest in the nation's history.⁶ In fact, it would take a 10-year deficit reduction

Figure 1

US public debt grows in major wars, declines after—until now



Source: CBO's January 2020 report *The Budget and Economic Outlook: 2020 to 2030* (Figure 1-4)

package of about \$4.2 trillion—more than 1.5 percent of GDP, and very nearly the largest ever by that measure—just to keep the ratio of debt to GDP below 85 percent within that 10-year prepandemic budget window.

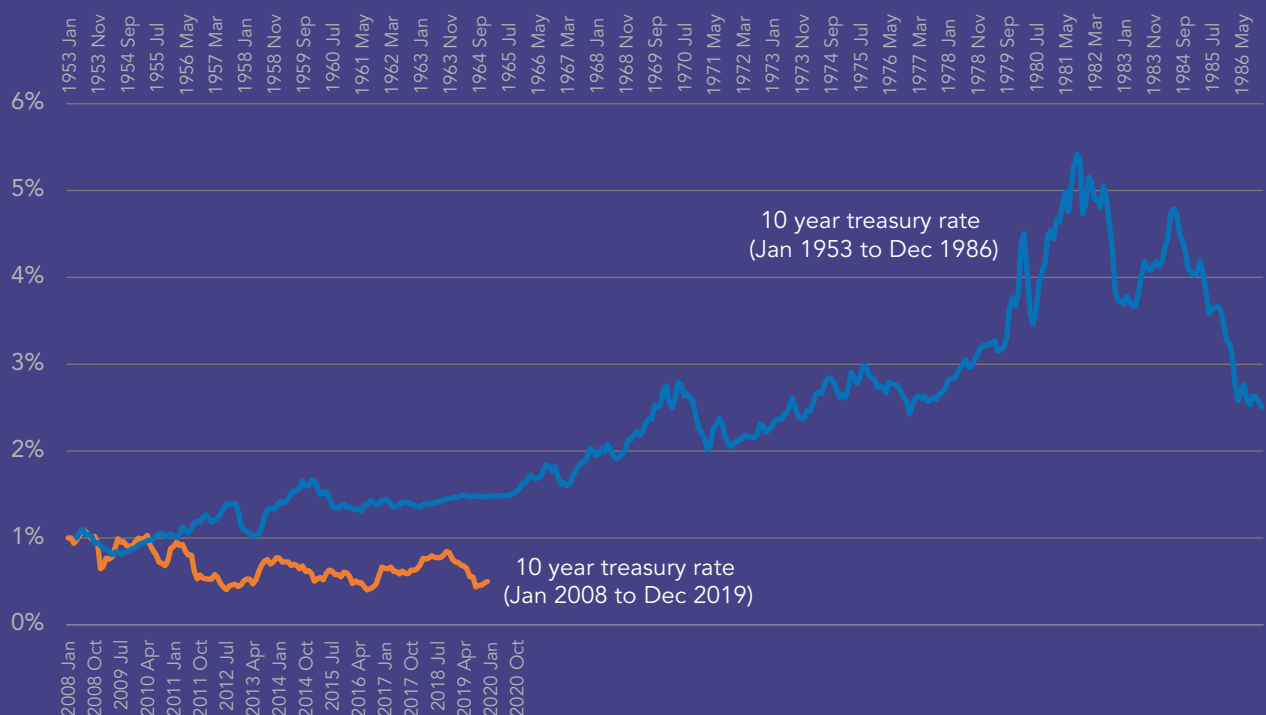
COSTS AND RISKS

Such an extreme debt burden outside of a world war (or civil war) would be totally unprecedented. It would carry multiple costs and risks. These continuing deficits would have to be financed by borrowing from abroad. With certainty, such immense borrowing would detract from the US' own already troubling, mediocre rate of productive, domestically financed business investment, making our nation poorer in the long run.⁷ As a mature, developed nation, we cannot collectively borrow our way to prosperity and world leadership.

Equally concerning is the risk that financial markets will someday refuse to lend to a nation whose public debt is so extraordinarily burdensome. Foreign lenders could come to question our ability or will to tax ourselves sufficiently to service such a growing debt. To be sure, there has as yet been no such reaction; interest rates on US Treasury securities are quite low by historical standards. One controversial point of view is that a nation that supplies the world's reserve currency, and therefore can borrow in its own currency, can simply pump out more and more paper, and will never be subject to discipline

Figure 2

US interest rates grew after years of stability, 1953–1986



Source: U.S. Department of the Treasury

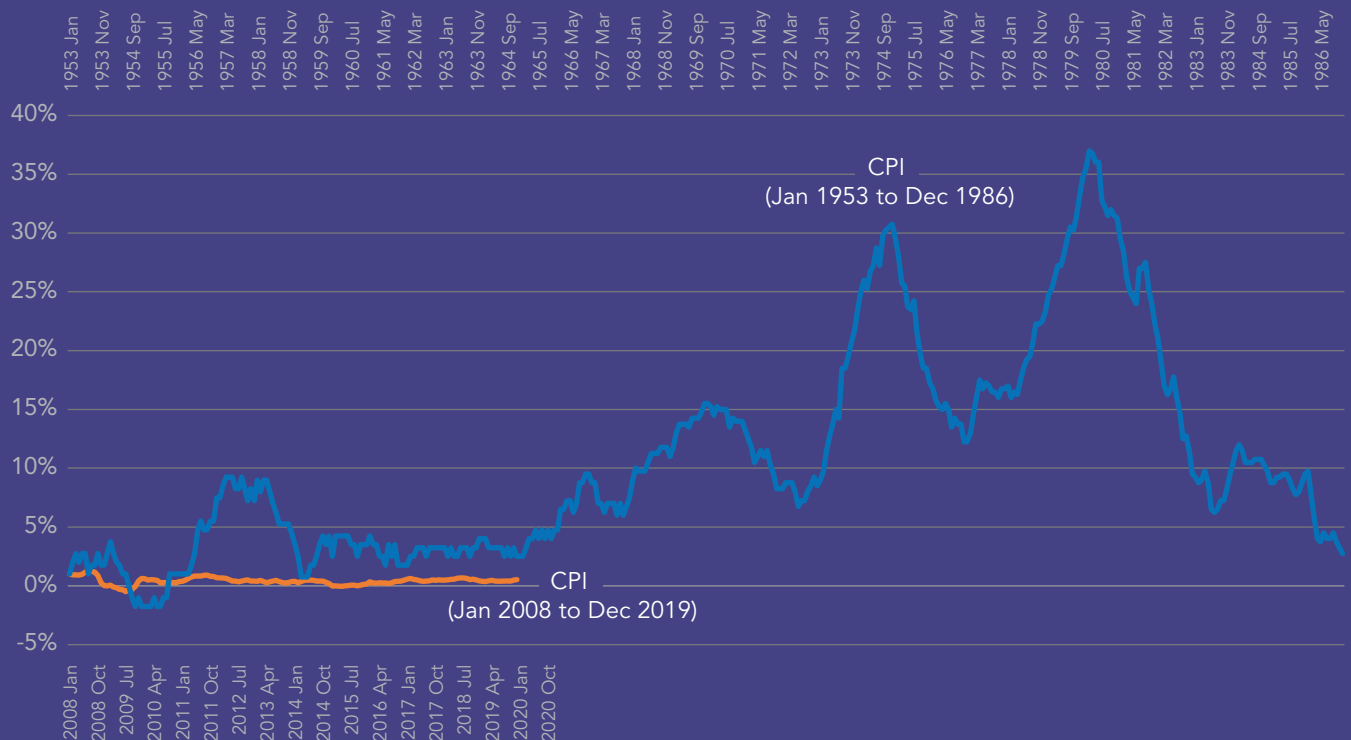
by international financial markets.⁸ Another line of reasoning to the same practical conclusion—that “debt doesn’t matter”—is that US interest rates are so low, and will remain so low, that the federal government can service far more debt than was thought feasible in the past.⁹

The United States must not become so blasé; the downside is far too steep. Continuously rising debt will certainly erode the nation’s wealth, reduce investment, and hobble productivity growth. Furthermore, the growing debt-service burden will demand increasingly higher taxes, which will breed resentment among taxpayers and reduce the federal government’s ability to supply needed services, including but not limited to the education, infrastructure, and research that help the economy grow. The latest CBO deficit and debt projections, which show such a growing debt burden, have already assumed interest rates well below any sustained levels prior to the financial crisis.¹⁰

Advocates of tolerating the current high deficits often claim that today’s economy is permanently changed, and inflation and interest rates will remain low forever. That is a high-stakes bet. Figures 2 and 3 (page 4 and below) show that inflation and interest rates stayed low in the 1950s and early 1960s for far longer than they have since the global financial crisis of 2007–2008, but nonetheless spiked upward for almost two decades

Figure 3

US inflation accelerated after years of stability, 1953–1986



Source: U.S. Bureau of Labor Statistics

after international conflict and oil market disruptions starting in the late 1960s. The fiscal miscalculation with respect to financing the Vietnam War led to large deficits and startled financial markets. It was followed by the Middle East oil embargo, which drove inflation even higher. Admittedly, today's large deficits have not yet had that effect. But today's debt is already almost triple the size of that of the late 1960s relative to GDP. Allowing these deficits to run is tantamount to placing an enormous bet on the proposition that interest rates will *never* rise. History does not encourage prudent policy leaders to place such a bet, nor does careful analysis. Interest rates one percentage point higher than projected—still below historical averages—would add more than \$1 trillion to the public debt over 10 years.¹¹

Policymakers should not assume or hope that today's low interest rates will solve the problem for them. They should instead attack the problem, knowing that financial markets that see true fiscal discipline will be much more likely to help by holding interest rates lower than they otherwise would be.¹²

THE CAUSES

The budget deficit is the difference between spending and revenue. Some believe that the problem lies solely with one or the other. Dispassionate analysis can yield a more useful answer.

In fiscal year 2019, when the budget deficit was 4.6 percent of GDP, total revenues were 16.3 percent of GDP. On average from 1950 through 2019 (including recession years, when revenues are typically low), revenues averaged 17.3 percent of GDP. Over the most recent period (1998–2001) when the budget was balanced, revenues averaged 19.4 percent of GDP. This strongly suggests that insufficient revenues are part of the problem.

The CBO long-range projections on the spending side provide an equally compelling clue. In the latest pre-pandemic projections covering 2019 through 2049, as the deficit continues to grow faster than the economy from which it must be financed, total programmatic (that is, noninterest) spending—not including health care—is expected to decline by 0.4 percent of GDP. More than all of the net growth in federal program spending comes from health care—and the great bulk of that growth comes from Medicare. That growth, 3.0 percentage points of GDP from Medicare and 1.0 percentage points from all other health programs, is substantial and unsustainable. Thus, in arithmetic terms, the unavoidable conclusion is that most of the federal government's long-run budget problem, beyond lower-than-historical-average revenues, is driven by health care costs.

The growth in Medicare spending comes in a conceptual, accounting sense from two sources. One is the growth in the cost of health care services for the average beneficiary. The other is the number of beneficiaries who must be served. The first source is at least potentially remediable; in fact, to avoid an eventual debt explosion, the nation must find more efficient ways to deliver quality health care to all Americans.¹³ However, the second part of the problem, the aging of America's population (and the consequent increase in the number of Medicare beneficiaries), will continue worsening for the remainder of this decade and beyond.¹⁴

This demographic challenge of an aging population itself consists of three parts. The most obvious part is the maturing of the oversize baby-boom generation, which will add disproportionately to the Medicare population for the rest of this decade.¹⁵ The second part is the increasing longevity of all Americans on average, of which a greater proportion will be of Medicare-eligible age and in need of more services to maintain their health.¹⁶ The third is that even the Medicare population itself is aging, with proportionately more of the elderly in their older years (using an arbitrary classification, more of those 65 and older are 85 and older) and therefore needing more care.

That demographic challenge is beyond our control. Policymakers can (and must) grapple with the monster of the rapidly rising cost of administering health care. But they cannot change the aging of the population. In fact, as we learn how to deliver better health care, Americans will live still longer, and having more older Americans, taken by itself, may well add to costs.¹⁷ Furthermore, the nation's challenging demographics add to Social Security costs in addition to increasing the costs of health care. Social Security's contribution to the long-term budget problem is much less than that of health care, but it is a rising cost nonetheless, and it compounds the already bedeviling budget challenge.¹⁸

THE CONSEQUENCES

Past episodes of rising debt in the US arose mostly because of the costs of all-out war. Once the war spending ended, the budget could recover if the tax law were left untouched and spending grew roughly with inflation (that is, was left unchanged in terms of purchasing power). Today's debt boom is different, in that it arises because of rising "baseline" peacetime spending, which unlike the costs of war, will not go away on its own. The economy has not grown and will not grow fast enough to outrun this spending, given that the spending is driven by this unprecedented and irremediable demographic wave, and the retirement of the baby-boom generation itself is slowing the growth of the labor force and therefore economic growth. This demographics-induced slowdown of labor force growth reduces the growth of economic output by at least one full percentage point per year, and probably more, as illustrated in Figure 4 (page 8).¹⁹

Therefore, the solution to the US fiscal problem must be unlike any such past episode. The task is not merely to hold policymakers to the baseline, but rather to bend the baseline downward. And with the inevitably rising costs for US health care and Social Security because of the aging of the population, the deficit will not return to a sustainable trajectory without revenues that are higher, as a percentage of the GDP, than has been the case historically. Our nation's need for national security, care for our veterans, education, research, infrastructure, and the administration of our justice and revenue systems will not decrease, and beyond those functions there is very little of the federal government left either to wither away or be cut. So demographics will push federal spending up, and while we struggle to slow that trajectory, revenues must keep pace to prevent the debt from rising out of control.

Even after the pandemic ends, and even assuming that the debt from the pandemic response is managed as CED suggests in a separate brief, large-scale, essential budget deficit reduction will be exceedingly difficult. The federal budget is way out of bounds. Large spending cuts, including savings from reform of the health care system, will impose costs on the beneficiaries of those programs but are unavoidable. It will be imperative for the process of fixing the budget to be open and transparent, and that its fairness be clear and beyond doubt.

THE CENTRAL ROLE OF HEALTH CARE

Rising health care costs are at the root of the long-term budget problem. They are also pernicious with respect to slow wage growth and inequality. Response to the pandemic will add to costs, and the pandemic has exposed the underlying health care cost problem; but the problem preexisted the pandemic and will continue after it is gone.

Most Americans probably instinctively judge their financial well-being by the bottom-line amounts on their paychecks. For those who have employer-provided health insurance, that bottom line is net of both the employer's and the employee's premium contributions, in whatever proportions the cost is divided between the two. And many people probably build into their personal "baselines" that they have insurance to provide health care;

Figure 4

Slowing labor force growth will constrain future economic growth



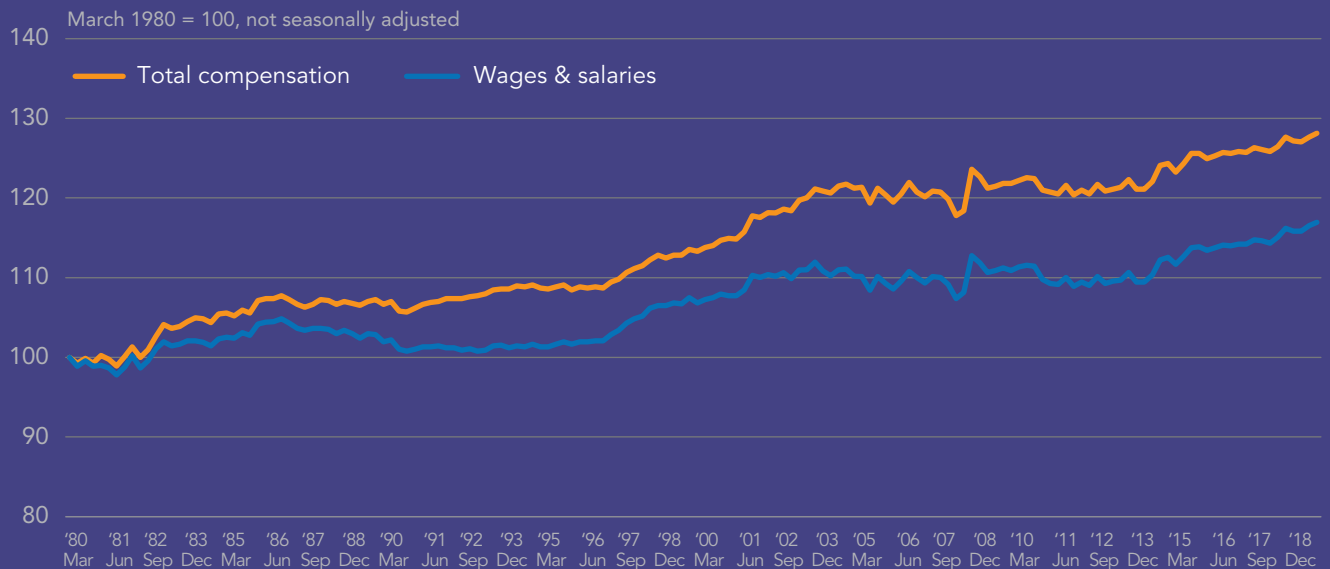
Source: CBO's January 2020 report *The Budget and Economic Outlook: 2020 to 2030* (Figure 2-6)

they assess their well-being on their wages *after* paying for health insurance, both through their employers' contributions and the deductions from their own paychecks. As health insurance has become more expensive, it has formed a growing wedge between workers' total compensation and the cash that they take home (as Figure 5 illustrates).²⁰ People surely do not believe that they are better off this year because they have a more expensive health insurance policy that provides the same benefits as last year.

In 2019, according to the Kaiser Family Foundation, the average cost of a family insurance policy was \$20,576; at firms with predominantly lower-wage workers, premiums averaged \$17,633, probably for policies with less complete coverage.²¹ In 2018, according to the Census Bureau, the median family income was \$61,937—not that far above the cost of an insurance policy.²² But consider that the cost of health insurance bears very little relation to income. Thus, the cost of health insurance is much more like a “head tax”—a fixed-dollar assessment on each person or family—than it is a free consumer choice to buy more or less of some item according to the purchaser's circumstance. That cost falls much more heavily on those of modest means. It aggravates the popular perception of stagnant incomes, and of inequality.

Figure 5

Growing employer health costs constrain cash wages



Source: U.S. Bureau of Labor Statistics

Thus, health care must be made more affordable not only to protect public and business budgets but also to unburden family budgets and reduce the corrosive sense of stagnant living standards and inequality that afflicts our national community.

RECOMMENDATIONS

The Committee for Economic Development of The Conference Board (CED) has addressed each of the major segments of the budget problem and has issued detailed recommendations.²³ To summarize the key points:

Reform the US health care system. As emphasized above, health care costs are growing unsustainably, bloating the public debt, inhibiting business hiring, and eroding household incomes, especially for low- and moderate-wage workers. The US needs to implement cost-responsible consumer choice among competing private health care plans to cover all Americans and incentivize all providers and plans to deliver quality, affordable care.²⁴ The same general approach can control costs in Medicare, through expansion of the successful Medicare Advantage program.²⁵

Reform the US income tax. Revenues today are running lower than the average of the last 70 years, including years of recession, and significantly lower than they were when the budget was last in balance. Even the best plan to right the incentives in the health care system will take years to rebuild the market and reduce costs. Greater revenues will be needed to slow the unsustainable growth of the federal debt. A better tax system after the general model of the Tax Reform Act of 1986 will eliminate tax preferences, including those for capital income, and reduce tax rates across all income brackets. The earned income tax credit should apply more broadly to enhance work incentives for low- and moderate-wage workers.²⁶ If the revenue gain from such tax reform is insufficient, as CED has predicted, an additional value-added tax (VAT) would be needed.²⁷

Refinance Social Security. After health care, Social Security is the largest cost driver in the budget because of the aging of the population. At the same time, Social Security is a lifeline for seniors who have earned low wages over their lifetimes, and for widows and divorced older women, especially those who worked in the home or had only intermittent spells in the workforce. A revitalized Social Security program would recognize the improved status of longer-lived, healthy seniors while providing greater protections for the least well-off.²⁸

The remainder of the budget. The long-term pressure on the budget is heavily concentrated in health care and Social Security. However, the budget problem is so large, and programs focusing on seniors so difficult to change quickly, that savings must be found in other entitlement programs and annual appropriations. Still, the public and elected policymakers must be realistic, and be informed that the miscellaneous programs in the budget are small, are not growing rapidly, and cannot supply all the savings needed to head off the rising federal debt. Diligent budgeting must provide for our national defense in a hostile world and for the education, research, and infrastructure necessary to support a growing economy.

The budget process. As budget experts have long noted, “The process is not the problem; the problem is the problem.” Rules cannot substitute for political will. However, elected policymakers have not sat down together and addressed the problem. The CED has suggested that initial negotiations center on a simple and unavoidable question: What level of debt, expressed as a percentage of GDP, is too high to be acceptable? (After segregating the debt caused by the pandemic response, as CED recommends, the 85 percent of GDP maximum suggested earlier surely would not be too strict, and would be attainable with prompt action.) With that question negotiated and answered, our elected leaders will themselves have demonstrated that they must agree on a plan that will stop the growth of the debt before it reaches that limit. The PAYGO budget process was successful when it was enacted in 1990, 1993, and 1997, yielding budget surpluses from 1998 through 2001. It can be modified to require future pay-as-you-go savings to overcome the current rising baseline deficits. Through such a system, our elected policymakers can mandate the savings that they must achieve. And in this time of stagnant incomes and inequality, this process must be open, transparent, and responsive to the least well-off.

The federal budget today is out of control. It will unquestionably erode our standards of living, and its unprecedented deficits and accumulated debt threaten our economic stability. Our leaders must step forward and lead, or our nation will cease to be a world leader.

Endnotes

- 1 Zach Hrynowski, “Several Issues Tie as Most Important in 2020 Election,” Gallup, January 13, 2020; “Paying for the COVID-19 Catastrophe,” 2020 Solutions Brief, Committee for Economic Development of the Conference Board, June 2020.
- 2 “The Budget and Economic Outlook: 2020 to 2030,” Congressional Budget Office, January 2020. [Figure 1-4, p. 11](#), illustrates this vividly. Some might see the Great Depression as an exception to this generalization, but in the historical scale of the lifetime of the Republic, the Depression was followed quickly by the far greater debt buildup of World War II.
- 3 From a purely budgetary perspective, the current Middle East conflict is not comparable to the previous wars highlighted in Figure 1. The most comparable, the Vietnam War, saw an increase in defense spending of 2.0 percent of GDP, from 7.2 percent in 1965 to 9.2 percent in 1968. The increase in defense spending in the current conflict was smaller, and from a lower base, rising from 2.9 percent of GDP in 2001 to 4.6 percent in 2009 and 2010, and back down to 3.1 percent in 2017 and 2018. The current Middle East conflict has carried on longer, and its human cost is undeniable, but it cannot be assigned responsibility for either the current higher US debt burden or the projected acceleration of US debt into the future. [The Budget of the United States Government, Fiscal Year 2020, Historical Tables](#), Office of Management and Budget, Table 8.4.
- 4 Most parents want to leave their children with assets, not debt. Our nation does not face a day of reckoning in the same sense as a family does, but there are other costs to a rising debt burden. See: “[Time to Face Up](#),” Committee for Economic Development (CED), April 26, 2018, summarized later in this document.
- 5 “[The Budget and Economic Outlook: 2020 to 2030](#),” Congressional Budget Office, January 2020, Table 1-1, p. 7.
- 6 [The Budget of the United States Government, Fiscal Year 2020, Historical Tables](#), Office of Management and Budget, Table 7.1.
- 7 Nonresidential business fixed investment is now about 13 percent of GDP, less than the 14 percent of the late 1970s and the middle and late 1990s. Author’s own calculations based on data set from the [Bureau of Economic Analysis](#).
- 8 Stephanie Kelton, “[How We Think about the Deficit Is Mostly Wrong](#),” *New York Times*, October 5, 2017; Warwick J. McKibbin, “[Is Modern Monetary Theory Too Good to Be True?](#)” March 12, 2019.
- 9 Jason Furman and Lawrence H. Summers, “[Who’s Afraid of Budget Deficits?](#)” *Foreign Affairs*, March/April 2019.
- 10 CBO generally reduces its projected interest rates by about two-tenths of one percentage point relative to its previous forecast. Three-month Treasury bills average 2.3 percent over 2025–2030; 10-year Treasury notes average 3.0 percent. These rates are more than two percentage points below what was typical in the economic expansions of the 1990s and the pre-financial crisis 2000s. “[The Budget and Economic Outlook: 2020 to 2030](#),” Congressional Budget Office, January 2020, Table 2-1, p. 30.
- 11 “[How Changes in Economic Conditions Might Affect the Federal Budget](#),” Congressional Budget Office, June 28, 2018.
- 12 That is perhaps one of the most important lessons of the nation’s most recent episodes of balanced budgets in the late 1990s.
- 13 See: “[A New Path on Health Care](#),” CED 2020 Solutions Brief; and “[Adjusting the Prescription: Committee for Economic Development Recommendations for Health Care Reform](#),” CED, April 23, 2015.
- 14 See: “[The Aging Workforce](#),” CED 2020 Solutions Brief.
- 15 The youngest of the baby boomers, those born in the last oversize birth vintage of 1964, will turn 65 and become Medicare-eligible in 2029. “[The Aging Workforce](#),” CED 2020 Solutions Brief.
- 16 One additional challenge to health care policy is addressing the tragic shortening of life expectancies for some groups of the US population, including low-income persons and minorities.
- 17 People’s lives could be extended by delivering more—and more expensive—services, rather than the health care system saving money on net because the elderly are healthier. Better care may postpone the eventual expensive cardiac event, but in the interim those elderly might need expensive joint replacements or contract expensive cases of Alzheimer’s disease.
- 18 The cost of Social Security is projected to increase by 1.3 percent of GDP from 2019 through 2049 (compared to the total cost of health care of 4.0 percent of GDP and Medicare alone at 3.0 percent of GDP). All other federal programs not related to health care or Social Security are projected to decline in cost by 1.7 percent over that period.
- 19 “[The Budget and Economic Outlook: 2020 to 2030](#),” Congressional Budget Office, January 2020, Figure 2-6, p. 47.
- 20 Figure 6 shows all employee benefits, but employer-paid health insurance is the largest and fastest-growing benefit item, even larger than the Social Security and Medicare payroll tax. “[Employer Costs for Employee Compensation](#),” US Department of Labor, Bureau of Labor Statistics.
- 21 “[Benchmark Employer Survey Finds Average Family Premiums Now Top \\$20,000](#),” Kaiser Family Foundation, September 25, 2019.
- 22 Gloria Guzman, “[New Data Show Income Increased in 14 States and 10 of the Largest Metros](#),” US Census Bureau, September 26, 2019.
- 23 “[Time to Face Up](#),” CED, April 26, 2018.
- 24 “[Adjusting the Prescription](#),” CED, April 23, 2015.
- 25 “[Modernizing Medicare](#),” CED, October 26, 2016.
- 26 “[Time to Face Up](#),” CED. A meritorious, detailed income tax reform program can be found in “[Domenici-Rivlin Debt Reduction Task Force Plan 2.0](#),” Bipartisan Policy Center, December 3, 2012.
- 27 “[A New Tax Framework: A Blueprint for Averting a Fiscal Crisis](#),” CED, 2005.
- 28 “[Time to Face Up](#),” CED; “[Domenici-Rivlin Debt Reduction Task Force Plan 2.0](#),” Bipartisan Policy Center.



SUSTAINING CAPITALISM

A series focused on nonpartisan, reasoned solutions in the nation's interest to the central challenges we face in order to provide prosperity for all Americans.

Paying for the COVID-19 Catastrophe

On March 27, Congress passed and the President signed a \$2.2 trillion economic stabilization bill.¹ It was by far the largest money bill ever enacted into US law. That bill followed two previous, smaller—but hardly inconsequential—bills for the same purpose, and was itself followed by a fourth trillion-dollar bill.² On top of those bills, the Federal Reserve will facilitate trillions of dollars of new lending; but noting the issues not yet addressed, the Congress has begun arguing over a fifth bill.³

No one is counting all that money. Nor should they. You do not worry about your cellphone bill when your stalled boat starts taking on water, just out of sight of shore.

Unfortunately, though, this is not just a cellphone bill. This is a potential 25 percent increase in a public debt that is already far too large.⁴ After decades of bad behavior—and some bad luck—the US was already setting debt-burden records for peacetime. Now the US is sailing totally off the charts—with near certainty that the debt burden will exceed the record highs of World War II in mere months, not years.⁵ And there is zero prospect that anything like the post-war economic bounce will boost the country out of the debt hole.

WHAT IS A PRUDENT NATION TO DO?

This brief provides a plan to address the rapidly increasing debt—at the appropriate future hour—which could free policymakers to make sound decisions and head off even worse economic outcomes from the catastrophic impact of the COVID-19 pandemic. It first addresses why policymakers must take actions that increase the debt to keep the economy afloat under these unprecedented circumstances. It then offers a plan toward long-term fiscal soundness that would prevent the recovery from the pandemic from undermining the federal government's ongoing fiscal standing by:

- 1 Segregating the new debt (incurred from recovery costs and financing) from normal government finances into a single separate financial entity (probably organized as a public corporation);
- 2 Financing the recovery debt with bonds of the longest maturity—a 40- or even 50-year maturity if possible—even longer than the longest 30-year bonds the Treasury sells today; and
- 3 Paying the interest through an addition to current revenues—a tax increase—that would be cleanly segregated from other revenues.

The nation must not halt its economic recovery efforts, but policymakers must prepare for the consequences and consider their options. Also, financial markets understandably act on expectations. Investors who buy 30-year bonds today must consider the future behavior of the borrower. And right now, the truly unprecedented weight on the federal budget is straining those expectations.

So even though now is not the right time to impose a payment mechanism for the incremental debt caused by the recovery effort, it is not too early to consider what that mechanism should be. And as the markets are asked to purchase that debt, widely held expectations that the burden will be managed responsibly will only help the financing of the extraordinary but necessary cost of economic recovery.

BACKGROUND

The pandemic has left the United States with a virtually unprecedented problem—a 100-year catastrophe. The only comparable episode in modern history is the so-called “Spanish flu” of 1918, in what was obviously a very different world.⁶ An easily transmitted pathogen of considerable virulence has been let loose upon the entire world. One hundred years ago, with less knowledge and fewer and weaker tools, public and private actors could do little, and so the pathogen did its worst. Today, we have learned from that bitter history.

As a result, the nation has taken painful steps dictated by public health, closing down places where people congregate to reduce the spread of the disease.⁷ This includes shutting down many places of work including retail stores, eating and drinking places, theaters and stadiums, hotels, and, notably, travel—and therefore much of commerce—in an effort to reduce transmission of the disease across the country and around the world.

The economic consequences of this shutdown have been catastrophic. Total retail sales in the US fell by 16.4 percent – almost one dollar in six – between March and April (and late March was already affected by the shutdown). But within that average decline, sales at clothing stores fell by 46.3 percent; eating and drinking places by 23.6 percent; and department, furniture and appliance stores by more than 25 percent,⁸ caused, surely, by both the general economic downturn and fear of the disease.

However, just as we have learned about public health remediation from the Spanish flu, so we have learned of economic damage control from the Great Depression of the 1930s, and the “Great Recession” following the financial crisis of 2008. A surprising political consensus holds that fiscal policy must make the private sector—both businesses and

households—whole for the losses. The views of policymakers of different parties today differ only in degree, whereas in the Great Depression and even in the more recent financial crisis, there were differences of kind.

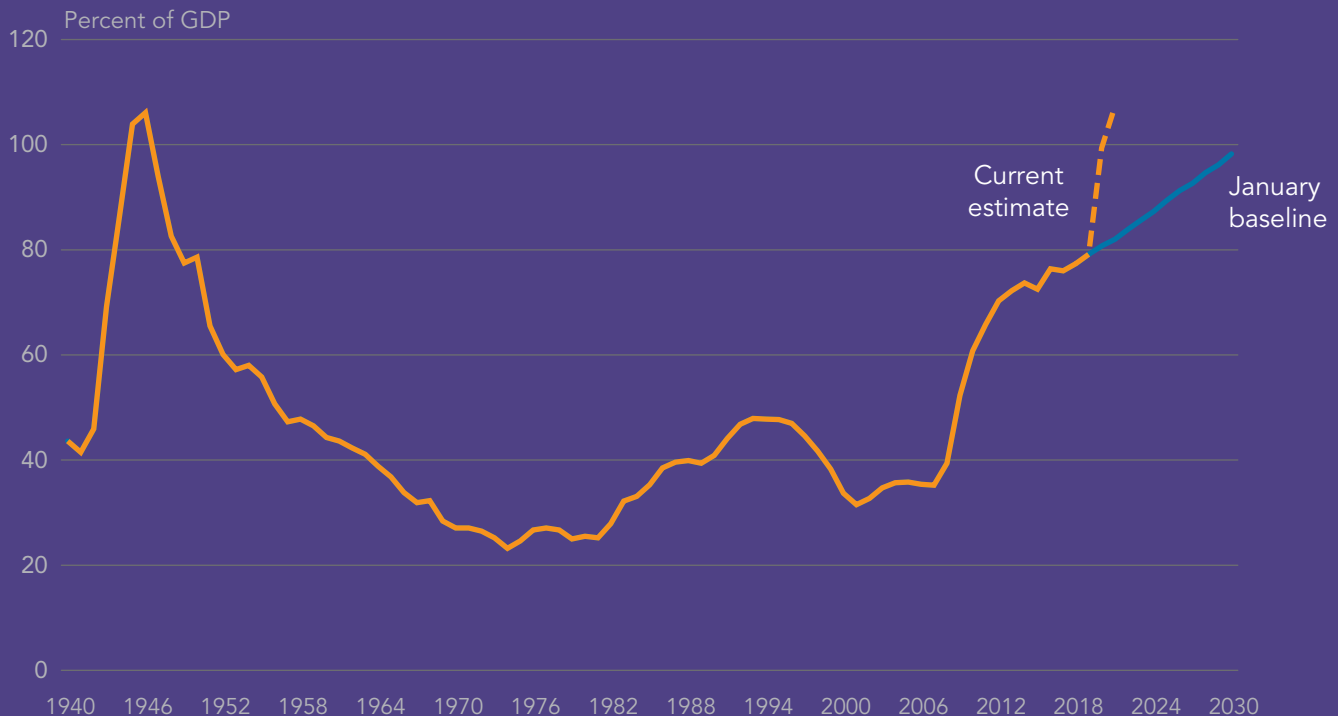
That is why multiple recovery laws costing cumulatively trillions of dollars have been enacted so quickly. These efforts (measured against the size of the economy) far exceed those of the 1930s and following 2008. This effort may or may not be sufficient for robust and early recovery; much depends on developing prophylactics and vaccines for the virus, and the development of verifiable immunity (which in turn depends on large-scale and reliable testing). More may be needed, but the recovery expenditure already has been enormous.

These expenditures aimed to keep body and soul together for households, and labor and capital together for businesses. Beyond the human tragedy, families who cannot pay their bills now will make neither good producers nor good consumers when the pandemic ends. Likewise, if businesses are to reopen and contribute to an economic recovery, they must remain in business.

These expenditures (and tax reductions) are essential. But they wreak havoc with the federal budget. Many public policy experts were more than troubled by the soaring public debt even before the pandemic. The January 2020 Congressional Budget Office (CBO) nonpartisan budget baseline projected that the debt held by the public would reach 98.3 percent of GDP by the end of 2030, near the historical peak of 106.1 percent

Figure 1

Debt held by the public



at the end of World War II (see Figure 1).⁹ The US economy was poised for spectacular growth at the end of World War II and quickly reduced that record debt burden. The US economy is in a very different place today, with a slowing labor pool due to an aging baby-boom generation (in contrast to the troops coming home), intense foreign competition (in contrast to US commercial dominance post WWII), and household balance sheets decimated by the pandemic (in contrast to a population of wartime savers). The current economy has no prospect of a post-World War II-like boom. Today's debt burden is deep-seated.

Now, on top of the ongoing baseline debt disaster that the nation faced pre-pandemic comes all of the relief legislation, the revenue "drought," and added spending (unemployment benefits, Medicaid expenses, and so on) that would have occurred even without that new legislation. That is even more debt to be serviced by a now-smaller economy. CBO's numbers now suggest that the debt could be as high as 108 percent of GDP in 2021.

The nation must not halt its economic recovery efforts, but policymakers must prepare for the consequences and consider their options.

DEBT REMAINS A BURDEN AND A RISK

Sovereign interest rates today are extraordinarily low by historic standards, in the United States and in many countries around the world. And they are likely to remain low, given the weak economic demand in the wake of the global pandemic and the consequent "flight to quality." However, low interest rates are already built into the dire debt projections.

And those low rates must be put into deeper context. Interest rates at the end of May of this year were under 0.2 percent for the three-month Treasury bill and well under 1 percent for the 10-year Treasury note, far below rates during the stronger growth years in the 1990s and 2000s with levels from 3 to 5 percent.¹⁰ The problem is that with a public debt at over 100 percent of GDP, interest rates only one percentage point higher (and rates one point higher would still be historically low) would quickly add one percent of GDP to the federal government's net interest obligations. (Roughly one-third of the public debt outstanding today will mature and must be refinanced within one year, and another one-third within five years (see Figure 2), not to mention all of the new debt that must be sold continuously in the coming months, which would immediately be caught up in any higher interest rates.) With federal revenues now at only about 16 percent of GDP, outlays of an additional 1 percent of GDP would be a nontrivial increment to the government's budget, raising an already excessive deficit alarmingly.¹¹

How likely are interest rates to rise? Again, consumer demand is anemic, so rates will not be pulled up tomorrow by demand for credit. To be sure, inflation (and interest rates) could be pushed higher by costs. The pandemic has caused interruptions in supply; global value chains have been broken, requiring cost-increasing substitutions in materials and components; and some production facilities have become hotspots for the virus. So inflation is conceivable, though surely muted without demand.

But again, context and a comprehensive view are essential. The debt burden, expressed in scale with the size of the economy, is going nowhere but up. At whatever point in the future interest rates should rise and for whatever reason—and we all hope for sooner, and because of stronger economic growth—the debt will be there to drive up the budget’s net interest costs. Ignoring the problem will not make it go away.

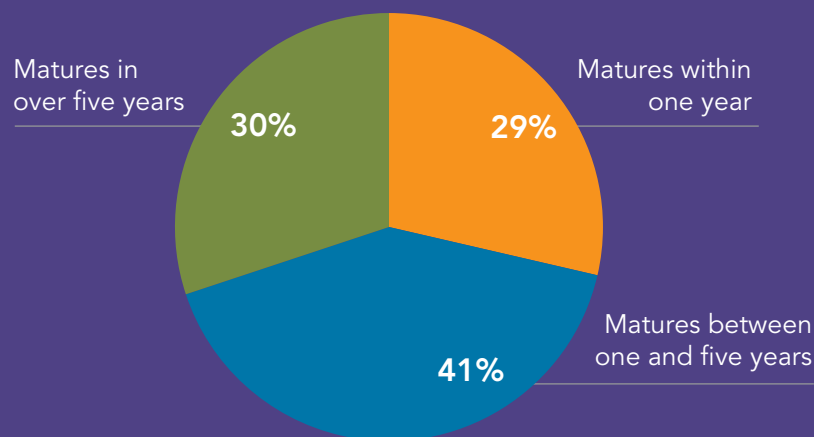
Furthermore, an excessive debt is a permanent and continuous drain on national saving and a corresponding drag on investment and economic growth. While all Americans hope for a reinvigorated economy to restore widely shared prosperity, there is no reason for public policy to stand thoughtlessly in the way.

And finally, an overextended budget and an oversized debt will hinder the US response to any future emergency. Today, the world financial markets seem willing to provide this nation with a virtually unlimited supply of credit, despite our prepandemic budgetary profligacy. The reason, we are sometimes told, is that every other nation has behaved as badly as we have and been subject to the same global pandemic, and that because of our natural advantage as the world’s largest economy, we are “the best-looking horse in the glue factory.” However, we should not forget that the next emergency may not be visited equally on every nation; it may be a natural disaster or a national security emergency to which only the US can respond. What will happen if the world begins to doubt the creditworthiness of the world’s largest economy and the supplier of the world’s reserve currency? No one knows. And no responsible person should want to find out.

Such concerns may deter policymakers from taking actions that increase the debt but are necessary to keep the economy afloat. If that should occur, both the economy, immediately, and the debt, ultimately, will suffer. Having a plan to address the rapidly increasing debt—at the appropriate future hour—could free policymakers to make sound decisions and head off even worse economic outcomes.

Figure 2

Maturity of existing debt



In sum, the US debt bomb may (or may not) be on a very long fuse; but that fuse is not infinite, and it causes pain as it burns. Responsible and prudent policy makers, as they fight the fire of the global pandemic, should consider how they will respond to the debt challenge once the pandemic is contained and the economy is stabilized. In fact, the world financial markets likely will look more optimistically upon the United States over the coming potentially turbulent years if our nation has a considered plan to manage our extraordinary burden of debt.

APPROACHING A SOLUTION

First, to solve the problem we need to measure its size.

The economy has been dragged to a veritable standstill, with about 40 million new unemployment insurance claims in just 11 weeks.¹² But with public and private sector leaders at work on a safe and responsible plan to start reopening the economy, it is possible to take an early view—admittedly with considerable uncertainty—of the ultimate economic cost.

A reasonable assessment is that when all the dust has settled, the nation will have lost the equivalent of all of its production over a period of three months, that is, 25 percent of our annual GDP. That is an enormous pothole for our economy to strike. To minimize the damage as we hit it, policy must fill that pothole as quickly and fully as possible.

If the federal government must spend or cut taxes to fill that immense hole, it must do so by that 25 percent of our annual GDP (measured as of the beginning of the pandemic). And so that amount is how much the nation must borrow, or how much additional debt it must incur, to provide that relief. And that amount takes our already swollen debt—almost 80 percent of GDP—almost immediately to about 106 percent of GDP, akin to the peak reached at the end of World War II.¹³

How can the nation borrow that much money? And how can the Treasury service that debt, that is, pay the interest on it going forward?

If the nation piles this additional debt on top of the excessive debt that we already have accumulated and are still accumulating, it will seem unbearable to many Americans. And if it seems unbearable to the financial markets, then in the most meaningful sense, it *will be* unbearable. So instead, the nation should segregate that debt from what it has already accumulated.

And in fact, the recovery effort has no connection to the everyday activities of government. If the federal government were to demonstrate the will to address this extraordinary expense, financing it in the markets would be much easier. Therefore, it makes perfect sense to segregate the financing of this debt from normal government finances, and to create a fully dedicated mechanism to pay for it. That will require several distinct changes in budgeting behavior.

To begin this rethinking, consider that the novel coronavirus is of a scale unknown to any living American. It is far beyond SARS, MERS, or the annual flu in its communicability (including its asymptomatic contagion); spread globally before it was widely recognized; and has apparent high lethality (though less than SARS or MERS), higher than the polio

outbreaks in 1916 and the early 1950s and comparable only to the Spanish flu of more than 100 years ago.¹⁴ It has been described as a “once-in-a-century pathogen,” and it truly is.¹⁵ For that reason, it makes perfect sense to finance the extraordinary necessary recovery efforts over the long term or even over the period of a lifetime.

Interest rates today are very low, and the financial markets have shown themselves willing to consider very long-term securities. Taking the pandemic’s once-in-a-lifetime character and the patience of today’s financial markets together, there is considerable merit to consolidating all of the debt undertaken because of the current crisis in a single separate financial entity (probably organized as a public corporation) and financing it with bonds of the longest maturity—a 40- or even a 50-year maturity if possible, even longer than the 30-year Treasury bonds that are the longest the Federal government sells today.

What would that mean in dollar terms? The all-in cost of our estimate of three months’ worth of output—25 percent of GDP as of early 2020—is about \$6 trillion.¹⁶ At 3 percent interest rates, which by today’s standard would seem high, that would incur annual interest costs of about 0.75 percent of the GDP, or about \$180 billion. If policymakers segregate this amount from the current budget, it is clearly manageable.

And how to raise that money? For credibility and to prevent future manipulation, the nation must raise that amount in a fashion that would be additive to current revenues—a tax increase—that would be cleanly segregated from other revenues. That approach would minimize the temptation to double-count the money and fund a spending increase elsewhere in the budget.

And as much as some would long for the alternative, spending cuts will not work. All existing spending is part of the current day-to-day budget. Any spending cut would easily be attributable back to the general fund at some future date, and therefore would arouse continuing temptation to spend on something else instead. That would defeat the purpose of providing an iron-clad commitment to service the new debt. Furthermore, no reduction in an existing general-fund program could be guaranteed to continue over decades. For example, congressional and White House promises of future appropriations and Medicare reimbursement cuts have been made repeatedly but have also been repeatedly reneged upon.¹⁷

Furthermore, the federal government must take on a rock-solid contractual obligation to deliver the new revenues to the public corporation that would issue the bonds to pay for the cost of the recovery. This would prevent future Congresses and Presidents from snatching the revenues to fund their own priorities for “just a year or two” or permanently.

And ideally, the amount of revenue raised should increase as the economy grows, and that revenue growth must be dedicated solely to retiring bonds gradually and fully over their 40- to 50-year maturity. This would make the federal government’s commitment even stronger. Once the pandemic is behind us, the total cost of the recovery effort will have been incurred and would not increase further. Because that principal amount will be financed with long-term, fixed-interest-rate bonds, the interest cost also would not increase in the future. If the revenue inflow could increase in dollar terms, then the gradual increase in revenues over and above the debt-service cost could be used to

repurchase and retire bonds early. That, in turn, would further reduce the debt-service cost. Ideally, that flow could be sufficient to retire all of the bonds by the time of their maturity. The incremental cost of the recovery from the once-in-a-lifetime pandemic would be paid over a lifetime, and the tax would be automatically extinguished once this debt is fully repaid.

WHEN?

The federal government's recovery initiatives today are filling the pandemic pothole in the path of the economy. It is absolutely clear that this is not the time to impose a new burden on the economy through either tax increases or spending cuts and thus dilute the stimulus from the recovery effort. The financing approach described above is for another day, after the pandemic has been vanquished.

However, financial markets understandably act on expectations. Investors who buy 30-year bonds today must consider the future behavior of the borrower. And right now, the truly unprecedented weight on the federal budget is straining those expectations.

So even though now is not the right time to impose a payment mechanism for the incremental debt caused by the recovery effort, it is not too early to consider what that mechanism should be. And as the markets are asked to purchase that debt, widely held expectations that the burden will be managed responsibly will only help the financing of the extraordinary but necessary cost of economic recovery.

If policymakers can approach this challenge in a rational way, planning for the future, accepting responsibility, and implementing sound policies when the time is right, the United States can maintain its economic leadership and reestablish prosperity for all.

CONCLUSION

The nation must tackle the expanding debt that threatened our economy even before the pandemic. CED's earlier Solutions Brief entitled *Is There Life After Debt?* presented a sound program to do that.¹⁸ However, the pandemic has created a new challenge.

This Solutions Brief suggests that this new challenge is best approached using separate, special purpose measures. A first step toward long-term fiscal soundness would be to prevent the recovery from the pandemic from undermining the federal government's ongoing fiscal standing. Segregating the cost of the recovery, financing it with long-term debt, and providing for its servicing is the best way to do that. But it is only a first step; true and comprehensive fiscal responsibility must follow.

Endnotes

- 1 Public Law No: 116-136, "[Coronavirus Aid, Relief, and Economic Security Act or the CARES Act](#)," March 27, 2020.
- 2 Public Law No: 116-123, "[Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020](#)," March 6 2020; Public Law No: 116-127, "[Families First Coronavirus Response Act](#)," March 18, 2020; Public Law No: 116-139, "[Paycheck Protection Program and Health Care Enhancement Act](#)," April 24, 2020.
- 3 The House has passed its own approach (Introduced in House; "[Health and Economic Recovery Omnibus Emergency Solutions Act or the HEROES Act](#)," May 12, 2020), but the Senate has refused to take it up.
- 4 "[US Fiscal Health: Is There Life After Debt?](#)," Sustaining Capitalism Solution Briefs, Committee for Economic Development of The Conference Board.
- 5 "[Current Projections of Output, Employment, and Interest Rates and a Preliminary Look at Federal Deficits for 2020 and 2021](#)," Congressional Budget Office, April 24, 2020.
- 6 John Barry, *The Great Influenza*, Penguin Books, 2005.
- 7 Guidance for those steps was offered by the [Centers for Disease Control](#).
- 8 [Monthly Retail Trade](#), United States Census Bureau.
- 9 "[The Budget and Economic Outlook: 2020 to 2030](#)," Congressional Budget Office, January 28, 2020.
- 10 [Selected Interest Rates](#), Board of Governors of the Federal Reserve System.
- 11 "The Budget and Economic Outlook: 2020 to 2030."
- 12 [News Release](#), US Department of Labor, June 4, 2020.
- 13 "The Budget and Economic Outlook: 2020 to 2030" and "[Current Projections of Output, Employment, and Interest Rates and a Preliminary Look at Federal Deficits for 2020 and 2021](#)," Congressional Budget Office, April 24, 2020.
- 14 Yella Hewings-Martin, "[How Do SARS and MERS Compare with COVID-19?](#)" Medical News Today, April 10, 2020; and Jiachuan Wu and Denise Chow, "[Are Coronavirus Diseases Equally Deadly?](#)" NBC News, March 5, 2020; and Tim Newman, "[Comparing COVID-19 with Previous Pandemics](#)," Medical News Today, April 19, 2020; and Jeffrey Kluger, "[What the History of Polio Can Teach Us about COVID-19](#)," TIME, May 5, 2020.
- 15 Julie Steenhuisen, "[Bill Gates Calls Coronavirus a 'Once-in-a-Century' Pathogen](#)," Yahoo News, February 28, 2020.
- 16 The official \$21.5 trillion estimate of the 2020 first quarter gross domestic product can be obtained at "[Gross Domestic Product](#)," Bureau of Economic Analysis, US Department of Commerce.
- 17 The Bipartisan Balanced Budget Act of 1997 promised automatic Medicare spending cuts if costs exceed the "sustainable growth rate" (Marilyn Moon, "[An Examination of Key Medicare Provisions in the Balanced Budget Act of 1997](#)," The Commonwealth Fund, September 1, 1997), but after years of postponements, the cuts were eventually repealed without ever taking place by the Medicare Access and CHIP Reauthorization Act of 2015 (Public Law No: 114-10, "[Medicare Access and CHIP Reauthorization Act of 2015](#),e.) Similarly, future appropriations cuts promised by the Budget Control Act of 2011 ("[Testimony on Discretionary Spending](#)," Congressional Budget Office, October 26, 2011), but those caps were waived and ignored year after year.
- 18 "[US Fiscal Health: Is There Life After Debt?](#)" Sustaining Capitalism Solution Briefs, Committee for Economic Development of The Conference Board.

SUSTAINING CAPITALISM

A series focused on nonpartisan, reasoned solutions in the nation's interest to the central challenges we face in order to provide prosperity for all Americans.

A Realistic Blueprint for Reopening the Economy by Sector while Ramping Up Testing

With a quarter of the American economy at a standstill, more than 26 million unemployment claims filed in just few short weeks, and a historic near \$3 trillion in response and relief programs already seen as inadequate for the economic pandemic COVID-19 has unleashed, the President unveiled "Guidelines—Opening Up America Again," a three-phased approach to reopen the economy, moving away from a strategy of mitigation to targeting the infected and getting America back to work.

The Guidelines appropriately do not open the economy all at once. They set out benchmarks for progression to phases of reopening to protect lives, get people back to work and recognize and protect the most vulnerable. Uncertainty about the disease is considerable, and above all any approach must be adaptable to new information. However, granting that uncertainty, the Guidelines do have several significant shortcomings that can and must be addressed expeditiously. America is going back to work. It must be done safely. And it can be done safely even with today's limited testing capacity by pacing the reopening to the testing capacity.

In a modified approach, our nation's leaders on the federal, state and local levels must work urgently with business leaders to ensure that reopening does not cause a resurgence of the pandemic, which would have debilitating effects on American lives and set the economic recovery back even further. A modified approach would also allow time to ramp up our public health capacity to contend with the probability of a second wave. Such an approach would:

1. Increase leadership by the federal government, particularly in coordinating the healthcare infrastructure including testing equipment and assessments, contact tracing personnel, hospital capacity, and funding and development of treatments and vaccines.

2. Increase testing metric requirements and clear and transparent reporting to include a percentage of the population that has been infected, and increase testing capabilities to include reliable serology (antibody) tests and sufficient capacity for point of care testing.
3. Strengthen guidelines for governors on opening businesses with a targeted sector approach appropriate for each state and local region, under conditions that can provide safety with current limited testing capacity.
4. Strengthen and enhance guidelines for employers as they work to develop their plans on how to open their businesses and assure the safety of their employees.
5. Support and strengthen our most vulnerable communities which are taking the brunt of this economic and health crisis.

As America gets back to work, while COVID-19 still threatens our health and well-being, the overriding principles for reopening the economy—which is much harder than turning the economy off—must be: the health and safety of American workers; protection of the most vulnerable citizens and frontline workers; the smart easing of regulatory requirements and “Manhattan Project” scale financial support of innovation in the pursuit of treatments and a vaccine. Adhering to these principles will ensure that we responsibly and safely return to an economy that provides high levels of employment, production and consumption.

REQUIREMENTS FOR REOPENING

1. Federal Government Leadership

The Guidelines for Opening Up America Again present three phases for states to reopen their economies and for employers to reopen their businesses. The key elements of the Guidelines put the States’ responsibilities front and center:

- The States have core preparedness responsibilities—including testing and contact tracing; hospital capacity; and planning for the health and safety of workers and to mitigate any rebound contagion. The States’ testing provides the “gateway” metrics to determine when it is appropriate to move from one phase to the next, or back again if necessary. States and localities must confirm 1) a two-week downward trend in coronavirus and flu symptoms; 2) a similar downward trend in documented cases and positive tests as a percentage of total tests; and 3) that hospitals have adequate capacity and robust testing in place for at-risk healthcare workers before starting to ease lockdowns.
- Employers are responsible to collaborate and coordinate with Federal, state and local officials; to develop and implement workplace policies including testing, isolating and contact tracing in all three phases; and to protect vulnerable populations.
- Individuals have the responsibility to continue to practice good hygiene and to stay home if they feel sick.

One of the central concerns about the Guidelines is that they will not reopen the economy without putting more lives at risk unless the federal government plays a greater leadership role than it has thus far or than the Guidelines themselves articulate. Under the Guidelines, the states and employers are each responsible for testing and safety measures. Consequently the states will not only compete with each other, but also with private businesses to acquire personal protective equipment, tests and testing equipment, cleansing materials, and other needs. The resulting price inflation, acquisition chaos and opportunities for fraud and abuse, particularly in fraudulent testing devices, will escalate unless the federal government plays a stronger coordinating role for the supply chain and its distribution. Greater use of the Defense Production Act may be the only recourse.

Increased trained public health personnel to implement testing and contact tracing, as well as increased funding for the states—particularly for increased hospital capacity (including for deferred non-COVID-19 treatments) and implementation of the testing guidelines—are also critical.

Sufficient funding for a wide range of potential testing methods, treatments and vaccines—at a Manhattan Project scale—and immediate, on-going, smart regulatory relief are essential. We need innovation to quickly and safely find treatments and a vaccine, and also reliable testing capacity for both the disease and its antibodies. Treatments are likely to be as important as a vaccine in dampening the threat, as we have seen in the battle against HIV-AIDS. A reliable cure would allow people to go back to work without fear even before a vaccine is available.

2. Testing Metrics/Capabilities

Under the Guidelines' "Testing and Contact Tracing," the states are required to set up testing facilities for both COVID symptomatic and syndromic/ILI (influenza) individuals, and to do contact tracing for all COVID positive results. Further, states are to ensure that "sentinel surveillance sites" that serve older individuals, low-income Americans, minorities and Native Americans test these groups for asymptomatic COVID cases and follow up with contact tracing where test results are positive. Other than this symptomatic/syndromic testing and the testing of specified groups, there are no further stated required testing protocols.

First and foremost, beyond what is specified in the Guidelines, the capacity for point of care testing needs to be rapidly increased, and reliable tests for antibodies from prior exposure (known as "serology tests") need to be developed and deployed. That will take increased federal funding and a coordinated federal strategy with all the key stakeholders to promote innovation and ensure an adequate supply chain.

One major omission in the federal gating criteria is a metric for the percentage of the population that has been infected and clear, transparent reporting. Higher rates of infection indicate a greater presence of the virus in the community and raise the likelihood of still further spread, which must be taken into account in deciding whether to reopen a given state or local economy. The federal Guidelines defer to the states and are not specific regarding what determines when or whether a local area can open. The confusion that results can be seen already as some states and localities are opening quickly and haphazardly.

“Guidelines–Opening Up America Again” calls on state and local officials to apply the recommendations, particularly the gating requirements, to local criteria to reopen geographic units below the state level. To do so in an orderly and consistent manner with the goal of identifying areas for reopening, governors should determine classifications, not only for the state itself, but for each county, city, town, or any other political subdivision (herein called a Defined Area) based on the testing metrics, including the additional metric of the percentage of the population that has been infected—which is omitted from the federal Guidelines. The initial classification may indicate that some Defined Areas qualify for increased economic activity immediately, and should be the first to reopen, while others should stay in lockdown and can only relax restrictions safely after conditions improve.

3. Guidelines for Governors for Opening the Economy Safely by Sector

The States are at the epicenter of governance and management of the fight against this pandemic to get America back to work. The central shortcoming of the Guidelines, as governors, mayors, business leaders and public officials have emphasized, is that they will not succeed without a robust capacity and capability to safely and rapidly test, diagnose, treat, and isolate COVID-19 cases and trace their contacts, at scale—which the US does not currently possess. Under the following alternative approach, the economy can start reopening safely at the pace allowed by its current testing capacity while ramping up its testing and tracing capabilities for more extensive reopening as soon as safely possible.

Given the shortfall of testing and public health capacity (and the lack of treatments and a vaccine), a more realistic approach for state governors would be to carefully scale the opening of the economy by sector in keeping with the public health infrastructure’s capacity to test, track and isolate. This process demands close cooperation and collaboration between business leaders and state governors to phase reopenings and determine appropriate health protocols. Until treatments or a vaccine is available, the businesses that governors should reopen first would be:

- sectors that meet a gradual, broadening definition of “essential,” expanded beyond security and safety, based on, for example, the sector’s importance to the economy;
- businesses most able to effectively implement social distancing in the workplace—given warming weather, this could include construction, other outdoor industries, and a federal and state infrastructure program, that could help put Americans back to work; and
- those that can most effectively operate remotely with a limited physical presence in the workplace.

Under this approach, the sectors that closed first, because they were hotbeds for the spread of the virus, should be among the last to reopen. Food services and drinking places, sports stadiums, museums, movie theaters, spas, gyms, vacation and hotel locations—places of social gathering and entertainment—should be the last to reopen, assuming that they are confined to their pre COVID-19 business models.

But as other sectors open, demand for services such as food and drink will also increase. That demand should initially be met under alternative business models where takeout and catering services would expand before physical spaces open to the public. Similarly, in entertainment and sports, the National Basketball Association (NBA) idea of restarting games to virtual audiences, or drive-in theaters reopening, are examples of altered business models that can follow CDC guidelines for employees and customers more manageably. In each of these examples, maintaining the health and safety of the employees is far more realistic. As testing capabilities ramp up, smaller gathering places first, and then the larger gathering places could be allowed to open if they can demonstrate that they can provide the appropriate social distancing, sanitation, and a screening method to make sure patrons and employees are safe.

Schools should also remain closed physically but open virtually at least until the fall term, although childcare and youth centers, vital to America's ability to go back to work, could gradually reopen under CDC guidelines to accommodate parents who must go back to work.

And, as underscored in the Administration's Guidelines, those businesses that can continue to work and function remotely should continue to do so, with as small a physical presence as possible, throughout the phased reopening. Every avoided commute reduces the number of personal contacts, which reduces the number of infections, makes social distancing more feasible, and permits the concentration of scarce testing resources on people who must return to work physically because remote work is impossible for them.

As the nation works to control the pandemic, this proposed approach would include:

- federal government relief that would narrow its target to those individuals and companies that remain adversely affected by COVID-19 as the economy opens by sector;
- accelerated efforts on innovation for vaccines and treatments; and
- expanded access to broadband on a national and state coordinated level, as the economy and education continue to rely on technology.

4. Guidelines for Employers on Reopening Businesses

The Administration's Guidelines (which leave employers responsible for collaborating and coordinating with Federal, state and local officials, for developing and implementing appropriate workplace policies including testing, isolating and contact tracing in all three phases, and for protecting vulnerable populations) are heading toward a "learn as you go" process which could prove disastrous for health and safety. The federal government, beyond acquiring PPEs and distributing testing kits and related equipment, must provide clearer guidelines which the states can manage and employers can use as guidance for the development and implementation of their plans.

The White House Guidelines call on businesses to develop and implement appropriate policies, in accordance with federal, state and local regulations and guidance informed by business best practices regarding monitoring the workforce for indicative systems; temperature checks; social distancing at work; workforce contact tracing; protective equipment, cleaning protocols, and procedures for handling employees who become sick at work.

Clearer federal, state and local regulations and guidance would allow businesses to develop their plans with the best advice from public health experts and to reopen with greater confidence that they will not be held liable for any unfortunate outcomes that may occur despite their best efforts to maintain a safe workplace environment. Ideally, government could soon develop comprehensive safe harbors, adaptable to firms in different industries, that establish standards for conscientious businesses to safeguard their employees and customers and thereby receive a rebuttable presumption against liability for events that are truly beyond their control. The federal government, either through the White House Task Force or the appropriate federal agency, can serve as a clearinghouse for these best practices.

Employers are the sentinels for tracking and tracing the spread of the disease in the workplace and preventing a widespread recurrence. While testing and health care capacity are ramping up to be available on a large scale and before a vaccine or treatment is available, employers must continue to protect the most vulnerable, while ensuring that those who return to the workplace are healthy and not compromising the health and safety of their fellow workers or the larger community.

5. Strengthening our Most Vulnerable Communities

The pandemic has highlighted that vulnerable members of our communities at the lower end of the economic spectrum, and the institutions that serve them, bear a disproportionate health and economic burden. Economic recovery policies must be sensitive to the needs of these communities and ensure that the many small and minority-owned businesses that have not received funding under the CARES Act receive relief. And health institutions serving diverse populations must urgently receive the critical further federal financial support they need.

Americans have proven over these recent weeks that citizens in a democracy can effectively and responsibly respond to a pandemic threat. We can likewise effectively and responsibly reopen our economy as we race to develop effective treatments or a vaccine, and strengthen our public health infrastructure and health care system. To achieve these objectives, the US must apply a wartime approach to the economy, with stronger federal, state and private sector leadership that matches its testing capabilities to its workforce capacity, to gradually achieve a peacetime, post-COVID-19 economy, where true and comprehensive fiscal responsibility must follow.

SUSTAINING CAPITALISM

Achieving prosperity for all Americans could not be more urgent. Although the United States remains the most prosperous nation on earth, millions of our citizens are losing faith in the American dream of upward mobility, and in American-style capitalism itself. This crisis of confidence has widened the divide afflicting American politics and cries out for reasoned solutions in the nation's interest to provide prosperity for all Americans and make capitalism sustainable for generations to come. In 1942, the founders of the Committee for Economic Development (CED), our nation's leading CEOs, took on the immense challenge of creating a rules-based post-war economic order. Their leadership and selfless efforts helped give the United States and the world the Marshall Plan, the Bretton Woods Agreement, and the Employment Act of 1946. The challenges to our economic principles and democratic institutions now are equally important. So, in the spirit of its founding, CED, the public policy center of The Conference Board, will release a series of 2020 Solutions Briefs. These briefs will address today's critical issues, including health care, the future of work, education, technology and innovation, regulation, China and trade, infrastructure, inequality, and taxation.



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