How to Save Lives and Livelihoods

John R. Allen and Darrell M. West, Editors

CORONAVIRUS[COVID-19]

BROOKINGS

TABLE OF CONTENTS

#COVIDREOPENING

PREFACE

COVID-19 has shut down businesses and plunged the economy into a condition not seen since the Great Depression. Throughout the pandemic, public health experts have emphasized the necessity of social distancing and "stay-at-home" rules in order to flatten the infection curve and bring down the number of hospitalizations and fatalities. But even with these directives, the pandemic's effects on government, businesses, and the general public have been dramatic in terms of public health, the economy, governance, and social well-being.

In this publication, we analyze the U.S. domestic situation and discuss how to reopen America in ways that address fundamental problems. For the good of the United States and the safety of the global community, we present a number of ideas for protecting public health, restarting the overall economy, and promoting social well-being. Our scholars discuss how to preserve jobs, improve the social safety net, provide equitable healthcare, address the needs of vulnerable populations, reopen schools, deploy technology, and improve institutional capacity.

Several individuals provided valuable help on this volume. Emily Horne and Andrea Risotto offered tremendous assistance in terms of project vision, communications, and outreach. Fred Dews copyedited the entire manuscript in a speedy fashion. Soren Messner-Zidell, Katie Merris, and Abigail Kaunda did a great job on the project's design and layout. Eric Abalahin efficiently handled the web production process. We also are grateful to the scholars and communications staff who worked hard to develop and present ideas on what to think about as the country reopens.

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The challenge of leadership

WILLIAM A. **GALSTON**

When the COVID-19 pandemic erupted, some countries were reasonably well prepared to meet the challenge, but the United States was not. We lacked reserves of essential medical supplies, which had been drained during the 2009 H1N1 pandemic and had never been refilled. Much of our capacity to produce drugs and protective equipment had been outsourced to China, which restricted exports during its own pandemic. We failed to develop the testing systems other countries had created in response to SARS and MERS. Nor had we worked out a clear division of responsibilities between the federal government and the states and cities, or between the public and private sectors.

Many of our public institutions were unprepared as well. Years of underfunding and personnel cutbacks had weakened our public health infrastructure at every level of government. Agencies such as the Small Business Administration and the Internal Revenue Service, which bore the brunt of the initial response to COVID-19, were forced to function with antiquated information technology. Even the U.S. military, where contingency planning is ubiquitous, had difficulty coordinating the health security of its personnel with basic operational requirements.

For different reasons, much of the private healthcare system also was caught short. As the sector consolidated, the pursuit of efficiency took priority over planning for resilience. Private hospitals saw reserves of medical supplies as unproductive costs, not reserves against catastrophe. Some large hospitals enjoyed a comfortable financial cushion while others in rural America and low-income urban areas were overwhelmed when loss-producing COVID-19 care drove out revenue-raising elective surgery.

When a 9/11-style commission is convened, as it should be, to examine the handling of this crisis and to draw lessons for the future, there will be ample time to determine why we were so unready for it. Right now, however, affixing blame for past mistakes is a counterproductive diversion from the essential task our leaders confront—to chart and implement a viable path to recovery.

A WICKED PROBLEM

The COVID-19 pandemic is what planning experts call a "wicked problem"—one that is difficult to solve because of radically incomplete information, rapidly changing requirements and multiple, sometimes contradictory objectives coupled with interdependent social complexities. Since the pandemic erupted, not surprisingly, leaders have struggled to strike a sustainable balance between public health and economic production, scientific facts and social psychology,

the need for clarity and the shortage of reliable metrics.

Recent public opinion surveys show the American people grappling with conflicting imperatives. No one wants to contract COVID-19, but many want to get back to work and resume a more normal existence. Still, most people understand that the new normal will be different, and our leaders should not pretend otherwise.

Leadership requires leveling with the people about the uncertainties and trade-offs we face. Although recent scientific advances are encouraging, we do not know when we will have truly effective treatments for COVID-19, let alone a vaccine against it. In an ideal world, we could delay reopening our economy and society until we had them in hand and were ready to mass produce them. In a second-best world, we would be able to test everyone regularly and perform mass contact tracing. We do not live in either of these worlds. We do not even know how much immunity against future infections individuals who have recovered from COVID-19 will enjoy, or for how long.

If we could keep our economy and society shut for another six months while engaging in a wartime-style national mobilization, we might get within hailing distance of meeting the epidemiologists' criteria. But we do not have the luxury of time. Our current fiscal policies are transfusing blood into a bleeding patient, a process that cannot continue indefinitely. And there are signs that Americans' patience for sheltering in place is wearing thin.

With breathtaking speed, the COVID-19 pandemic has triggered a national emergency on a scale that dwarfs 9/11 and the financial crisis of 2008–09. The rise in unemployment during the month of April wiped out a decade of job growth, and the death toll from the disease has surged toward 100,000 with no end in sight. The need for effective leadership at every level has never been greater, and the margin for error has rarely been lower.

LEVELING WITH THE PEOPLE

In this context, leaders have an obligation to tell the public that as we take the initial steps toward normal economic and social activities, the recent decline in infections and deaths will probably halt and reverse. The point of "flattening the curve," they should remind the people, was not to eradicate the disease but rather to lower its peak rate to a level that would not overwhelm the capacity of our healthcare system to give good care to every patient.

Especially during crises, leaders are expected to deliver clear, consistent, and credible communication. Optimistic talk that contradicts people's daily experience only raises the level of cynicism and distrust. So do premature announcements of progress—medical or economic. It is far better to under-promise and over-perform than the reverse. Assuming office during the darkest days of World War II, Winston Churchill promised his people only "blood, toil, tears, and sweat" while conveying his unswerving confidence in eventual victory—the perfect combination for effective leadership in a democracy.

Consistency is a precondition for public trust. In an unprecedented crisis, divergent views about the way forward are inevitable and productive—within limits. But these disagreements must be resolved before public communication begins. To turn public fear into sober resolve, leadership must speak with a single voice.

TAKING RESPONSIBILITY

Good leaders take responsibility for what happens on their watch, good or bad. They do not try to claim all credit for what goes right while blaming subordinates for failures. At the same time, they set up clear lines of authority for specific aspects of the problem and empower others to act creatively.

This task is challenging, even in highly centralized and hierarchical organizations. It is especially difficult in our complex federal system, where the

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states enjoy substantial sovereign powers. Ongoing coordination coupled with a sensible division of labor is the only route to success. For example, while the states are best positioned to implement a mass testing regime, we cannot expect to achieve the level of testing we will need unless the federal government accepts responsibility for ensuring supply chains and allocating resources to where they are most needed.

INTERNATIONAL COMPARISONS

In our current circumstances, some strategic options can be set aside as unavailable or unattainable. Countries such as Australia, New Zealand, South Korea, and Taiwan responded quickly with all-out efforts to contain the virus before it spread beyond initial hotspots. The United States did not, losing whatever chance we had to halt the spread of the virus in its tracks. We cannot go back to where we were in February and begin again.

At the other end of the spectrum of possibilities lies Sweden, which choose to impose minimal restrictions and allow citizens to make the adjustments they chose. This strategy may appeal to our libertarian, "don't fence me in" heritage, but it would come with consequences that many Americans would have a hard time accepting, including Sweden's elevated death rate.

As of mid-May, Sweden's confirmed death rate from COVID-19 stood at 358 per million, compared to 44 per million in Norway, its Nordic neighbor to the west. In the other nations of northern Europe, the death rate per million is 53 in Finland, 93 in Denmark, and 96 in populous, federalist Germany. (As these countries reopen, it is possible that their death rates will rise significantly.) It remains to be seen whether Sweden's strategy will achieve significantly better economic results than its northern European peers.

By comparison, the United States' ramshackle approach has led to poor results all around—a frozen economy, depression-level rates of unemployment, and a death rate of 266 per million, almost three times as high as Germany's. It would have been much worse if we had begun with the Swedish approach and then shifted course mid-stream, as Boris Johnson was compelled to do. Despite its single-payer universal National Health Service, the UK's death rate per million stood at 506.

SOME GUIDELINES

There is no playbook for what comes next, but there are some guidelines. Because no one knows what will happen as restrictions are eased, public officials would be well advised to move cautiously, monitoring results at each step. Mistakes are inevitable. The people will accept imperfection—but only if leaders are willing to acknowledge error and change course.

The United States is large and diverse, and some areas will be able to move faster than others. What is necessary in New York, with more than 27,000 deaths so far and a death rate of 1,410 per million, will not make sense in Wyoming, with just 7 deaths and a rate of 12 per million.

Demography makes a big difference as well. Despite disturbing anecdotes to the contrary, children and adults under age 45 are much less likely to endure the severest consequences of COVID-19 infections, while older Americans and those with a now-familiar litany of pre-existing conditions are much more likely to die from it. It would be sensible to allow the least vulnerable groups to move toward their normal activities—school and work—while encouraging the most vulnerable to protect themselves, at least until we find effective treatments or a vaccine. At the same time, we will need to institute measures that prevent the less vulnerable from infecting the more vulnerable—not an easy task in nursing homes and multi-generational households.

Finally, some sectors of our economy and society will be able to reopen faster than others. Construction and manufacturing will likely come

back earlier than most services. Restaurants will be among the slowest to do so, as will food processing factories where workers are jammed together on assembly lines. Workers will need protection against employers who place profits and efficiency above health and safety; employers who do everything right will need protection against litigation.

RESTORING PUBLIC CONFIDENCE

Removing restrictions will not be a magic option that restores us to health. The early evidence from polls and surveys of public behavior suggest that "field of dreams" economics will yield mixed results. Even when we reopen shops and restaurants, many customers will not return fast enough to produce the much-discussed "V-shaped" recovery. The less vulnerable will move first while the risk-averse hang back. Confidence is easier to destroy than to restore.

"The only thing we have to fear is fear itself," Franklin Roosevelt declared in his first inaugural address, "nameless, unreasoning, unjustified terror which paralyzes needed efforts to convert retreat into advance." His decisive early steps were designed to restore public confidence, and they largely succeeded.

Our circumstances today are more challenging than those FDR faced, because fear is not the only thing we have to fear during a pandemic. The threat from the novel coronavirus is real, and while the terror may be exaggerated, it is far from unreasoning or unjustified.

To restore public confidence, today's leaders will have to balance economics with epidemiology, facts with social psychology, and individual liberty with the common good. History will judge them kindly if they rise to this occasion. If they do not, the United States will suffer a blow from which it will be difficult to recover.

A review of metrics to help decision-makers determine the proper pace of reopening

DANY **BAHAR**

As many countries in the world continue with lockdowns to prevent the spread of the novel coronavirus, many policymakers confront a huge challenge: how to plan for reopening their cities, states, or countries in ways that are safe and smart. Since this an unprecedented crisis, we know little about past experiences which often are a crucial input to design evidence-based policy. That gap puts an extra layer of risk—especially in terms of human lives—into every reopening decision being made.

Yet it is now increasingly clear that the coronavirus won't disappear anytime soon, and that it is crucial to design a gradual easing of lockdowns to kickstart the local and global economies in ways that would safeguard human lives until an effective vaccine is developed and accessible at a massive scale (at best, a year from now). This is particularly important in developing countries, where economists have shown that lockdowns could also have detrimental consequences in terms of human lives among the poor. More generally, since it is widely believed that new waves of the virus will likely resurge over the next couple of years, it is crucial to have clear guidelines in place to design policies that allow us to manage the risks in a sustainable and long-term way.

While there is not a one-size-fits-all policy when it comes to reopening, my goal is to share some important metrics (though not an exhaustive list) that could be used by policymakers for gradually ending lockdowns. I categorize these metrics in three areas: by geography, industry, and population characteristics. The metrics are not mutually exclusive when it comes to policymaking as they all present important complementary information.

Before getting into each one of these indicators, however, there is one metric that is of essential consideration in every strategy: hospital capacity. One of the main purposes of lockdowns has explicitly been to flatten the curve so as not to overwhelm the local resources needed to treat the ill (e.g., hospital beds, ventilators, and, especially, healthcare personnel). For any strategy to succeed, it is crucial to try to expand and maintain the capacity of local hospitals to be able to properly treat anyone who needs care and thereby minimize fatality rates. Policymakers should continuously track the ability of the local healthcare system to deal with a sudden increase in sick people based on worst-case outcomes from models. Once this major concern is satisfied (which is not trivial in many locations), then it is time to consider the following metrics.

GEOGRAPHY-BASED METRICS

Since the virus spreads through human interaction, ending lockdowns requires the

ability to track the prevalence of the disease in a geography as a whole. The main feature in relaxing lockdowns is knowing in real time the number of infected people in that population. The gold standard for this is massive testing, tracing, and targeted isolation as put forward by the epidemiologist community and beyond (including Nobel Prize Laureate Paul Romer). This plan requires being able to test everyone in a given region regularly (e.g., every couple of weeks), and making sure those who test positive enter and remain in isolation until they are confirmed as negative in a subsequent test. However, the supply of diagnostic testing remains quite limited everywhere and, according to Romer's own calculations, rolling out massive testing in the U.S. would require resources amounting to $100 billion. Thus far, the U.S. Congress has provided $25 billion for testing purposes, which is far below what is needed.

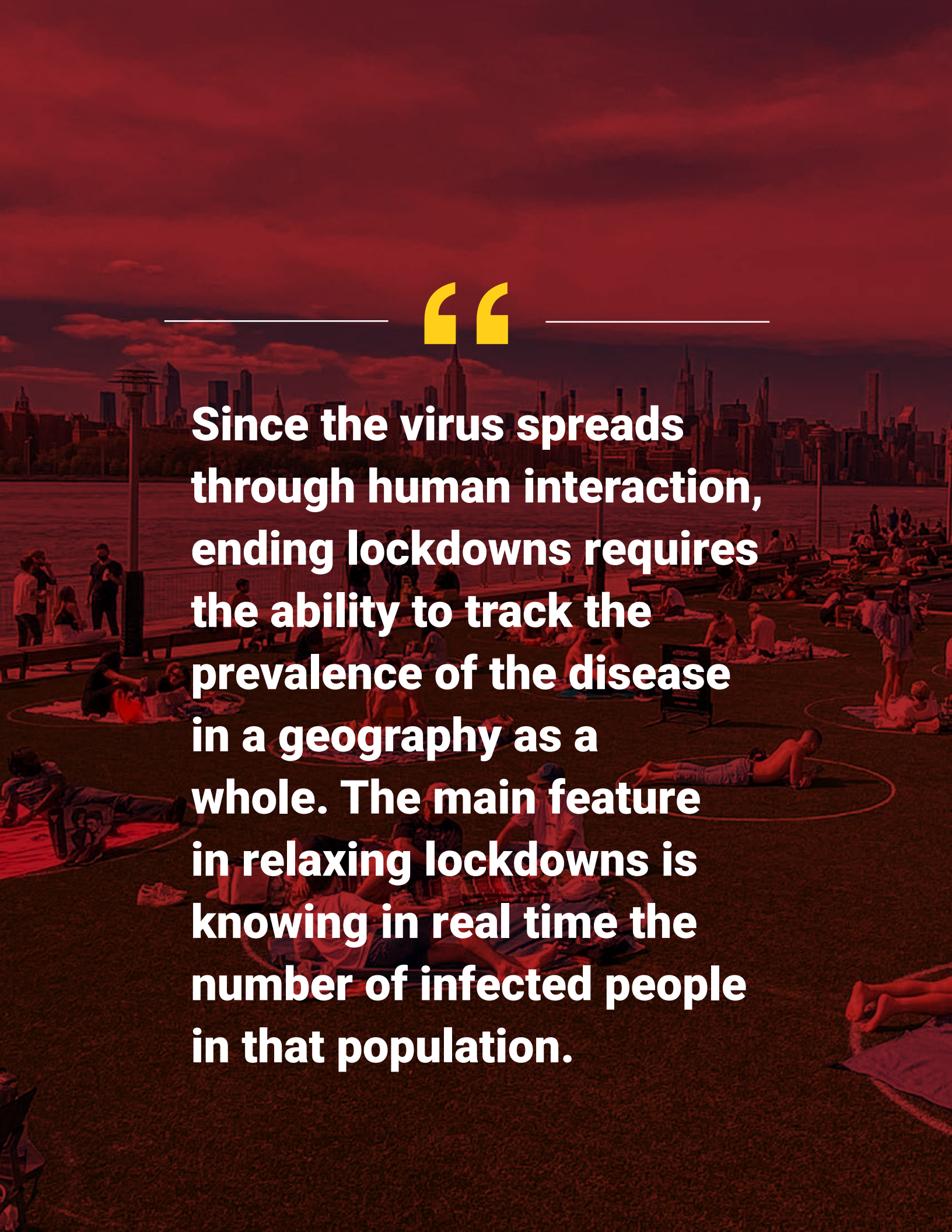
A second-best metric readily applicable is tracking the Ro ("R-naught"), as suggested by Ricardo Hausmann, in similar ways that central banks track inflation rates. The Ro is the average number of other people that an infected person would infect. Any number above one implies that the disease continues to spread rapidly, while a number below one implies that the disease is contained (and will eventually disappear). Tracking daily the Ro in a given locality is not trivial as it relies on an estimation based on the daily count of infected people. Using publicly available data on infections, this website implements an algorithm to track the Ro for every U.S. state (the algorithm is open code and thus can be applied to any location in the world). In general, it shows the Ro has significantly gone down since social distancing measures took place. Yet the precision of the estimates relies on the daily tally of infected people, which in turn depends on the (limited) testing capacity of each location. If testing within one location suddenly increases or decreases, this will affect the daily count of newly-infected individuals (though the algorithm deals with this fairly well). On the other hand, if testing capacity differs significantly across locations—and it does—it poses difficulties for comparison purposes or in locations where workers mobility is intense.

Therefore, one solution for this is to implement random testing on a daily basis based on a sample of individuals large enough in a given location—which would also include in the sample asymptomatic infected individuals—that provides enough confidence in the estimates. This random testing strategy must be representative at the commuting zone level, and not less, in order to account for the possibility of high prevalence of the disease in nearby areas that share the same economic center. This random testing must be standardized internationally, too, perhaps under the lead of the World Health Organization. Only being able to track the spread of the disease in multiple locations simultaneously using trustworthy data would give national and local authorities confidence in deciding to gradually reopen the long-distance travel and international borders between locations that are deemed safe.

When the Ro of a location is below one (using a high enough confidence interval) and is in a downward trend, this provides a good rule of thumb for relaxing social distancing measures. If the Ro starts rising again, however, authorities would have a good measure to rely on to re-implement some lockdown policies as appropriate.

INDUSTRY-BASED METRICS

When thinking about gradually relaxing lockdowns in a given geography, the responsible way of doing it is to first allow for the reopening activities that are less risky in terms of their capacity to boost the spread of the disease. Thus, it is imperative to define metrics that can be used for this purpose. When it comes to the economy, only essential industries that have been operating at some capacity have remained open. But beyond these, are there any other industries that could also resume some sort of normality without posing unacceptable risks?



Since the virus spreads through human interaction, ending lockdowns requires the ability to track the prevalence of the disease in a geography as a whole. The main feature in relaxing lockdowns is knowing in real time the number of infected people in that population.

This post by two World Bank economists provides useful insights as it presents a classification of industries along two dimensions: face-to-face intensity as well as a work-from-home scale. Overall, firms in industries in which working from home is feasible should continue to allow for this modality at first. At the same time, it makes sense to reduce restrictions for industries for which working from home is not feasible but are less exposed to face-to-face interactions (many of them essential activities that have been active all along such as construction, agriculture, manufacturing, and utilities). Finally, there are the industries for which face-to-face interactions are intense and cannot be done from home (e.g., entertainment, restaurants, retail, and the like), and they represent the most important challenge from an economic point of view. These industries would be the last ones to resume, and therefore it is crucially important that the economic assistance from governments target firms particularly in these sectors, aiming to avoid further unemployment and try to contain the economic crisis.

This same idea can be applied more granularly to establishments within each geography using historical anonymous cell phone location data, as economists from the University of Chicago explain in this *New York Times* piece.

Of course, these metrics are not meant to provide a bulletproof strategy, but rather a framework to use in the policymaking process when it comes to understanding the challenges and opportunities of different industries in the context of the pandemic. It is important to consider that workers, regardless of industry, will have to continue to comply with best practice hygiene measures to avoid the spread of the disease. Moreover, the ability of workers to resume activities is directly related to the state of particular key sectors, such as the education system, as this directly affects the capacity of parents of younger children who must continue receiving as much flexibility as possible from their workplaces.

POPULATION-BASED METRICS

As we learn more about the virus and the disease, even if there is much more still to study and learn, we know that this virus poses a significant threat to particular vulnerable populations that have compromised immune systems or other co-morbidities. In the medium- and long-runs, policymakers should find ways to allow relaxing the lockdowns while still protecting the most vulnerable people in our society to avoid any unnecessary fatalities.

Is this effective? Recent research by a prominent group of MIT economists quantified a SIR model to estimate the outcomes of a strategy where lockdown is relaxed while continuing to protect the most vulnerable as they continue to follow strict social distancing rules. As the authors themselves explain:

> *a semi-targeted policy that involves the lockdown of those above 65 until a vaccine arrives can release the young and middle-aged groups back into the economy much more quickly, and still achieve a much lower fatality rate in the population (just above 1% of the population instead of 1.83% with the optimal uniform policy).*

The authors claim that these numbers would decrease significantly in a scenario where there is little interaction between the vulnerable and the rest, and also reduce economic loss.

But, is it feasible? Yes, in some locations, but less so in others. It will ultimately depend on the demographics of a given location alongside some socio-economic factors to be tracked and studied by the policymakers. For instance, what share of the population can be classified as vulnerable and who are the other members of their households? Note that this is not only about age, but also about underlying medical conditions that often are disproportionally present among minorities

due to long-standing discrimination, exposure to pollution, and other factors. Furthermore, it is important to consider how to deal in areas where multigenerational households are common as they pose an additional layer of complication: the vulnerable are still at risk if their household members are out and about.

Those who are the most vulnerable to this disease are at higher risk in terms of their health, but thus far have suffered the greatest in terms of economic distress resulting from the pandemic. Therefore, in considering a gradual reopening that eases social distancing measures, policymakers must include in those plans proper safety nets to senior citizens and members of disadvantaged communities and their households. Offering full protection to these members of our societies, in any place, must be a core part of any plan under any scenario for as long as the virus is among us. This also implies not only direct transfers but also the allocation of enough resources (such as personal protective equipment and continuous access to reliable testing) to frontline essential and health workers serving vulnerable populations (for example in nursing homes, which account for a fifth of fatalities in the U.S. and up to half in Europe) so that they can continue to provide services in the safest possible way.

The value of testing and modeling

ROSS A. **HAMMOND**

The COVID-19 pandemic has killed over 300,000 people worldwide to date and has led to large reductions in economic activity as people take steps to protect themselves and as governments implement policies designed to control the virus' spread. In the United States, these intense public and private social distancing efforts have indeed helped to control spread of infection, but have come with mounting economic costs and potential health risks of their own. Across the country, state and local governments are grappling with decisions about when and how to reopen workplaces, schools, and social venues and how to create an environment in which their citizens feel safe enough to resume these activities.

Decision-makers must balance the imperatives for reopening to restore economic activity, education, and social life against the epidemiological risks of renewed transmission. Reopening too soon, or without the right epidemic control measures in place, is likely to produce additional waves of infection. Experience from other epidemics suggests these waves could produce surges of infection as high or worse than what the country has experienced so far. The science of epidemics tells us clearly that until a large fraction of the U.S. population has immunity—whether via a widespread vaccine or recovery from previous infection—the risk of resurgent infection will not go away.

Given that a successful vaccination effort is likely many months into the future, and that we are currently far from widespread immunity, can the risks of reopening be mitigated or managed? Is there a "middle path" between indefinite shut-down and a freely spreading virus with inevitable high tolls of disease? In this essay, I argue that testing and modeling can help us navigate the uncertain terrain ahead.

INVESTING IN TESTING

The answer may lie in testing, as investment in a strong capacity to test Americans (for presence of or immunity to COVID-19) and policies based on testing have the potential to substantially mitigate the spread of infection, facilitating reopening some or all of the shuttered parts of American life while managing risks. Testing could be used in at least three different ways. First, testing to detect active infections could be combined with contact tracing (identifying those who may have been exposed) and quarantine to help contain emerging clusters of disease. Given sufficient test-and-trace capacity, this type of policy could replace some or even potentially all of the mass social distancing measures currently being used to contain epidemic spread. Other countries (including New Zealand, South Korea, Singapore, and Germany) are using versions of this approach already.

Second, even in the absence of contact tracing, sufficiently widespread and accurate testing could be used to adjust social distancing adaptively—turning shutdown measures on or off to respond to resurgent epidemics, exempting those who might be immune from distancing, or emphasizing protective measures for those at highest risk. Some states in the U.S. are already working toward this goal.

Third, testing can give scientists much more accurate (and much needed) data to inform our understanding of who is at highest risk from COVID-19, how much spread is occurring among people with no symptoms (especially in children), and how much immunity the U.S. population is developing. These data can, in turn, lead to better projections and better planning.

THE CHALLENGE OF TESTING

Testing comes with its own challenges, as to be successful in mitigating an epidemic, any policy involving testing must be carefully crafted. Policymakers designing a testing approach must consider a number of factors. First, at least two different types of tests are available that give different information: whether a person is currently infected or whether a person has antibodies indicating they have had the disease in the past. For either kind of test, a testing regime must consider how many tests can be administered per day, how accurate the tests are, and how quickly the results become available.

In addition, a policy must define who is given the test—for example, to anyone with symptoms, to those employed in essential parts of the economy, to a random sample of the population, or to high-risk groups.

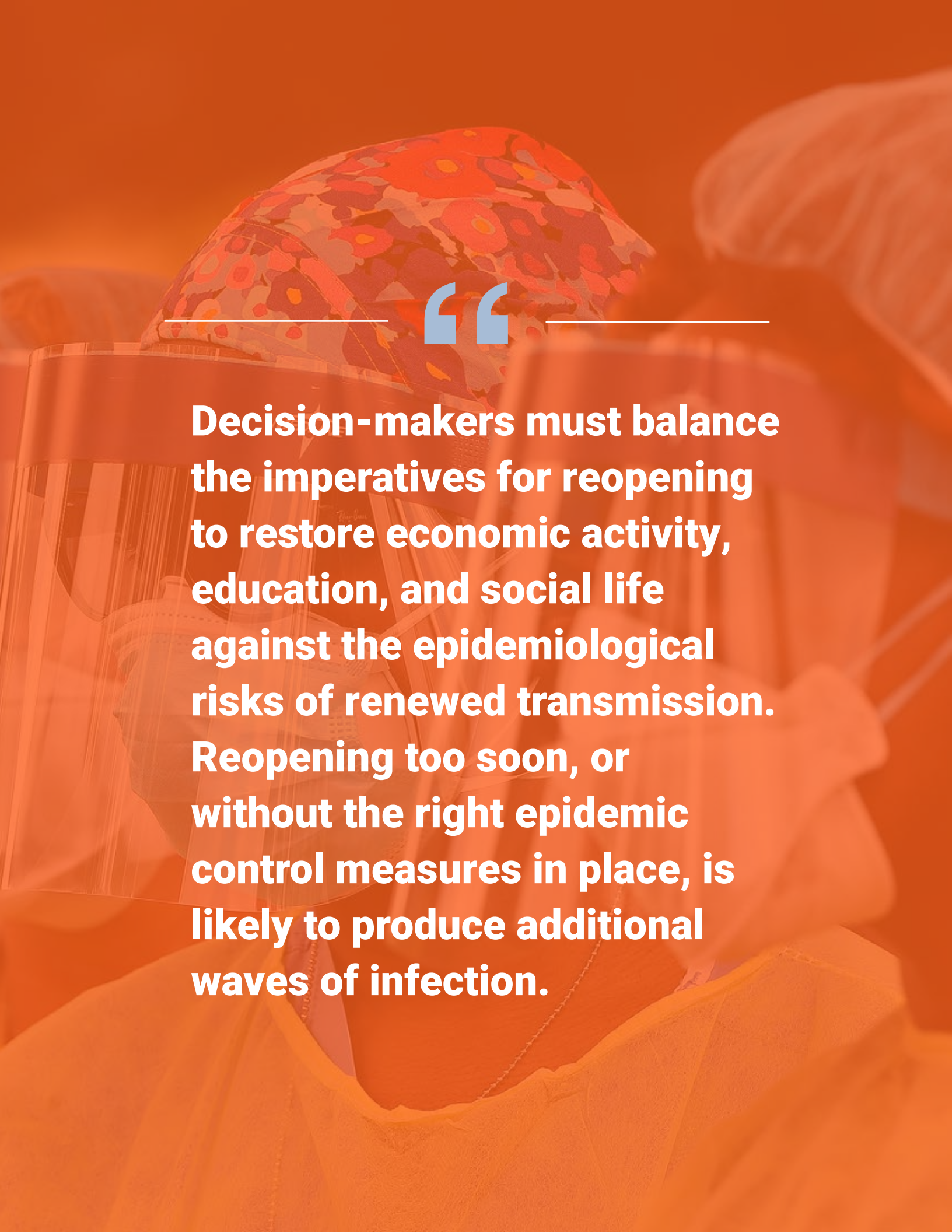
Finally, a policy must define specific containment actions and how the information from the tests will be used as part of these. Actions that may be part of such a policy include quarantining those with active infections, tracing the contacts of those who are sick, releasing those with immunity from workplace closure precautions, and so on. Many of these come with their own considerations such as how much capacity is there to trace contacts quickly, and what fraction of people will adhere to social distancing or quarantine rules.

The success of any particular configuration of testing-based policy in containing disease outbreaks will depend in part on the choices above (features of the policy) and in part on factors outside policymakers' control (features of how the disease spreads). These factors include what fraction of cases of COVID-19 are asymptomatic, how contagious those with active infections are and for how long, and the length and degree of any protection conferred by antibodies.

THE VALUE OF MODELING

Given the complexity of these choices, and the uncertainty about many of the factors above, decision-makers considering a testing-based policy will benefit from the use of modeling. Quantitative dynamic models have been used effectively as policy tools in many previous epidemics, both to forecast the potential course of spread and as "policy laboratory" to understand the potential consequences of interventions. When confronting such a complex challenge, this type of model offers important advantages for policy design over reliance on either "mental models" (intuition) or the use of data alone. They allow counterfactuals and projections across diverse settings to be considered, past experience and extensive theory from combatting past epidemics to be incorporated, and experiments with many different policy options to be conducted within the model in ways that would not be feasible or ethical in the real world. For some types of model, the kind of diversity (demographic, geographic, social, and medical) that characterizes countries such as the U.S. can be taken into account to yield insights that are not "one size fits all."

The use of models is not without drawbacks, and it is essential that modeling be used effectively and responsibly, following best practices on the part



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of both model designers and model consumers. But such models offer enormous potential to help answer key questions in the current situation, such as: How much testing and tracing capacity would it take to relax some or all social distancing without creating a large second wave of infection? What is the best way to use testing across a wide range of scenarios and uncertainty? Quantitatively, how well might various testing policies do—how many new cases would still occur, how quickly, and for whom? Models can also help tune policies to be as efficient as possible—maximizing the degree to which key economic and educational activities can be resumed while minimizing epidemiological risks. An example of the insights that such models can offer for COVID-19 containment policies based on testing can be found in the TRACE project, which evaluates thousands of potential policy configurations to find options that are robust across the enormous uncertainty facing decision-makers.

In the search for a "middle path" forward—a path that avoids the harms to health and the economy of either indefinite lockdown or unmitigated spread of the virus until widespread immunity offers a more lasting solution—testing can play a starring role, and models can help policymakers design approaches that are as effective, as efficient, and as robust to uncertainty as possible.

The view from Birmingham, Alabama

JOSH **CARPENTER**

In Birmingham, Alabama, COVID-19 has not created a new economic or public health paradigm, but it has sharpened the consequences of the old one. As we face increasing pressure to reopen the economy, we find ourselves balancing several important truths.

A VULNERABLE POPULATION

First, Birmingham is especially vulnerable to the devastating effects of COVID-19 as 74 percent of Birmingham's residents are Black, 22 percent are 65+ years of age and 43 percent of our families with children live in poverty. With the sixth highest fatality rate in the 1918 flu pandemic, it is hard not to sense a century-old boomerang on a returning flight path.

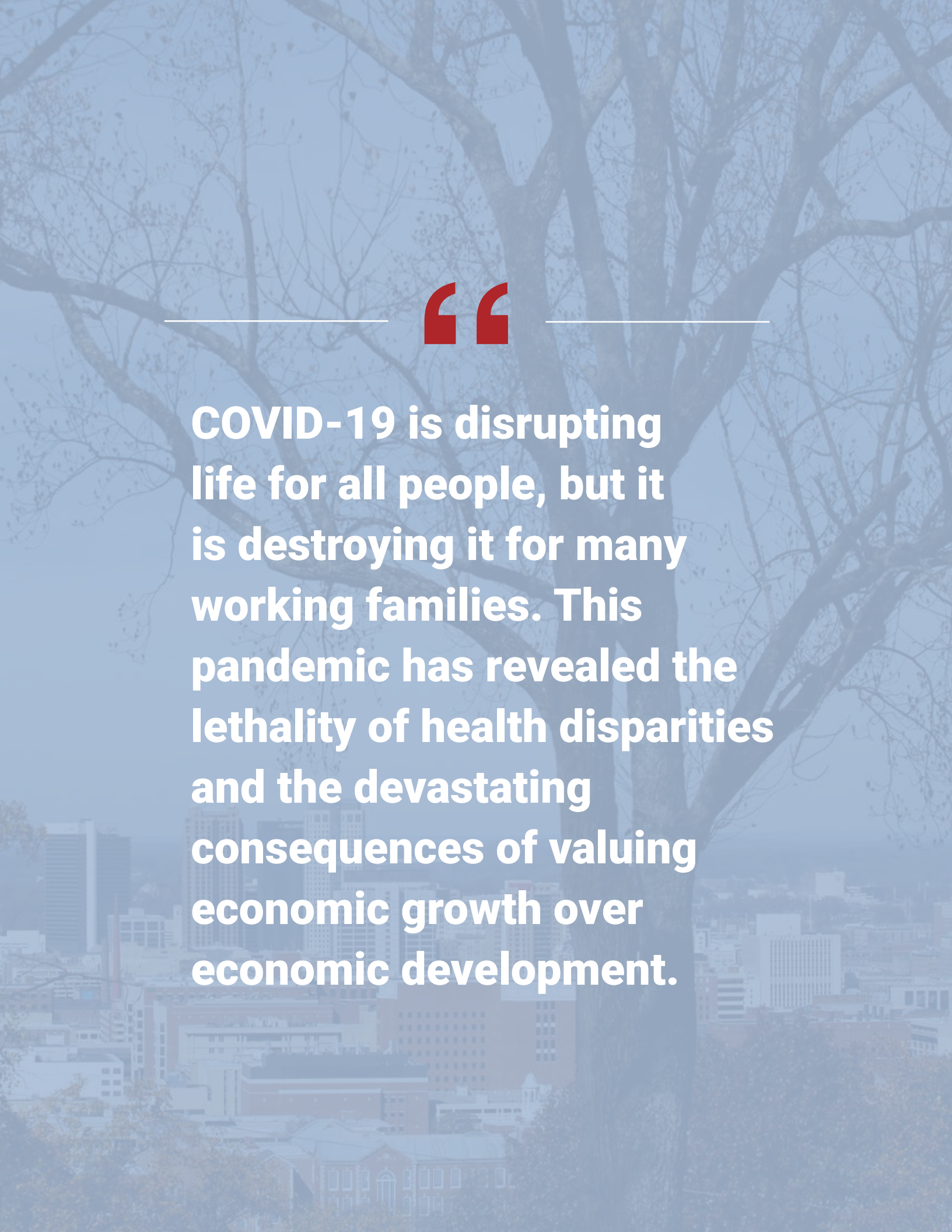
Second, Birmingham's economy lagged behind its peers before COVID-19, with just 29 percent of jobs in the tradable sector. Consequently, we knew our economy was particularly vulnerable to a recession, and we are watching it happen at eye-watering speed. According to Burning Glass, job postings—at all skill levels—have fallen by 50 percent, and we are advancing upon a 30 percent unemployment rate. Each day we move closer toward the July 31 expiration of pandemic unemployment insurance (PUI), with 72 percent of our residents having less than $1,000 in savings. Household incomes are unstable, and with more workers than work, residents are more vulnerable than at any point in their careers.

Third, in Birmingham our physical and economic health are two sides of the same coin. Alabama is one of 13 states that did not expand Medicaid under the Affordable Care Act, so workers who lost their jobs do not have a public safety net because adults are not eligible for Medicaid. They must now weather a pandemic without health insurance at a time when the Kaiser Family Foundation estimates the cost of COVID-19 treatment averages $20,000.

It is not enough to put into place measures to prevent the spread of infection when so many of our residents are experiencing crippling economic insecurity. Building for better begins with three guiding principles: (1) stabilize families immediately; (2) make workplaces as safe as possible; and (3) implement a sustainable economic inclusion strategy for job growth. We are operationalizing that in a two-part strategy that leverages Coronavirus Aid, Relief, and Economic Security (CARES) Act funding: response and recovery.

THE RESPONSE PHASE

We are in the response phase—cases have not declined while unemployment is still rising and household incomes are dissolving. The city has already spent money to stabilize small businesses,



COVID-19 is disrupting life for all people, but it is destroying it for many working families. This pandemic has revealed the lethality of health disparities and the devastating consequences of valuing economic growth over economic development.

invest in personal protective equipment, and offer frontline city workers overtime and hazard pay. Now, we are developing programs to help families meet basic needs: rent stabilization, subsistence support, expand WiFi for 23 percent of our households without an internet provider, and develop a corner store program to ensure food access while transit is limited. In parallel, we are marshalling our local agencies and boards to bring dollars into our economy by strategically pursuing state and federal grants.

As our state pushes us to reopen the economy, we have enacted a number of local measures, including curfews and face-covering ordinances, to prevent spreading the disease and boost consumers' confidence in the safety of leaving their homes. We convened public health officials and restaurant owners to craft practical guidelines that ensure widespread adoption to help businesses reopen in a way that protects workers and customers. Finally, we are also partnering with the local health department and UAB—the University of Alabama at Birmingham—to develop a clearly defined testing and tracing strategy that focuses on mobile testing for public housing residents, seniors, and communities of color.

MOVING TOWARD RECOVERY

As we look to the recovery phase, we have to prepare for a very different labor market in COVID-19's wake. We need data to target growth in industries like population health, supply chain management, data collection, management, and analysis and logistics. We need to reimagine workforce systems (and funding) to repurpose, reskill, and redeploy talent that has been placed on the sidelines. We need to recapitalize our #BhamStrong fund as we reopen the economy, especially targeting minority-owned companies that were disproportionately overlooked by the Paycheck Protection Program.

One way we have begun this process is by establishing the Birmingham Service Corps, a program to offer paid volunteer opportunities to meet the emerging needs of COVID-19. The Birmingham Service Corps empowers workers (already more than 700 have applied) who have lost jobs to be a part of combatting COVID-19 in our community through paid service opportunities. This paid work not only reinforces to these workers that we need them, it provides experience and foundational skills for new career trajectories in data collection and management, client services, and precision population health. For example, Birmingham Service Corps is training hundreds of client service workers to become community health workers and contact tracers. As Birmingham invests in precision population health and the needs become greater nationwide, these workers are repositioned competitively.

COVID-19 is disrupting life for all people, but it is destroying it for many working families. This pandemic has revealed the lethality of health disparities and the devastating consequences of valuing economic growth over economic development. Birmingham and communities like ours must be intentional about repairing the fragility that made us vulnerable in the first place.

Racially equitable healthcare

RASHAWN **RAY**

Dealing with racial disparities in healthcare access is the main challenge of reopening America.

With a score of 25.3 out of 100 on healthcare access, a comprehensive analysis on pandemic response and preparedness ranked the United States 175th out of 195 countries. The report noted, "There is no evidence that the U.S. has undergone an exercise to identify a list of gaps and best practices." These gaps and lack of best practices exacerbate inequality and harm the most oppressed and vulnerable: Black Americans.

Nationally, Black people are about three times as likely to die from COVID-19. In some cities and states across the country, Black people represent about 80 percent of coronavirus cases. In some areas, Latinos have also been disproportionately impacted by coronavirus. Previously, I have written about why the racial gap exists in COVID-19 deaths and what we can do to reduce the gap. I assert that structural conditions undergird pre-existing health conditions and increase the likelihood of Black Americans being exposed to, contracting, and dying from COVID-19.

SOURCES OF RACIAL DISPARITIES

Black people are more likely to part of the essential workforce. Being a low-wage worker increases the barriers to social distancing, as my Brookings colleagues Makada Henry-Nickie and John Hudak documented in their detailed analysis of the spread of COVID-19 in Detroit. Blacks are also more likely to live in densely-populated neighborhoods that have a lack of healthy food options and recreational spaces for physical activity. A simple analogy helps to explain how much neighborhood resources matter. If you have $10 in your pocket to feed a family of four, will you go to the Whole Foods that does not exist in your neighborhood or the McDonald's on the corner? Most people, regardless of race, will choose the latter.

Additionally, predominately Black neighborhoods compared to predominately white neighborhoods are less likely to have hospitals, urgent care clinics, specialty doctors' offices, and pharmacies. Though the Affordable Care Act helped to close the racial gap in health insurance coverage, Black people are about 35 percent more likely than white people to be uninsured. Black people, compared to white people, are also roughly 25 percent more likely to report not seeing a doctor due to costs. When sick, Black people are about 30 percent more likely than white people to report not having a normal source of care besides an emergency department.

Though the average household income of neighborhoods matters, these racial disparities are not solely about social class. They persist

even when accounting for wealth. Neighborhood location is structured by race, whether this be the historical remnants of racism due to redlining or contemporary racial disparities in the ability to become a homeowner.

Importantly though, racial disparities in health outcomes are also about healthcare quality. Stereotypes about Black people's bodies and blood persist and manifest in the racial empathy gap. Black people are more likely *to* be spoken to instead of spoken *with* when interacting with healthcare providers. Consequently, Black people's cares and concerns are more likely to be dismissed by healthcare providers. For example, Blacks are less likely to be administered pain medication. These factors lead to medical mistrust, lower rates of healthcare utilization, and an increase in the racial gap for pre-existing health conditions.

Collectively, the racial disparities in COVID-19 are not because Black people decided to have a party in an apartment complex or white people decided to congregate on a beach. Rather, they are because the everyday dynamics of our lives structure how we move through public space. Structural conditions are more likely to mitigate the movement of Black people, whether this is taking a restricted public transit schedule to get across New York City for an essential job, traveling far distances to an emergency room when someone goes into cardiac arrest, or going for a leisurely jog in your neighborhood like Ahmaud Arbery.

WHY RACE STILL MATTERS

Race still matters in America in ways that should unnerve us all. While COVID-19 is an equal opportunity virus, our healthcare system—and society more broadly—is far from equitable. It is high time that the United States stops taking a colorblind approach to this pandemic. COVID-19 gives us the opportunity to correct some of these racial health disparities by implementing a reopening plan that centers on health equity.

RACIALLY EQUITABLE HEALTHCARE ACCESS

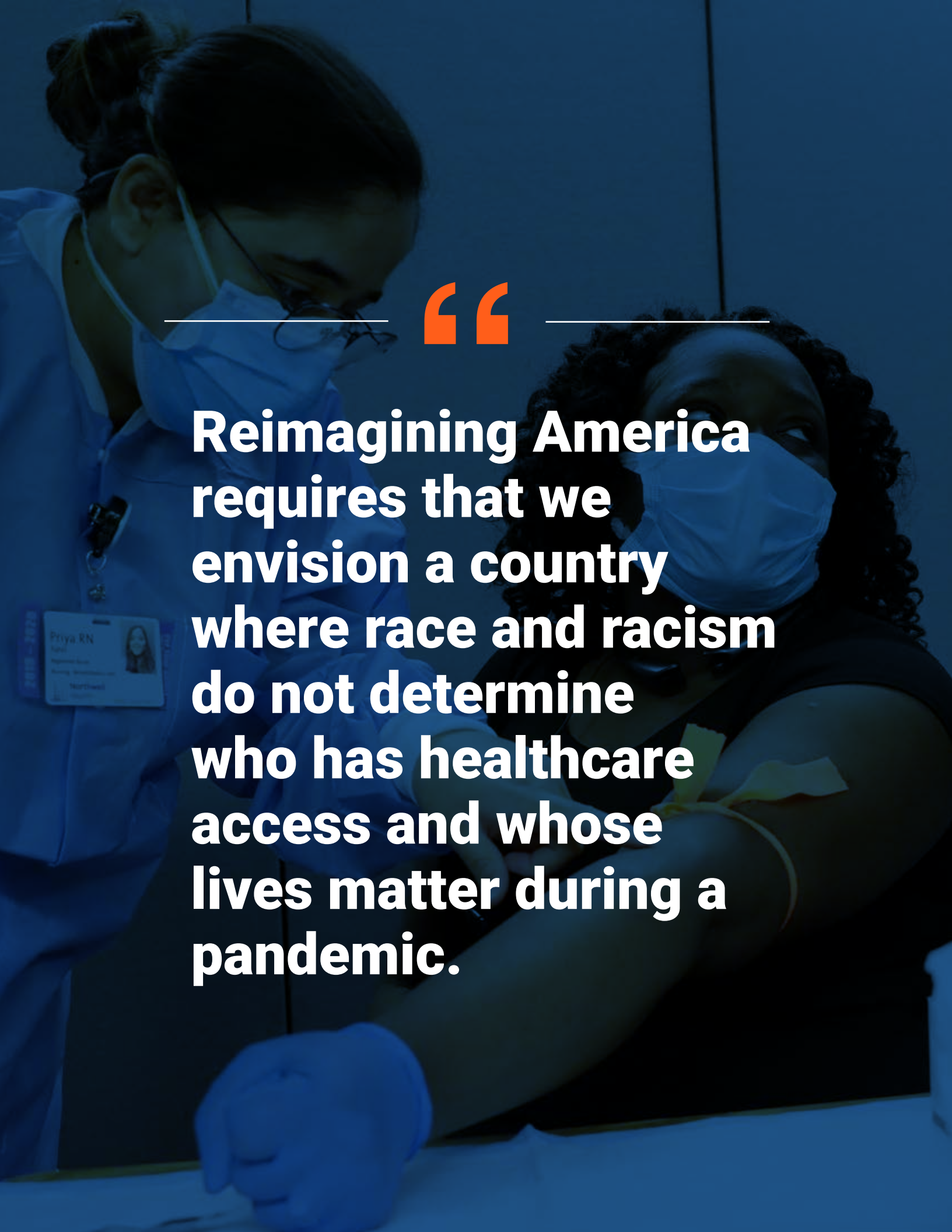
To date, testing and treatment for COVID-19 have been inequitable. Racially equitable healthcare access means that Black people and other racial/ethnic minorities have the same chances of being tested for COVID-19, receiving anti-body tests, participating in clinical trials, and obtaining vaccines when they become available. This is important considering that, despite the racial gaps, the demographic data are highly incomplete. In supposedly the wealthiest country in the world, this is unacceptable.

Accordingly, how these goals are rolled out will impact trust in government, science, and medicine. What should not happen is that members of one group get impromptu trial medication and are used as guinea pigs. Furthermore, part of creating equitable healthcare access also includes personal protective equipment for densely-populated areas and frontline, essential workers.

As I have written previously, Black churches can be leveraged to provide testing and triage. Led by Representative Hakeem Jeffries (D-N.Y.) and Governor Andrew Cuomo, New York is rolling out a program to utilize churches in neighborhoods with less healthcare access. Other cities and states should follow suit. In addition, barbershops and hair salons can be leveraged as sites to disseminate health information. Community-based, participatory research projects such as The Barbershop Tour in St. Louis led by Dr. Keon Gilbert and 100 Black Men can be utilized to establish trust and inform the public. By relying on community trustees such as pastors, barbers, and hair stylists, this approach helps to center culturally-competent communication and dispel misinformation.

EQUITABLE SOCIAL DISTANCING ENFORCEMENT

In order for the country to reopen and persist in a new normal, it is imperative that social



Reimagining America requires that we envision a country where race and racism do not determine who has healthcare access and whose lives matter during a pandemic.

distancing guidelines be enforced equitably by law enforcement. Despite people not properly social distancing at beaches and parks, Black people and Latinos have received the brunt end of police enforcement. Mimicking racial disparities in policing more broadly, recent analysis in New York City showed over 80 percent of people arrested for social distancing violations have been Black or Latino people. These inequities are unacceptable. If people are expected to attend work, get groceries, and take public transit during a pandemic, law enforcement needs to be fair in its application of social distancing guidelines. Allegations of racial profiling should be thoroughly and properly investigated.

THE RISK OF INCARCERATION

The impact that COVID-19 has had on prisons needs to be assessed. Roughly 500,000 people are in pretrial detention—meaning they have not been convicted of a crime but could not afford bail. Considering that prisons represent significant portions of COVID-19 diagnoses in states across the country including Ohio, Arkansas, and Illinois, and racial disparities among the prison population disproportionately affect Black communities, there needs to be appropriate quarantine measures implemented as formally incarcerated people transition home.

EQUITABLE PPP FUNDING

There must be an evaluation and correction in how Paycheck Protection Program (PPP) funding is allocated. Over 90 percent of Black and Latino small businesses have been denied PPP funding. It has substantial implications for healthcare access. Most people get insurance through their employers. If minority small businesses are more likely to fade away during this pandemic due to the implementation of PPP funding, disparities in healthcare insurance, and subsequently healthcare access and utilization, will also increase.

COVID-19 has changed everyone's lives; temporarily for those who cannot get a haircut and permanently for those who have lost family members and close friends. This pandemic has particularly altered the lives of Black Americans as they "are more likely to bury their loved ones." Reopening America requires that we "reimagine ourselves," as Dr. Darrin Wright at Clark Atlanta University so eloquently put it. Reimagining America requires that we envision a country where race and racism do not determine who has healthcare access and whose lives matter during a pandemic.

Creating a more equitable health system

STUART **BUTLER**

Parts of the U.S. health system have been badly battered financially during the COVID-19 crisis, including hospitals that had to cancel lucrative elective surgery and cash-starved clinics that furloughed staff as reimbursed routine visits dried up while uncompensated care surged. But healthcare is not like retailing or the hospitality industry. Total health industry revenue is likely to rise this year at least modestly, and count for a significantly higher proportion of GDP. In total revenue and employment terms, it should be relatively easy to get back to normal.

In the current situation, the real challenge is to make sure the health system does not return to normal. COVID-19 showed starkly that our health system is riddled with inequities that literally killed people in the last few months. It laid bare the fact that chronic disease and health vulnerability track closely with race, zip code, low-paid service sector employment, substandard housing conditions, and other social determinants of health. As we rebuild, we must focus on creating a new normal and building a more equitable public health.

INTEGRATING SERVICES

Fixing all the factors that contribute to health inequities is a staggering undertaking, and politically daunting under the foreseeable economic and budget conditions. But the COVID-19 experience has underscored several ways we can make a start to rebalance the health system. The core of a rebalancing strategy should be to improve the health of more vulnerable households by integrating medical with non-medical services, such as housing, social services, and long-term care supports. Public policy should be designed to expand opportunities to deliver services outside clinical settings, including schools and housing projects serving as hubs. Combining such services is common in many developed countries. The United States is the outlier among OECD countries in spending so heavily on medical services relative to social services—and has generally poorer health outcomes.

California's Whole Person Care program (WPC) is an example of what should be considered more broadly as part of rebalancing the health system as we reopen the economy. WPC currently consists of 25 pilot programs that combine medical and social needs at the county level for the most vulnerable Medicaid beneficiaries, using multidisciplinary staff, interagency partnerships, and improved data sharing. Hundreds of organizations across the country, known as Area Agencies on Aging, adopt a similar approach for the elderly.

Reliable evaluation research to guide a national strategy of integrated services is improving but

still insufficient. Thus, including more and better evaluations will be important as we reconstitute the health system for the post-COVID-19 economy.

EXPANDING TELEHEALTH

With the need to avoid risky medical encounters, the COVID-19 pandemic has triggered a dramatic surge in the use of telehealth. Recent changes in federal rules have made non-office consultations much easier. Among other things, patients and physicians can use more popular platforms, such as Skype and iMessage. In addition, the government issued a temporary waiver allowing telehealth to be used across state lines if the state agrees, and Medicare adjusted its payment schedule to make telemedicine more attractive for physicians to use virtual visits. Private plans have been following suit.

These emergency changes should not be reversed when the crisis eases. The expansion of telehealth underscores the fact that many medical encounters can take place outside costly hospital settings. That has been especially important for improving the availability and quality of services to people and places that have long been chronically underserved. Hourly paid workers facing lengthy journeys to a physician's office now have an alternative. Obstetricians and nurses can do routine check-ins by iPhone with women unable to take off work, and dermatologists can quickly identify skin conditions that warrant an in-person visit.

It is true that the expansion of telehealth raises some concerns, such as the potential for fraud and the possibility of inferior services. But as physicians and patients become more familiar with procedures, and as the technology improves, telehealth can become a powerful vehicle for delivering better healthcare—especially for many who today are systematically underserved. It is time for a comprehensive overhaul of telehealth regulation and payments to make that possible. Going back to the pre-crisis structure would be a big mistake.

IMPROVING CARE FOR FRAIL OLDER ADULTS

A wide range of services typically is needed to maintain health and happiness as we age, including social services and connections that come with a familiar community. For many Americans, however, and not just for those in low-income households, the typical path leads to an unfamiliar Medicaid-funded nursing home or inadequate home care.

Successful aging requires flexibility in where and how services are provided, and more emphasis on home-based and integrated services. There has been progress to build on. For instance, changes in the rules for Medicare Advantage plans in 2018 allowed plans to pay for a wider range of non-clinical services, such as non-urgent transportation, home-delivered meals, and occasionally even air conditioners. Meanwhile some states, such as Vermont, have taken steps to coordinate social and health services to enable more seniors to age in their homes.

About 12 million Americans receive some level of home care, and almost a million more live in long-stay nursing homes. COVID-19 revealed just how dependent nursing home and home-based care is on a vulnerable workforce. Home-based professional caregivers in particular are a workforce under stress. Many work several jobs, over 30 percent are immigrants, more than half have no formal education beyond high school, and their hourly median earnings in 2018 were less than $12. Almost half are in poverty or close to it, and depend on Medicaid, housing benefits, and other assistance. And many work as contractors in a fragmented industry or exist in the informal economy. Not surprisingly, the combination of COVID-19 dangers and immigration restrictions, including the 2019 public charge rule, makes nursing home and home-based care an even more precarious occupation and puts caregivers and homecare agencies at financial risk.

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Two steps are needed if we are to re-engineer this part of the healthcare system within a post COVID-19 economy. The first is to increase Medicaid and Medicare payments to improve the pay level and skills of direct care workers, and the second is to overhaul the training and regulation of these workers. There are several job classifications, and each is regulated to perform specific home care and clinical services. The workforce is regulated by the federal Department of Labor and by individual states, and training requirements vary by state. Meanwhile, in many states direct care workers are prevented from providing very basic medically related services, such as medication administration. The restrictions mean agencies or private payers often must pay for more than one professional to care for a client, and effectively cap the training and pay levels available for direct care workers.

COVID-19 caused many states to temporarily modify or suspend occupational licensing laws for medical personnel to fill gaps during the emergency. Going forward, there should be an overhaul of occupational licensing by states and training for both nurses and care workers to provide greater professional opportunities for home care workers. But this needs to be coupled with improved pay levels, or more qualified workers will leave home care for the hospital system to secure better pay.

PROVIDING MORE FLEXIBILITY IN HEALTH SPENDING

The COVID-19 crisis forced rapid adaptation in the health system, and both states and the federal government had to use program funds more flexibly. States moved swiftly to request waivers from the rules governing Medicaid and other program spending, and the federal government acted quickly on most requests.

To build a health system that reflects a greater emphasis on public health, equity, and integrated services, governments at all levels will need to adopt a variety of existing tools and create bodies to "braid and blend" funds. More waivers are an example. Versions of the Medicaid waiver granted to North Carolina in late 2018 is a good example to consider in other states; it allowed the state to create pilots for groups of high-cost, high-risk beneficiaries, and to provide enhanced case management that melds clinical services with housing, food, transportation, and other services.

A concern with federal waivers is always that they reflect the agenda of the administration at the time. For a more powerful, consistent, and lasting commitment to public health, Congress should consider an enhanced version of waivers that I and my Brookings colleague Henry Aaron proposed in 2004, in the context of expanding coverage. A feature of our proposal was a bipartisan waiver body, or commission, with members representing states as well as Congress and the administration. The commission would review state submissions and propose, for expedited action in Congress, packages of state-specific legislative changes in existing programs to allow states to pursue a national goal in a variety of ways. An appropriate national goal today would surely be an integrated-service approach to better and more equitable public health in America.

Three ways to preserve jobs

MARCELA **ESCOBARI** & IAN **SEYAL**

The United States has experienced many more job losses than other high-income countries due to a significant freeze in economic activity that has been compounded by a decades-long deterioration in labor market arrangements. Reopening promises the opportunity to reemploy millions, but it will be a high-wire act, phasing in business activity without stoking the virus beyond health systems' capacity.

Try as they might, early evidence is showing that local leaders' pronouncements will not flip a restart switch. As we wait for a vaccine, only a cohesive national strategy to test, trace, and isolate will foster trust and rebuild consumer confidence. Yet, though the pace of reopening may not be a matter of local leaders' decree, there are policies they can implement to limit job losses and maintain workers' attachment to their jobs. Doing so will reduce human and economic costs during the reopening. And maintaining links between workers and employers will make for a speedier recovery by reducing the costs of rehiring and retraining.

For individuals, the importance of employment to their well-being cannot be overstated. Long-term unemployment is associated with less success finding a new job, sustained earnings losses in the future, and worse health outcomes. Beyond the individual, children of the long-term unemployed are more likely to have worse educational outcomes and diminished future earnings. And beyond the household, detachment from work costs the broader economy, not only in lost wages and output, but also as unemployed individuals' skills decay, while workplace technology advances.

Skills decay is particularly risky today as new customer and company behaviors harden—for example, consumers preferring online shopping or companies adopting remote work. These accelerating trends increase the need for reskilling, especially digital fluency. Workers who stay employed can adapt with their employer and keep skills current with shifting trends. Though as the economy sheds millions of workers, we risk firms automating existing roles rather than innovating to augment workers' capabilities, resulting in a recovery punctuated by more robots and fewer workers. A proactive policy could change that calculus.

THREE POLICY TOOLS

Three policy tools can strengthen the ties between workers and work and increase the functioning of labor markets: work sharing, strategic employee sharing, and portable benefits. Their implementation requires tight collaboration between government and the private sector. With federal incentives as an impetus, this collaboration

can build a foundation of trust as we move from stopgap measures to lasting policies that bolster worker security and shared talent development.

Work sharing

Work sharing allows employers to reduce workers' hours without greatly reducing their pay or benefits as government takes on a portion of the expense. Work sharing exists in the U.S. but could be more widely adopted to stave off further job losses. The trailblazer here is Germany with its *Kurzarbeit* system. Whether such an expansive system can be wholly transplanted to the U.S. is debatable, but the German scheme's efficacy in response to previous crises is clear-cut.

In the U.S. before the novel coronavirus, work-sharing had been wildly underutilized. Twenty-six states had work-share programs in place before the pandemic, but uptake was limited due to lack of awareness and the administrative burden of participation on companies. Yet the COVID-19 crisis has the potential to spur a dramatic change; the Coronavirus Aid, Relief, and Economic Security (CARES) Act provides incentives for states with existing infrastructure to expand their work-share systems and for the remaining 24 states to establish temporary or long-term programs, as well as $100 million in grant funding to support implementation. In Colorado, participation jumped from 10 to nearly 900 companies in a month as a result of legislative action, the state's sector partnerships, aggressive outreach, and a responsive labor department.

But compared internationally, the uptake in work sharing in the U.S. is still paltry. Other countries have used work sharing since the 2008 recession, so they were well positioned to rapidly expand the program as part of their COVID-19 stimulus packages. In Europe, nearly 39 million workers have remained attached to their employers during the pandemic thanks to work-sharing arrangements. In contrast, just over 120,000 workers in the United States were receiving work-sharing benefits at the end of April. This could help explain why unemployment rates in countries like Austria and Germany have increased by 50 percent and 10 percent, respectively, since January, while the U.S. has seen a jaw-dropping 310 percent jump.

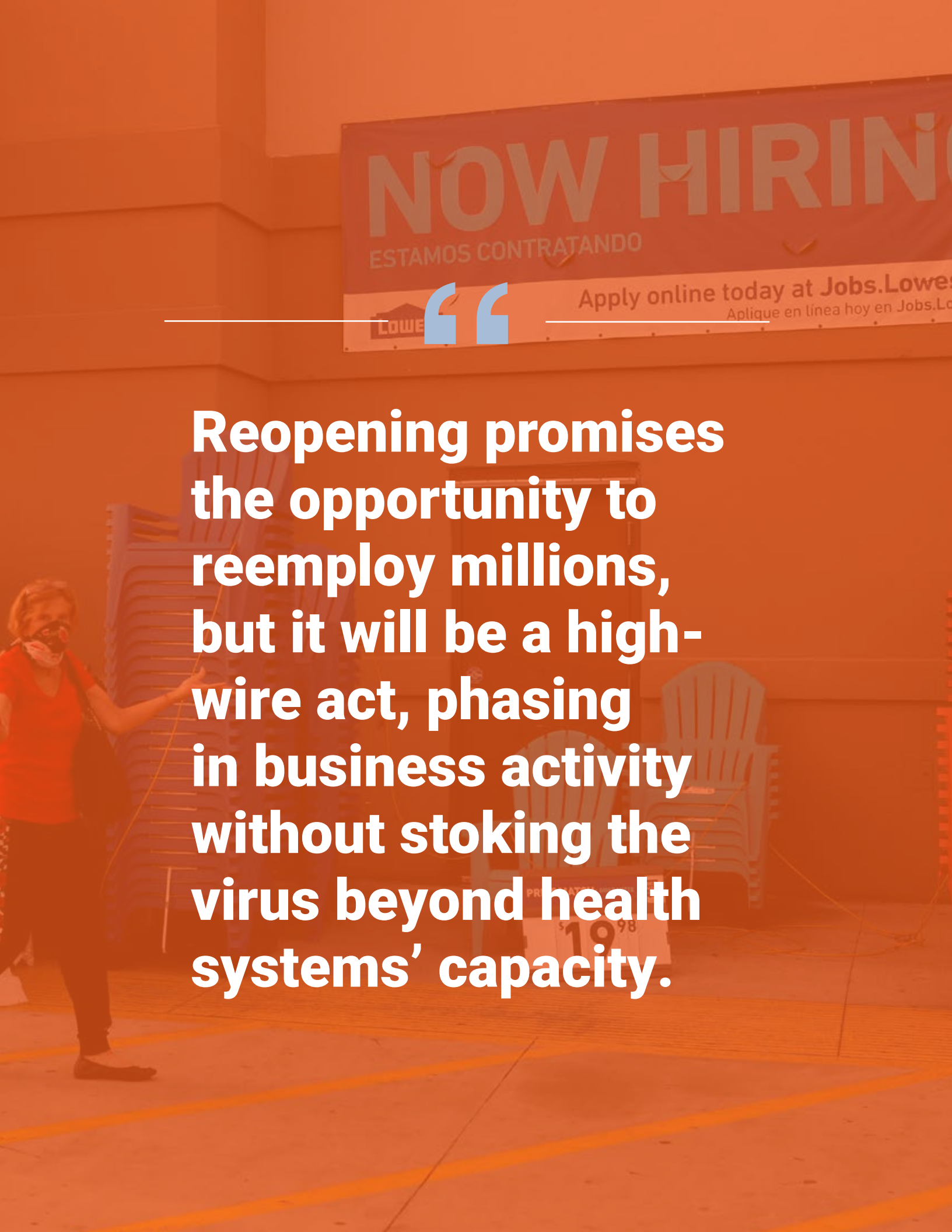
As European firms tentatively open their doors, many will be able to avoid rehiring and get back to business swiftly, assuming demand still exists. Importantly, prolonged use of work sharing risks the propping up of so called "zombie firms," which are no longer competitive but manage to subsist on public dollars. Accordingly, the CARES Act plans to cease federal reimbursement of employee wages and benefits through work share programs at the end of 2020.

Strategic employee sharing

Work sharing is also expensive. To stretch state funds, local leaders can pull other levers, particularly invoking their convening power to match workers who may be temporarily furloughed with temporary opportunities for employment. This is a kind of pseudo work sharing, in a business-to-business form, known as strategic employee sharing.

For example, Macy's has furloughed tens of thousands while Walmart is hiring on a similar scale and looking for similar talent. One such in-demand occupation is shipping clerks—individuals who manage and track a warehouse's inventory. It would be in everyone's interest to allow thousands of Macy's workers to temporarily work for and be paid by Walmart, helping to meet Walmart's surge in demand. Seeing opportunity, many companies have already opened exchanges, creating direct lines of partnership.

Data on similarity of jobs and transferability of human talent can help mediate these arrangements. For example, our new research on job-to-job transitions can identify occupations that frequently transition to become shipping clerks (retail salespersons, cashiers, and janitors) for any given metropolitan area. Using job posting data for an additional layer showing which



Reopening promises the opportunity to reemploy millions, but it will be a high-wire act, phasing in business activity without stoking the virus beyond health systems' capacity.

occupations may be in high demand, we observe a 15 percent increase in demand for shipping clerks and a 14 percent drop for janitors. Employers in need of shipping clerks could source them from shrinking occupations.

This presents an opportunity. Local leaders can assist companies by coordinating among them and their sometimes competitors to create new hiring structures, smooth points of friction, and ease regulatory burdens. Ideally, strategic employee sharing can lead to more modern employment arrangements in which workers gain the stability of full-time employment, while companies are able to flexibly meet shifts in demand by quickly staffing up and down.

It's worth noting that such arrangements can give companies an additional leg up from an already advantaged position in a slack labor market to collude and pay lower wages, circumstances that have drawn the attention of antitrust enforcement agencies. Instead, creating these structures deliberately and iterating on them over time to align interests can build trust among firms, workers, and government—leading to more stable and productive work arrangements.

Portable benefits

Work sharing incentives are meant to be temporary and with regard to unemployment, strategic employee sharing is more of a quick fix than a solution. The reality is that many firms will fail. Knowing this, policy can protect workers as they transition from one job to the next or provide comprehensive benefits when people are forced to cobble together multiple part time jobs. For this problem, portable benefits would offer a solution.

Portable benefits decouple benefits from a specific employer, instead allowing workers to accrue them as they switch from one job to the next, as is increasingly done in the modern economy, particularly by gig and contract workers. Such a scheme could also protect workers through spells of unemployment and could have prevented an estimated 13 million workers from losing their healthcare in recent weeks.

THE IMPORTANCE OF TRUST

A lot depends on trust. To reopen, workers must trust that employers will provide for their safety. Employers must trust government to set clear, fair rules and to alleviate economic shocks. State governments must trust the federal government to set health guidelines and to keep unemployment and work sharing schemes liquid.

Partisanship, polarization, populism, and class divides all tear at trust. So, we need policies that can help weave it back together. Work sharing, strategic employee sharing, and portable benefits can build trusting relationships among employers, workers, and government that can ratchet up over time to improve pay and job quality, as well as earnings and productivity.

If we are going to turn this crisis into a moment of positive change—bold policies, a new social contract, a more inclusive capitalism—local leaders need to use the opportunity to build trust between government and private enterprise at this time when they need each other more than ever.

Low-wage workers have suffered badly from COVID-19 so policymakers should focus on equity

MOLLY **KINDER** & MARTHA **ROSS**

Faced with the staggering economic fallout of the COVID-19 pandemic, state and local leaders are exploring how and when to lift stay-at-home orders and reopen local economies. Unemployment rates have skyrocketed and job losses rival those of the Great Depression. Leaders are also confronting the health risks that reopening poses for workers, their families, and the community—risks exacerbated by inadequate testing, shortages of personal protective equipment (PPE), weak enforcement of workplace safety standards, and no readily available treatment or vaccine. The rising death toll of essential workers such as nurses, bus drivers, and grocery workers is a grave reminder of what is at stake in these decisions.

As leaders across the country seek opportunities to put laid-off workers back to work, their decisions will have an outsized impact on low-wage workers and people of color, who shoulder some of the most severe financial and health burdens associated with the coronavirus and will be some of the first workers called back to the job site. Leaders must create the conditions for a more equitable next phase of the pandemic so that low-income and minority workers are not forced to make an impossible choice between surviving financially or surviving the virus.

COVID-19 JOB LOSSES HIT LOW-WAGE WORKERS AND PEOPLE OF COLOR THE HARDEST

Low-wage workers in America have suffered the worst economic pain of the pandemic. Social distancing measures taken in response to COVID-19 resulted in massive job loss concentrated among lower-wage workers. Retail and leisure/hospitality, which typically offer lower wages than other industries, took the hardest hits. In April, retail posted a 17.1 percent unemployment rate, totaling 3.2 million people. In leisure/hospitality, the unemployment rate was a staggering 39.3 percent, totaling 4.8 million people.

Workers with the least education have suffered the most. In April, unemployment rose to 21.2 percent for those with less than a high school degree—more than twice as high as the 8.4 percent unemployment rate for those with a bachelor's degree or higher. Financial shocks and unemployment are widespread, but Black and Latino or Hispanic workers are disproportionately affected.

One of the reasons low-wage workers have suffered disproportionate job losses is their limited ability to telework. Low-wage workers are six times less likely to be able to work from home than high-income workers. Fewer than 10 percent

of leisure and hospitality workers can telework, while a majority of workers in higher-paid fields such as the finance, business, professional, and information sectors can. The vast majority of workers who held jobs just a few weeks ago in restaurants, bars, gyms, salons, movie theaters, and malls could not perform those jobs from home once the pandemic started and were laid off as social distancing requirements caused many of those establishments to close.

As cities and regions across the country start to reopen businesses, millions of laid-off, low-wage workers face a dual dilemma. To earn a paycheck, the vast majority will have to show up physically to work, risking exposure to the coronavirus. But their pay could be less than the already low wages they earned before, and even less than what they were collecting through enhanced unemployment insurance at the beginning of the pandemic. Servers may return to half-empty restaurants and far smaller tips, for instance, and hours for low-paid retail and leisure workers may be cut. As their eligibility for unemployment benefits expires, many may find themselves in the difficult position of choosing between their health and their (potentially even smaller) paychecks.

LOW-WAGE WORKERS AND COMMUNITIES OF COLOR ALSO FACE HIGHER HEALTH RISKS

The coronavirus is an unequal killer. Low-income and minority populations face a higher risk of dying from COVID-19 due to structural conditions, health inequities, and a higher prevalence of preexisting health conditions such as heart disease, asthma, and diabetes. The mortality rate from the virus is nearly three times higher for Black Americans than for whites. According to an analysis by the Kaiser Family Foundation, a far higher percentage of low-income, non-elderly adults have a serious risk of dying from COVID-19 than higher-income adults.

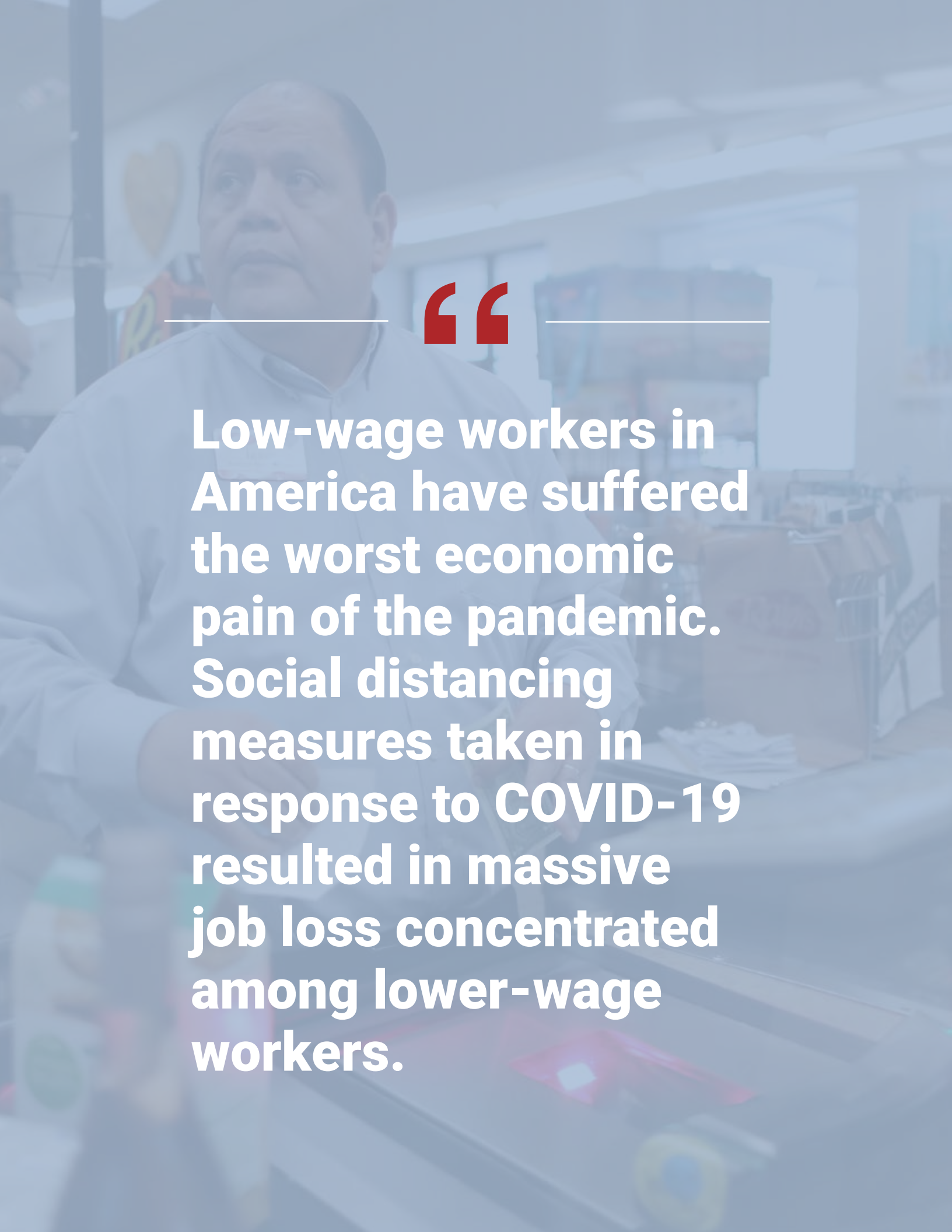
Community spread is also a real concern. As they risk exposure on the job site, low-wage workers are also risking the health of the family members they live with. Low-wage workers are more likely than those with higher incomes to live in households of at least five people and with someone over the age of 60. Multigenerational households are also nearly twice as common in communities of color than among non-Latino or Hispanic whites.

GOVERNMENT MUST TAKE A MUCH STRONGER ROLE ENSURING THE HEALTH AND SAFETY OF WORKERS

The priority for policymakers and employers must be to keep workers safe and protected on the job. The federal government should have enacted enforceable safety requirements for employers, but it has not, and the administration appears unlikely to do so. The Centers for Disease Control and Prevention (CDC) and the Occupational Safety and Health Administration have both released guidelines for workplace safety, but they are advisory in nature. State and local governments should create and enforce their own requirements based on the guidance from those agencies.

So far, employers' track record on worker safety during the pandemic is concerning. The shocking outbreaks in meatpacking plants across the country are a reminder of the potential hazards that workers face on the job. A survey from the University of California at Berkeley revealed uneven and often inadequate safety procedures across major industries that employ low-wage workers, including retail, warehousing, restaurants, hotels, and pharmacies. Several walkouts and strikes among gig workers and warehouse workers have highlighted urgent concerns about safety, but workers in general have limited ability to advocate more protection.

Many businesses simply will not take the necessary steps to protect their employees unless forced to by government, workers, or perhaps consumers. Companies often treat low-wage or frontline workers as costs to be minimized rather



Low-wage workers in America have suffered the worst economic pain of the pandemic. Social distancing measures taken in response to COVID-19 resulted in massive job loss concentrated among lower-wage workers.

than people and assets to protect. In the absence of federal action, state and local leaders should strengthen protections for workers and create new avenues for them to report safety concerns without risk of retaliation.

Critical shortages of PPE have already impacted first responders and health workers, prompting the CDC to issue guidance acknowledging the "tremendous challenge" that shortages are posing to the U.S. healthcare system. These shortages will become even more urgent as workers return to the job site and the demand for masks, gloves, and sanitizer grows. The federal government should utilize the Defense Production Act to increase the PPE supplies.

GOVERNMENT SHOULD ASSIST WORKERS WHO CAN'T (OR SHOULDN'T) WORK

State leaders should take extra measures to provide a safety net to the workers who are at greatest risk from COVID-19. No matter what safety measures employers put in place in the coming months, it may simply be too dangerous for some of the highest-risk workers to return to the workplace until a vaccine is available. The CDC has identified higher-risk individuals as people over age 65, people with underlying medical conditions including lung disease and severe asthma, and those who are immunocompromised due to other medical conditions. Low-income workers and workers of color are more likely to have these underlying medical conditions.

State leaders can follow the lead of the Texas Workforce Commission and issue guidance clarifying that unemployed workers can refuse rehire and remain eligible for unemployment benefits if they or a household member is at especially high risk from COVID-19. According to the new Texas guidance, other approved reasons for refusal could include a COVID-19 diagnosis, quarantine, or lack of child care.

GOVERNMENT NEEDS TO ASSIST WORKERS WHO LOST WORK OR INCOME

Massive unemployment requires a proportionate response. Even as states reopen, the scope and pace of hiring will be nowhere near enough to compensate for the tens of millions of jobs lost in the past few months. The federal government has taken important initial steps in the Families First Coronavirus Response Act and the Coronavirus Aid, Relief, and Economic Security Act, but the unemployment benefits they provide are too limited in length and exclude some of the most vulnerable working families, including immigrants. More needs to be done to provide direct relief to the millions of workers and families who risk financial ruin and could plunge deeper into poverty. One promising proposal in Congress calls for automatic extension of unemployment relief through the period of extreme social distancing and economic crisis.

The federal government should also enact a large scale, federally funded employment initiative to employ millions of people, and authorize such a program for at least three years. The program could place subsidized workers at nonprofits and businesses, and directly employ people in the public sector in emergency response, public works, and infrastructure jobs. It could place workers in jobs that aid the COVID-19 relief effort, such as contact tracing, making and distributing PPE, organizing food drives, and delivering groceries to those who are homebound. Of course, any of these employment opportunities should be safe, allowing for adequate social distancing as well as any necessary PPE.

The coronavirus has laid bare the inequities of our labor market and health system and the weaknesses of our safety net, leaving the country's most vulnerable workers and families on the edge of financial disaster. In the near term, the focus of policymakers at all levels of government should be on keeping workers safe and protected

on the job, extending the safety net for those who cannot or should not work, and providing economic relief and work to the millions of workers who lost jobs and income. In a heartening move, some states, cities, and regions are making explicit commitments to equity as they respond to the COVID-19 crisis. Addressing the inequities that existed long before the pandemic requires immediate policy responses, as well as long-term, structural change for a better, more resilient future for all workers.

We shouldn't reopen the economy without paid sick and family leave

ISABEL V. **SAWHILL** & MORGAN **WELCH**

If the country is to begin the reopening process and minimize the chances of a new wave of COVID-19 infections, it will be critical to enable people to stay home when they or a family member is sick or in need of care.

The United States is the only advanced country without a federally mandated paid leave policy. As such, it was ill-prepared when the pandemic hit. In reaction, on March 18, 2020, temporary legislation was enacted to mandate sick leave to stop the spread of the virus and protect the wages of sick workers. The Families First Coronavirus Response Act (FFCRA) provides up to two weeks (10 days) of paid sick leave at 100 percent of an individual's salary, capped at $511 per day, as well as an additional 10 weeks of paid family and medical leave at two-thirds of the individual's salary to care for a child who is home due to school or day care closures. However, the legislation is temporary and will expire at the end of this year. It should be extended and the opportunity taken to consider whether more permanent changes are needed.

PRE-COVID-19 SICK LEAVE POLICY IN THE UNITED STATES

Among OECD countries, 32 out of the 34 guarantee paid sick leave, and the United States is the only country that does not guarantee any type of paid leave. Although the U.S. has no national policy on sick leave, there are currently 12 states and the District of Columbia, as well as several jurisdictions, that mandate employers in their region to provide paid sick leave. Even outside of these states and jurisdictions, many employers do offer paid sick leave to their employees. According to the Bureau of Labor Statistics, 76 percent of workers have access to paid sick leave, as of March 2019. However, when examining the breakdown of paid sick leave by wage, occupation, and employer size, we see wide gaps in access and availability. For workers with the lowest 10 percent of wages, only 31 percent have access to paid sick leave, compared with 94 percent of the workers with the highest 10 percent of wages.

In particular, workers in many of the services that have been hardest hit by the virus, including many workers who interact regularly with others as part of their job, lack paid sick leave. For example, only 61 percent of workers in services such food and beverage preparation, cleaning and building service, and personal services—such as barbers, flight attendants, and child care workers—have access. This is in contrast to the 94 percent of workers in management, business, or financial jobs who have access to sick leave, although many of these workers are able to successfully telework.

In short, about a quarter of workers have no paid sick leave at all and those most likely to lack access are those in low-wage work that requires significant personal interaction, and where a few days or a week off from work to recover from an illness may mean a substantial loss in wages.

WHAT IS COVERED UNDER FFCRA?

Although FFCRA was a welcomed attempt to fill a pre-COVID-19 gap, by providing paid sick leave and paid family leave for a subset of workers those working for large firms (more than 500 employees) were excluded entirely, and other exclusions may apply to employees of healthcare providers, such as hospitals and nursing homes, and firms with fewer than 50 employees. This exclusion of healthcare workers is odd. Of course, they are essential but why should they be penalized if they get sick or have to self-quarantine due to exposure?

The temporary legislation leaves out a huge chunk of workers who were uncovered before, especially lower-wage workers and, in some cases, those in smaller firms. The new law did extend some, more modest, partially paid family leave benefits to those caring for children if the child's school or child care center was closed.

LESSONS LEARNED FROM COVD-19

The novel coronavirus is highly infectious, and it is deadlier than the flu. Every person infected tends to transmit the virus to about 2 other people in the absence of social distancing or other mitigating factors.

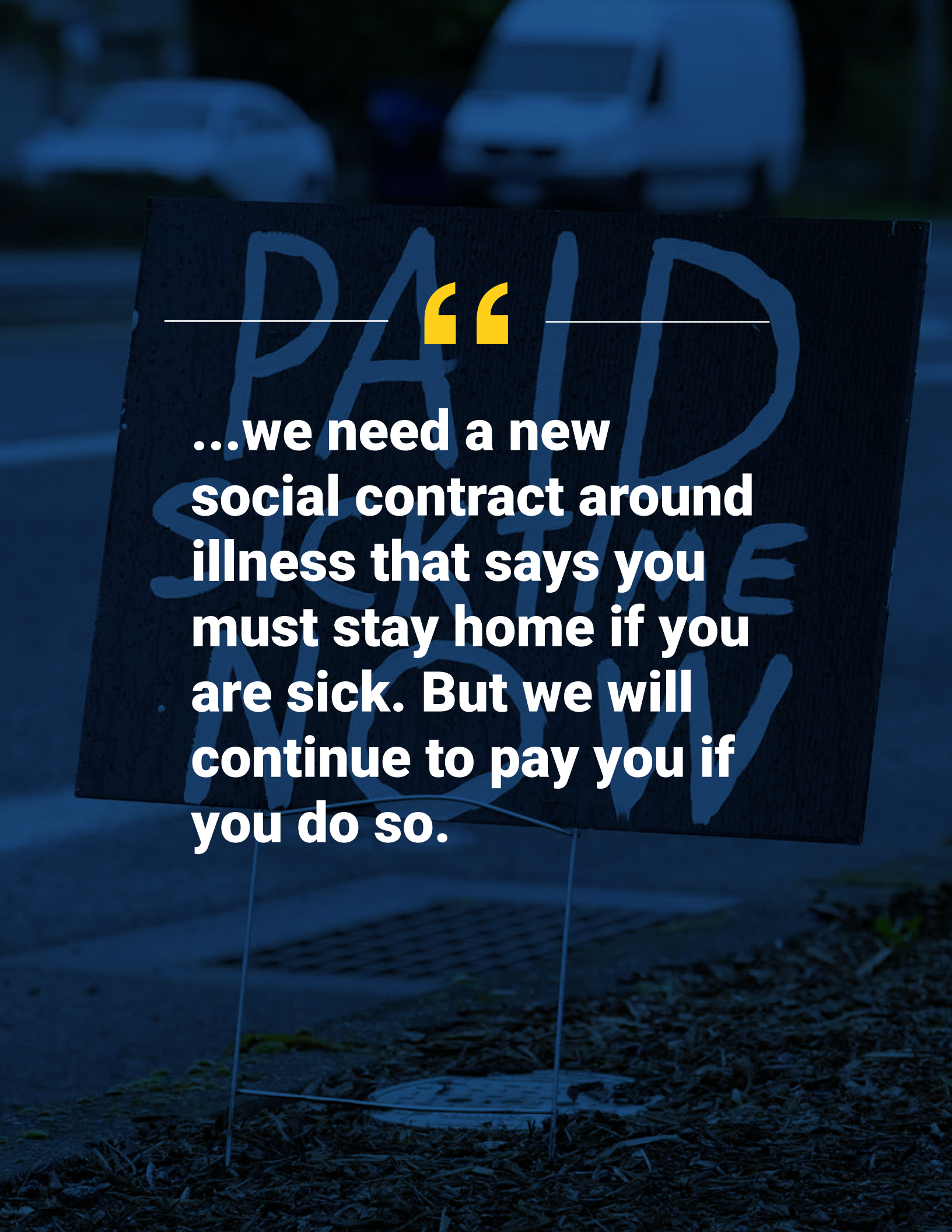
So, if we want to contain the spread of this virus, including any subsequent waves that may occur before we find a safe vaccine or achieve herd immunity, then paying people to self-isolate when they are sick is an imperative. Some people, to be sure, will be asymptomatic (or pre-symptomatic). The solution here is more widespread testing. Others will have such mild symptoms that they may not see the need to stay home. In the case of those with mild symptoms, it will be important to inculcate a new ethic of responsibility toward others to replace the current ethic of work-comes-first. Employers and supervisors are part of the problem—they tend to reward those who always show up and not those who choose to stay home. That must change.

In short, we need a new social contract around illness that says you must stay home if you are sick. But we will continue to pay you if you do so.

WHAT MIGHT A BETTER POLICY LOOK LIKE?

First, the FFCRA must be extended until the pandemic has subsided and there is widespread vaccination, which will almost certainly not happen until 2021. In the process of extending the act, Congress should expand its coverage to include all workers and not just some. The exclusion of health workers, small businesses, and lower-wage workers in large companies makes no sense either in terms of public health or in terms of supporting the victims of the virus.

While reopening safely should be the priority, Congress may want to address some larger questions in the process—and see this as an opportunity to re-evaluate existing and proposed legislation. Currently, the Family and Medical Leave Act allows workers to take up to 12 weeks of unpaid leave for the birth of a child, to care for a close relative, or to recover or seek treatment for a serious health condition. Many people believe such leave should be paid instead of unpaid, and the FAMILY Act, legislation introduced by Senator Kristin Gillibrand (D-N.Y.) and Representative Rosa DeLauro (D-Conn.), would accomplish that goal. In addition, the Healthy Families Act, which was reintroduced by Senator Patty Murray (D-Wash.) last year, but has not been passed, proposes allowing workers with 15 or more employees to earn one hour (at minimum) of paid sick leave time for every 30 hours worked, with a cap of 7 days of paid lave per year. Small firms under 15 employees would be mandated to offer unpaid sick leave.



...we need a new social contract around illness that says you must stay home if you are sick. But we will continue to pay you if you do so.

While the FFCRA puts paid sick and family leave at the forefront of the policy agenda, a long-term policy solution that covers paid sick, family, and medical leave poses a host of important questions to consider. Can we design a sick leave policy not just for these troubling times but for after things have returned to normal? Should we also provide a temporary disability program that partially covers the wages of those who need to take not just short-term sick leave but a more extended period away from work because they become seriously ill, are hospitalized, and need weeks, not just days to fully recover? And how much paid leave should be guaranteed for a new parent or one who needs to stay home with a sick child or deal with the closure of schools and day care centers? Or a worker whose elderly parent needs care? These questions are not new – just more pressing in the wake of the current crisis. A more in-depth look at these questions is being pursued by an AEI-Brookings initiative on paid family and medical leave.

Reopening the economy successfully means not asking people to choose between a paycheck and their health. It also means recognizing the impact on the health of the entire community when sick people go to work or their children go to school or to day care because their parents cannot afford to stay home. The costs on businesses and other organizations are likely very minor compared to the savings associated with keeping employees and customers healthy.

Ways to redesign unemployment benefits

MALLIKA **THOMAS**

The current benefit to social distancing as a way to ameliorate the COVID-19 pandemic is so large in monetary terms that we are still not at a point where tradeoffs in terms of lost economic activity are very meaningful in comparison to the health and mortality benefits. However, as medical and technological advances are made, and as the availability of testing and contact tracing increases, we may eventually get to a point where these tradeoffs start to matter.

Looking toward the future, if we want to eventually have a loosening of uniform government restrictions and allow individuals to have a choice regarding whether to work or to stay at home, a key challenge is in determining how to construct a policy that provides appropriate incentives to encourage the right number of people to work, from a social perspective, without having a resurgence of the virus. Some have argued that government involvement is unnecessary and that simply providing information is sufficient for individuals to best choose whether to continue practicing social distancing or not.

However, the fact still remains that for the individual worker, social distancing requires undertaking something extremely costly—to stay at home—which means for the vast majority of workers in the U.S. giving up their earned income, while the majority of the benefit accrues to society at large. Of course, those who stay at home do benefit: the likelihood that they contract the virus themselves and become sick is reduced. The majority of the benefit of an individual staying at home, though, actually accrues to the public through reduced transmission rates, while less than 0.1 percent of the benefit of the individual action goes to the individual.

THE COSTS AND BENEFITS OF STAYING AT HOME

People primarily make the decision to stay at home based on the costs and benefits to themselves, rather than to society as a whole. While the innate desire to help one another should not be underestimated, it cannot be ignored that the costs of social distancing are extremely unequal, and the cost of staying home and serving the public interest is greatest for the lowest-wage workers and those who are most vulnerable along a number of dimensions. The crucial point is that when government mandates are eventually loosened and the economy reopens, even though some people will still voluntarily stay at home, the number of people who will choose to not to go out is still lower than the number of people who should choose not to when we take into account the public's interest, which is overwhelmingly larger than the individual's interest in the same action.

Simply put, I as an individual would relish the opportunity to keep my income and continue to work and, instead, pay everyone else to stay at home. Others would like to do the same. The amount that we would like to pay, collectively, would actually be more than enough to convince a large fraction of people to stay at home. The only problem is that we need someone to coordinate these payments.

This is where the government plays an important role. While it is infeasible for individuals to coordinate paying each other to stay home, the government can easily do so. In fact, there is a history of the government using taxes to align individual incentives with social welfare, for instance, in the case of a cigarette tax to address the costs that smoking cigarettes imposes on others. Economists on both ends of the political spectrum have long championed such an approach because it keeps decision-making with the individual but, by providing a tax or a subsidy to the individual, allows that person to incorporate into their decision-making process the cost or benefit their actions impose on the rest of society.

PAYING PEOPLE TO STAY AT HOME

So how would this work in the case of COVID-19? We could easily construct a benefit—specifically an unemployment insurance benefit—that would be based on the cost to the rest of society of an additional person being at work for 40 hours per week instead of spending the same amount of time at home, in terms of lives lost and health costs incurred. An individual would then face the decision of whether to go to work and give up the benefit or stay at home and continue to receive the benefit. If someone voluntarily turns down the benefit in order to work, this approach ensures that it must also be the case that what they are producing by working generates greater value to society at large than the additional risk they impose on others by working outside of the home.

An important advantage of this approach is that it allows us to tailor the incentives to stay at home to the value to society of the work that an individual does. We don't necessarily want, from a social welfare perspective, the number of people who work outside of the home to be zero. Some activities and jobs, especially when they enable people to receive food, healthcare, medicine, or simply enable the majority of people to be able to stay at home (while still enjoying the benefits of an industrialized society), may be especially valuable, and such work may outweigh the cost to society of their being out and about.

A critical part of this proposal is, therefore, that all workers have a choice between accepting a job and accepting unemployment benefits. For this proposal to deliver the intended results, all workers, including essential workers, need to have the ability to choose to turn down a job if they would rather receive unemployment benefits. While this would likely result in employers needing to pay essential workers higher wages in order to incentivize them to work, this proposal would likely have the much-needed positive side effect of getting essential workers increased pay, and quickly, to help compensate them for the increased risk that they face. It would also put upward pressure on wages to mitigate some of the large difference between the wages paid to a substantial fraction of essential workers and the value that the work provides to society. Whether this will occur is an empirical question, but several states have already allowed vulnerable workers to turn down jobs and still receive unemployment benefits. These states will provide a good testing ground with which to answer this question.

THE BENEFITS OF THIS APPROACH

Structuring unemployment benefits on the basis of the value to society of staying home rather than the cost to the individual offers two additional advantages. First, it allows us to calculate precisely how to phase out unemployment benefits as we move through the arc of the pandemic and an additional hour outside of the home eventually becomes less costly to others. The cost of being outside will depend critically on the availability

We are currently seeing the tension between individual incentives and the public good emerge as protestors to stay-at-home orders are taking to the streets.

and uptake of testing and contact tracing, as well as how testing is implemented.

Second, this proposal allows for a recovery plan that need not be a "one-size-fits-all" plan for the entire country. This structure allows the "incentive to return to work" to be tailored to different regions of the country, where the costs of not social distancing may vary depending on the density of the population, demographic vulnerability, the capacity of local health and social service infrastructures, the fraction of people who are required to work in close proximity to others, and the fraction of the population living in group facilities, among other risk factors.

So, what exactly does the value-based approach to determining the incentive to stay at home yield? A back-of-the-envelope calculation, based on a set of recent studies, including Greenstone and Vishan and building on Ferguson, et al., suggests that the current social benefit to an individual staying at home is approximately $1,500 per week.

Of course, $1,500 per week is just a starting point. It may be worth noting that the share of workers who cannot work remotely declines at higher wages, so it may not be necessary to provide $1,500 per week to a large fraction of the population. Moreover, as previously discussed, the actual amount paid will differ across regions and over time depending on the cost to society of an individual working outside the home. This framework allows us to conceive of what a reasonable pathway out of the pandemic would look like: as infection rates subside, the cost to society of working outside the home will decline, and the unemployment benefits would be phased out according to the social cost.

We are currently seeing the tension between individual incentives and the public good emerge as protestors to stay-at-home orders are taking to the streets. The tension arises because government mandates are asking individuals to do something that is personally costly and that, at its core, is actually not for themselves, but for others.

Thus far, the way the expansion of unemployment benefits has been viewed is as a way to help people endure the "fallout" of staying at home. However, we can do better as we can construct an unemployment benefit whose cap would allow individuals to internalize the benefit that their actions offer the rest of society as well. This would allow us to achieve a societal outcome that is difficult to achieve through individual action alone.

The restaurant sector must adapt and innovate to survive

TRACY HADDEN **LOH** & ANNELIES **GOGER**

When the COVID-19 emergency lockdowns began in mid-March, social distancing orders catapulted the food and beverage sector into an unprecedented crisis. As governors begin to gradually lift restrictions, a narrow focus on reconfiguring dine-in spaces and limiting restaurant capacity will be inadequate if consumers and workers do not feel safe returning to these spaces.

Although restaurants make vital contributions to the tax base, jobs, and vibrancy of local communities, they tend to operate on very slim margins. Revenues are highly sensitive to changes in customer service, foot traffic, and the group social atmospheres that most of us have spent the pandemic avoiding. Reopening restaurants at this point is not about returning to normal, but adaptation and survival in an ongoing state of uncertainty.

This piece offers a wider vision for how federal, state, and local governments can focus efforts over the next four months and partner with industry to resurrect a crippled food and beverage sector. We also highlight promising solutions and food system assets that can be leveraged to enhance hunger relief efforts.

RESTAURANTS NEED AGILE SOLUTIONS

Over the next four months, restaurants and bars will need to try adaptation strategies that go beyond just retrofitting a dining room. Government leaders can support these shifts by reducing uncertainty and providing infrastructure to help firms quickly realign supply and demand in the food system. Meanwhile, as Mark Muro has noted, policymakers, government agencies, and community partners must communicate clear guidance and provide support for new safety behaviors such as delivery, testing, tracing, mask wearing, and physical distancing.

Current guidelines from the Food and Drug Administration are not enough—food and beverage establishments will need much more support to reimagine their full range of business options and how to safely deploy them. They also need flexibility to iterate and experiment within safe bounds to figure out what new revenue sources they can sustain. We have sorted emerging solutions into several high-level categories below:

- Make masks essential and culturally inclusive. Restaurants are the most complex setting for mask use for obvious reasons: masks are incompatible with eating and drinking. The problem is that once one person is not wearing a mask (a diner), it inevitably raises the question (consciously or subconsciously) of whether everyone else, such as front-of-house staff and customers who are waiting to

be seated or for takeout, really have to be wearing them. Promoting and enforcing mask use cannot be another burden placed on small businesses—the whole community must share it. The Centers for Disease Control and Prevention recommends wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain, and that includes restaurants.

Public, private, and community leaders must take up responsibility for promoting and normalizing mask use by the general public when not actively eating and drinking. Emphasize mask use, first, as a measure to protect essential workers and vulnerable populations and, second, to show pride and community identity. Use trusted, popular, nonpartisan cultural and community figures to promote mask use as an act of community service, and do not primarily rely on police or private enforcement.

- Reimagine kitchen and dining spaces. It's summer—make everything al fresco. Restaurant kitchens are notoriously hot and crowded. Operators and customers must prioritize the safety of back-of-house restaurant workers by embracing the relocation of any kitchen function that can be moved, while still practicing food safety. Open kitchens wherever possible, repurpose indoor dining space for prep, and think flexibly and expansively about space up to and including cooking outdoors.

  Both individual restaurant patios and shared spaces such as parking lots, sidewalk seating, food halls, and farmers markets allow restaurants to leverage the summer weather and accommodate more customers. Municipal ordinances must make this as easy as possible. Tampa, Florida, has suspended code and permit requirements for outdoor seating within designated zones.

  Adaptations require capital that federal, state, and local government must invest—these small businesses are already strained to the breaking point in terms of their own resources. Restaurants and other main street businesses should begin with light, quick, and cheap trials of these ideas, understanding that as the seasons change both the weather and the pandemic will continue to evolve. Look globally for inspiration on how to adapt the outdoors for human use, creating cooking space, shade, and seating. Call on artists and designers to infuse solutions with both joyful energy and reinforcement of social distancing. For example, a colorful geometric paint design on a parking lot could show diners how far apart to stay, making it easier for children to comply.

- Innovate and stabilize the pivot to takeout and delivery. Many restaurants report that third-party food delivery platforms charge high fees that erode what little profitability is left in the restaurant industry. Instead, local public-private partnerships and business networks can pool resources to build their own platforms for delivery. The Seattle-based nonprofit Ventures launched an online store featuring products from local entrepreneurs. SeoulSpice, a restaurant chain in the Washington, D.C., region, is selling goods from three other local businesses through a new online bodega.

  Restaurant demand is not going to return to pre-pandemic levels any time soon. So, restaurants must find ways to make takeout and delivery viable in the short-, medium-, and long-terms. It makes sense to develop delivery-specific menus that

ADAPTATION OPTIONS

Move up the chain

Identify new activities or related functions you can add to your business. Connect wholesale food and essential goods to consumers at home. Process and prepare raw food or meat that is currently bottlenecked in the food system and deliver it to market. Help meet the need for procuring stable sources of PPE and testing supplies for your industry.

Pivot to a new product or service

Develop shorter menus or pre-configured meal kits that are well suited to the needs of people at home or essential workers. Identify a new market niche that is not being served, such as prepared food for vulnerable people with diabetes or working single parents with kids at home.

Adapt your process

Reconfigure the spaces where you prepare, cook, and serve food to increase safety and playfully demarcate distances. Set up pick up windows. Rework the flow of people to include daily testing, distancing, and masks. Collaborate with other restaurants and bars to share a delivery platform. Develop new branding around the safety measures you're taking to protect your workers and customers.

Source: Gary Gereffi and Karina Fernandez-Stark, 2016. "Global value chain analysis: A primer." Second edition, Durham, NC: Duke University Center on Globalization, Governance & Competitiveness, p. 12. Available from: https://gvcc.duke.edu/wp-content/uploads/Duke_CGGC_Global_Value_Chain_GVC_Analysis_Primer_2nd_Ed_2016.pdf.

are shorter and consist of items that travel well. Many restaurants are also finding ways to move up the supply chain as grocers. This innovation can be connected to social need through prepackaged meal or grocery delivery boxes to quarantined seniors and other populations.

Government can also connect small business resilience with hunger relief. Local networks of restaurants can be organized to provide hunger relief through ready-made delivery food. Local governments, in collaboration with industry associations and hunger relief organizations, can set up a public platform for coordinating and delivering food from restaurant kitchens to those in need. California created the High Road Kitchens initiative, funding restaurants to offer meals to those in need. Federal legislators have proposed the bipartisan FEMA Empowering Essential Deliveries (FEED) Act to fund and execute this nationally. Public and private networks should also consider healthy food options that are sensitive to dietary restrictions common among vulnerable populations, as well as frozen options for individuals in rural areas.

- Deploy and strengthen hyperlocal community infrastructure for business support. Place-based organizations have piloted many of the ideas presented in this piece. Existing community organizations can provide support to businesses quickly. For example, Seattle's Ventures nonprofit offers free and unlimited product, service, and financial coaching for clients. Jenny Crittenden of Main Street Preservation Trust in Gloucester, Virginia, made a guide to negotiating rent with a commercial landlord. Federal agencies, advocacy organizations, and think tanks can also share promising practices.

Reopening restaurants at this point is not about returning to normal, but adaptation and survival in an ongoing state of uncertainty.

We need to quickly scale solutions and innovations that have already started. Hyperlocal place-based organizations such as business improvement districts, main street organizations, business incubators, neighborhood and cultural business associations and chambers, and community development corporations are essential to reaching the microbusinesses that most people have in mind when they hear "small business." The public sector must support the work of existing hyperlocal place-based organizations and programs to promote the resilience of the food and beverage sector as well as economic vitality more broadly. Where there are no existing organizations, local governments must step in to be the intermediary. Start with the neighborhoods and communities where there is a strong potential for impact: places with both clear need and some established assets.

REPAIRING THE FOOD SUPPLY CHAIN BEYOND RESTAURANTS

Before COVID-19, Americans spent more than half of their food budget dining out. Shifting this consumption to the home created massive surges in demand at certain points along the food supply chain and collapses in demand at others. As restaurants closed, grocers became overwhelmed.

The closure of institutional and retail food settings created major chokepoints in storage, leading to astonishing quantities of food being dumped or destroyed. This is particularly baffling to watch as mass layoffs and school closures have exacerbated food insecurity among vulnerable populations such as low-wage unemployed workers and low-income children and seniors, inundating food banks. Even with the strategies described above, restaurant volume will not return to a pre-pandemic level sufficient to close the gaps that have opened in our food supply chain.

Out of the ashes of this destruction may rise several opportunities for restaurants to help relieve pain points in the supply chain with an emphasis on ensuring safe access to healthy food for vulnerable populations. Regional food hubs, community-supported agriculture organizations, and community garden organizations can play an important institutional role in resolving supply-side bottlenecks and coordinating food supply from local producers where there are gaps. Community-based hunger relief organizations, local governments, and restaurants can help on the food preparation, packaging, and delivery side to reach those in need.

Federal policymakers can play a role in funding these efforts and by allowing the use of existing program resources—such as SNAP (the Supplemental Nutrition Assistance Program) or WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children)—for new uses such as delivery costs. The U.S. Department of Agriculture is also funding private food distribution companies to pick up food from farmers and deliver it to hunger relief organizations through the Farmers to Families Food Box program.

HOW DO WE GET IT DONE?

State and local governments should prioritize the following:

- Restauranteurs are under tremendous stress. They are facing life-or-death decisions for themselves, their workers, and their businesses. Government must provide clear and detailed guidance for health and safety standards on a wide range of food access uses, along with technical support for microbusinesses. It is not enough to tell everyone to stay six feet apart and wash their hands.
- Help microbusinesses with the cost of adaptation. Find economies of scale and maximize impact and likelihood of success

by using place-based organizations and approaches.

- Balance the need for more stringent regulation and public health standards with user-friendly and timely processes for getting necessary approvals.
- Establish clear metrics to guide what it means to be a "good" employer and target public investments to employers demonstrating progress on measures such as job quality, administering testing, adapting safety standards, and offering living wages (an idea that has applicability to all sectors, not just restaurants).
- Deploy strategies to protect the safety and earnings of restaurant and bar workers, such as establishing resources for workers to report safety noncompliance or wage theft.

State and local governments should also look ahead to consider ways of building a resilience strategy that includes adaptations that are viable in winter months, as well as subsidized employment and on-the-job training opportunities for displaced workers, support for worker-owned co-operatives and other wealth-generation strategies, and enhancing the capacity of existing hyperlocal assets in underserved areas.

The grievous loss of life since the pandemic began, and the additional social and economic pain imposed by isolation, mandate that we reopen carefully, compassionately, and flexibly. The goal should not be a return to what was before, but rather to envision a more inclusive and equitable food supply chain that includes full consideration of the needs of the most vulnerable among us.

The "playbook" approach to safely reopening the economy

MARK **MURO**

States are beginning to reopen America's paused, traumatized economy. In the absence of a national roadmap for that transition, governors, regional leaders, and business owners are scrambling. They are downloading general guidance documents from the Centers for Disease Control and Prevention (CDC). They are scouring the world for COVID-19 testing kits. And they're asking trusted stakeholders what they think about easing coronavirus quarantines.

This process has been impressive in some cases, but it's also beginning to create a national patchwork of approaches. With President Donald Trump pushing prematurely to ease lockdowns, early reopening mandates from some state leaders appear to be driven more by politics than data, as many parts of the country continue to see rising caseloads with nowhere near adequate testing capacity.

At the same time, the restart challenge has surfaced thorny logistical challenges, as leaders and business owners get down to the nitty-gritty of developing and implementing specific protocols for reopening. Most notably, leaders and businesspeople are finding that while a consistent, well-distilled consensus exists on public health priorities, a dearth of consistent, well-organized practical advice exists about the business operations side of reopening safely.

How, precisely, should one manage food pick-ups when reopening a restaurant? When and where should temporary barriers be installed to create separation between workers on an assembly line? Trustworthy guidance on such questions first took weeks to become available; then, more recently, it has accumulated haphazardly, and varies in quality. The result is that policymakers and employers alike have been uncomfortably forced to jury-rig as they devise everything from cleaning and employee screening procedures to policies on common areas and vulnerable populations.

This is where the rise of an impressive array of highly detailed region- and industry-specific playbooks and checklists is playing a hugely important role in bringing a semblance of order to the nation's gradual return to work. With detailed, industry-specific guidance from the federal government still unavailable, a disparate set of corporations, industry associations, regional business groups, and careful states is producing such guidance themselves. Through their own consultations with health experts and business site managers, these consortia are hacking together an often-impressive collection of to-do lists, manuals, and toolkits.

The best of the playbooks are emerging as the core guidance available for helping businesses reopen safely. The good news is that some of the back-to-

work playbooks reflect the best of America's talent for "bottom-up" local, regional, and private sector problem-solving.

HEALTH CONSIDERATIONS

The multiplying safe-work guides are a response to what's tricky about the "reopening" moment: While the reopening juncture poses riddles at the intersection of public health and business operations, there exists far clearer guidance on the health side.

The most prominent and coherent advice has flowed out of the health camp, most notably from the CDC's "Interim Guidance for Businesses and Employers Responding to Coronavirus Disease" and its associated "Community Mitigation" document. These resources are essential to informing any reopening approach, as are excellent reports from the American Enterprise Institute, the Center for American Progress, Harvard's Safra Center for Ethics, and economists Paul Romer and Alan M. Garber.

There's a lot of consensus on the public health side of reopening, to the point that it's easy enough to tick off four well-established criteria for states' and regions' readiness to reopen:

- There must be a sustained reduction in cases for at least 14 days.
- Hospitals in the area must be able to safely treat all patients requiring hospitalization, without chaos or lowered standards.
- The region needs to be able to at least test everyone who has symptoms—and ideally many more than that.
- A state should have in place case monitoring, contract tracing, and isolation.

To be sure, no state or region or the nation has yet fully accomplished all of these criteria (though many are still moving to reopen). Nevertheless, the fact remains that the substantial clarity in the public health consensus is an important starting point for return-to-work planning.

But that's only the public health side of the question.

WORKPLACE CONSIDERATIONS

On the business operations side of the matter, the initial paucity of reopening guidance—followed by a proliferation of fragmentary, biased, sloppy, or superficial information—has created a lot of confusion.

What's more, Trump administration delays and bowdlerization of the release of the CDC's detailed, industry-specific return-to-work guidelines have further exacerbated the problem, creating a major void for local leaders and businesses in deciding when and how to open facilities such as mass transit, day care centers, and restaurants. With the CDC standing as the de facto regulator in a health crisis, many cities and businesses have felt uncomfortable about reopening.

And rightly so. Rethinking workplaces to conduct business at a time of social distancing is a deceptively complex activity, after all, of the kind the doctor and journalist Atul Gawande identifies in his book The *Checklist Manifesto*. Given the intricacies of such activities, Gawande notes, it is extremely easy for a well-intentioned professional (or business owner) to miss something, forget a step, or fail to plan properly for every eventuality. Therefore, as Gawande writes, we need checklists and playbooks on how to translate complex public health information into practical business operations.

Which is where the growing number of COVID-19 reopening playbooks comes in—some extraordinary, some mediocre.

By and large there was far too little practical information available about safe operations as discussion about reopening began to spread in April. However, since then has come an explosion of guides and toolkits, often from industry associations such as the National Restaurant Association, the American Hotel & Lodging

Association, and the U.S. Travel Association. Scores of these guides are providing a first-order set of basic guidelines in the absence of authoritative federal rules for particular business types. The problem is that some are not always detailed or authoritative enough.

The same variation in quality characterizes many of state and city reopening plans. Mostly released by states determined to reopen despite rising COVID-19 caseloads and a lack of adequate testing, the plans range from the perfunctory to the plausible and prudent. On the perfunctory side, South Dakota's "Back to Normal" Plan consists of just four airy pages. Nashville, Tennessee, and California have assembled more cautious, calibrated plans. Governor Gavin Newsom of California has done an especially good job of projecting a phased roadmap for adjusting the original safety measures and staging the reopening of 18 specific industries. Newsom has also committed California to cooperate with Oregon and Washington in managing the reopening process.

Beyond these efforts, a number of industries, business associations, and regional leadership networks have distinguished themselves by developing industry-specific guidance. In each case, these organizations have developed and released detailed, carefully considered guides that do what proper CDC reopening guidelines might have done a month ago.

On April 6, for example, the auto seat manufacturer Lear posted a highly detailed "Safe Work Playbook" that provided step-by-step guidance for factory managers on everything from cleaning conveyor belts to social distancing during shift changes. The playbook exudes a can-do rigor and even includes downloadable, editable signage. A new 80-page version contains tips on outreach and communication, draft "welcome back" letters to workers, and checklists for ensuring a site is ready to open. Equally careful and detailed is the "Recovery Readiness" how-to guide released last month by the property manager Cushman & Wakefield.

THE CASE OF INDIANA

Of similar quality is a set of three "playbooks" developed through a collaboration between the Central Indiana Corporate Partnership (CICP), Cummins, and other major Indiana employers. These high-quality documents reflect a surge of emergency problem-solving in Central Indiana and the special potential of regional business organizations to help manage the return to work.

In the Indiana case, high-quality problem-solving on reopening flowed out of CICP's 20-year existence as a respected forum for CEO dialogue and leadership in the state. Through the course of weekly CEO discussions in March, CICP established a framework articulating the essential elements of any responsible return-to-work policy. Soon thereafter, leaders at Cummins began to develop pragmatic guidelines and clear practices for reopening workplaces.

As a global producer of industrial engines, Cummins has been dealing with the COVID-19 pandemic since January, when hundreds of workers at the company's Wuhan facilities were subjected to total isolation conditions as China battled the world's first coronavirus wave. Drawing on this experience, a global team of Cummins engineers, led by CEO Tom Linebarger, worked intensively to produce CICP's three playbooks for reopening warehouse and production floors, office spaces, and customer-facing service centers.

The first of these playbooks—"Safe Return to Work for Indiana's Manufacturing, Logistics and Warehousing Sectors"—is designed to be readily accessible and intensely practical. It offers an array of recommendations for varying conditions and danger levels that support employers in thinking through how they can:

- enable social distancing through operating with fewer employees onsite in reconfigured spaces
- protect employees, vendors, and customers through the use of PPE,

In the absence of a national roadmap for a safe reopening of the economy, business leaders, regional leaders, and governors are scrambling—and sometimes innovating—to fill in the gaps. Many are building smart, responsible, and practical checklists and playbooks for restarting America.

enhanced cleaning, and other hygiene practices
- manage and communicate with employees and other stakeholders as businesses resume operations while continuing to monitor disease spread.

While these recommendations are written for the manufacturing and warehouse floor, many of them are generalizable to other workplace environments. Companion documents therefore provide the same level of detailed guidelines for Indiana's office environments and point-of-service operations. All three of the playbooks feature helpful graphics, such as a comparison of various mask options and diagrams of optimal configurations for common areas. Importantly, the playbooks counsel that the best way to ensure appropriate social distancing is for employers to continue to offer work-from-home options for all employees who can productively do so.

Finally, CICP's role in Indiana as a highly-networked business-leadership hub has ensured that the new playbooks are gaining influence and being used. By leveraging its corporate members and branded initiatives, CICP has been able to disseminate these playbooks to an array of small, medium, and large manufacturers, businesses, tech companies, and other enterprises across Indiana. Results have been positive in terms of both immediate endorsement for use and also through helpful suggestions for improvement. CICP gathered the latter to produce new editions before offering the full set of playbooks to the State of Indiana and Governor Eric Holcomb's team for further guidance and distribution, as they begin a phased return to work in May and June.

WISE RETURN-TO-WORK PLANS

As to what the best reopening playbooks advice for states, cities, and businesses trying to develop wise return-to-work plans, a few observations suggest themselves:

- Safe reopening is a granular business operations procedure and requires the intense concentration of business owners and operators. Above all, the next phase of the pandemic will require owners and operators to commit to a common vision for reopening, beginning with a commitment to safety.
- Reopening plans should begin with core public health criteria for readiness. All of the high-quality frameworks and plans discussed here allude to core readiness metrics such as the 14-day new caseload, hospital capacity, testing capacity, and case monitoring ability. California lays this out explicitly and carefully.
- Specificity matters in reopening protocols. For that reason, virtually all of the best plans consist of checklists and to-do items. These simple checklists translate general health guidance into itemized, easy-to-follow rules.
- Concern for workers' well-being and steady communication is critical. The best plans call out the importance of the human side. Lear's playbook contains an entire section on using surveys, huddles, and town halls to hear the "voice of the employee" and ensure the company remains accountable and safe. CICP's document includes three sections on human resources issues, including guidance on how to restart communications with workers and accommodating vulnerable employees.
- The best reopening plans are tentative, conditional, and iterative. Property manager Cushman & Wakefield's how-to guide for reopening is labeled "Version 1.0." Nashville's four-phase plan states, "We will only move to the next phase if there is positive improvement/stability in the metrics for 14 days." And Lear's playbook is now on its second edition. This iterative approach is wise because reopening will occur amid radical uncertainty about the trajectory, incidence, and seasonality of COVID-19.

> For that reason, even the most cautious of reopening playbooks will need to be constantly reviewed and revised in the light of real-world experience.

In the absence of a national roadmap for a safe reopening of the economy, business leaders, regional leaders, and governors are scrambling—and sometimes innovating—to fill in the gaps. Many are building smart, responsible, and practical checklists and playbooks for restarting America.

Almost certainly, this approach is a poor substitute for the existence of an overarching, clearly distilled set of federal guidelines and timelines for America as a whole. With that said, the best of the sub-national playbooks are highly reassuring, and represent the best of America's knack for decentralized problem-solving. Hopefully, other states, business associations, and businesses will find these playbooks useful as a starting point for their own efforts.

How to reopen schools without exacerbating student inequalities

MICHAEL **HANSEN**

American schools closed two months ago to curb the spread of the novel coronavirus. With all but two states now mandating or recommending schools remain closed until next academic year, attention has shifted to questions of how classrooms can reopen in the fall while keeping children, educators, and communities safe.

Last month, the Centers for Disease Control and Prevention issued guidance on how to reopen schools during the pandemic while minimizing the potential for schools to contribute to viral transmission. These guidelines recommend discontinuing common school practices (e.g., using a shared lunch room) while implementing new hygiene and social distancing practices.

Notably, recommendations to maintain six feet of space between students during class time imply smaller physical capacity for existing school facilities by limiting the number of children who can simultaneously be in school at the same time. Several different strategies have surfaced in recent weeks to envision how schools might operate within these new parameters, including implementing schools in shifts within the day or across days of the week to spread out students' physical presence in classrooms.

Importantly, these staggering strategies rely on remote learning while students are not in school to ensure that students continue their academic progress through the year—a position that perpetuates the inequalities across households that the current school closures have laid bare, likely exacerbating longstanding racial and income-based achievement gaps.

BLENDED MODELS

Schools reopening in the fall will not return to normal operations but will operate in a very constrained environment requiring a mix of live and virtual instruction. I argue a mix of strategies used to mitigate overcrowding in schools and voluntary at-home learning for households where resources are conducive to distance learning will provide the greatest chance for schools to safely continue instruction without exacerbating opportunity and achievement gaps.

Like other staggered schedules under consideration, my proposed approach relies on a combination of live and virtual instruction, though distributes these learning experiences differently across students. Rather than assigning all students to a mix of instruction modes, this approach allocates virtual learning to those students with home resources and fewer needs, while providing hygienic classrooms with live

teachers for the students who have the greatest needs.

Though COVID-19 will continue to make many impacts on schools in the fall—many of which will fall disproportionately on socioeconomically disadvantaged populations—it is important to resume live instruction where possible without widening educational gaps. Admittedly, this mix of strategies will be challenging for students, educators, and their families—though it is important to remember any strategy to reopen schools during the pandemic will impose some mix of challenges on all groups since schools cannot reopen to normal operational capacity.

MULTI-TRACK CLASSES

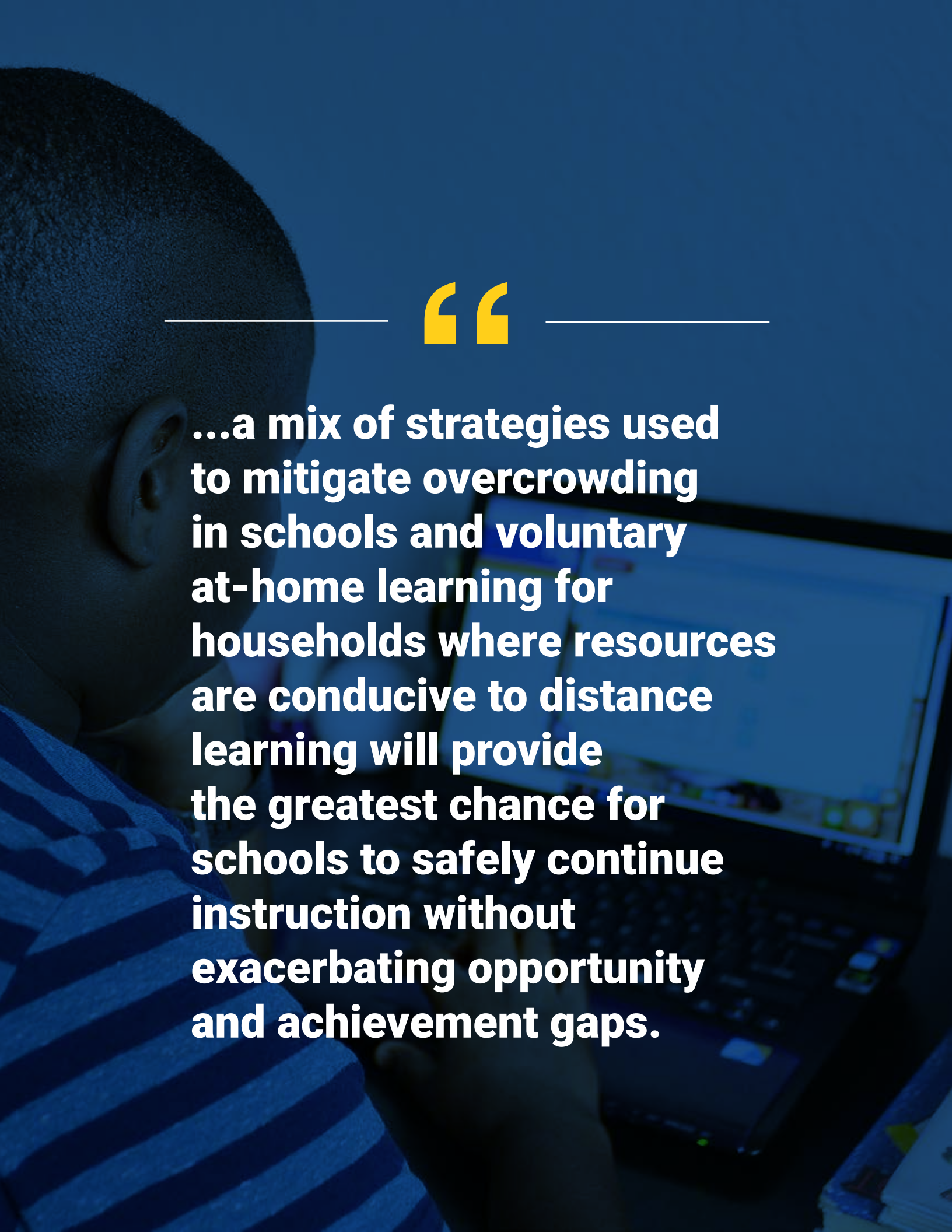
The first part is adopting strategies that have been previously used to deal with overcrowded schools. This is not the first time that schools have faced the challenge of needing to serve more students than can safely meet in the space simultaneously. Schools could secure trailers to convert them into portable classrooms to expand the physical available space, though getting enough trailers to fill all schools' needs before the fall is not feasible (and is expensive to boot).

A less costly solution, and a better fit for dealing with temporary overcrowding, is the use of multi-track schedules, combined with an extended year-round academic calendar to manage the flow of student access to the school over time. For example, splitting students into four tracks, and holding classes for only three of the tracks simultaneously (allowing each track to take turns with a rotating multi-week break) means only three-quarters of students are in school simultaneously. To ensure all students still fulfill the required number of school days, the academic calendar will need to be extended, though students have generous vacation time during the year as a tradeoff. A start earlier in the summer could mitigate the effects of the record learning loss expected due to the March closures of schools effectively giving many students a six-month break.

Year-round education has occasionally been considered a potential school reform strategy since the 1990s, premised on saving money or reducing achievement gaps (or both). Theoretically, a shorter summer could reduce inequalities due to summer learning loss, which appears to hurt low-income students more than others (recent analyses, however, argue gaps do not appreciably widen over the summer). On the cost side, year-round calendars have been adopted to utilize physical facilities more intensively and thereby saving construction costs for new schools. There could potentially be other costs incurred in switching to a year-round calendar, including the need to find staff who are willing to work the same number of days but on a non-traditional schedule, and installing air conditioners in schools that otherwise do not experience much heat during the normal school calendar—though these are typically viewed as minor.

It turns out there is good reason year-round calendars never got much attention: According to a new review of the evidence on year-round calendars, the academic benefits to year-round calendars do not pan out empirically, as the minor learning losses across longer breaks within the year roughly offset the benefit of a shorter summer break. The calendars do cut capital costs, though the review noted indirect costs found elsewhere in the school community, including lower property values and more difficulty for mothers to work outside of the home.

For the present purposes, though, the rough equivalence between the year-round calendar and a traditional calendar is useful because it suggests we can confidently transition to smaller capacity schools to facilitate social distancing without seriously harming overall student achievement. And importantly, utilizing a year-round calendar will not require at-home learning to substitute for lost days in the classroom, the element of the alternative plans that are most likely to reinforce pre-existing inequalities across students.



...a mix of strategies used to mitigate overcrowding in schools and voluntary at-home learning for households where resources are conducive to distance learning will provide the greatest chance for schools to safely continue instruction without exacerbating opportunity and achievement gaps.

VOLUNTARY AT-HOME LEARNING

Even with multi-track year-round calendars, many schools may still find they have too many students to serve full time in the classroom with the school's limited capacity—and this is where a second component comes into play. I propose schools should pair voluntary at-home learning with the new calendars to help free up the available physical space for the students who need the live instruction most.

Though I suspect most parents look longingly forward to the day they can drop their kids back off at school, many have found that their children have done quite well during the coronavirus-induced closures. As my co-authors and I recently described, students who switch into homeschooling primarily do so because they are unhappy with aspects of their normal school and find at-home school better meets their needs. Further, these students and those in a virtual school of some type (in other words, those getting some of their education at home) are more diverse than commonly assumed.

The current closures have given some parents a glimpse of flexibility in their children's schooling. If remote learning better meets their current needs—whether because of dissatisfaction with the school or out of caution against exposing household members to the coronavirus—I suspect there is a nontrivial share of parents who would take up an offer and agree to stay away from the classroom.

Parents would need to be given strong learning supports to make this option work. To make myself very clear, the slapdash learning supports that too many schools and districts have thrown together when schools were suddenly shut down sufficed given the uncertainty of the circumstances, but probably wouldn't be enough to woo many parents. However, offering frequent and synchronous learning experiences with online instructors (perhaps assigning the most vulnerable teaching staff away from classrooms), access to robust online platforms to support personalized learning, and providing clear and standards-based curricular supports for parents to help guide their children along could prompt enough uptake to alleviate in-demand classroom space.

Of course, there's a minimum requirement that places a ceiling on this option: students with at least one parent at home part-time or more to oversee the child's instruction. But this ceiling may be higher than most realize. Based on my estimates using data from the American Community Survey, 48 percent of school-age children in the U.S. fall into this category. Considering parent willingness to oversee their child's education for a year would certainly shrink that percentage further, though perhaps not by much. A recent survey found two-thirds of parents preferred to continue virtual learning until no health risk remains as opposed to reopening schools as soon as possible to make up for lost learning.

The upshot of voluntary at-home learning, though, is that those who opt in will almost certainly skew toward those with the private resources conducive to at-home learning—families who are relatively advantaged and have less need for childcare and a physical classroom. Thus, allowing the school system to allocate the scarce classroom space to students who have the greatest need for live instruction. States or districts could explicitly require those choosing at-home learning meet basic conditions (e.g., a device, connectivity, a caregiver at home), and could even consider academic thresholds for eligibility. After accounting for vulnerable home conditions, about a quarter of students remain for whom home learning could be an option.

Naturally, student needs and family resources vary across communities, which means some schools may wish to serve all their students exclusively in the classroom (without the physical capacity to do so) while other schools may have large shares of at-home students (and excess school capacity). For the year, districts could experiment with blurring

some of the normal school boundaries and reassigning students to different schools where needed to balance out the demand and capacity for classroom space.

The result of pairing voluntary at-home education with multi-track year-round calendars is that physical space and live teachers are provided to those most in need and otherwise vulnerable to falling behind without that support. Students with adequate home supports—with supplemental support from schools—can continue their education at home for a year to help target public resources to where they are most needed.

Reimagining graduate education

JAMES **GOLDGEIER**

In May, I spoke to approximately a dozen deans of international affairs schools across the United States and in Europe regarding their plans for graduate education in the next academic year in light of the COVID-19 pandemic. As those deans work with their university leadership to determine whether any of their instruction will be on campus in the fall—or whether it will all be online, as the California State University system recently announced—many are wondering how many students will enroll if they can't do the program in person as they intended.

Deans understandably are swamped with figuring out the logistics of the coming fall semester while also maintaining their commitments to diversity, equity, and inclusion given the wide range of challenging situations students find themselves in due to COVID-19. But this work also gives them the opportunity to more durably reimagine how students might pursue their degree after the pandemic, mixing and matching face-to-face and online learning, including doing some of the work online while being on campus. The time when hybrid in-person/online programs will actually become possible is not, in fact, now during the pandemic, but after it has passed, when students and faculty can more freely choose what part of the program stays on campus and what can be done successfully online.

And it's not just how the schools deliver graduate education that is important during this crisis. Schools also have an opportunity to reimagine what students should study if they are going to be future leaders in the public, private and/or non-profit sectors. The pandemic will accelerate underlying trends in our world, including the position of the United States internationally and how we think about globalization; the curriculum will need to change with it.

DELIVERING GRADUATE EDUCATION ON CAMPUS AND ONLINE

Ideally, graduate students should have the ability to fulfill their degrees in whatever format works best for them, from fully on-campus to fully online and across the spectrum in between. Some students learn better on campus; others do equally well online. And everyone's situation is different: some students can move to where the school is located and take classes when they are offered; others cannot. Some have children or elderly parents to take care of, or heavy traffic to contend with if they are trying to get from a job to a 5:30 p.m. class. The pandemic is only exacerbating gaps between the circumstances different students find themselves in (and this is particularly true for international students), and it is critical to transform the culture of graduate education to start incorporating flexible course designs

and ways to engage different types of learners, regardless of modality.

The deans I spoke with in May are all working with administrators, faculty, and staff to develop "hybrid" or what is sometimes now termed Hybrid-Flexible ("HyFlex") models in the hopes that at least some students will be able to come to campus in the fall to take in-person classes, while others are joining online. While there is a lot of justified concern about the quality of virtual education among those who have only just experienced remote learning this spring, online discussions can work well if they are structured for intimate participation. Technology allows everyone in small classes to see each other onscreen continuously and enables the possibility for breakout groups. Schedules should, however, be built with a recognition of reasonable attention spans and "Zoom fatigue." Moreover, while on-campus discussions have many advantages, online discussions offer one critical opportunity: the ability to bring together faculty and students with guests from other parts of the country or world to get a truly global real-time perspective, providing a way for schools to use their alumni networks to great advantage.

Deans rightly fear that students starting online in the fall will miss out on the community-building experiences so important to graduate school cohorts. Indeed, many existing online degree programs have required students to participate in short immersion programs on campus so they can meet one another and the faculty in person, which has major positive benefits in building a sense of community and affinity. Schools might be able to bring small groups at a time to campus for such meetings even this coming fall, to strengthen the connections first forged digitally in person.

As deans continue to think about how to execute hybrid programs, they should look at this initial foray as a pilot, not an aberration, and one that reduces barriers to entry for students unable to get their education in the traditional format. (This is also why it's important for students to be able to dial in using their mobile phones, which work even where there's no internet; this is extremely important for many international students, who will not be able to come to campuses anytime soon.)

Rather than thinking about whether on-campus is better than online, consider which is most appropriate to meet the needs of individual students who have their own circumstances and learning styles. It's easy to see hybrid models now as emergency solutions rather than a new normal. After all, we all want to go back to the old normal. But instead of treating transferring on-campus offerings to a distance-learning format as a temporary solution—as was necessary this spring—schools should strategize about what they can do differently in the long-term with the opportunity to design quality online or hybrid courses.

A CURRICULUM THAT CHANGES WITH THE TIMES

In some ways, envisioning how to deliver graduate education post-pandemic is easier than rethinking the curriculum. International affairs schools typically teach a mix of courses, such as core concept-based classes; methods training; economics; in-depth regional classes on countries or parts of the world; and functional courses on topics like national security, international development, and international communication. For decades, students have taken classes in a world in which the United States was the established global leader upholding an international order that it built and fostered after World War II. But existing trends undermining that order have accelerated with the pandemic. International institutions have demonstrated their fragility given their previous dependence on U.S. leadership. Things are going well only where national governments have taken the necessary steps to do massive testing, tracing, and isolation.

It doesn't make much sense merely to teach the same courses as we taught them before,

The pandemic will accelerate underlying trends in our world, including the position of the United States internationally and how we think about globalization; the curriculum will need to change with it.

maybe with a week or two on the pandemic as an addendum. The moment calls for fundamental change in the curriculum. Whether it's globalization or national security, Europe or China, faculty and students won't be studying anything in the same way, and the curriculum needs to be adjusted accordingly, particularly with respect to new content in the introductory classes providing overviews of the main challenges in international affairs.

All of the international affairs schools talk about training future leaders in the public, private, and non-profit sectors. How will graduates of these programs navigate a world replete with disruption in the coming decades, not just from pandemics, but from climate change, supply chain fragility, artificial intelligence, and threats to critical infrastructure? Society needs professionals who have the knowledge and skills to manage risk, as we all better understand.

While research faculty are knowledge producers, professionals in government or business are knowledge consumers, and international affairs schools are in the business of creating more savvy knowledge consumers. Graduates don't need to be economists, but they need to be able to read the *Wall Street Journal* and the *Financial Times*. They don't need to have served in the military services or as intelligence analysts, but they need to be able to understand what military and intelligence professionals are telling them. And they don't need to be epidemiologists; but as we now know, they need to be able to make sense of what epidemiologists are saying.

After 9/11, students flocked to international affairs schools because they wanted to make a difference. Nearly all of the deans I spoke to in May reported applications and deposits for enrollments at numbers much higher than last year. This could simply be the traditional countercyclical phenomenon of students pursuing graduate school when jobs are hard to come by. And it makes sense for students to pursue those degrees now if they are able, so that they have a master's degree by the time the economy rebounds. And none of the deans has a firm grasp on how many students will actually enroll if classes are all online. But the interest international affairs schools are seeing in their graduate programs might also be because now is a moment when individuals want to go into the field to make a difference in a world that needs all hands on deck. If they do make the decision to go to graduate school, programs need to be equipped to deliver the education students will need to be successful in the radically altered post-pandemic world into which they will graduate.

How division and vulnerability hamper our response

CAROL **GRAHAM** & SERGIO **PINTO**

COVID-19 is an exponential shock shining a microscope on U.S. society's deep divisions, the vulnerability of our low-income population, and our woefully inadequate health and social safety net systems. Right now, America leads the world in incidence and deaths, with over 1 million cases and over 90,000 deaths as of May 19. Despite the heroic efforts of first responders, hospitals are overwhelmed in many urban areas, and absent in many rural ones. Essential protective equipment is in short supply, testing rates are far lower than in most other wealthy countries, and inconsistencies in federal guidance and state-level policies leave us vulnerable to a second spike. There were over 20 million unemployment claims in April alone, and estimates of the labor market fallout in the U.S. show the unemployment rate approaching 20 percent.

DEATHS OF DESPAIR

Social and economic costs are unevenly shared, with low-income workers more vulnerable to lay-off, to be working a job that exposes them to the virus, and to having inferior access to quality healthcare and health insurance. This falls on top of a pre-existing crisis of deaths of despair (due to alcohol, drugs, or suicide) which have taken over 1 million lives since 1999. While urban deaths have disproportionately fallen on poor minorities—particularly African Americans, in rural areas, where incidence is just beginning to increase, it will likely impact the low-income white population that is most vulnerable to deaths of despair.

Prior to the crisis, a 2017 study estimated that a 1 percent increase in county-level unemployment resulted in a 3 percent increase in drug related deaths. While an employment shock of this magnitude makes it impossible to impose a similar projection, it is hard to imagine any uplifting scenario. Already in March there were reports of increased gun purchases (guns account for the majority of successful suicide attempts) and calls to suicide hot-lines.

While tragic, the pandemic is giving these issues visibility and urgency. How to address them is a challenge that stems well beyond the virus. Trust in our institutions is lower than that of most wealthy countries, and certainly than that of those countries that have successfully managed the crisis in Europe. With public confidence in the U.S. running in the high 30s, we score much lower than New Zealand (70 percent), Finland (66 percent), Norway (60 percent), and Germany (high 50s), slightly below France (high 30s) and Spain (high 30s), and above Italy (21 percent).

THE VIRTUES OF HIGH PUBLIC TRUST

Most of the countries with higher public trust have much more coherent social welfare systems

than we do, and even so many European countries took decisive action to mitigate the increase in unemployment by directly reimbursing firms for the wage costs to keep their workers on the payroll. In contrast, unlike every other high income country, the U.S. has a health insurance system that is tied to employment, making unemployment a dual income and health shock. Our fragmented safety net system, meanwhile, varies widely across states and stigmatizes the most vulnerable that need support such as food stamps or cash assistance.

Managing a pandemic that requires coordinated social distancing by millions of people cannot succeed without public trust in the government. In addition to low levels of trust, inconsistencies in the information presented by our federal government, contradicting public health officials and scientists, and the deep political divisions reflected in particular states' response to closing their economies and premature moves to reopen, have likely lowered public confidence even further—and increased the long-run economic and social costs.

FOCUS ON WELL-BEING

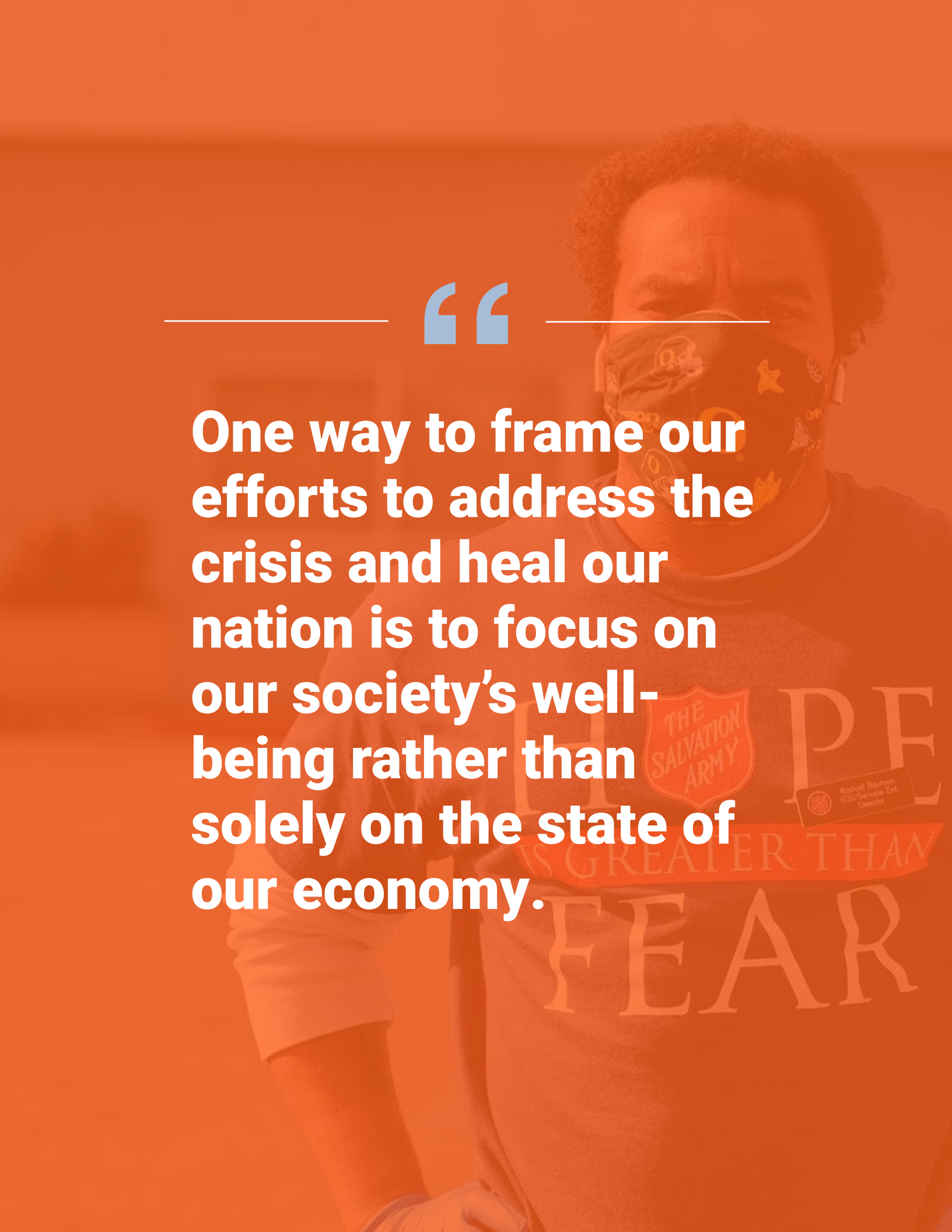
One way to frame our efforts to address the crisis and heal our nation is to focus on our society's well-being rather than solely on the state of our economy. As in the case of public trust, we score much lower than other countries of comparable or even lower levels of income on national average well-being rankings, as assessed by the annual World Happiness Report, coming in at 18th in 2019, down from 11th in 2011. The same data highlights higher levels of trust and stronger social connections in the higher ranked countries.

One reason for our low well-being relative to our income is that we have high levels of inequality in well-being as well as income. There are large gaps in most well-being markers—life satisfaction, hope for the future, and daily enjoyment, and in stress and worry—across the rich and the poor. The latter report significantly lower scores on all these markers. Even reported pain is unequal, with the poor—and particularly the rural poor—reporting more pain than the rich. Respondents in the U.S. report more pain on a daily basis than respondents in 30 other countries, many of which have much lower levels of income.

None of this put us in a good position to manage the coronavirus shock. It hit the most vulnerable disproportionately in job losses and in vulnerability to getting ill due to the kinds of jobs they have or had. And these same people have very limited margin to absorb income shocks and fewer resources to deal with the related mental and physical health spillovers.

A March 2020 Gallup survey of 8,572 respondents in a running nationwide panel (of the same respondents interviewed over the course of two years) highlights the differences in the costs to well-being across the rich and the poor. Low-income respondents (with incomes below $36,000) reported more negative emotions than did high income respondents (with incomes above $90,000). Sixty-four percent of low-income respondents reported worry the day before compared to 60 percent of high-income ones; many of the other differences across the two groups were larger, including sadness (45 percent versus 28 percent), loneliness (48 percent versus 18 percent), and anger (28 versus 23 percent). The one exception was stress: 62 versus 64 percent.

These represent significant increases in negative emotions relative to earlier years. Our comparisons are imperfect, given that they are based on similar but not the same samples: the Gallup panel for March 2020 versus the 2017 daily Gallup Healthways poll (which displays similar trends in well-being for the previous few years). Yet they are for the same income groups. The differences are stark. The average in 2017 for reported stress for the low-income respondents was 47 percent compared to 38 percent for high income ones, and reported worry was 41 percent of the former compared to 28 percent for the latter. There is a clear increase in March 2020 for both



One way to frame our efforts to address the crisis and heal our nation is to focus on our society's well-being rather than solely on the state of our economy.

groups (64 percent worry for low-income groups versus 41 percent in 2017). The indicators increased more for the rich than for the poor—not surprising as they started at a much lower level—but an income gradient remains.

THE CLASS DIVIDE

Based on that same panel survey, Jonathan Rothwell—of Gallup and Brookings—highlights the different abilities of the poor and the rich to work at home and practice social distancing. He also finds a remarkably deep ideological divide in concerns about the virus. While 59 percent of those in the bottom income quintile report to practice social distancing, 71 percent of those in the top quintile do. And 71 percent of those in the top quintile can work from home, but only 41 and 35 percent of the bottom and second quintile respectively can, an inequity that is exacerbated by differential access to broadband internet.

There are also deep inequities in health and in the pre-existing conditions that are associated with higher levels of COVID-19 mortality. Incidences of diabetes and chronic obstructive pulmonary disease are 22 percent and 11 percent respectively for those in the bottom quintile versus an average of 7 percent and 2 percent for those in the top quintile. These vulnerabilities created a perfect storm for the havoc that COVID-19 wreaked on the livelihoods—and health—of this population, and that rapidly overwhelmed our frayed and inadequate safety nets.

PARTY DIVISIONS

Views about the dangers of COVID-19—and associated behaviors—are remarkably different across Democrats and Republicans. Rothwell finds that 52 percent of Democrats versus 37 percent of Republicans say they have practiced social distancing and avoided small gatherings. And the differences in state policies surrounding lockdowns and reopening often reflect this political divide. The same divide appears across races. The *New York Times* notes that of the lockdown opposers, only 5 percent are minority workers who have lost their jobs, while 70 percent are white workers who have not lost their jobs.

While it is difficult to find anything other than tragedy in this pandemic, perhaps its extremity will force a public conversation about the divisions in our society. Well-being can serve as an organizing frame that does not come with political or ideological undertones and that provides robust metrics to measure the aspects of our lives that are essential to health and welfare but are often left out of our standard economic indicators. As we have written earlier, the metrics allow us to attach relative weights to health (mental and physical), meaningful work, learning and creativity, insecurity, and social connections, among other things, and to compare them in equivalent income terms. These measures may be helpful in beginning a new conversation about how to restore our social coherence and well-being.

In the short-term, they can serve as useful tools to inform current discussions about the appropriate time to reopen economies. Paul Dolan of the London School of Economics calculated the monetary value of a prevented fatality for the "average" person and compared it to the monetary equivalent of the well-being losses associated with unemployment, loneliness, domestic violence and child abuse, and suicide and other mental health problems exacerbated by lockdown. He estimated the value of the approximately 58,000 COVID-19 deaths prevented by lockdown in March (including spillover deaths and adjusted for the lower life expectancy of those most vulnerable to COVID-19 deaths) as 3 percent of GDP. He then used that benchmark as a basis for evaluating the benefits of extending the lockdown versus the gradually increasing well-being costs of extending it. The point here is not to make a conclusive decision about when to reopen, but to highlight how well-being metrics provide a frame for assessing the complex tradeoffs entailed in these decisions.

THE REOPENING RISKS

In the U.S., the risks will almost certainly be states opening too early rather than too late. An additional risk is caused by the high costs of healthcare and limited insurance. A new Gallup poll found that 14 percent of U.S. adults said they would avoid seeking care if they or someone in their household had symptoms of COVID-19 due to concerns about the cost.

The same low public trust and limited support for people in need that heightened the impact of the virus will be a constraint in managing reopenings that require public cooperation. The burden of the virus on our low-income population has exacerbated existing inequities across income and race, and likely decreased public trust even further. The best strategy for the U.S. today would be to avoid rushing the opening and instead increase our efforts to mitigate the high costs to our society's well-being with better strategies for protecting our low-income populations. It is not a coincidence that the same countries that best dealt with the crisis had higher levels of public trust and well-being, as well as stronger welfare systems, backed up by further state action to preempt unemployment from skyrocketing.

Framing the policies and associated public messages around society's well-being and increasing inequities in it could be a first step toward healing the deep divisions in America today. And, as noted above, the metrics give policymakers a tool to attach relative values to things like lost jobs, lack of health insurance, and insecurity. Many countries have adopted a well-being approach in their policies, most notably New Zealand, also one of the world's leaders in virtually eliminating COVID-19. That would surely leave us better prepared for the next crisis—or even for the potential second wave of this one.

Reforming government operations

ELAINE C. **KAMARCK**

The global pandemic we are living through is likely just the beginning of an era of crises that are hard to accurately forecast. Because we have been so late and so timid in the global response to climate change and pandemics, we are likely to see crises that result from viruses, extreme weather, and disruptions of food, water, and health ecosystems. As David Wallace-Wells has noted, these shifts have caused and will lead to more traditional national security crises like mass migration and war.

Henceforth, governments will be forced to rethink their basic operating systems. We can no longer afford static governmental operating systems. The switch from static to agile will be the most profound change in government operations since modern bureaucracy was introduced to the world by Max Weber at the beginning of the 20th century. In the immediate future, governments will have to take scenario planning seriously, prepare for surge capacity, explore dual use technology, and value competence over inexperience.

SCENARIO PLANNING

Scenario planning is most often associated with the military which conducts war games on a regular basis. These exercises can range from a "tabletop" exercise where decision-makers discuss options while sitting in a conference room to a "full scale" or "field" exercise that mobilizes people and materiel. The latter is the most costly since it involves real soldiers, sailors, airmen, and Marines, not to mention airplanes, ships, and tanks. A critical part of the war game is the "after action review" which is a de-briefing designed to figure out what went wrong, what went right, and what could be done better next time. Military scenarios are not only conducted around events that have a high probability of happening, such as the Israeli-Palestinian conflict, but they are also conducted around events that are low probability—even far-fetched. For instance, the U.S. Air Force has been conducting space war games, including one that includes attacks on U.S. satellites. And soldiers are training to operate in the field as if their GPS signals went dark to prepare for the possibility that an enemy could take down all our satellites.

Scenario planning also occurs on the domestic side of the government but it is not as integral to operations and training as it is in the military. After 9/11, states and localities ran exercises dealing with mass casualties following a terrorist attack, often a "dirty bomb" (a small-scale nuclear weapon). In 2005, the Department of Homeland Security ran a full-scale simulation in two states—Connecticut and New Jersey. In Connecticut the attack was a car bombing; in New Jersey it was release of a biological weapon. Prior

to Hurricane Katrina, FEMA ran a weeklong exercise, from July 16 to July 23, 2004, in which a Category 3 hurricane named Pam caused more than 1 million evacuations, the destruction of hundreds of thousands of buildings, and overflowing levees in New Orleans. In other words, the simulation, which cost $500,000 to conduct, was eerily prescient of the situation that actually occurred slightly more than a year later with Hurricane Katrina. But in a review of Hurricane Katrina it was clear that many of the recommendations coming out of the exercise were ignored or not implemented. And, in January 2017, during the Obama to Trump transition, the Obama administration, having gone through the Ebola scare, insisted on going through a pandemic exercise with incoming Trump administration officials. However, as my colleague Kathryn Dunn Tenpas, shows, it had little effect on readiness:

> *Though recalling the details of a three-hour, table-top exercise roughly three years after it occurred is challenging, it is even more difficult when only 8 of the 30 Trump attendees are still working for the president. Perhaps more significantly, the transition exercise readout identified key White House offices involved in pandemic preparedness, and my research reveals the tremendous upheaval that has occurred in these pandemic-related offices.*

The fact that scenario planning on the domestic side of government is so rare is due to the fact that it faces several problems. For one thing most domestic agencies just don't have the money and a full-scale exercise can cost money. Imagine for a moment an exercise involving a "dirty bomb" small nuclear device going off in an American city. Just the overtime required for first responders, police, and medical personnel to participate would strain many city budgets.

In addition, scenario planning on the domestic side involves many levels of government. The United States military spent four decades struggling to achieve "jointness" among the Army, Navy, Marines, and Air Force. On the domestic side we need the equivalent of jointness among federal, state, and local workers involved in crisis response. We already know that there are communication gaps, legal hurdles, and command and control questions that impede effective crisis management. Only a commitment to regular scenario planning on a range of possible crises can uncover the vulnerabilities and trigger reforms.

SURGE CAPACITY

The second thing governments will have to build is surge capacity. The concept of surge capacity originated in the medical world and refers to the ability to care for a large and unexpected volume of patients as might occur after a mass casualty event. But the military has developed its own surge capacity. Financing a large standing military is expensive. In fact, most countries go years and years without having to use their military which is why it doesn't make sense to pay, year in and year out, for all the capacity that would be needed to fight a war. Another way to look at this is that the United States spends a great deal of money on "preparedness" of its military for low probability events.

The solution to this problem in the military has been the reserves (Army, Navy, Air Force, and Marines) and the National Guard. Reservists are required to give up some time during the year to maintain their readiness to engage in combat if needed. They are required to do to some sort of boot camp and after that they are paid to train—usually something like one weekend a month and two weeks a year. They are different from the National Guard in that they have specialized skills that augment or provide capacity surge in combat situations. The National Guard is also sometimes called in to serve alongside full-time military units but it also participates and assists during civilian crises. (During the coronavirus, National Guard

More than anything, the COVID-19 crisis has shown the importance of competence and experience in government.

members have done everything from distributing food to sanitizing nursing homes.) The final group that provides the military with surge capacity is the IRR—the Individual Ready Reserve—military personnel with special skills who are recently retired.

What the reserves and the National Guard provide the military is surge capacity. Night after night during the pandemic Americans watched exhausted nurses and doctors try to cope with the influx of patients. What our healthcare system lacked was something like an organized reserve corps. Nurses and doctors did arrive from other states to help out in New York City, for example, but participation was informal and episodic. We need to build a corps of "reservists" in the healthcare field (CDC reservists), in the emergency management field (FEMA reservists), and in the supply chain field (Commerce Department reservists), to name just a few. These men and women should be paid a modest amount to train and be ready to augment those on the front lines during a crisis.

In the wake of medical disasters, terrorist disasters, and natural disasters we always face an economic disaster in which the government needs to get money to citizens quickly. Whether it is unemployment compensation, money for rebuilding after a natural disaster, or money to keep people on payrolls during a pandemic shutdown, the government faces enormous pressure to get money out and to get it out fairly and legally. The civil servants who normally run these programs are swamped and frustration grows among the public. For instance, unemployment insurance is processed by state governments. In New Jersey, civil servants processed 214,836 unemployment compensation claims in the first 14 weeks of this year. The next highest number processed came from the fourteenth week of 2018—when the civil servants took care of 14,893 claims. In other words, their workload was more than 14 times the highest workload they had seen in recent times. Or take the Small Business Administration, tasked with processing the Paycheck Protection Plan loans enacted so they could keep people on the payroll during the virus. In all of 2019 the SBA processed 63,000 loans (of all types) to small businesses. In round one alone of the PPP loans this year they processed 1.5 million loans.

The surge capacity concept can work in payments as well as it can in other areas. Many government workers spend their careers processing payments—Social Security, Medicare, veterans benefits, unemployment insurance. Of course, all payments differ in important respects, but someone who is accustomed to processing one kind of government payment can be trained quickly to process others. Thus, the government can build a surge capacity out of its own employees and its retirees.

Finally, the civilian sector can be mobilized and trained in various aspects of disaster response. This has happened in earthquake-prone California. For instance, former state Assemblyman Bob Blumenfield in California's San Fernando Valley created the Emergency Preparedness Community Action Team. Its objective is get more residents trained to help first responders during disaster situations. Another example is Team Rubicon, a not-for-profit organization founded in 2010 that is composed of former Iraq and Afghanistan combat veterans. They are organized to deploy to disasters in this country and around the world. Using technological skills, construction skills, and organizational skills honed under harsh combat situations, these veterans can deploy to an area and help out with whatever is needed.

DUAL USE TECHNOLOGY

Disasters need trained men and women and they end up needing more products than in normal times. Here is where the concept of dual use technology needs to be imported to the domestic side of the government. Dual use technology refers to products that have civilian uses but that can also be used for military purposes. Traditionally

the United States military was such a heavy presence in the market that it could induce the private sector to build whatever it wanted. But that changed with the information economy. Paul Kamenski, under secretary of defense in the Clinton administration, was the architect of the dual use technology movement in government. Speaking in 1997 he explained the evolution as follows:

> *In aggregate terms, commercial industry surpassed the DoD in research and development spending way back in 1965. And the disparity between DoD and commercial sector investment in R&D has been growing wider ever since. This difference means that the technological momentum of the United States is being driven to a greater extent by commercial market forces rather than the defense market.*

Since then, the military has identified products in the marketplace that can be used for military as well as civilian purposes. For instance, much of the precision technology that goes into medical imaging can also be used to manufacture night vision and thermal imaging technologies which give soldiers enormous advantages in the field. Dual use military items are frequently found in fields such as electronics, computers, nuclear construction, telecommunications, and avionics. Many of these items are subject to export controls since the United States does not want foreign adversaries or terrorists making weapons out of them.

A related concept is the defense industrial base—a term commonly used to refer to the capacity of the United States to produce its own weapons. For example, it is important to keep a strong domestic steel making industry even though many other nations make steel more cheaply than we do. And as supply chains have become global the Defense Department worries about "foreign dependencies" within the weapons supply chain.

These concepts are critical to military preparedness, but they are also critical to preparedness in other natural disasters. It seems that every day during the pandemic we have been hampered by shortages of the "weapons" needed to fight the pandemic. First it was the shortage of ventilators and the government scrambled to get manufacturers to switch to the production of ventilators. The shortages then ran to personal protective equipment such as masks and gowns. Then we learned of shortages not only of "reagents" needed to make the COVID-19 tests but also shortages of the swabs needed to take the tests and shortages of machines needed to run the tests. Now, as we look toward a vaccine, no one is sure if we will able to get the millions and millions of glass vials that we will need to store the vaccines in.

Just as the Pentagon has people in it who are worried about the defense industry supply chain and who catalogue dual use technologies, the domestic side of government needs to understand both the supply chain and dual use technologies for health disasters. We can't continue to let so many of our drugs be manufactured in China and India. As we have learned the hard way, the American "healthcare industrial base" is weak. It must be repaired, and we must strengthen the dual use approach to healthcare technology.

COMPETENCE OVER INEXPERIENCE

In conclusion, these concepts—scenario planning, surge capacity, and dual use technology—need to become as embedded in the domestic side of the government as they are in the military. But none of this will happen without competent leadership. More than anything, the COVID-19 crisis has shown the importance of competence and experience in government. (Competence cannot occur absent experience.) Crises are not ideological. Most of the very conservative Republicans who ran against Trump in 2016—especially experienced public servants like Texas Senator Ted Cruz and South Carolina Senator Lindsey Graham—would have done a better job

than Donald Trump. Trump is the first president we have ever elected with no public sector experience—and it shows. The governors, most of whom do have government experience, are getting much higher marks from the public than Trump is—and for the simple reason that they seem to know what they're doing.

In recent years, we have tended to turn presidential elections into celebrity contests. Republicans actually nominated a reality television star. But Democrats too have toyed with celebrity candidates, from the actor Warren Beatty to the television star Oprah Winfrey. It is time voters stopped treating experience as something to vote against. Experience is a necessary precondition to making the complex, agile systems discussed above work. As we face more and more unexpected crises, experience is our only hope.

How to improve congressional oversight

SARAH **BINDER**

Congress and the president have enacted four emergency relief bills to stem the health and economic crises arising from the COVID-19 pandemic. Lawmakers face the immediate challenge of overseeing how governmental and private sector actors are administering the nearly 3 trillion dollars in emergency federal loans and grants: Are these unprecedented fiscal and monetary programs meeting their targets? What has gone right or wrong in their design and implementation?

The Coronavirus Aid, Relief, and Economic Security (CARES) Act created a web of oversight entities. But partisan discord in Washington—coupled with the difficulties of operating Congress during a pandemic—complicate effective oversight. Holding Trump administration officials, the Federal Reserve, and participating financial institutions accountable will require lawmakers to sharpen their instruments and better facilitate remote oversight activity.

BARRIERS TO EFFECTIVE OVERSIGHT

Five key hurdles complicate oversight of emergency relief. Individually, these barriers make it difficult for lawmakers to determine how governmental agencies and others are deploying funds and who benefits from the aid. Collectively, these hurdles risk undermining the expansive web of oversight created to hold the administration accountable for its response to the economic and health emergencies.

First, the plain scope of the programs created since this past March makes oversight more challenging. The sheer volume of potential aid—totaling nearly 3 trillion dollars—vastly outstrips the $700 billion Troubled Asset Relief Program (TARP) enacted in October 2008 in response to the global financial crisis. And unlike TARP, which essentially empowered the Department of the Treasury to purchase troubled assets or other financial instruments to promote market stability, the CARES Act established a panoply of different programs, including relief for individuals, small to large businesses, hospitals, state and local governments, and colleges and universities, among others. What's more, unlike TARP—which largely only engaged the Treasury Department and the Federal Reserve—the CARES Act involves a range of federal and state agencies beyond Treasury and the Fed and affects individuals and organizations far beyond the financial sector.

Second, Congress wove transparency requirements unevenly through CARES Act programs. For Treasury's loan and loan guarantee programs for air carriers, for example, Congress imposed strict reporting requirements—including Treasury's public disclosure of loan parameters

and recipients within 72 hours of any transaction. In contrast, in the wake of the financial crisis, Congress in 2010 created a different set of disclosure rules to cover emergency lending by the Federal Reserve. In writing the CARES Act, however, Congress let some agencies off the hook. The Small Business Administration, for example, has refused to reveal recipients of forgivable Payroll Protection Program loans, and Senate Republicans recently blocked Democrats' efforts to compel disclosure. Reporters are investigating which large public companies secured small business loans, but the identities of other recipients largely remain unknown.

Third, the health risks of convening in person on Capitol Hill complicate congressional oversight. The House has yet to come back into session for any sustained period of time. Senators came back into session in the Capitol in early May. But within a week, a Senate staffer tested positive for COVID-19, compelling Senator Lamar Alexander (R-Tenn.) to virtually convene a prominent oversight hearing with quarantined heads of key federal agencies.

While other legislatures around the world are moving to amend their procedures, neither the House nor Senate has adopted new rules to fully transition to remote or even hybrid committee and floor activities. To be sure, absent formal rule changes, both House and Senate committees have begun to improvise with virtual committee sessions. But oversight will continue to be slow until lawmakers tackle changes to their committee procedures—including rules for establishing a quorum, issuing subpoenas, and reporting bills.

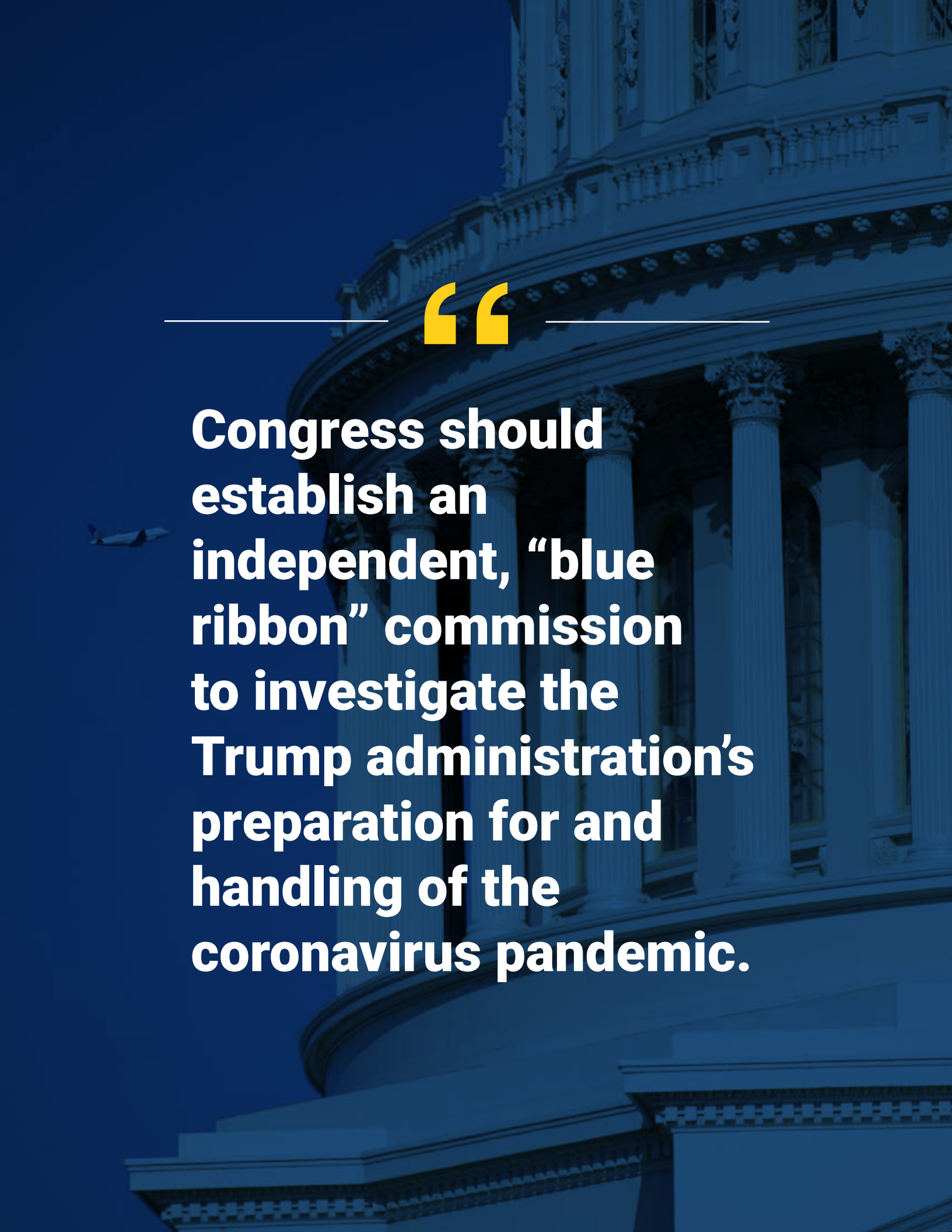
Fourth, partisan discord over how and whether to hold the Trump administration accountable for its actions undermines the effectiveness of congressional oversight. The CARES Act directs House Speaker Nancy Pelosi (D-Calif.) and Senate Majority Leader Mitch McConnell (R-Ky.) to jointly appoint the chair of the five-person, bipartisan Congressional Oversight Commission. The requirement for bipartisan agreement on the chair may account for why (as of this writing) the chair remains vacant (preventing the commission from hiring staff). Notably, the House created a special subcommittee to pursue additional oversight. But given an approaching election with control of the chamber at stake, it remains to be seen how aggressively the Republican-controlled Senate will investigate the administration's handling of the crisis.

Fifth, lawmakers modeled CARES oversight on TARP, but failed to Trump-proof it. The most vexing barrier to congressional oversight is President Trump's hostile institutional hardball against congressional authority to investigate his administration's performance. Trump took steps to replace a government watchdog for reporting on shortages of hospital medical gear for treating COVID-19 patients. He fired an acting inspector general selected by his peers to chair a pandemic oversight committee of fellow inspectors general. Trump declared he wouldn't comply with the CARES Act provision that requires Congress to be informed when the administration fails to cooperate with an investigation. And he prevented top administration officials from testifying before Democratic-led House panels on grounds that such oversight is a partisan exercise to attack the president.

WAYS TO IMPROVE OVERSIGHT

The barriers noted above threaten to undermine congressional oversight of the government's implementation and effectiveness of the pandemic response. Add in years of weak oversight by an intensely partisan Congress, and no wonder the prospects for forceful oversight seem bleak. No magic bullet will restore Congress's capacity to hold the administration and private interests accountable. But it is vital to take steps to facilitate legislative oversight.

First, Congress should formalize virtual procedures. Several House and Senate committees have taken steps toward remote and hybrid hearings, but both chambers should clarify



Congress should establish an independent, “blue ribbon” commission to investigate the Trump administration’s preparation for and handling of the coronavirus pandemic.

which actions panels can take without committee members physically present. Moreover, both chambers should seriously consider formal procedural changes that would allow for remote legislating and voting in committee and on the floor during an emergency. Several lawmakers have floated proposals, and a House bipartisan task force is considering first steps. There is little chance of effective oversight if lawmakers can't convene remotely.

Second, the system of inspectors general (IGs) needs repair. When Congress embeds an IG in an executive branch department or independent agency, it delegates its investigatory powers. If the president can limit IG communication with Congress and remove IGs without cause, Congress loses its investigatory capacity. Congress would be wise to revise the Inspectors General Act to only allow the president to fire an IG "for cause." Alternatively, firing of an IG might be treated just as Congress and the president handle budgetary rescissions: The president could propose removal of an IG, but both chambers would have to adopt a resolution to approve the firing, which would then have to be signed into law by the president. Restoring congressional control over the agents it selects to safeguard taxpayer money and monitor government performance would bolster Congress's oversight capacity.

Third, Congress should establish an independent, "blue ribbon" commission to investigate the Trump administration's preparation for and handling of the coronavirus pandemic. A commission akin to the 9/11 Commission established by Congress in the wake of the attacks of September 11 or the financial inquiry commission created in response to the global financial crisis would facilitate more rigorous and broader review of the administration's accomplishments and failures. Understanding what went wrong and how to prevent future administrations from making the same mistakes would offer a valuable contribution to Congress's programmatic oversight.

Fourth, Congress will need to continue to rely on the news media and outside groups that pull fire alarms to draw attention to problematic policies and outcomes. Nurses wearing trash bags for protection, large companies such as Shake Shack securing forgivable loans intended for small businesses, universities with large endowments such as Harvard and Princeton receiving federal aid—these sorts of reports catch public and congressional attention. Party leaders rushed to replenish the fund for genuinely small businesses, pushed the Treasury Department to tighten program guidelines, and added more money for hospitals. True, it can be difficult to carefully evaluate programs while alarms blare, and such alarms should not displace other forms of oversight. But given multiple barriers to congressional oversight and the desire to move quickly, fire alarms can be more efficient (and electorally valuable) for lawmakers than relying solely on police patrolling new beats.

THE PROBLEMS OF A RUSTY CONGRESS AND NORM-BUSTING PRESIDENT

An effective toolkit and an accommodative executive branch are necessary but not sufficient to guarantee robust congressional oversight of pandemic programs. Lawmakers and leaders in both parties also need a strong electoral incentive to hold administration feet to the fire. And with control of the White House and the Senate at risk for Republicans this fall, it is unclear how aggressively the Senate GOP majority will scrutinize the administration and other actors' performance. Committees are likely in the meantime to continue to experiment with virtual oversight activity. But partisan disagreements between and within the parties are likely to put substantial action to sharpen Congress's oversight tools out of reach. A rusty Congress and a norm-busting president threaten to undermine sustained and effective oversight.

Implementing CARES honestly and effectively

NORM **EISEN** & VICTORIA **BASSETTI**

In the two months since the COVID-19 pandemic came to dominate life in the United States, federal and state governments have spent and loaned trillions of dollars to address the crisis and enable recovery. As America now turns in earnest to the task of reopening, review of what has been termed a "Wild, Wild West" of spending needs to take a prominent place alongside the vital public health, economic, and other recovery plans that our nation is set to roll out. Putting a sheriff—indeed a passel of them—in charge is essential to the success of these initiatives.

Without effective oversight, fraudsters, rent seekers, and other corrupt actors will swarm over the federal money. Allegations of misconduct already abound. For example, one company, Blue Flame Medical, founded in March by two political consultants, took in hundreds of millions of dollars in orders from state and local governments for personal protective equipment like masks and surgical gowns. Then, it allegedly failed to fulfill many of the orders—from a $5,000 PPE contract with a local police department to a $12.5 million dollar one with Maryland. The company is currently the subject of a federal criminal investigation and denies wrongdoing.

SAFEGUARDING PUBLIC FUNDS

We must take fraud allegations seriously as a part of recovery. Every dollar misspent is one less dollar used to help people. If waste, fraud, and abuse are allowed to proliferate, they can create a culture of corruption in which government distributions are actually funding more schemes. News of misuse of government funds also hampers national morale, adding a layer of distrust and demoralization just when our nation needs confidence most.

Fending off misconduct in pandemic recovery spending is going to require every ounce of energy our accountability institutions can muster. They will need to deal with the enormous potential for overlapping or conflicting efforts, to avoid jurisdictional clashes, and to battle for resources to do the job. Not only that, but many of these oversight attempts are occurring in a particularly fraught and hyper-partisan political environment—all in the midst of a bitter presidential election campaign.

ANTI-CORRUPTION INITIATIVES

Fortunately, anti-corruption and government effectiveness initiatives have already begun. Indeed, at least four new bodies have been created within the last two months that can form the centerpiece of a proper oversight effort, though many are still in the midst of organizing themselves. The most prominent is the Congressional Oversight Commission (COC), a five-person panel established by the

Coronavirus Aid, Relief, and Economic Security (CARES) Act. That law also set up two other oversight organizations—the Pandemic Response Accountability Committee (PRAC) and a special inspector general for pandemic recovery—each based within the executive branch. More recently, the House of Representatives launched a fourth oversight body when it created a Select Subcommittee on the Coronavirus Crisis in late April.

As these new oversight entities enter the fray, we need to be mindful of the potential they may stumble into each other or clash over the right to investigate. Each of the various entities has different jurisdictions, competencies, and resources. For example, the COC is limited to investigating and reporting on specific COVID-19 programs within the Treasury Department. So too is the special inspector general. In contrast, the select committee has a wide-ranging mandate, but its jurisdiction potentially overlaps with that of other House committees, Senate committees, the PRAC based in the executive branch, and the Department of Justice. It is critically important that they talk to each other, clearly define their respective jurisdictions, and are transparent about that with the public.

FUNDING AND STAFF CAPACITY

Funding and capacity for each of these entities is also an issue. Although six weeks have passed since the creation of the COC, it still lacks a chairperson and therefore the ability to fulfill its mission. Meanwhile, the PRAC may be hobbled by federal hiring laws that can slow its efforts to staff up. And GOP House leadership was slow to name members to the Select Subcommittee, resulting in its initial batch of investigative requests being signed only by Democratic members. Republican members have since been added, and hopefully will cooperate in a bipartisan fashion given the urgency of the crisis.

Cooperation by both major parties will also be needed to deal with the special problems that come with trying to conduct oversight of the Trump administration. In the three plus years since Donald Trump was sworn in, the president has mastered a vast array of tools to thwart any investigation he suspects may reflect poorly on him. Early in negotiations over the CARES Act, Trump rejected any independent scrutiny. "I'll be the oversight," he said. When oversight mechanisms were inserted in the Act, he immediately moved to block them in a variety of ways. He disqualified the first person named to head the PRAC. He named a close ally to be the special inspector general. And he issued a signing statement indicating that he would ignore, if he wanted, provisions in the CARES Act that required consultation with or reporting to Congress.

The authorities in Congress and even in Trump's own administration should not hesitate to do their jobs. That means they should be ready to welcome whistleblowers as they step forward. It also means negotiating for the oversight information the authorities need—and where subpoenas are available, being ready to issue them if necessary.

Because the failure to take vigorous investigative steps may occur below the radar of public attention, civil society—including non-governmental organizations and journalists—has a singular role to play. They have the capacity to understand and broadcast lapses in oversight. Beyond holding the overseers accountable, these institutions external to government can do a great deal on their own in combatting coronavirus fraud, waste, and abuse. To take one recent example in Alabama, AL.com and other local press outlets have doggedly tracked the state's senate leadership's proposal to spend $200 million in federal relief funding to rebuild its State House. As a result of their reporting, the plan faced public backlash and has not moved forward, at least for the moment (and hopefully never will).

We should also look to longstanding, low-key enforcement and investigative mechanisms that operate below the political radar—but are already hard at work in dealing with COVID-19 corruption

Fending off misconduct in pandemic recovery spending is going to require every ounce of energy our accountability institutions can muster.

fallout. For example, the Department of Justice has launched a number of task forces and initiatives directed at price gouging, fraudulent applications for small business loans, and state-specific problems. A host of other federal law enforcement agents are also engaged, from postal inspectors to Food and Drug Administration inspectors. The CARES Act also allocated additional resources to the Government Accountability Office and to inspectors general within many federal agencies. Engaging in due diligence over this complex landscape will require a sharp eye by individuals and institutions inside and outside of government, but it is vital to maintain public trust in government.

How AI and emerging technologies help and hurt us

DARRELL M. **WEST**

Digital technology is a ubiquitous part of the contemporary world. People are undertaking more of their lives online, ordering packages through digital platforms, and staying in touch with family and friends through social media and video chats. Numerous organizations have moved their operations to the web and are focused on providing digital products and services.

In this situation, it is not surprising that online offerings are an important part of the reopening landscape. As cities and states move into reentry, digital tools have become a vital part of COVID-related healthcare, education, and pandemic analytics. At the same time, however, technology poses significant barriers in terms of inequitable broadband access, racial disparities, sector-based innovation, and widespread disinformation about the coronavirus.

In this section, I discuss the duality of technology and how we need to overcome several challenges. As John R. Allen and I argue in our forthcoming Brookings Press book, *Turning Point: Policymaking in the Era of Artificial Intelligence*, it is important to make progress on broadband access, telemedicine, online education, and disinformation in order to reopen safely and effectively.

TECHNOLOGY AS A SOLUTION

Technology brings a number of benefits to the COVID-19 response. It offers economics of scale, reliability, and the ability to integrate and analyze information from a variety of sources. In the areas of healthcare, education, and disease assessment, digital tools provide access to electronic resources that allow people to overcome the limitations of physical movement and social distancing.

Healthcare

In the pandemic, one of the important challenges is providing access to adequate healthcare. As an example, with people being worried about physical visits to doctor's offices, telemedicine has emerged as a helpful way for patients to keep in touch with health providers. As my Brookings colleague Nicol Turner-Lee has pointed out, advances in broadband speeds and video conferencing allow doctors to provide personal consultations even when there are limits on in-person office visits. As communities reopen, there still will be individuals in high-risk categories or with chronic conditions that preclude visits to medical facilities so it will be important to maintain video conferencing and telemedicine options.

In addition, remote sensors located at building entrances will allow businesses to monitor the

temperatures of incoming personnel and thereby detect who may be sick and a source of possible disease spread for other individuals. There are questions regarding how these sensors are affected by weather conditions and the physical exertion someone might undertake in arriving at a building, but this and other types of technologies will help providers trace COVID-19 contacts and evaluate consumer risk exposure. That will enable public health authorities to get a better sense of when and at what pace cities and states should reopen.

AI and machine learning are helpful to medical researchers as they work to develop long-term solutions such as vaccines. It takes considerable time and financial resources to discover new drugs. Scientists must identify new compounds that are promising, test them on animals and then humans, and make sure there are no dangerous side-effects from the treatments. Only at that point can those therapies be prescribed for patients. One of the virtues of these technologies is they can speed up the research and testing process, a quality that is very important during pandemics. Rather than have humans laboriously read scientific studies and deduce which ones have promising properties, AI software can supplement human efforts by scanning research studies, molecular databases, and conference proceedings and finding possible leads for researchers to investigate.

Education

In the education area, electronic resources and online platforms are likely to be a continuing part of the learning process after schools reopen. An example of this is teaching tools that utilize online tools to help teachers bring the latest knowledge into the classroom. This enables teachers to develop new lesson plans in science, technology, engineering, and mathematics (STEM) and other fields, as well as find relevant instructional videos and help students get the most out of the classroom.

These and other types of digital learning tools proved very helpful during the coronavirus pandemic. With the disease's rapid spread in 2020, many K-12 schools and universities sent their students home and moved completely to online education. According to a study by Bay View Analytics, 70 percent of university professors had not previously directed an online class.

For most of them, teaching over a digital platform was a new experience. The public health crisis forced both instructors and students to learn new skills in adapting to the online world. For some of them, online teaching only meant videotaping their lectures or talking with students over Zoom. Yet for others, the episode provided an opportunity for teachers to become more interactive in their teaching approach and develop new forms of instruction and assessment. In those regards, the pandemic helped move education more fully into the world of online instruction. As schools reopen, principals should make sure teachers get adequate training and staff support to help them utilize electronic resources and incorporate them in the classrooms.

COVID-19 analytics

As the United States reopens, it is crucial to have reliable metrics regarding public health, the economy, and the social fabric so we can gauge how things are going. The reopening will not be successful unless we have up-to-date and comprehensive metrics on many different indicators. Researchers at the Johns Hopkins University have done an outstanding job compiling fatality and incidence rates. This has provided valuable context on how trends are developing and whether the numbers are moving in a positive direction. State public health departments are reporting data on hospitalizations and hospital capacity, especially in regard to the number of beds being utilized and the number that are available if there is a COVID-19 rebound. Tracking these numbers informs local and state officials about their ability to handle second and third waves as businesses reopen. There also is helpful

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data from the COVID Tracking Project, which monitors data on test availability and utilization levels.

TECHNOLOGY AS A PROBLEM

The very technologies that offer hope in terms of dealing with the pandemic also create several important challenges. These include inequitable broadband access, racial disparities, problems in terms of innovation in healthcare and education, and disinformation about the source and treatments for the virus. We have to address those problems in order to help communities deal with the reopening process.

Inequitable broadband access

There are clear inequities in access to broadband connectivity and digital resources by race, income, education, and geography, and this complicates community reopening. Many individuals do not have access to high-speed broadband and this limits their ability to utilize telemedicine, online learning, and e-commerce. As communities reopen, they must ensure there is ubiquitous access so that all can gain the benefits of online services. This includes making sure that local anchor organizations, such as schools, libraries, and hospitals, have adequate broadband and that people have reasonable home access at a time when many are working at home or taking classes online.

Racial disparities

Our success in reopening will be contingent on how well we deal with underserved communities and at-risk workers. We need systematic data analytics on racial disparities in incidence rates as well as health data for medical providers, grocery store workers, pharmacy store workers, and emergency providers, among other frontline workers. Even if the country as a whole moves in a healthier direction, we will not be safe unless we protect our most vulnerable populations. There already is evidence that African Americans are contracting COVID-19 and dying from it at much higher rates than whites. As Brookings scholar Rashawn Ray has noted, the former are more likely to work in the service sector that exposes them to greater risk, ride mass transit, live in areas of higher density, and have less access to doctors, hospitals, pharmacies, and protective equipment. Communities need to monitor racial disparities data to see how COVID-19 affects vulnerable and underserved communities.

Sector innovation

The healthcare industry and many educational institutions have been slow to embrace technology innovation. Each still is a labor-intensive profession with high costs and limited economies of scale. As communities reopen, there are likely to be hybrid models where some people return to work while others need to stay remote, get healthcare via telemedicine, and learn via online platforms. It may be months before we fully go back to an in-person model. In the meantime, it will be crucial that government agencies and private insurance providers encourage reimbursement of telemedicine services, that there is funding for online education and teacher training, and that people have access to high-speed broadband so they can apply for jobs and access digital services.

Disinformation

One of the most concerning uses of technology during the COVID-19 pandemic has been the explosion of disinformation. At a time when the country and the world face extraordinary risks, there has been widespread dissemination of false information surrounding the source of the coronavirus, the role of global health organizations, the range of treatments, and the motives of major philanthropists, among other features. China, Russia, and Iran have spread false claims that the virus originated in the United States and that American philanthropists deliberately propagated the illness in order to profit financially. Some Americans have

contributed to public confusion over the pandemic by claiming that the coronavirus is a hoax and when it does surface there are generic drugs that can treat it.

Social media sites are popular vehicles for spreading disinformation, so we need much greater transparency and oversight of discredited sites and online information sources. We have to be especially vigilant about racist content and hate sites that promote racial and religious hatred in regard to COVID-19. Tracking these materials through artificial intelligence, machine learning, and natural language processing will provide information on the ebbs and flows of disinformation, what kinds of false material is being disseminated, and from where it is emanating.

Reopening courts

RUSSELL **WHEELER**

"Open courts" are a basic United States value. The Constitution demands, in treason trials, "testimony ... in open Court" and promises criminal defendants "speedy and public trial[s]," and the "right ... to be confronted with the witnesses against" them. Yet social distancing requirements have led to orders by state courts and federal courts closing courthouses and deferring or cancelling all but essential procedures. In March, for example, 45 states and territories suspended jury trials, most through at least August, some "until further notice." For situations that cannot be suspended—certain arraignments, guilty pleas, emergency injunctions, for example—courts have turned to "virtual proceedings" in which judges, lawyers, and other participants are in different physical spaces connected by video or perhaps only audio hook-ups. Courts are rightly considering whether to continue using them once they reopen.

VIRTUAL LEGAL PROCEEDINGS

It appears that at least 38 states and territories have mandated or authorized the use of virtual proceedings (as listed here under "Pandemic Preparedness"). Texas Chief Justice Nathan Hecht recently reported:

> *Probably the most pervading thing we've done is video conferencing. ... It's just changing the operation of Texas courts profoundly. I imagine three weeks ago no Texas court had had more than one or two video conference hearings ever. As of last Friday, we've had 2,000, involving more than 14,000 people. I think, long term, this will change the way we do business at the courthouse and practice law and lots of other things.*

Federal courts, now and historically, have been more leery than state courts of electronic procedural innovations. Opponents of virtual proceedings argue that they lack the solemnity of a courtroom and frustrate credibility determinations when judge and jury cannot see the whole person, and hamper representation when lawyers cannot read body language. Proponents counter that they decrease the need for travel, enhance opportunities for participation, and, over time, reduce the need for costly courthouse construction.

Nevertheless, some federal appellate courts are hearing arguments remotely. Use of electronic transmissions in federal district (trial-level) court criminal proceedings are controlled by Rule 53 of the Federal Rules of Criminal Procedure, which have the force of law and, for civil proceedings,

preferences of the Judicial Conference of the United States, bolstered by orders of the chief justice of the United States. These rules and policies all strictly disfavor real-time electronic transmission of district court proceedings. Given social distancing demands, however, the Conference, pursuant to provisions of the Coronavirus Aid, Relief, and Economic Security Act, authorized "chief district judges, under certain circumstances and with the consent of the defendant, to temporarily authorize the use of video or telephone conferencing for certain criminal proceedings," as well as unspecified "access via teleconferencing for civil proceedings."

WHAT HAPPENS NEXT?

Will virtual proceedings continue once courts reopen and social distancing demands subside? As courts consider how to return to some semblance of normal business, they are considering, according to a May 6 National Center for State Courts webinar, "criteria for in-person hearings" (along with such standard topics as employee health, reduced courthouse occupancy, vulnerable populations, social distancing, hygiene, screening, face coverings, and building cleaning). The webinar organizers urged state courts to be receptive to post-pandemic use of virtual proceedings—that they "continue remote proceedings in all cases where it is possible and practicable. Courts should establish criteria that will provide clear guidance on when an in-person hearing will be held (if a remote proceeding is not possible or impracticable)."

By contrast, the federal courts' Administrative Office's late April guidelines for reopening made no reference to continued use of virtual proceedings, emphasizing instead broadened categories of permissible filings, partial then fully opening the courts with social distancing restrictions, and emphasizing local circumstances and consultation "with local public health and public safety agencies."

PUBLIC ACCESS

As courts reopen, they need to consider not only whether to continue to use virtual proceedings, but a second, related question: Once video or audio devices are in the courtroom—enabling courts to work remotely—should the public, including but not limited to the news media, have access to those proceedings?

By far the most closely observed court to highlight this question during the pandemic is the U.S. Supreme Court. That court has long fiercely resisted any video coverage of its proceedings and any real-time audio coverage. A major concession was agreeing a few years ago simply to release, on Friday, audio recordings of oral arguments that occurred on Monday through Wednesday. The idea may be that by Friday, the recording will have lost most of its immediate news value.

In mid-March, the Court announced, not surprisingly, that it was temporarily closing its courtroom and scheduling telephonic hearings for most cases remaining on this term's argument calendar. For those 13 cases, the justices and counsel are participating from remote locations around the country. Very surprisingly, however, the court also agreed to make the audio feed of the arguments available in real time. The oral argument format for the virtual hearings has the chief justice calling on each justice, by seniority, to question the lawyers and cutting off counsel to keep on schedule but ensure each justice a chance to speak. It is nothing like what happens in the courtroom—a so-called "hot bench" of justices peppering counsel with questions on their own schedules. The remote sessions, while stilted, have come off largely without technical hitches, and Congress will surely increase its pressure to get cameras into the court. It would still be surprising were the Supreme Court to do a reversal and permit real-time audio transmission of oral arguments when it is back in its normal courtroom confines.

As courts reopen, they need to consider not only whether to continue to use virtual proceedings, but a second, related question: Once video or audio devices are in the courtroom—enabling courts to work remotely—should the public, including but not limited to the news media, have access to those proceedings?

Other courts—state supreme courts, intermediate appellate courts, and trial courts—have long considered whether to open their proceedings to real time audio or video broadcasting. Most federal and state appellate courts provide some kind of public access to their proceedings, either through same day release of audio recording or live steaming of oral arguments. For trial courts, real time video and audio access is varied for the few trials that still occur and for other evidentiary hearings. State courts generally permit video coverage with controls, and audio recordings of some federal bankruptcy and district court proceedings are available.

Most federal district courts, however, have vigorously resisted any video or real-time audio access to their proceedings. (Opponents fear inadvertent loss of witness and juror anonymity, participant grandstanding for cameras, and misleading media use of video snippets. Proponents respond that modern technology is unobtrusive, glitches are rare, and selective editing is fact of life in modern journalism.) In any event, the Judicial Conference—while authorizing temporary and limited pandemic use of virtual proceedings as well as limited real-time public access to those proceedings, both criminal and civil—made clear that when the courtrooms reopen, the virtual proceedings and public electronic access would cease.

LEARNING FROM THE SHUTDOWN

Rather than federal courts' returning to business as usual, former Federal District Judge Jeremy Fogel, a former director of the Federal Judicial Center and now executive director of the Berkeley Judicial Institute at the University of California, has challenged federal courts to use the emergency adaptations as an "opportunity to study new ways of doing their work." The likelihood that the emergency measures will of necessity be in force for some time means that they can "produce a bounty of data concerning each of the principal areas of concern that have been cited to support judicial reservations about greater use of virtual proceedings."

How, for example, have courts necessarily balanced the need for privacy (of witnesses and others) with "practical ways of balancing privacy interests with the transparency provided by virtual access"? Can the emergency measures help "identify new ways to secure [courts'] electronic portals and to prevent harmful or unauthorized access to sensitive proceedings or information"?

Courts, Fogel notes, have held that a "remotely conducted jury trial" needs a defendant's consent to "satisfy the Constitution's right of confrontation." But, he adds, "[t]he current situation could enable in-depth thinking about the Constitutional dimensions of other remote proceedings." Fogel notes that the high costs of civil litigation discourage trials and "skew access to justice in favor of wealthy parties," and asks whether:

> *[m]ore frequent virtual proceedings could reduce costs substantially by limiting the time lawyers and parties spend getting to and being in court. With appropriate waivers, virtual criminal proceedings could result in substantial savings in inmate transportation costs and a reduced burden on law enforcement officers.*

In short, "federal courts should take advantage of the unexpected opportunity that the COVID-19 pandemic has presented. They should thoroughly review their experience over the course of the present emergency and act boldly on the basis of what they learn." Judicial leaders should take Fogel's suggestions seriously.

Immediate domestic law enforcement priorities

VANDA **FELBAB-BROWN**

U.S. law enforcement forces are among the crucial responders to the coronavirus pandemic. Intense policing duties amidst the pandemic have taken a severe toll on many police departments as some officers fell sick and had to quarantine and many had to work long hours or double their duties. COVID-19 has also affected crime patterns: It further suppressed street homicides though increased looting of closed stores, and has given a boost to online criminal activity, right-wing hate groups, and intimidation-embracing militias.

Much as COVID-19 produces new law enforcement challenges and imperatives, including how states and countries will find resources to support local police forces amidst intense economic downturn, it also creates important opportunities to strengthen community policing and reinforce relations among communities and our law enforcement forces. As the United States starts reopening the country after the spring lockdown, I offer several guidelines for rethinking immediate priorities for domestic law enforcement.

PREPARE FOR NEW INFECTION WAVES

There is a substantial chance that as the United States and the world reopen, new clusters of COVID-19 and, worse yet, widespread reinfection will follow, as has happened in China, South Korea, and India. That may well necessitate renewed local and even national lockdowns. Enforcing their resurrection will be far harder than the first lockdown. People's economic and psychological reserves for distancing have been substantially depleted. The obligations and sense of responsibility for one's own health as well as public health that many felt and exhibited in the first lockdown will compete against sheer economic desperation and emotional exhaustion in any new near-term lockdown. Thus, there may well be a need for a far larger involvement of police forces in enforcing a new lockdown.

This will require that police departments focus on getting their forces healthy and adequately rested. Some police departments suffered widespread COVID-19 affliction. Among the worst hit, the Detroit police department, for example, had 180 officers who tested positive by mid-April out of a force of 2,800 tested by mid-April. Having 6 percent of the force test positive may not seem like much, but in fact such a rate caused widespread difficulties in rotation, performance quality, and compromised capabilities for interrogating suspects of violent crimes, in addition to imposing a heavy psychological toll on the police officers and their families. That rate is also almost 14 times higher than the known infection prevalence among all U.S. adults, though the latter may be significantly underestimated! Attrition in police

forces also came from the need to self-quarantine for police officers who came into contact with those infected by COVID-19: At a peak, 15 percent of NYPD officers had to stay home as a result of COVID-19 illness or need to self-quarantine. That number is now down to 5 percent. But new outbreaks of infection will again infect already tired police departments all over again.

Getting ready for wave two also means enhancing training and preparedness, including for managing tense social situations and intensified protests, and devising the appropriate enforcement tools for implementing lockdowns, such as escalating fines (not imprisonment) that induce compliance but do not entrap residents—already impoverished by COVID-19—in further debt. Enforcement of new lockdowns will need to be resolute, but not forceful.

Two kinds of social protest are particularly likely in a round two of lockdown: protests by poor marginalized communities whose economic struggles may be desperately compounded by COVID-19, such as African Americans; and protests by right-wing extremist groups. In responding to the protests by African Americans, police forces need to be particularly careful to avoid overreaction and brutality. In responding to protests by right-wing extremist groups, law enforcement needs to avoid under-reaction and an underestimation of the severe risks of violence and threats to U.S. rule of law and democracy such groups pose.

Meanwhile, however, there is also a significant opportunity to build up a cache of positive relations with local communities. In some instances, local communities experienced officers handing out masks and providing advice on COVID-19 instead of frisking and questioning. Enhancing efforts to strengthen positive relations with local communities and communities' perception of the legitimacy of local police forces will create important relationship capital for dealing with social strife new lockdowns will produce. As counties start opening up, events such as "police and pancakes" that bring together community organizers, students, and police officers and which also practice exemplary social distancing (perhaps with the events being held only virtually) are one method. In turn, however, local communities should look for opportunities to express appreciation of their police forces for their commitment and struggles during the lockdown, similar to the appreciation they have shown to healthcare personnel.

REDUCE PRISON POPULATIONS

There are many reasons for reducing the size of the U.S. prison population, the highest in the world not only in absolute numbers, but also as a percentage of imprisoned per 100,000—a rate in which the United States greatly surpasses other notoriously aggressive jailers such as Russia, South Africa, Brazil, and China (not counting the Uighurs detained in China's reeducation concentration camps). The reasons for reducing the number of U.S. prisoners include not only the economic costs of their incarceration, but also the prospective societal and basic justice benefits, in terms of improving the conditions of U.S. minorities, particularly African Americans who comprise a disproportionate number of U.S. prison population.

COVID-19 creates a new imperative: public health for prisoners, correction officers, and their communities. Although data are highly imperfect, it appears that the number of confirmed COVID-19 cases among the U.S. prison population is double the rate among all U.S. adults. In four U.S. states where extensive testing of prison populations was carried out—Ohio, Arkansas, Virginia, and North Carolina—nearly 3,300 prisoners tested positive for COVID-19 (worrisomely, 96 percent without symptoms). The Cook County Jail in Chicago became a tragic face of COVID-19 and hotspot of the virus, as did Marion Correctional Institution in Ohio where 80 percent of the prison population tested positive for COVID-19. Even in the absence of a pandemic, prison health facilities are poorly equipped to provide for adequate healthcare for

The coronavirus pandemic will continue to impose new and growing challenges for policing, including a likely rise in crime. But it presents new opportunities for strengthening citizens' safety and improving relations between our communities and our law enforcement.

prisoners, and particularly ill-suited to care for elderly prisoners.

Countries around the world, including those with brutal authoritarian regimes such as Iran, have responded by releasing prisoners, at least temporarily, to prevent COVID-19 afflicting prisoners and correction officers. The United States must resolutely take advantage of all options to release prisoners who can be released without threats to public safety and to provide safe correction facilities to those who cannot be released. The Brennan Center for Justice compellingly argued in a 2016 study that 39 percent of inmates in state and federal prisons—about 576,000 people—could be safely released and that there was no compelling public safety reason to continue keeping them imprisoned. COVID-19 makes releasing them an even greater imperative.

Prime candidates for release include: nonviolent drug offenders; elderly prisoners who, as a result of their age, are not only highly vulnerable to succumbing to COVID-19 but are also extremely unlikely to reoffend; those severely ill with other illnesses; and other nonviolent prisoners, such as those who committed certain white-collar or low-level theft offenses and who can be placed under house arrest with their families and monitored with an ankle bracelet or other electronic monitoring.

Crucially, however, the crucible of COVID-19 should make us avoid repopulating U.S. correction facilities—well beyond COVID-19. Nonviolent public offenses should be handled as much as possible through non-incarceration sanctions such as fines, house imprisonment, social service, and other mild, but swift and certain, penalties that have proven highly effective in reducing various forms of crime and substance abuse.

DOUBLE DOWN ON PROSECUTING DOMESTIC VIOLENCE

The COVID-19 lockdowns have had different effects on various kinds of crimes. Separating rival gangs and keeping gang members at home where they could not get into honor and turf fights with their rivals reduced violence. Domestic violence, however, inevitably goes up when families are locked up together in the same quarters—whether during holidays and vacation times or pandemics.

Time together exacerbates disagreements without providing the outlet of separation. The coronavirus destabilizes families' financial situations, keeps children from going to schools and limits access to healthcare, kids' opportunities for play, and adults' time apart. COVID-19-induced lockdowns and restrictions on accessing public spaces increase both stress at home and the tools of abuse. Egregious domestic abusers seek to control their victims by isolating them from family, friends, and sometimes even employment—maintaining constant surveillance over them, and controlling all aspects of their lives, such as clothing and food.

Isolation, such as that due to COVID-19, also weakens support networks. Police officials may be unavailable to come to a home where violence is reported. They may not be able to remove either the perpetrator or the victim, since jails are emptied and shelters shuttered. Close quarters may prevent the privacy often required for victims to report abuse.

Indeed, around the world and in the United States, domestic abuse went up during the COVID-19 lockdowns. In Spain, domestic abuse reports went up 18 percent in the first two weeks of COVID-19 lockdown. Similar reports have come from Italy, France, the United Kingdom, and China. In the United States, the rise in reports of domestic violence leveled off and declined during the later stages of the lockdown, but rather than reflecting an actual drop in incidents, the drop in reporting may reflect the inability of victims to report.

An important focus for police departments is following up on households where violence had been reported, prosecuting offenders, and proactively trying to encourage victims to come forward and report offenses as they become able

to leave their home. This provides an opportunity not only to deliver delayed justice when officers are not able to respond to distress calls during the lockdowns but also to prevent further abuse. Deterrence critically hinges of the prevalence rate of effective prosecution. In homicides, deterrence is sometimes believed to require at least a 40 percent effective prosecution rate. Whatever the actual number of effective prosecution rate for domestic crimes is, if prosecution is sporadic, deterrence is not created even when penalties are high.

The awful risks of greater domestic violence are not a reason to fail to implement new lockdowns—such new lockdowns will be necessary for important public health reasons. But there can be much better protection and prevention measures in place before the second wave of COVID-19: Shelters for victims of domestic abuse can be designated as essential services that do not shut down. But shelters, like all crowded spaces, such as dormitories and prisons, carry a high risk of infection. It is better to hire hotel rooms as temporary shelters that allow for social distancing and safety from both abusers and COVID-19 spread, as some European governments have done.

The coronavirus pandemic will continue to impose new and growing challenges for policing, including a likely rise in crime. But it presents new opportunities for strengthening citizens' safety and improving relations between our communities and our law enforcement.

The military never closed

MICHAEL E. **O'HANLON**

At a time of turbulence due to COVID-19, it is worth noting one of the generally good-news stories to date: the American armed forces are holding up well despite the pandemic. That may come as a surprise to those who have read about the brouhaha over the aircraft carrier USS Theodore Roosevelt a few weeks ago, as well as the temporary suspension of boot camps by some military services. And the challenges could get worse in the future. But as I learned in an interview on May 4 with Secretary of Defense Mark Esper, the situation is rather good today.

FEW POSITIVE COVID-19 CASES

Start with the simplest metric: Out of just over 2 million Americans in uniform today, counting 1.3 million active-duty as well as National Guard and Reserve personnel, less than 5,000 have tested positive for COVID-19 (as of May 4, in information provided by Secretary of Defense Mark Esper when I interviewed him that day). That incidence rate is about two-thirds the national average. But because the military is predominantly young, serious cases are much less prevalent than in American society. There have been fewer than 100 hospitalizations and just two deaths to date—less than 1 percent the per capita rate in the United States writ large. Also, while the Theodore Roosevelt did function as a sort of petri dish for the spread of the virus, most military units are somewhat isolated from those urban centers where the coronavirus has hit the hardest to date. As Secretary Esper told me, a deployed ship is actually a great place to avoid COVID-19 provided that no one on board has it!

More than 60,000 military personnel including 45,000 members of the National Guard have deployed throughout the United States in support of COVID-19 response. Some have spelled civilian healthcare workers in hard-hit cities; most have focused on supply and logistics efforts. Happily, the USNS Comfort and USNS Mercy will be returning back to home port soon as their hospital services may no longer be needed as backups to overworked hospitals—at least not at this stage of the crisis.

ECONOMIC DOWNTURNS MAKE RECRUITMENT EASIER

Despite temporary suspensions of some accessions of new recruits into boot camp, the armed forces have now restored their personnel pipelines. That is crucial because, even though a tough economy should ease the challenges of both recruiting and retention, today's all-volunteer force needs to replace about 15 percent of its people every year. To date, there is no indication of any big problem in this area, though it will be important to see how springtime recruiting trends go, since the armed forces depend on signing up

large numbers of recent high school grads in the warmer months.

Small-unit training has continued throughout the crisis. Army and Marine Corps squads and platoons, Air Force and other services' flight teams, and other core elements of the military's combat formations have never really slowed down in the crisis to date. They have adopted social distancing practices and other smart protective measures in doing so, some of which mimic fighting in a chemical weapons environment (as the *Wall Street Journal* recently reported), but that has not prevented units that are effectively the size of large families from continuing to work together and live side-by-side. Importantly, such training has continued in Korea and other forward locations as well, even as life has been significantly altered in most other ways for military personnel in those places, just as with the various lockdowns in America. For especially sensitive units such as those manning the country's nuclear forces, extra testing and quarantining measures have further ensured continuous combat readiness.

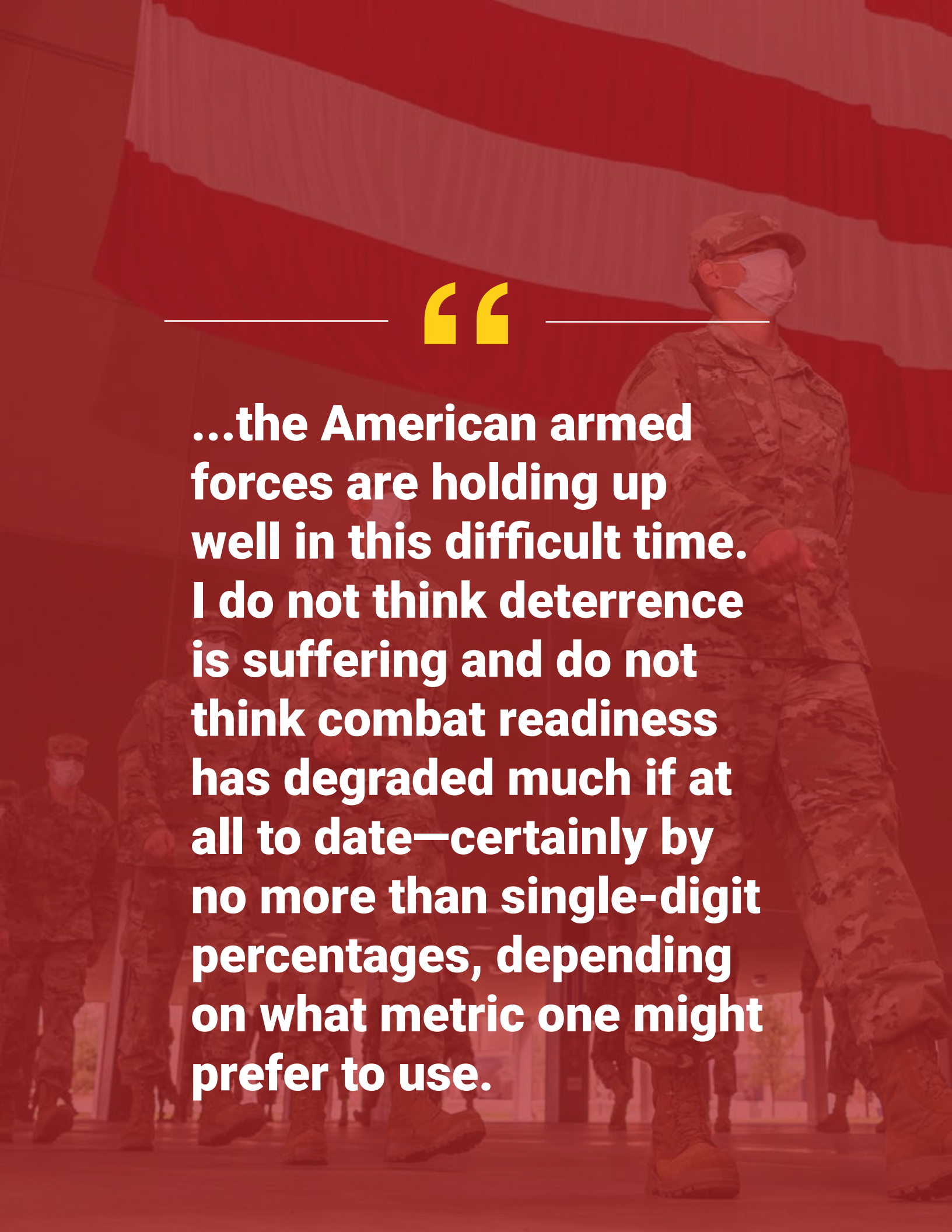
While larger exercises like Air Force Red Flag training and Army National Training Center rotations have been suspended to date, they are set to resume carefully in the spring and summer. The Army is sending about 1,000 soldiers who are part of a "security force assistance brigade" to the Joint Readiness Training Center in Louisiana in preparation for its rotation to Afghanistan in a few months' time. That is smaller than a classic combat brigade of 3,000 soldiers but allows safe practices to be tested, and refined, as a first step. Future resumption of full-bore training will be done carefully, with lots of testing of soldiers, and with prioritization for units based in parts of the country where the virus is less prevalent and where hospital capacity is adequate to handle any surge in infections, just in case. And the defense industrial base continues for the most part to maintain continuity of output of vehicles, aircraft, munitions, electronics equipment, and other critical supplies for the American armed forces.

POSSIBLE BOTTLENECKS WITH CONTRACTORS

To be sure, problems and concerns remain. Subcontractors for the defense industry are not all operating at normal pace. As Secretary Esper explained (and as Army Secretary Ryan McCarthy told me the week before), those in Mexico and in severely afflicted U.S. cities are of particular concern. Bottlenecks may thus develop not only for production of new equipment but for parts needed in maintenance of existing stocks.

While the path forward for normal training can be sketched out, it has not actually been implemented yet. And if the reopening of the country leads to a worse spike in cases, the military may be more severely impinged, since of course it cannot escape contagion from the society in which it lives and operates. It is important to keep a particular eye on states, regions, and communities where military presence is greatest, like the coastal Carolinas, central Texas, the Newport News and Virginia Beach/Hampton Roads area, San Diego and other parts of coastal California, and a few others. Combined-arms training at a high enough level to require meaningful integration of different types of units into an overall effort is essential to preserve the American military's excellence. It is the capability to do such things well that created the U.S. armed forces' successes in Operation Desert Storm and the overthrow of Saddam Hussein in Iraq, for example, and that remains central to deterrence from Korea and the western Pacific to Poland and the Baltics to the Middle East today. Until it is resumed at scale, we should not spike the football in the end zone prematurely.

In addressing all of this, the international threat environment remains largely unmitigated by COVID-19, with things perhaps even a bit more intense in regard to China in the South China Sea, as well as Iran. If threats grow even as the virus spreads in the ranks, the situation could of course get worse for that reason as well. Thus, this positive assessment must remain an interim one.



...the American armed forces are holding up well in this difficult time. I do not think deterrence is suffering and do not think combat readiness has degraded much if at all to date—certainly by no more than single-digit percentages, depending on what metric one might prefer to use.

In looking at Secretary Esper himself, President Donald Trump made a good choice in nominating him as the nation's 27th secretary of defense. A West Point grad and Army Ranger by background, Esper gets the military and its culture. A Capitol Hill veteran, he gets Congress. A defense industry leader after that, he knows the importance of the nation's defense industrial base for preserving the technological excellence that complements the superior quality of our men and women in uniform—yet is too often neglected, or even pilloried, in political and policy debates. Esper is not the larger-than-life kind of figure that General James Mattis represented, but we don't need that right now. Esper sees it as his job to implement Mattis's 2018 National Defense Strategy, with its focus on great-power competition, and so far, that seems to be continuing, even in this time of COVID-19.

So, the American armed forces are holding up well in this difficult time. I do not think deterrence is suffering and do not think combat readiness has degraded much if at all to date—certainly by no more than single-digit percentages, depending on what metric one might prefer to use. Things are going even better, in fact, than I would have predicted. But then again, of course, it's still only late May.

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