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COVID-19 and Federalism: Public Officials' Accountability and Comparative Performance

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KEY TAKEAWAYS

As the pandemic subsides, there should be a critical look at how state and federal public officials acted. Federalism helps show the efficacy of various approaches.

While the federal government rightly relaxed regulations and promoted rapid production of vaccines, too many bureaucratic barriers hindered an effective response.

Lawmakers should address the big failures, such as confusing messages to the public, an overreliance on flawed data, and disastrous societal lockdowns.

In the aftermath of the COVID-19 pandemic, public officials—state and federal, elected and non-elected, career and noncareer—must be held accountable for their performance in this national health emergency.

America's constitutional order facilitates such accountability. The United States is a federal republic, with a division of powers between the general government of the nation, authorized to exercise specified national responsibilities, and state governments, provided with broad authority to exercise powers far beyond those allotted to the national government. In No. 45 of *The Federalist*, James Madison neatly summarizes that dual allocation: "The powers delegated by the proposed Constitution to the federal government are few and defined. Those which are to remain in the State governments are numerous and indefinite."

The Founders recognized that federalism accommodates America's pluralistic political culture while promoting innovation in public policy. Curiously, with the onset of the COVID-19 pandemic, some commentators have viewed American federalism as a disability rather than a strength. Writing in the *JAMA Forum*, a group of researchers remark, "During an emergency when the health of the nation depends on acting with coordination and cooperation, the failure of federalism comes into sharp relief, forcing us to reconsider one of the most deeply held American beliefs: that decisions made closer to home are inherently better."[1] The *JAMA Forum* authors point to a lack of efficient coordination, different policies, and inferior outcomes for minorities.[2]

In fact, federalism has fostered policy innovation, enabled state officials to avoid misguided measures, and allowed them to secure better public health and economic outcomes. Regarding the COVID-19 pandemic, America's constitutional order facilitates holding public officials accountable for their performance in this national health emergency.

The Advantages of Federalism

The value of state or local policy decisions is not that they are "inherently better"; substantively, the quality of a decision is independent on its merits, whether made in Washington, a state capitol, or the county council. Rather, as Thomas Jefferson observed, "It is not by the consolidation, or concentration of powers, but by their distribution, that good government is effected. Were not this great country already divided into states, that division must be made, that each might do for itself what concerns itself directly, and what it can so much better do than a distant authority."[3] An added value of federalism is that the state or local policymaker is more directly accountable to the people who are directly affected by the policy; policymaking is thus more democratic.

Finally, the fact different states adopt different policies is a feature, not a bug: Policymaking in a democratic society is often a complicated process of balancing competing goods while respecting public opinion. That different jurisdictions strike this balance in different ways should be expected in a country as vast in size as the United States of America. Constitutionally, moreover, state officials have broad powers to regulate *intrastate* commerce and to exercise "police powers" to protect the health, morals, and safety of their citizens, including, of course, the protection of public health from the ravages of a pandemic and its multiple consequences.[4] This is not a responsibility that they legally can (or should) abdicate to the President, Congress, or to some distant and unaccountable bureaucracy in Washington.

The *JAMA Forum* researchers further argue, "When our collective fate relies on speed, efficiency and unity, federalist ideals fall flat. Divided government creates unnecessary challenges for residents of states that are too slow to act or take up federal policies."[5] Underlying this argument is the tacit assumption that the federal government policies are the correct policies. That merely assumes what is to be proven. In any case, it does not logically follow that centralized government would guarantee efficiency, speed, or unity. Centralized government can just as easily issue authoritarian edicts or mandates based on bad information and poor judgment that can also inhibit speed and efficiency and sow confusion and disunity.[6]

Logic aside, the empirical evidence for any assumed superiority of Washington's governance is thin. Examining the federal government's performance over 2001 to 2014, Paul C. Light, a senior fellow at the Brookings Institution, observes, "Federal failures have become so common they are less of a shock to the public than an expectation. The question is no longer if government will fail every few months, but where? And the answer is 'Anywhere at all.'"[7]

The federal government's 2020 COVID-19 response supplies a fresh batch of disturbing examples.

What Americans Have Learned from the COVID-19 Pandemic

Americans are often counseled to "follow the science" and heed the advice of the public health experts. Understandably with a novel coronavirus the science has been evolving with the accumulation of new information; science is not static. Nonetheless, the initial extreme mortality projections[8] and contradictory and confusing advice from public health experts, as well as hypocrisy in public health enforcement, has created unnecessary anxiety and anger and weakened public trust.

First, though the coronavirus is highly contagious, dangerous, and deadly, serious illness and death has been highly concentrated among older persons and persons with serious underlying health conditions, including cardiac and respiratory conditions, as well as diabetes and obesity.[9] The accumulated data show that younger and healthier persons who have contracted the infection have presented few or mild symptoms and have generally not been threatened with severe illness, hospitalization, and death. For example, most children who are known to have been infected are either asymptomatic or, according to the Centers for Disease Control and Prevention (CDC), experience "mild" symptoms. About 1.3 percent of children diagnosed with

COVID-19 have been hospitalized, and 0.01 percent have died.[10] According to CDC's best estimates, a person over 65 who contracts the virus is 4,500 times more likely to die of it than a person under 18.[11]

Second, as a highly contagious disease the coronavirus has had different impacts demographically and geographically. The metrics of caseloads, hospitalizations, and mortality per million have varied from state to state and within states. Based on the science and the data, therefore, sound policy would accurately reflect these epidemiological and demographic distinctions, targeting intense efforts to protect the most vulnerable and relaxing social and economic restrictions on the least vulnerable.

Federalism, as noted, is a constitutional distribution of political authority and responsibility between the national government and the particular governments of the several states. In coping with a pandemic, Washington has the responsibility of providing accurate data and reliable information and guidance, promoting scientific advances in the development and deployment of vaccines and therapeutics, making federal regulatory changes, and providing emergency supplies and technical and financial assistance. State and local officials can use the federal assistance to make balanced judgments that will secure the best outcomes for public health and the general welfare of their citizens.

Mixed Performance. Federal and state officials alike have both succeeded and failed in battling the virus and its social and economic consequences.

In our initial Heritage *Backgrounder* on the pandemic, we argued that the actions of state leaders would be pivotal to ensuring a successful response to the pandemic.[12] Effective responses to COVID-19 have been secured in states and local communities; and it is on the ground, in states and localities, where Americans have also sustained their biggest losses, both in economic decline and in public health.

Some states that deviated from the excessively restrictive advice of federal policymakers, such as Florida, have done well relative to other states that have adopted and adhered more closely to federal guidance.[13] In combating the virus, certain states have gone beyond federal guidelines for commonsense hygiene and "social distancing" and pursued aggressive and lengthy lockdowns of the social and economic lives of their citizens. California, for example, closed down private schools even though these private and religious institutions had taken "safety and sanitary" measures outlined by the CDC.[14] The economic contraction, business closures and failures, and the resulting unemployment have imposed huge costs on the residents of many states and local communities.

Lengthy school closures, in particular, have harmed children. Prolonged isolation and joblessness have imposed health as well as economic costs. This has been evident in a rise in anxiety, depression, and other mental health problems, opioid-related deaths and substance abuse, and domestic violence.[15] Reductions or shutdowns of routine medical services contributed to, among other things, dangerous delays in cancer and heart screenings and surgeries.[16]

Sound policy would do a better job and balance the protection of public health from the ravages of the pandemic with the need to preserve the personal, social, and economic health of the citizens. In this crisis, some state and local officials have succeeded in striking that balance and others have failed.

Washington's Pandemic Performance

In coping with a pandemic, leaders of states, cities, and private organizations rely on the information provided by federal officials, specifically the CDC. As investigative reporters for *USA Today* describe it, "Headquartered in Atlanta, removed from the direct line of politics, the [CDC] employs thousands of public health experts, many embedded in local health departments. Though it's not primarily a regulatory agency, its science guides national medical practice."[17]

Elected officials, from the White House and governor's mansions to federal and state appointed and non-career employees, thus depend on the institutional knowledge, skills, and experience of the CDC's career civil servants to provide them with the best, most accurate, and updated scientific information to make and implement public policy. Based on the full record of the CDC over the past year, Americans should indeed be grateful that the agency has *not* been granted national enforcement power and, thus, the potential of imposing a universal program of policy mismanagement.

The several federal government initiatives that proved successful were outside the CDC.

What Federal Officials Got Right. At the outset of the pandemic, federal government officials took decisive actions. The Trump Administration banned travel to and from infected areas of the globe, launched a comprehensive review of government rules and regulations that might inhibit a rapid response to the national medical emergency, and marshalled the resources of the private sector to combat the coronavirus, including a major public–private partnership to secure the rapid research and production of vaccines and therapeutics to arrest the spread and severity of the disease.

Travel Bans. On January 21, 2020, a U.S. traveler from China to Washington State was the first confirmed COVID-19 case. On January 31, President Trump declared a ban on travel from China.[18] This was followed by similar bans on travel from Iran and Europe.

Regulatory Reform. The Trump Administration pursued a very different path from previous Administrations faced with national emergencies. Where the historical Washington pattern has been to centralize power and expand regulation under such circumstances, the Trump Administration decentralized regulatory power and encouraged private-sector innovation, ranging from small firms to large corporations.

The Trump Administration's operating principle was that deregulation would set in motion positive change and innovation, enabling providers and private-sector firms to get business done quickly in meeting the national medical emergency.

Through aggressive regulatory reform, the Administration encouraged the rapid deployment of telemedicine and added 145 new medical services to Medicare's roster.[19] The Administration also changed rules to facilitate telemedicine's reimbursement, stimulating its rapid growth.[20] Meanwhile, the Centers for Medicare and Medicaid Services (CMS) issued over 100 Medicare waivers and over 600 coronavirus-related Medicaid waivers for the states to respond effectively to the pandemic ranging from paperwork reduction and the expansion of medical scope of practice to changes in medical reimbursement.[21]

Vaccines and Therapeutics. The Trump Administration, operating through the Department of Health and Human Services (HHS) and the Department of Defense, undertook "Operation Warp Speed," an aggressive program to remove federal regulatory barriers private companies faced in developing and deploying innovative vaccines to combat the coronavirus. The companies moved with unprecedented speed.[22] The goal was to provide 300 million doses of the vaccine, with initial doses to be available to the public in January 2021.[23] To encourage progress toward that goal, the federal government also entered into pre-purchase agreements with six manufacturers, committing in advance to buy 900 million doses, conditioned on obtaining an emergency use authorization (EUA) for their products.[24]

Thanks in part to government process changes, Moderna and Pfizer were issued EUAs based on successful testing of their vaccines, which demonstrated an efficacy of approximately 95 percent. Beyond the Pfizer and Moderna vaccines authorized before the end of the year, Johnson and Johnson and AstraZeneca were in advanced testing of their vaccines. The U.S. Food and Drug Administration (FDA) granted EUA to the Johnson and

Johnson vaccine on February 27, 2021.[25] Altogether, this was an impressive and unprecedented public health achievement: a vaccine developed in months rather than years.

At the same time, the Administration pressed for the quick development and rapid deployment of new therapeutics. The FDA issued numerous new guidelines to private industry as well as many EUAs for diagnostic tests and other medical countermeasures. By October 31, 2020, there were more than 370 active trials of therapeutic agents.[26]

Where Federal Officials Got Policy Wrong. For decades, Washington's office with primary responsibility for periodic pandemics has been established and dis-established in different federal agencies. Today, HHS currently houses the Office of Pandemics and Emerging Threats. Gail Wilensky, former Medicare administrator, argues that such an office should be relocated in the National Security Council:

> Whether as cause or effect of the office's repeated dissolution or sidelining, neither the defense establishment nor the public seems to appreciate that disease threats are as serious to the country's security as are wars with our traditional enemies.[27]

Superseding that office, President Trump's Coronavirus Task Force took the lead in educating the general public on the COVID-19 pandemic. President Biden instituted a White House reorganization shortly after taking office, naming a Jeffrey Zients as his Coordinator of the COVID-19 Response and creating numerous interagency task forces.[28] Despite these bureaucratic reshufflings, the CDC was, and is, Washington's main source of detailed scientific information and guidance for the public health authorities, as well as the public, during the pandemic. Writing a major report for the *New York Times,* Eric Lipton and his colleagues observe:

> The CDC, long considered the world's premiere health agency, made early testing mistakes that contributed to a cascade of problems that persist today as the US tries to reopen. It failed to provide timely counts of infection and deaths, hindered by aging technology and a fractured public health reporting system. And it hesitated in absorbing the lessons of other countries, including the perils of silent carriers spreading the infection. The agency struggled to calibrate its own imperative to be cautious and the need to move fast as the coronavirus ravaged the country.... In communicating to the public, its leadership was barely visible, its stream of guidance was often slow, and its messages were sometimes confusing, sowing mistrust.[29]

When speed and clarity were required, instead Americans were too often treated to a CDC response that was sluggish, confusing, and sometimes erroneous. As investigative reporters for *USA Today* likewise concluded, the CDC was "paralyzed by bureaucracy, failed to consistently perform its basic job—giving public health authorities the guidance needed to save American lives during the pandemic.... Authorities in at least 13 states questioned CDC guidance that contradicted either scientific evidence or information put out by CDC itself, records show."[30]

To be fair, from the start of the pandemic, Washington's initial response was compromised by factors well beyond the control of federal officials. Most importantly, public health authorities in the United States and elsewhere did not understand the novel virus, the course of the disease, or the best clinical response to disease progression.

Initial Response. China, the source of the virus, was uncooperative in providing crucial information about the nature and origins of the virus. When COVID-19 originally surfaced as a public health problem in Wuhan, China (reportedly), in early January 2020, the World Health Organization (WHO) took note of its existence but on January 14 issued contradictory declarations, saying that there was "limited transmission" of the novel coronavirus between humans and then tweeting that it was not transmissible from human to human.[31] Six days later, on January 20, the United States recorded the first American COVID-19 case in Washington State. On January 27, President Trump created the White House Coronavirus Task Force; on January 30, the WHO declared a global public health emergency; on January 31, as noted, the Trump Administration declared a public health emergency and imposed a ban on travel from China.[32]

Meanwhile, the viral infection accelerated, but federal authorities were unaware of the extent of the spread, mainly because many of the carriers of COVID-19 were asymptomatic and the United States had not developed the crucial testing capacity to detect the degree of contagion. According to investigative reporters for *USA Today*, as of late February 2020, the CDC assured public health officials that the virus was "under control."[33] As Brookings scholars note, CDC officials also

> reassured state and local officials that testing capacity was adequate in late February, although it was reported that fewer than 500 tests had been conducted at that point. (The CDC's own count, which includes its own tests plus those of U.S. public health labs, put the total number of tests at the end of February at around 4,000.) Perversely, the failure to test at scale kept the publicly recognized number of cases low, which served as a justification for insisting that the existing testing regime was adequate.[34]

During this time, there was an exponential growth in COVID-19 caseloads. On March 11, 2020, the WHO declared a global pandemic. On March 13, President Trump declared a national emergency and, as noted, followed up with expanded travel bans, an invocation of the Defense Production Act to secure the procurement of medical supplies and equipment, accelerated approval of commercial testing for the virus, and encouraged Americans to follow social distancing and hygienic guidelines. Working with Congress, Trump signed the first of a series of COVID-19 relief bills, an $8.6 billion package. In March 2020, the prevailing view of the Trump Administration officials, influenced by leading career public health authorities, was that with the proper mitigation measures, the United States could "flatten the curve" and bring the virus under control. They were mistaken.

The CDC's Defective Test. The federal government's first major failure was in its inability to rapidly develop and deploy the diagnostic testing necessary to determine the extent of the infection. The reason: multiplicity of pre-existing and outdated rules regulations and guidelines imposed by the FDA, CDC, and CMS. CDC officials insisted that public health authorities use only CDC tests, and the CDC test was only to be administered by public health labs, thus excluding a whole universe of independent and academic institutions from using the tests, including the research team at Johns Hopkins University. Worse, the CDC test for COVID-19 was flawed and had to be recalled. As Brookings scholars have observed, "Nevertheless, for at least two weeks after the problem became clear, alternative paths to testing were either neglected or stymied by existing regulations."[35]

Compounding the initial CDC test failure was the FDA rule prohibiting the use of non-CDC tests, thus stopping Americans from getting diagnostic tests from independent laboratories, including from such reputable companies as Roche, a Swiss-based pharmaceutical giant.[36] The Trump Administration eliminated this outdated regulatory regime, jettisoning the overly restrictive CDC testing criteria on February 28 and junking the FDA restriction on independent diagnostic tests on February 29, 2020.[37]

America lost precious time. This initial federal regulatory bungling was the most serious federal government failure, and it inflicted severe damage on the nation's ability to respond rapidly to what was soon to be a deadly threat. As health care reporter Julie Scharper observed, "Without comprehensive testing, U.S. officials found it difficult to gauge the spread of the virus and identify carriers."[38]

Delay of Rapid At-Home Self-Testing. Even as the CDC has bungled its own testing regime in the pandemic's early days, it later resisted new testing approaches that might have mitigated a surge in cases that occurred during

the fall and winter of 2020–2021. One such strategy would have been to make at-home COVID-19 tests that yield rapid results broadly available without a prescription.

By allowing tens of millions of people per day to determine their COVID-19 status, rapid at-home tests could help reduce the contagion's spread.

Until March 2021, the FDA refused to approve these tests, even as U.S. manufacturers produced them for export to countries such as the United Kingdom, which distributes at-home tests free of charge to enable its populace to test themselves twice weekly.[39] The tests appear to be serving as a complement to vaccines. As of April 16, 2021, the U.K. was recording an average of 39 new cases per million people, far lower than its European neighbors France (597 per million), Italy (249), Germany (244) and Spain (182).[40] Deaths related to COVID-19 were 0.40 per million population in the U.K. Figures for other European countries ranged from five times that number (Spain, 2.0) to more than 16 times (Italy, 6.5).[41]

The FDA justified its inaction by noting that rapid, home-based tests—which detect antigens produced by the virus rather than the virus itself—are less sensitive than laboratory-based PCR tests. While rapid tests are more likely than PCR tests to return false negatives, that risk is more than offset by their volume (tens of millions of tests per day), frequency (people could test themselves multiple times), and immediacy (they return results in minutes rather than days).[42]

The FDA has recently begun to grant emergency use authorization for rapid, at-home tests. As of early April, the agency had greenlighted five at-home, over-the-counter, rapid testing products.[43]

It remains unclear how quickly the companies will be able to ramp up production. It will take an ample supply of tests to replicate or even approach the scale of the U.K. program. According to the Committee for a Responsible Federal Budget, Congress has appropriated $53.6 billion for COVID-19 testing, monitoring, and research and development.[44] As of April 24, 2021, $38.6 billion remained unallocated. The Administration should consider devoting at least some of those available funds to the purchase of rapid, at-home tests, as a supplement to vaccination efforts.[45]

Insufficient National Stockpile. The maintenance of a sufficient storehouse of emergency medical equipment and supplies is essential. Nonetheless, as Scharper also reports, federal officials ignored "decades" of warnings of public health experts that the Strategic National Stockpile was woefully short of these vital items, and thus the CDC was once again short of the material assets required to cope with a powerful pandemic.[46]

Gail Wilensky, senior fellow at Project Hope and former Medicare administrator, warns that "in planning for unknown future epidemics, federal pandemic-preparedness officials must decide what constitutes a prudent level of supply stockpiling, with an understanding of the inevitable trade-offs between perceived readiness and the cost of equipment and supplies that we hope never to use."[47]

Outdated CDC Data. Timely, sound, and accurate data are essential to an effective government response to the pandemic. The CDC is still failing on all counts.

The CDC has never established a real-time data collection system for public health reporting.[48] Doctors and state and local health agencies often transmit data to the CDC by phone or fax, antiquated arrangements that slow data collection and subject it to errors in transcription. Once collected, the CDC siloes the data across 100 separate reporting systems, complicating efforts by frontline medical workers to obtain the information they need to coordinate local responses.[49]

The CDC's data collection and dissemination system are so abysmal that private entities—most notably Johns Hopkins University and *The Atlantic*—established public-facing databases that, through most of the pandemic, became the source of much of what we know about COVID-19 cases, hospitalizations, and deaths.

The agency's failure is due to its refusal to implement multiple acts of Congress. These laws, dating to 2006, required it to implement a real-time data collection system that would make information available to clinicians and policymakers.[50] The Government Accountability Office has repeatedly taken the CDC to task for failing to implement data systems that the law requires.[51]

Ironically, the 2006 law directed the CDC to implement such a system precisely because it would be essential to an effective response to "potentially *catastrophic infectious disease outbreaks* and other public health emergencies that originate domestically or abroad."[52]

The law gave the CDC until 2008 to establish the system. When the pandemic struck in 2020, that system did not exist. It still does not—despite subsequent congressional mandates passed in 2013, 2019, and 2020.

The fragmentary and dated information the agency does collect is often not available to those who need it most. The CDC's reporting is, for the most part, a one-way street—from health care workers to public health officials, but not the other way. This failure adversely affects patients by denying clinicians access to clinical knowledge and best practices that would improve their capacity to provide better care.

The CDC's Confusing Guidance on Surface Transmission. Early in the pandemic, the CDC warned that SARS-CoV-2 was commonly transmitted from surfaces. That theory underlay advice on frequent hand-washing and warnings against face-touching, both of which are sensible whether or not there is a pandemic. It is also why public health authorities called on people to wear gloves during the pandemic's early weeks and months, a time during which public health officials discouraged mask-wearing.

The CDC's—ultimately flawed—theory was plausible initially. Officials worried that fomites—objects or materials thought to harbor the virus—were a significant infection vector. Scientists released studies measuring how long the coronavirus could "survive" on various surfaces. The CDC called for disinfecting surfaces in homes, helping create a long-running shortage of Clorox Wipes.[53]

The CDC learned early on that the risk of fomite infection was low but was reluctant to alter its advice on disinfecting surfaces. The agency threw a head feint on May 21, 2020. The *Washington Post* reported that the CDC had changed its guidance on the risks of contracting the disease from surfaces.[54] The story linked to a revised CDC publication that warned in large, bold-faced type that the virus "spread easily between people."[55] It also contained a similarly large and bold-faced heading stating that "the virus does not spread easily in other ways." Under this heading, the agency listed "touching surfaces and objects" along with transmission between people and animals.

The next day, NPR posted a story entitled, "CDC Advice on Spread of COVID-19 'Has Not Changed,' Agency Says." The account linked to the same URL as the *Washington Post*'s May 21 article, but the document on that site had changed. While it continued to say that surface transmission "is not thought to be the main way the virus spreads," the CDC removed the heading saying that "the virus does not spread easily in other ways." Instead, the newly revised document grouped surface spread under the heading "the virus may spread in other ways."[56] It also separated its guidance on surfaces from its assessment of the risk of transmission between people and animals, grouping the latter under the heading "spread between animals and people."

The agency's officials clearly thought the change was significant enough to modify the document a second time in the space of 24 hours. And they continued to advise the public to "routinely clean and disinfect frequently touched surfaces," despite being unable to establish that surface transmission was a major source of the pandemic's spread.

In April 2021, the CDC revised its scientific guidance on the subject.[57] Citing studies of "quantitative microbial risk assessments" that had been published months before, the agency declared that the "risk of SARS-CoV-2 infection via the fomite transmission route is low, and generally less than 1 in 10,000."

Nevertheless, the CDC's public-facing document continues to advise Americans to sterilize surfaces in their homes.[58] The September 2020 document, still extant as of June 24, 2021, casts its guidance on disinfecting surfaces in the home and public places in quasi-patriotic terms:

> This guidance is intended for all Americans, whether you own a business, run a school, or want to ensure the cleanliness and safety of your home. Reopening America requires all of us to move forward together by practicing social distancing and other daily habits to reduce our risk of exposure to the virus that causes COVID-19. Reopening the country also strongly relies on public health strategies, including increased testing of people for the virus, social distancing, isolation, and keeping track of how someone infected might have infected other people. This plan is part of the larger United States Government plan and focuses on cleaning and disinfecting public spaces, workplaces, businesses, schools, and can also be applied to your home.

This pattern of clinging to policies and guidances long after they have been shown to be misguided is a central characteristic of the government's public health communications regime. These public health officials have been reluctant to follow the science when it conflicted with their earlier pronouncements. They seem equally unwilling to admit error or acknowledge that they sometimes base their advice on unproven or disproven hypotheses, not conclusory scientific evidence.

CDC Guidance on Schools. School systems in many states discontinued or greatly restricted in-person instruction for lengthy periods. By the middle of March 2020, 22 states had enacted statewide K–12 closures, affecting 26.1 million students, or just less than half the school-aged population.[59] As of April 5, 2021, 12 states required in-person instruction to be available in all or some grades either full- or part-time, with most of the rest letting school boards decide whether to allow children to return to their classrooms.[60] Some of the nation's largest school districts still have not returned to five-day-per-week in-person instruction. Students in Los Angeles, the country's second largest school district, are not expected to fully reopen for in-person instruction until the fall.[61] The May 24 announcement by the Los Angeles School superintendent is consistent with an earlier statement

by California Governor Gavin Newsom, who said in April that he does not expect all schools in his state to implement a five-day in-person school week until the fall. He stopped short of saying whether he would mandate a statewide September reopening.[62]

The cognitive, social, medical, and emotional consequences of keeping millions of children out of classrooms for extended periods are severe. A November 2020 letter to the editor of the *Journal of the American Medical Association* noted:

> Mental health of children and adolescents undergoes a sudden stress test during quarantine that causes a complete, sudden, and unprepared loss of direct social relationships with peers, representing a significant human need and stimulus for well-being, socioemotional development, and self-identity in this age range. Direct social relationships are limited to family members, with increased risks of loneliness; especially in the absence of home outdoor spaces, school closure significantly increases the risks for (1) physical health; (2) addiction to video games and binge watching (clearly exceeding daily time limits of screen exposure indicated by pediatric guidelines); and (3) alteration of circadian rhythms.... Finally, school closure may have a profound effect on academic achievement, especially in the youngest children and in children of families with low socioeconomic status. If school closure will be confirmed for the remaining months and also summer camps will be impeded, the well-known summer learning gap will be amplified, especially for children of families at low socioeconomic status and for children with preexisting neurodevelopmental or mental health conditions of vulnerability. Families with low socioeconomic status have less available possibilities in terms of suitable places to do homework, electronic devices, internet access, and owned books; parents themselves in the case of low socioeconomic status, exemplified by the immigrant parent-child acculturation gap, may be less able to motivate and help them in this new experience of online schooling.[63]

The detrimental effects of such closures are long-term and fall most heavily on children from the poorest households. Francesco Antonelli of Yale University and his colleagues measured the "human capital deficit"—the extent to which school closures impaired children's cognitive and social development—and estimated that:

> At the end of high school, the average human capital deficit is about 12 percent, ranging from 5 percent in the most affluent communities to 30 percent in the poorest ones. These are large long-run differences in a society already troubled by dramatic gaps in opportunities.[64]

The CDC's recommendations on school closures have influenced decisions by governors, mayors, and school boards to limit in-person learning. Adhering to the agency's guidance that desks remain at least six feet apart creates difficulties in reopening classrooms, particularly to all students on a five-day-per-week basis.

After leaving the recommendation in place since early in the pandemic, the CDC abruptly rescinded it on March 19, 2021, saying that desks need only be separated by three feet rather than six.[65]

The agency's revised "science brief" on the subject did not cite a single classroom-based study that found desks should remain six feet apart.[66] It did, however, list numerous studies supporting the one-meter (three-feet) standard long favored by the WHO[67] and the American Academy of Pediatrics.[68] The agency brief omitted reference to a highly relevant study published in *Clinical Infectious Diseases* earlier in March that, based on a comprehensive review of scientific literature on classroom transmission, found "no significant difference in student or staff case rates between schools with ≥3 versus ≥6 feet of distancing with a large sample size."[69]

The CDC ultimately changed its policy but without admitting error, much less acknowledging the damage to which its earlier unsubstantiated pronouncement contributed. Its recommendation to space desks six feet apart was never scientifically supported by classroom studies. The CDC abandoned it only after a flood of evidence from around the world soundly refuted it.

Mixed Mask Messages. The value and effectiveness of masks in arresting the spread of infection has been a flash point throughout the COVID-19 crisis. Federal public health officials garbled their message in the early days of the pandemic, have not produced solid scientific evidence for the protective value of masks, and have overstated the value of government mask mandates in preventing waves of infections.

Federal officials undermined their credibility by at first downplaying the value of masks in reducing the risk of transmission then abruptly shifting to messages that exaggerate their importance. For example:

- On January 30, 2020, Dr. Nancy Messionier, director of the CDC's National Center for Immunization and Respiratory Disease, declared: "We don't routinely recommend the use of face masks by the public to prevent respiratory illness. And we are not recommending that at this time for this new virus."[70]

- Dr. Jerome Adams, then-Surgeon General of the United States, echoed Dr. Messionier's message when he tweeted in February 2020: "Seriously people- STOP BUYING MASKS! They are NOT effective in preventing general public from catching #Coronavirus."[71] Adams later reversed himself.

- Dr. Anthony Fauci, medical advisor to former President Trump and also President Biden, also discouraged the public from wearing masks in the pandemic's early days. And like Adams, Fauci later advocated fervently in favor of mask-wearing.

As with the separation of desks in classrooms, Dr. Fauci and others abruptly changed their positions without admitting error. Asked by *CBS News* reporter Nora O'Donnell whether he regretted at first opposing mask-wearing outside the clinical setting, Fauci said:

> No. I don't regret anything I said then because in the context of the time in which I said it, it was correct. We were told in our task force meetings that we have a serious problem with the lack of [personal protective equipment] and masks for the health providers who are putting themselves in harm's way every day to take care of sick people.[72]

It may be true that Dr. Fauci and other public health leaders initially recommended against widespread mask-wearing because they prioritized the health of frontline medical workers over the health of the broader public.[73] If so, it would have been reasonable for them to say at the time that while masks could help control the pathogen's spread, people should refrain from wearing them because those caring for the sick needed them more. Stories about the exposure of frontline workers to the disease were prominent at the time, and the shortage of personal protective equipment was widely reported.[74] However, their early declarations went much further, suggesting that masks would not be of value against the coronavirus.

Dr. Fauci and others may see no contradiction in their conflicting advice on masks, but it inarguably damaged their credibility with millions of people.

The Value of Masks. That credibility further eroded when public health officials began making improvident claims about masks that had no basis in science. Testifying before a U.S. Senate Committee in September 2020, then-CDC Director Robert Redfield declared masks to be "the most powerful public health tool."[75] Holding a face mask aloft, he added, "I might go as far as to say that this face mask is more guaranteed to protect me against COVID than when I take a COVID vaccine."[76]

The scientific evidence about the relative value of masks and vaccines does not support Dr. Redfield's declaration. Masks offer two possible benefits in inhibiting the spread of infection. The first is "source control"—the extent to which wearing a mask prevents an infected individual from spreading the virus. The second is "protection"—the extent to which wearing a mask protects an uninfected individual from contracting the virus.

The CDC first recommended the wearing of masks for source control in April 2020.[77] It has since cited studies showing that "[m]ulti-layer cloth masks can both block up to 50–70 percent of these fine droplets and particles and limit the forward spread of those that are not captured."[78]

The source control value of masks is well attested and comports with common sense. SARS-CoV-2 is a respiratory virus.[79] People transmit it by exhaling droplets and particles. Masks block some or most of those droplets and particles and shorten the distance they travel. Consequently, face coverings should make it less likely that a person with the disease will infect others.

Unlike with the protective value of masks, it would be unethical to test this hypothesis on a human population. Sending infected people—an experimental group wearing masks and a control group without them—into public spaces and comparing the number of people they infect would violate federal protocols on the protection of human subjects.

Thus, the source control value of masks rests on a combination of laboratory measurements, case studies, prudence, and common sense.

The CDC did not endorse the protective value of masks until November 2020. In its "science brief," providing background on its revised recommendations, the CDC cites several studies that it says "demonstrate that cloth mask materials can also reduce wearers' exposure to infectious droplets through filtration."[80]

These laboratory studies generally test how well various fabrics work in filtering out droplets and particles. They are not controlled experiments and do not test whether masks protect people against infection in real-world settings. In that sense, they are similar to studies on fomites, which showed how long they could survive on various surfaces but did not support conclusions that they were a significant vector of infection.

The effectiveness of masks to prevent COVID-19 transmission is not supported by a review of the professional literature.[81] There has been just one controlled study that tested whether masks protect uninfected people against COVID-19.[82] The Danish study, conducted during the spring of 2020, included 6,000 participants. The control group did not wear masks; the experimental group did. All were instructed to spend at least three hours

daily outside the home and observe social distancing guidelines. Participants were tested for COVID-19 over a one-month period. The study found no statistically significant difference in infection rates between those who wore masks and those who did not.

The *Annals of Internal Medicine* originally posted the study, which concluded that masks do not protect uninfected people against COVID-19 on November 18, 2020, two days before the CDC announced that masks do offer such protection.[83] The agency's science brief did not mention the study.[84]

Public health officials' mixed messages over masks have carried over from the Trump Administration into the Biden Administration.[85] The CDC continues to say that masks have protective value, although the findings of the only controlled study on the subject conflict with this recommendation.[86] In April 2021, the CDC released new mask guidelines for vaccinated and unvaccinated persons, specifying indoor and outdoor use, which have generated further confusion.[87]

Mask Mandates. In addition to endorsing the value of mask-wearing in reducing transmission of the pathogen, the CDC has supported mask mandates, government requirements that individuals wear masks when outside their homes.

The value of these mandates is of some dispute. A November 2020 CDC study concluded that Kansas's mandates "appear to have contributed to the mitigation of COVID-19 transmission in mandated counties."[88]

In an erratum published January 1, 2021, the CDC acknowledged that its study did not reflect updates to the data.[89] The agency did not, however, acknowledge that the updated data affected the CDC's conclusion that mandates helped mitigate the spread of COVID-19. Heritage Foundation authors Norbert Michel and Kevin Dayaratna write:

> Closer examination shows that *this conclusion is incorrect* because the authors used data available from USAFacts.org that was later updated. In other words, the updated version of the data does not show that the COVID-19 incidence trend reversed in the counties with mask mandates.[90]

Extending their analysis into November, Michel and Dayaratna found sharp increases in COVID-19 cases both in counties that had mask mandates and those that did not. That increase was especially high from mid-October through mid-November.

Kansas counties with mask mandates experienced larger increases in new cases than those without mask mandates.[91]

These findings are broadly consistent with well-documented patterns: Mask mandates have not withstood waves of infection either in the U.S. or in other countries that have imposed them.[92] Cases have surged in cities, counties, states, and countries that have imposed mask mandates as well as in those that have not.

This does not suggest that mask-wearing is without value. As elsewhere noted, masks appear to reduce the risk that people who do not know they are infected will transmit the disease to others, providing a public health benefit that involves relatively little social cost.

State Lockdowns and the Politicization of the Pandemic

The COVID-19 pandemic was the first time in American history that public officials have responded to a virus with such a comprehensive lockdown of the social and economic life of their citizens.

Even during the horrific 1918 flu—which disproportionately impacted young adults and claimed 675,000 American lives—public health authorities, without the benefit of vaccines or antibiotics, did not resort to the kinds of comprehensive lockdowns that became a costly feature of the COVID-19 pandemic. According to John Barry, the 1918 pandemic's most prominent historian, "There were no general lockdowns, the way we have today. Most cities closed saloons, theaters, places of public gathering, but no general closing."[93]

By March 2020, it was evident that the early bungling by federal health officials had contributed to a public health crisis. On March 16, 2020, President Trump called on the country to engage in a 15-day effort to slow the contagion's spread.[94] The CDC urged the elderly and those with chronic medical conditions to remain at home, encouraged remote work and learning, and warned against frequenting public places and gathering in groups of more than 10. By the end of the 15 days on March 30, 29 states and the District of Columbia had instituted lockdown orders.[95]

On March 29, Trump called on the nation to curtail activities for an additional 30 days.[96] By early April, all but seven states and the District of Columbia had issued lockdown orders.[97]

The rationale behind the Trump Administration guidelines and the state orders was to "flatten the curve" or slow the disease's rate of spread. Lockdowns were viewed as temporary measures and were at first characterized by senior public health officials as being successful.

Dr. Deborah Birx, who at the time served as coordinator of the White House Coronavirus Task Force, and Dr. Anthony Fauci of the National Institutes of Health said on April 8 that Americans had begun to flatten the curve:

> I think what has been so remarkable to those of us who have been in the fields for so long is how important behavioral change is and how amazing Americans are adapting to the behavioral changes and that is what is changing the cases and that is what will change the mortality going forward.[98]

The policy disrupted society and "flattened" the national economy. In April 2020, the national unemployment rate skyrocketed to a stunning 14.7 percent.[99] State lockdowns have disproportionately affected low-income and minority workers and minority businesses: 40 percent of low-income workers lost their jobs, and 32 percent of Hispanic businesses and 41 percent of black businesses were closed.[100] But what began as a time-limited expedient intended to reduce burdens on hospitals and contain the pandemic was recast as ways to achieve a new, different goal. Lockdowns were no longer viewed as temporary measures but as longer-term restrictions that would be tightened and relaxed but not entirely removed. As Dr. Scott Atlas, senior fellow at the Hoover Institution at Stanford University and former White House advisor, has observed, "Almost every state and major city in the US, with a handful of exceptions, have implemented severe restrictions for many months, including closures of businesses and in-person schools, mobility restrictions and curfews, quarantines, limits on group gatherings, and mask mandates dating back to at least last summer."[101]

By May 6, governors in 16 states had either withdrawn their orders or allowed them to lapse. By early June, only eight states and the District of Columbia still had lockdown orders in effect.[102] States, however, differed in their approaches. While some reopened schools and businesses and permitted in-person dining, others kept some restrictions in place, and many imposed mask mandates.

Politicization. That division among states carried a strong political tinge, with Republican governors, especially Florida's Ron DeSantis (R), portrayed as Trump allies who put their populace at risk by rejecting science.[103] They were unfavorably compared to their blue state counterparts, particularly New York Governor Andrew Cuomo (D) and California Governor Gavin Newsom (D), whose long-term restrictions, school closures, mask mandates, and shuttering of public places closely aligned with the views of federal public health officials.

A portion of the public began to regard these officials' increasingly dire warnings against reopening in partisan terms. Many rejected these warnings and their seeming indifference to the human consequences of social isolation, school closures, business failures, and lost jobs. Supporters of lockdowns saw their critics as "anti-science" and believed that they were putting the country at risk of mounting infections, hospitalizations and deaths.

Actions by state and local governments largely aligned with the prevailing political views of their respective constituencies. Stringent restrictions, occasionally relaxed and then reinstated, were common in "blue" states and cities, while "red" states and localities tended to embrace more permissive policies.

Federalism may have facilitated this divergence, but its cause lay in the failure of public health officials to articulate and defend a coherent strategy.

Did States That Followed CDC Guidelines Fare Better Than Those That Did Not?

The *JAMA Forum* researchers, as noted in the introduction, editorialized that America's federalist response was inherently deficient. The authors assume the country would have been better off with a centrally imposed response to the pandemic. According to this line of argument, if the federal government theoretically had the power to compel every state in the Union to adopt policies that California and New York did, the medical and economic consequences of the pandemic would have been less severe.

In point of fact, federalism permits a natural experiment to test this hypothesis. We can reasonably ask whether states that most closely adhered to the recommendations of federal public health officials had fewer COVID-19 cases and deaths. We can also ask whether those states suffered worse economic outcomes than did states that adopted less restrictive policies.

A high-level review of pandemic and economic outcomes in the four largest states (California, Texas, Florida, and New York)—two of which deviated from the policies recommended by federal health officials and two of which most closely followed them—offers one way of testing how different states that took divergent approaches to the pandemic fared.

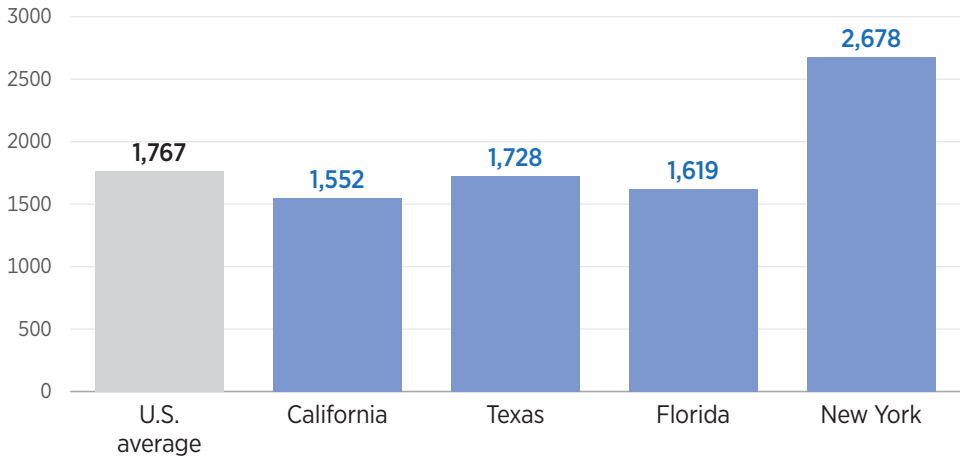
Chart 1 compares the number of deaths related to COVID-19 per million population, as of April 23, 2021, among the four states and the U.S. average.[104]

As the chart shows, although California has the lowest rate, both Florida and Texas are below the national average and well below the COVID-19 mortality rate reported for New York. Florida's rate, for example, is only about 4 percent higher than California's; New York's rate is 65 percent higher than Florida's.

Florida's performance is quite remarkable given the makeup of its population. As of April 21, 2021, the CDC reported a total of 551,728 deaths linked to COVID-19. Of those, more than 80 percent were among people ages 65 and older. In 2018, Florida had the second-highest proportion of people in this age demographic among all 50 states. Proportionately, Florida's senior population is 43 percent higher than that of California. Yet in a disease that causes death predominantly among those over 65, Florida's death rate is, as noted above, only 4.3 percent higher than California's.

CHART 1

COVID–19-Related Deaths per Million Population



SOURCE: Worldometer, https://www.worldometers.info/coronavirus/country/us/ (accessed April 23, 2021).

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Economic indicators offer another way to compare the impact of adherence to federal public health guidelines. Chart 2 assesses the economic performance of the four states as measured by changes in gross domestic product (GDP).

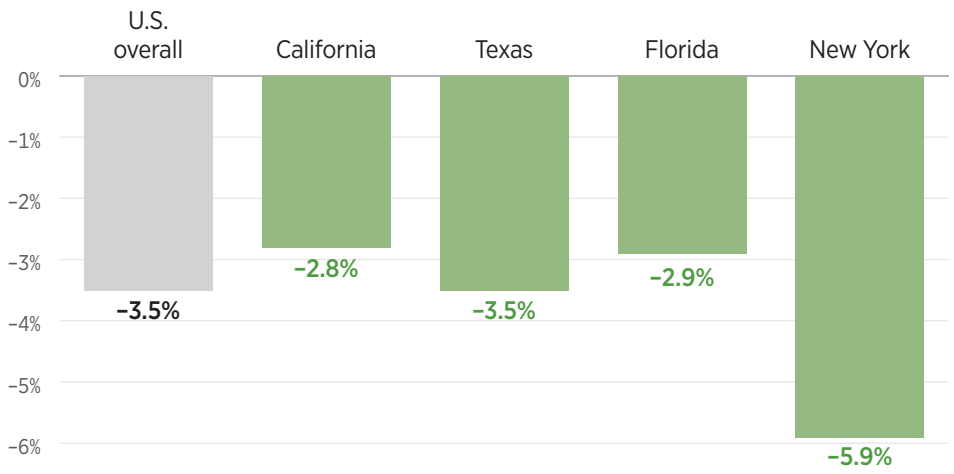
As the chart shows, seasonally adjusted real GDP contracted by 3.5 percent from 2019 to 2020. As with deaths per million population, California and Florida outperformed the national average and had relatively equivalent results. Texas tracked with the national average, while New York suffered far more severe economic contraction.

The fact that California and Florida experienced downturns of roughly equal size is in part due to the differing nature of their economies. Florida outperformed California in 12 of the 21 GDP components measured by the Bureau of Economic Analysis. The most consequential differences were in two areas that reflect structural differences between the states' respective economies: accommodation/food services and information.

The biggest drag on Florida's economy by far was in the area of accommodation and food services, which shrank by 0.99 points between 2019 and 2020, accounting for more than one-third of its overall 2.9 percent GDP reduction. Florida's economy relies heavily on national and international tourism. That industry, which depends on the policies set by other states and countries at least as much as it does on the host state, delivered the most substantial blow to Florida's economy.

CHART 2

Change in Real GDP, 2019–2020



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California, by contrast, was buoyed by continued growth in the information industry, seeing a 0.40 percent growth, compared with Florida's 0.08 percent contraction. That industry was one of five GDP components that improved in California between 2019 and 2020 and was by far the state's best performer.

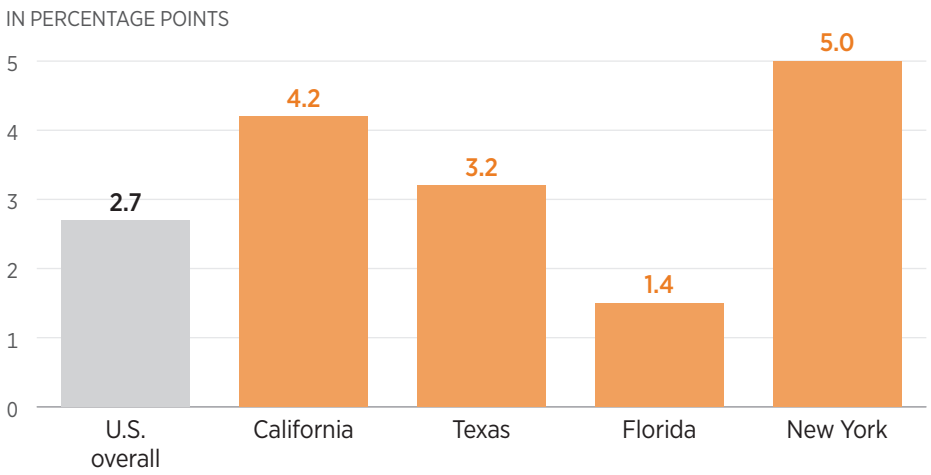
In short, growth in California's information industry dampened the effect of lockdowns and school closures on the state's economy. That single component and the downturn in Florida's tourist industry best explains why the two states experienced contractions of similar size.

While GDP provides an economic snapshot, other indicators are relevant to this comparison among the four states. One such indicator is the unemployment rate. Chart 3 compares the unemployment rate in February 2020, the month before lockdowns began, and February 2021.

Here, the contrast between the two states that implemented CDC guidelines and the two that departed from those guidelines is most pronounced. At the two extremes, Florida's unemployment rate rose by just 1.4 percent between February 2020 and February 2021, while New York's increased by 5.0 percent. California also saw a significant increase (4.2 percent), while Texas's rise in joblessness was smaller, though still worse than the national average.

CHART 3

Change in Unemployment Rate, Feb. 2020–Feb. 2021



SOURCE: U.S. Bureau of Labor Statistics, news release, "State Employment and Unemployment (Monthly) News Release," March 26, 2021, https://www.bls.gov/news.release/archives/laus_03262021.htm (accessed May 3, 2021).

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California's unemployment rate nearly doubled over that period (4.3 percent to 8.5 percent), and New York's rose by 128 percent (3.9 percent to 8.9 percent). Texas unemployment rose from 3.7 percent to 6.9 percent, while Florida saw the most modest rise (3.3 percent to 4.7 percent).

In February 2021, New York and California logged the second- and third-highest unemployment rates among the 50 states and the District of Columbia, outperforming only Hawaii. Thus, whether measured in relative or absolute terms, joblessness in New York and California was far worse than the national average and among the worst in the nation.

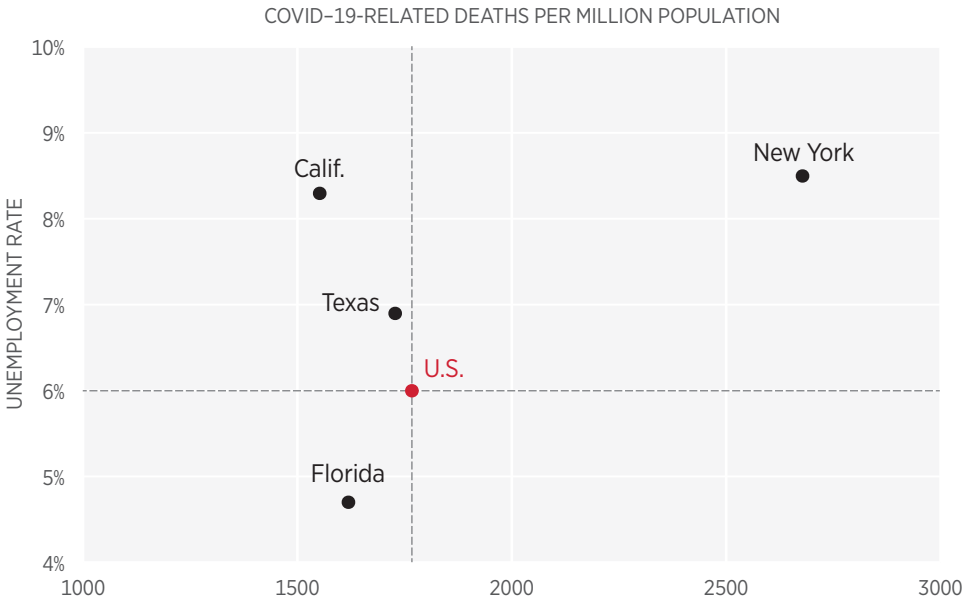
One way to compare the public health and economic outcomes on a single map is to display COVID-19-related deaths per million in the four states along with their unemployment rates. Chart 4 presents that comparison.

The horizontal axis (x-axis) shows COVID-19-related deaths per million population. The vertical line near the middle of the chart shows the national average as of April 23, 2021 (1,767 deaths per million population). The vertical axis (y-axis) shows the unemployment rate in February 2021. The horizontal line shows the national unemployment rate in that month (6.2 percent).

Of the four states, three lie to the left of the vertical line, indicating that their deaths associated with COVID-19 per million residents are below the national average. Florida and Texas, as discussed above, deviated

CHART 4

COVID–19-Related Deaths per Million Population and Unemployment Rate



SOURCES: Worldometer, https://www.worldometers.info/coronavirus/country/us/ (accessed April 23, 2021), and U.S. Bureau of Labor Statistics, news release, "State Employment and Unemployment (Monthly) News Release," March 26, 2021, https://www.bls.gov/news.release/archives/laus_03262021.htm (accessed May 3, 2021).

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significantly from the advice of federal public health experts. New York lies to the right of that axis, showing that its COVID-19-related deaths per million population exceeded the national average.

Only one of the four states—Florida—recorded a February 2021 unemployment rate that was below the national average. Florida and Texas performed best of the four states, with joblessness in New York and California performing far worse than the national average.

Overall, Florida was the only state in the quadrant on the lower left, indicating that it had the best combined performance on COVID-19-related deaths and unemployment rates. New York was the worst performer in both categories, as shown by its place in the quadrant on the upper right.

Thus, in the four largest states, those that adhered most closely to federal public health guidelines did not significantly mitigate public health outcomes but did experience worse economic outcomes, at least according to

these metrics. Far from yielding superior results, close adherence to federal public health recommendations appears to have resulted in poorer health and economic outcomes among the four states examined.

Conclusion

Never has a major public health crisis been politicized as much as public officials' response to COVID-19. This was profoundly regrettable and a disservice to the country. While it is true that initial responses to the pandemic were based on incomplete information or data that were not initially available, it is also true that policies were maintained even after the alleged scientific basis for them had eroded.

The flashpoints of controversy have ranged from the efficacy of masks, therapeutics and vaccines to business, and school closures and comprehensive lockdowns. For over a year, public health officials at every level of government have compiled a public record. Large and diverse states such as California, Florida, New York, and Texas provide empirical data on their performance coping with the pandemic, protecting public health, and mitigating its social and economic consequences.

The evidence is available and accumulating; the consequences of policy are increasingly clear. As the novel coronavirus pandemic subsides, there should be a calm and bipartisan assessment of public officials' performance: what went right, what went wrong, and what changes can be made that will enable Americans to do better when confronted with the next pandemic.

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experimental group, The blog post's author, James M. Brophy, a professor of medicine and epidemiology at McGill University, argues against statistical methodology that relies on null hypothesis significance testing. Applying Bayesian analysis to the Danish data, Brophy finds "an 81% probability of fewer infections among those encouraged to wear a mask and a 35% probability that mask wearers will avoid more than five infections per one thousand individuals." Brophy believes that his probabilistic assessment means that his findings are "good enough" to support mask mandates. "While the current evidence is imperfect, it appears 'good enough' to make policy decisions today, given the absence of any severe downside to the intervention.... In decision theory terms, the expected value of perfect information for mask effectiveness may be sufficiently low that further research into this intervention is perhaps not worth the extra value returned." James M. Brophy, "COVID-19: Controversial Trial May Actually Show That Masks Protect the Wearer," The BMJ Opinion, November 24, 2020, https://blogs.bmj.com/bmj/2020/11/24/covid-19-controversial-trial-may-actually-show-that-masks-protect-the-wearer/ (accessed April 24, 2021).

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