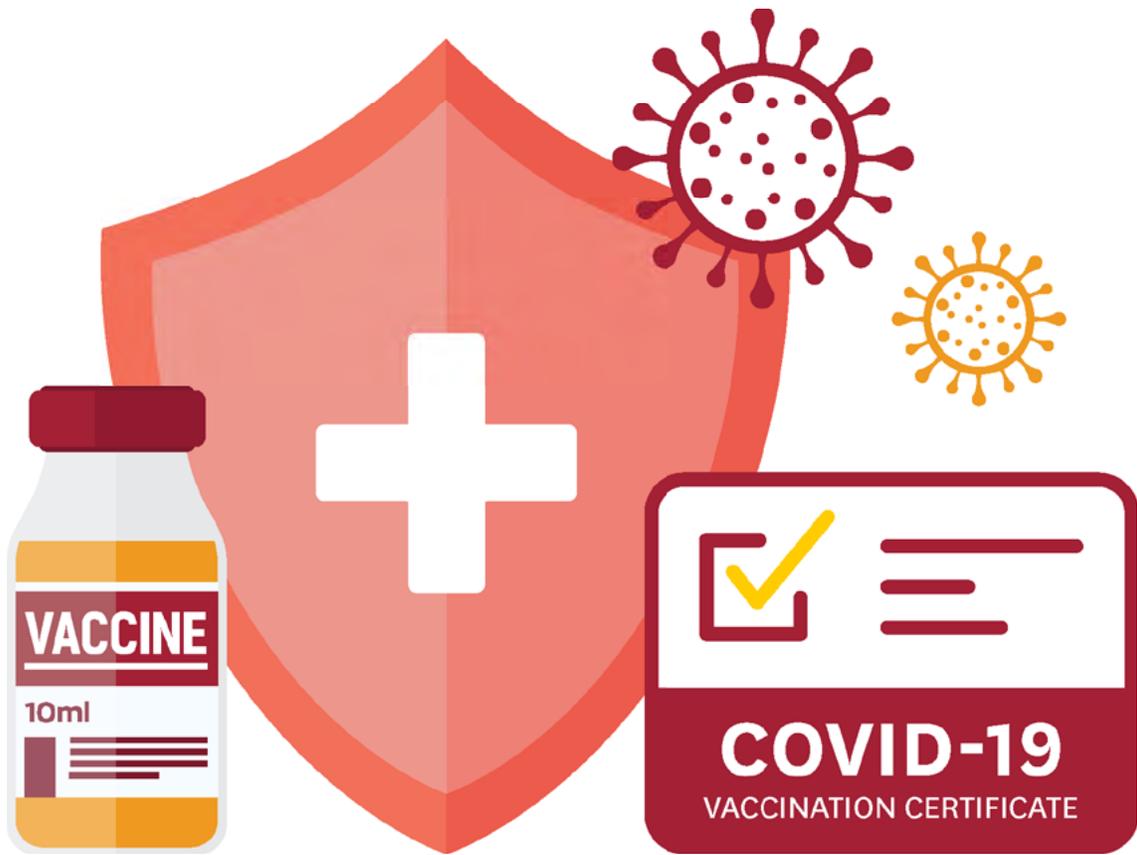


COVID-19 Vaccination Mandates for School and Work Are Sound Public Policy



Karen Mulligan
Jeffrey E. Harris

USC Schaeffer
Leonard D. Schaeffer Center
for Health Policy & Economics

AUTHOR AFFILIATIONS

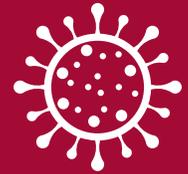
Karen Mulligan is a Fellow at the USC Schaeffer Center and a Research Assistant Professor at the USC Price School of Public Policy.

Jeffrey E. Harris MD PhD is a physician at Eisner Health, a federally qualified community health center in Los Angeles. He is also Professor of Economics Emeritus at the Massachusetts Institute of Technology

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KEY TAKEAWAYS

- Vaccine mandates for employees are emerging as the most feasible and effective policy to reduce the risk of disastrous COVID-19 outbreaks in the workplace.
- Higher education and healthcare are leading the way in vaccine mandates, while other sectors are beginning to follow their lead.
- State laws barring vaccine mandates will become increasingly unenforceable as they come into conflict with private employer initiatives to protect workers and consumers.
- Concerns that verification of vaccination status is unworkable or that the Food and Drug Administration has approved COVID-19 vaccines only on an emergency basis will prove to be overblown.
- While a clearly articulated, unified federal policy on vaccine mandates remains lacking, independent agencies such as the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, and the Centers for Disease Control have already begun to step into the void.

ABSTRACT

In the absence of clearly articulated federal and state policies, private employers have had to adopt their own vaccination policies to reduce the risk of a disastrous COVID-19 outbreak among returning workers. Higher education and healthcare have led the way in establishing vaccination mandates for students and employees, and there are strong indications that other sectors will follow suit. This trend is reinforced by the emergence of markets for vaccination-only services, as well as market-based approaches to vaccination verification. While workplace vaccine mandates have already proved feasible and effective, the alternative of mixing unmasked vaccinated with masked unvaccinated workers remains untested. State laws that prohibit vaccination mandates will prove unenforceable as they increasingly conflict with the policies of large private employers. Vaccine mandates are not only inevitable, but they are sound public policy. The federal government can play an important role in endorsing workplace mandates while protecting the most vulnerable and reducing disparities in disease burden.

INTRODUCTION

The worldwide COVID-19 epidemic will not be contained in the near future. Increasingly contagious variants of SARS-CoV-2 are already prevalent throughout the United States, and still other potent variants will continue to emerge.¹⁻³ Even though two-thirds of the U.S. adult population has received at least one vaccine dose, vaccination rates remain highly variable across and within states.⁴⁻⁶ Cumulative vaccination rates will continue to level off as the supply of vaccines begins to surpass remaining demand.⁷ After declining precipitously, the incidence of new COVID-19 cases has now plateaued and even increased in some states.⁸ The risks for unvaccinated people appear to be increasing,⁹ and new outbreaks continue to be reported.^{10,11}

Under these conditions, the foreseeable risk of an outbreak at a college campus with in-person learning or a worksite with on-site employees remains ever-present and substantial. Such an outbreak would prove disastrous for an educational institution or a business firm, and could have significant negative spillover effects on surrounding communities.¹² When it comes to hospitals, clinics, long-term-care facilities and other healthcare providers, the risk that an infected employee, patient or visitor could in turn cause an outbreak among vulnerable patients is simply too great to bear.

Workplace and college vaccination policies can play an important role in reducing the risks of future outbreaks. While some federal agencies have recently issued their own guidelines on employee vaccinations, the Biden administration has yet to adopt a unified position and, in fact, has announced that it will not track vaccinations at the federal level or require a uniform vaccination credential.¹³ Nor have state governments readily stepped in to fill the void. This vacuum in clearly articulated federal and state policies has left college and university presidents, healthcare administrators, company CEOs and small business owners with an enormous economic incentive to create their own mechanisms to prevent outbreaks. At present, private-sector workplace policies range from strict vaccination mandates to mask requirements and other safety precautions for unvaccinated employees. As we see it, the economic forces of supply and demand increasingly point to vaccine mandates as the dominant — and, in fact, the preferred — workplace policy option.

HIGHER EDUCATION AND HEALTHCARE LEAD THE WAY FOR VACCINE MANDATES

The trend in vaccine mandates among colleges and universities, healthcare providers and private employers is already unmistakable. The *Chronicle of Higher Education* has thus far identified over 500 campuses nationwide that will require vaccination by at

least some students or employees.¹⁴ The list includes Yale,¹⁵ Harvard,¹⁶ MIT,¹⁷ USC,¹⁸ Duke,¹⁹ Tulane,²⁰ George Mason,²¹ Stanford,²² NYU,²³ Vanderbilt,²⁴ and Notre Dame,²⁵ to name but a few. Some, like Caltech²⁶ and Georgetown,²⁷ have imposed mandates only on students. Bowdoin College will require vaccinations for both students and employees, but with additional religious exemptions for employees.²⁸ The American College Health Association has recommended COVID-19 vaccination requirements for all on-campus college students this fall.²⁹

Large healthcare systems have likewise begun to impose similar requirements for employees. At Houston Methodist, employees who failed to comply have been threatened with suspension and termination,^{30,31} and one hospital executive was in fact terminated.³² While some employees protested and even filed an unsuccessful lawsuit,^{33,34} Houston Methodist's mandate has proved highly effective. Out of more than 25,000 employees, 96.9 percent have been fully vaccinated, 2.4 percent have received a medical or religious exemption or a deferral for pregnancy, and only 0.7 percent have refused vaccination and were suspended. Of those suspended, more than a few have already received their first vaccine dose.³⁵

Nor is Houston Methodist alone. Penn Medicine,³⁶ the largest private employer in Philadelphia, RWJ Barnabas healthcare system, operating in nine New Jersey counties, and New York-Presbyterian hospital system, with 48,000 employees,³⁷ have likewise instituted employee vaccine mandates.³⁸ Member hospitals of the District of Columbia Hospital Association³⁹ and the Maryland Hospital Association⁴⁰ have similarly called for mandatory employee vaccination. Mass General Brigham will require all of its 80,000 employees to be vaccinated once the Food and Drug Administration (FDA) fully approves one of the three vaccines currently approved under emergency use authorization.⁴¹

Quite apart from the protests at Houston Methodist, evidence shows that some healthcare workers may oppose vaccine mandates at their workplace. A survey in the field in late February and early March reported that roughly 40 percent of all healthcare workers remained unvaccinated.⁴² And while a June survey found that only 4 percent of practicing physicians had been not been fully vaccinated, vaccination rates among hospital employees are still highly variable.^{43,44} Still, the drive to achieve near universal vaccination will come from healthcare management, which has an overwhelming interest in protecting patients and instilling confidence on the part of their families.

These decisions by educational and healthcare institutions serve as a guidepost for the remainder of the private economy. But they are also sound, well-established policy choices. Precedent already exists for mandatory vaccinations against

other infectious diseases in some settings. Many states already have flu-shot requirements for hospital employees.⁴⁵ Meningitis and hepatitis B vaccination are already required for at least some university students.^{46,47}

THE GROWING IMPETUS FOR EMPLOYEE MANDATES WILL COME FROM MANAGEMENT

Requirements for employees to be vaccinated or show proof of vaccination are gradually gathering momentum in other sectors. In the airline industry, Delta Air Lines has required new hires to be vaccinated.⁴⁸ In the financial sector, Morgan Stanley will bar unvaccinated employees and clients from its New York office,⁴⁹ while Goldman Sachs recently sent out a memo informing employees that they must promptly report their vaccination status.⁵⁰ In a recent survey of 1,339 company facilities in 24 industries conducted in March 2021 as part of the Arizona State University Workplace Commons, 88 percent of employers planned to require or encourage their employees to be vaccinated against COVID-19, of whom 60 percent said they will require employees to demonstrate proof of vaccination.⁵¹ While one recent survey found that only a bare majority of Americans supported proof of vaccination as a requirement for returning to work,⁵² the growing impetus for employee mandates will once again come from management.

The momentum for vaccine mandates is likewise growing in the public sector, particularly in municipal governments. San Francisco will require its employees to be vaccinated once the FDA grants full approval to currently authorized vaccines.⁵³ After the *Los Angeles Times* reported that only about half of the city's police officers and firefighters were vaccinated,⁵⁴ the Police Commission asked the LAPD to report back on the feasibility and legality of a vaccine mandate for officers and alternative work assignments for unvaccinated personnel.⁵⁵

INDEPENDENT FEDERAL AGENCIES ARE STEPPING IN

While some federal agencies have issued only guidelines rather than promulgated strict rules, they have nonetheless set new standards that are already being followed by the private sector. The U.S. Equal Employment Opportunity Commission (EEOC), in particular, has acknowledged that employers can require employees to be vaccinated subject to reasonable accommodations for medical contraindications or sincerely held religious beliefs.⁵⁶

The U.S. Centers for Disease Control and Prevention (CDC) has issued numerous guidelines for workplaces and businesses, including specific industries such as restaurants and bars, food services, and transportation. Taking a cue from the CDC, the administration's Safer Federal Workforce advisory committee

recently noted, "When an employee or contractor voluntarily discloses that they are unvaccinated or declines to provide vaccination information, agencies should use that information to implement CDC-recommended mitigation measures, including masking and physical distancing."⁵⁷ Following the same tack, a joint memo from the Office of Management and Budget, the Office of Personnel Management, and General Services Administration has added, "Agencies may establish occupancy limits for specific workplaces as a means of ensuring physical distancing between unvaccinated individuals."⁵⁸

The Occupational Safety and Health Administration (OSHA) recently issued an emergency temporary standard for healthcare facilities.^{59, 60} Under the standard, fully vaccinated healthcare workers will not be required to wear masks or practice social distancing. While the rule at present applies narrowly to healthcare facilities, it is anticipated that the U.S. Department of Labor, which has jurisdiction over OSHA, will issue updated guidelines for other facilities with an increased risk of transmission, such as meat-packing plants, correctional institutions, grocery stores and high-volume retail locations.⁶¹ The acting head of OSHA has clarified that the agency will still exercise its power through its so-called general duty clause to enforce protections for workers in other industries.⁶² The agency has issued an additional guidance that removes enforcement of adverse reaction reporting for required COVID-19 vaccines to avoid discouraging employees from being vaccinated or disincentivizing employers' vaccination efforts.^{63, 64}

SOME FIRMS HAVE ADOPTED ALTERNATIVE POLICIES

Responding to these agency guidelines, some companies have adopted alternative solutions that permit employees to remain unvaccinated so long as they adhere to restrictions aimed at reducing the risk of outbreaks.

Amazon, for example, has removed mask requirements at their warehouses only for vaccinated employees. The company will enforce the policy through monitoring employee vaccination status on an internal portal.⁶⁵ Walmart will likewise allow vaccinated employees to go without masks, and has offered \$75 to field associates to get vaccinated.⁶⁶ Target and Costco will no longer require face masks for vaccinated customers as well as employees.^{67, 68}

In principle, these alternative policies may prove adequate to ensure workplace safety. Controlling the risk of an outbreak does not necessarily require that 100 percent of employees be vaccinated. And it is possible that these alternative workplace policies will ultimately provide a strong incentive for unvaccinated employees to get vaccinated. Still, in practice,

these alternative policies remain untested. We do not have evidence on the stability of mixed teams of masked unvaccinated and unmasked vaccinated workers. Unless all employees are required to offer proof of vaccination status, we do not know whether workers will feel confident about their coworkers' self-reports. As data on the relative effectiveness of workplace mandates and alternative policies evolve, organizations can shift their policies. And workers can switch jobs if their preferred COVID workplace policy does not align with that of their current employer.

Whether an employer adopts a vaccination mandate or an alternative policy that allows some employees to remain unvaccinated, employers will need to reduce the barriers to getting vaccinated. That means offering paid time off for employees to get vaccinated and, if needed, paid sick leave for side effects following vaccination. To that end, Amazon has already launched on-site COVID-19 vaccination clinics in several of its warehouses.⁶⁹

MARKET DEMAND IS EMERGING FOR VACCINATION-ONLY SERVICES

At present, the degree of support for vaccination requirements for consumers varies considerably with the setting. For example, support for vaccination requirements to shop in a grocery store or dine indoors is relatively low (43% and 47%, respectively) compared with support for requirements to vacation at a hotel, resort or on a cruise ship (61%) or travel on an airplane (65%).⁵² Current surveys of consumer preferences, however, are static snapshots that don't necessarily reveal emerging trends. That the social media network Tinder has now included vaccination status as an attribute in one's dating profile is a harbinger of things to come.⁷⁰ So is the fact that Evite and Paperless Post have noted a growing number of hosts requesting that their guests be vaccinated.⁷¹

With well over 100 million individuals already vaccinated, we are already seeing evidence of an emerging market demand for vaccinated-only sections in sports and entertainment venues — the LA Dodgers have already gone this route⁷² — as well as vaccinated-only gyms,⁷¹ sections of restaurants⁷³ and waiting areas for a wide array of personal services. Bruce Springsteen's upcoming concert series in New York City will admit adults aged 16 or more only if they present proof of having been fully vaccinated by a vaccine approved by the FDA.^{74, 75}

Even though a vaccinated person's overall risk of contracting COVID-19 is now considered to be low, the inability to identify others' vaccination status has left many wary of resuming such routine activities as in-person grocery shopping or dining out in restaurants.⁷⁶ This concern may be further enhanced when their children or other family members remain

unvaccinated or when some family members remain vulnerable due to chronic illness or immunocompromise. People may have a strong preference for limiting their activities to businesses that actively verify vaccination status, or at least enforce mask wearing and social distancing for their unvaccinated clientele. The same applies to workers in customer-facing jobs when they are uncertain of the vaccination status of their clientele.

Nor is there any stopping the emergence of life insurance policies with discounts for vaccinated individuals. This is exactly what happened in the case of premium discounts on life insurance for nonsmokers. In the case of life insurance for nonsmokers, political efforts to restrict this form of price discrimination met the unstopable force of market demand.⁷⁷ And although we do not know the relative risk to mortality of being unvaccinated compared with smoking, the same has the potential to happen with insurance policies for the vaccinated.

VERIFICATION OF VACCINATION STATUS IS NOT A SERIOUS OBSTACLE

Vaccination status, it might be contended, is not readily verifiable. Age requirements to purchase alcoholic beverages require a state-issued ID that uses advanced technology to screen out forgeries. And state governments, in turn, may have no political appetite for entering into the vaccination verification business.

These arguments overstate their case. Fulfilment of immunization requirements for school and work are already being certified by healthcare providers in the private sector. Some states have created vaccination databases, which allow individuals to verify their vaccination status.⁷⁸ Individuals vaccinated at CVS or Walgreens can obtain proof of vaccination through their apps or online.⁷⁹ There will be a strong incentive for private entry into the vaccination verification market, just as there are private firms currently verifying credit scores. Work in this area is already being undertaken by the MIT Media Lab,⁸⁰ IBM⁸¹ and other private firms.

CONTRARY STATE LAWS WILL LIKELY FADE AWAY

Legislation barring vaccine mandates has been signed by state governors in Alabama,^{82, 83} Arkansas,⁸⁴ Florida,^{85, 86} Texas^{87, 88} and Montana.⁸⁹ Similar executive orders have been signed by governors in several states, including Georgia,⁹⁰ Idaho,⁹¹ Arizona^{92, 93} and Florida.⁹⁴ Comparable legislation has been filed in most other state legislatures.⁹⁵ In some instances, the cited rationale is the prevention of discrimination against the unvaccinated.

This panoply of state-based interventions may appear to create the impression of enormous ongoing resistance.⁹⁶ But

these initiatives will likely fade under the pressure of the forces of market supply and demand. Governors and state legislatures may be able to temporarily retard the implementation of vaccine mandates in state and local governmental agencies and public universities. But in the long run, they will likely not want to interfere with large, powerful employers in the private sector.

Indeed, most of the state-based actions to date shy away from confrontation with the private sector. The executive orders in Idaho and Georgia are restricted only to state agencies,^{90, 91} and Arizona's orders bar only state and local governments and public universities from imposing vaccination requirements.^{92, 93} Others, including Arkansas,⁹⁷ Georgia^{98, 99} and Montana¹⁰⁰ do not place restrictions on mandates by certain businesses such as universities, state-owned medical facilities or healthcare, assisted living and long-term-care facilities. In Ohio, the Senate blocked a House-passed bill that would have banned vaccine mandates by private employers, and Gov. DeWine has said he opposes legislation that discourages vaccination or prevents businesses from keeping their employees safe.¹⁰¹ Executive orders in Florida and Texas extend beyond state and local governments to ban private business from requiring vaccination documentation for customers, but they do not restrict vaccine mandates for students and employees by private institutions.^{94, 102}

Georgia is a case in point.⁹⁰ Gov. Kemp's executive order does not bar Atlanta-based Delta Air Lines from proceeding with vaccination requirements for its new hires.⁴⁸ Neither does the order bar Emory University from requiring student vaccinations.⁹⁸ Nor does it prohibit vaccine mandates for students, faculty and staff at Clark Atlanta University, Morehouse College, Morehouse School of Medicine and Spelman College — the four schools comprising the Atlanta University Center, home to the city's historically Black colleges and universities.⁹⁹

The recent experience of the private cruise industry shows how state legislation is already conflicting with private-sector policies. It remains unclear how the new Texas law will apply to the decision of Carnival Cruise Line to require guests to be fully vaccinated when it opens operations at the Port of Galveston on July 3.¹⁰³ Norwegian Cruise Lines, which has a mandatory vaccination requirement for all guests and crew members,¹⁰⁴ has threatened to keep its ships out of Florida ports.¹⁰⁵ Royal Caribbean Group, by complying with a CDC order that 98% of crew members and 95% of passengers be vaccinated, was able to proceed directly to a revenue-generating cruise docking at a Florida port rather than having to conduct required test runs.¹⁰⁶ In a lawsuit filed by Florida Gov. DeSantis — and not by the cruise operators — a federal court recently issued a

preliminary injunction against the enforcement of the CDC's order.¹⁰⁷ But the lawsuit does not address the fundamental fact that the battered cruise industry itself has a strong incentive to require passengers and crew to be vaccinated. Not only does the cruise industry want to avoid an onboard outbreak, but any non-vaccinated passengers it accepts will be unable to disembark in certain countries, such as St. Maarten.¹⁰⁸ The fact that the two asymptomatic cases recently detected by Royal Caribbean Group's Celebrity Millennium did not result in an outbreak supports the effectiveness of the cruise operator's policy of requiring that all guests and crew be vaccinated.¹⁰⁹

THE ARGUMENT ABOUT EMERGENCY USE AUTHORIZATION IS A RED HERRING

To date, objections relying on the U.S. Food & Drug Administration's (FDA's) emergency use authorization of COVID-19 vaccines¹¹⁰ have not gained legal traction, and one federal court has already thrown out the argument that the vaccines are still experimental.³⁴ As the court commented, employees subject to mandates "are not participants in a human trial." Whether the contention might sway another court is likely to be irrelevant over the long run. Both Pfizer and Moderna are currently seeking full FDA approval, with a possible decision occurring in summer 2021.¹¹¹ The vaccines now approved on an emergency basis have proved so effective in the real world, and so lacking in frequent, serious side effects, that they will more than likely be permanently approved by the FDA.¹¹²

DON'T IGNORE THE LESSONS OF HISTORY

The concern that some states will represent an immovable force against vaccine mandates ignores not only economics, but also the lessons of history. At the turn of the 20th century, while smallpox was ravaging the U.S., vaccine production was unregulated and vaccines were of variable quality. Anti-vax leagues abounded. A black market in forged vaccination certificates existed, and some doctors signed medical exception forms for a price. Yet that did not stop the unstoppable tide of public and private institutions requiring people to display their scars to gain entry to school, work and other venues.¹¹³

FURTHER FEDERAL AGENCY ACTIONS CAN REINFORCE PRIVATE VACCINATION POLICIES

It is not hard to imagine other federal agencies stepping into their respective jurisdictions. Let's start with the Federal Aviation Administration (FAA), which has so far issued only preliminary guidance on airline crew safety.¹¹⁴ In response to growing market demand and overwhelming scientific evidence,¹¹⁵ in 1972 the FAA (along with the now dismantled

Civil Aeronautics Board) first instituted nonsmoking sections on commercial flights, later banned smoking on flights of less than two hours, and eventually banned smoking altogether.^{116,117} But even before then, United Airlines took the unilateral step of creating a nonsmoking section in 1971.¹¹⁸ If the history of the U.S. commercial airline industry's earlier accommodation to the evidence on another externality teaches us anything, we can soon anticipate incremental efforts by individual airlines and other transportation providers to protect their passengers and employees. Now that the European Union will admit vaccinated travelers,¹¹⁹ vaccination requirements to board certain international commercial flights are on the way as well.

The Advisory Committee on Immunization Practices (ACIP) has played an important role in developing recommendations for COVID-19 vaccine use.¹²⁰ On the basis of transmission in healthcare settings, ACIP recommends vaccination or proof of immunization for Hepatitis B, influenza, measles, mumps, rubella, pertussis and varicella among healthcare personnel.¹²¹ An update to existing ACIP recommendations that incorporates COVID-19 vaccines may provide the necessary nudge to encourage all healthcare providers to implement vaccine mandates.

The EEOC's guidance on workplace vaccinations ensures employer mandates are not discriminatory and effectively preempts state laws aimed at stopping vaccination mandates. Yet the EEOC does not have jurisdiction over workplace safety and health, both of which will be impacted by COVID-19 vaccination mandates or other policies. Future standards from OSHA would cover the domain of workplace health and safety as well as effectively upend all state laws and gubernatorial edicts. An employer who failed to adhere to an OSHA standard would not only be subject to inspection and fines, but would also be liable for negligence in the event of a workplace outbreak.

While standards imposed by private professional organizations would not have the same legal effect as actions by federal agencies, they would still help define what is considered due care on the part of employers. That is how the recommendations of the American College Health Association have influenced college and university decisions,²⁹ and how standards set by professional medical associations would influence the decisions of healthcare organizations.

EVEN WITH EXEMPTIONS, VACCINE MANDATES WILL PROVIDE STRONG INCENTIVES

Numerous psychological profiles of vaccine-hesitant individuals have recently been proposed. According to one analysis, vaccine hesitancy is deeply ingrained in some people because of their

distrust of the medical establishment or authority in general,¹²² core beliefs about personal freedom or the inviolability of the body, or a hardened sense of fatalism.¹²³ Another analysis classifies the vaccine hesitant into the watchful, the cost-anxious, the system distrusters and the skeptics.¹²⁴ Others have not been vaccinated but for reasons other than hesitancy, including poor access to transportation, lack of knowledge about where to get vaccinated or concerns about missing work due to vaccine side effects.¹²⁵

Whatever the classification, resistance to behavioral change lies along a continuum. The critical issue is what incentives will effect behavioral change. The prospect of not being able to return to school or to work, not being able to travel or of being barred access to a range of social benefits is likely to provide sufficient incentive to overcome this resistance. The recent experience of Houston Methodist, where a vaccine mandate has resulted in at least 97 percent employee compliance, is prima facie evidence in favor of this proposition.^{30,31} School-entry vaccination mandates in the U.S. — all of which allow for varying degrees of exemptions — have been effective at increasing vaccine uptake.¹²⁶ Moreover, states that impose restrictions on the type of exemption (i.e., only allow medical exemptions) or make exemptions more difficult to obtain have lower rates of exemptions.¹²⁷ While a meta-analysis of studies of flu vaccine mandates among healthcare workers demonstrated a significant effect,¹²⁸ the potential consequences of remaining unvaccinated in the case of COVID-19 are far greater.

GOVERNMENTS NEED TO ENCOURAGE VACCINE MANDATES

The evidence reviewed here points to workplace-based vaccine mandates as a likely consequence of the forces of market supply and demand, particularly in certain settings such as healthcare or other essential jobs that require in-person work. But workplace vaccine mandates are also sound public policy.

Rather than adopting a hands-off, wait-see, neutral approach to the growing wave of workplace mandates, federal, state and local governments need to take measures that would promote and ensure their implementation. Policymakers at all levels can offer grants and other assistance to educational institutions and employers to operationalize vaccine requirements. Federal policy makers, in particular, can work with states and private companies to develop a national system of verifiable proof of vaccination that protects the security of personal health information. Our initial federal vaccine rollout policy of “leave it to the states” wasted valuable time. Do we really want to repeat such a piecemeal disaster in our system of verifying vaccination status?

As we've already noted, federal agencies such as the FAA, EEOC, OSHA and the CDC can establish nationwide standards that can have far-reaching effects on the implementation of vaccine mandates and the rate of vaccination in the United States. Policymakers can also help private professional organizations develop vaccination standards that can have sweeping effects on the diffusion of vaccination mandates in school and the workplace.

WE WILL NEED TO ADDRESS MARGINALIZED, UNVACCINATED POPULATIONS IN ANY CASE

Some may argue that mandatory vaccinations will result in marginalized, unvaccinated groups without access to the benefits of school, work, transportation and basic services. We will have to address the existence of marginalized, unvaccinated groups no matter what public policies we adopt.

Nothing bars us from continuing to rely upon other public policies to convince marginalized individuals to get vaccinated. Nothing about vaccine mandates negates or interferes with our continuing use of policies based upon the provision of accurate information from reliable sources, trusted advisors and respected community members. Nothing interferes with our continuing to pursue policies that take advantage of the example that vaccinated physicians set for their patients.¹²⁹ In the past, mobile vaccination clinics have provided a successful means of vaccinating individuals in rural or hard-to-reach areas.^{130,131} Community health centers can continue to be relied upon to vaccinate the most socially vulnerable.¹³² Nothing

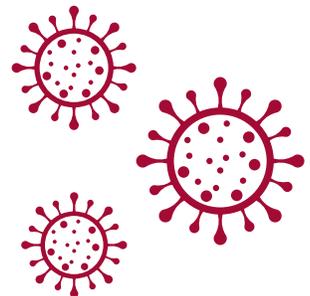
about vaccine mandates stops us from further pursuing these complementary approaches.

CONCLUSION

Policymakers at the federal level have made enormous efforts to distribute COVID-19 vaccines widely and to encourage near-universal vaccination. When it comes to facilitating workplace vaccine mandates and implementing a nationwide vaccination tracking system, however, federal officials have effectively left these tasks to the private sector. Colleges and universities, hospitals and other healthcare institutions, and large and small private firms, motivated by the desire to bring employees back to the worksite and avoid disastrous outbreaks, have stepped in to fill the void.

COVID-19 vaccines provide businesses, universities and healthcare organizations with a more effective means of managing risk than the array of draconian mitigation strategies adopted by default during 2020. Even in the absence of governmental policies to require universal COVID-19 vaccination, market forces will drive employers to impose mandates. And market-driven solutions will emerge to reliably verify vaccination status.

To be sure, leaving vaccine mandates to the private sector does give employers the flexibility to tailor their policies to their own workplace-specific transmission risks and employee preferences. Still, government has an important role to play in endorsing sound employer policies, protecting at-risk populations and reducing disparities in disease burden.



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Leonard D. Schaeffer Center
for Health Policy & Economics

Stephanie Hedt

Director of Communications
Schaeffer Center for Health Policy & Economics
University of Southern California
hedt@healthpolicy.usc.edu
213.821.4555