What Makes Bureaucracies Politically Resilient?

Evidence from Brazil's Covid-19 Vaccination Campaign

Abstract

This article sheds new light on the drivers of bureaucratic resilience in the face of presidential attacks, an understudied but politically salient topic. Scholars have long shown how political advocacy can protect bureaucracies from presidential attacks on policy regulation. We argue, however, that advocacy is insufficient to defend bureaucracies against attacks on policy implementation, which occurs largely outside the formal political arena. Through a case study of Brazil's successful Covid-19 vaccination campaign, we call attention to two additional forms of support for agencies under attack—resource provision and social activism—that come into play during the implementation phase of policy. In conjunction with political advocacy, resource provision and social activism bolster bureaucracies under attack by filling in where other forms of support fall short.

Key words: bureaucracy, Covid-19, populism, public health, state capacity

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Introduction

In an era of political polarization, presidents have aggressively sought to undermine the parts of the state that threaten their interests. The agencies facing such attacks administer policies ranging from environmental protection to education and public health. When public-sector agencies are weakened or dismantled, long-standing government policies can collapse, endangering social and economic wellbeing—even democracy itself.¹ How might bureaucracies survive political attacks?

We address this question by examining political attacks on the health bureaucracy in Brazil during Jair Bolsonaro's administration. Bolsonaro, an anti-establishment politician, sought to weaken or dismantle a wide range of expert agencies through various forms of attack. In many cases, agencies that were otherwise strong could not withstand these assaults, and they lost capacity as a result.² When President Jair Bolsonaro attacked Brazil's health bureaucracy at the outset of the Covid-19 pandemic in 2020, the health system was initially rendered incapable of preventing Covid's spread, contributing to skyrocketing cases and deaths³. Brazil's initial Covid failure was covered widely in the international press, with headlines such as "Covid-19 in Brazil: how Jair Bolsonaro created a calamity"⁴ and "Brazil's rolling Coronavirus disaster is a global problem."⁵

Yet Brazil's health bureaucracy successfully defended itself from subsequent attacks on its vaccine program. Bolsonaro attempted to obstruct Brazil's vaccine program by withholding resources and spreading misinformation to incite anti-vaccine sentiment, but by August 2022, 81%

of Brazilians were fully vaccinated.^{6 i} This number was comparable to wealthier European countries where presidents or prime ministers had supported vaccine programs.⁷ Moreover, the vaccination rate in Brazil far exceeded rates in countries where public health bureaucracies had suffered similar political attacks.⁶

How did Brazil's health bureaucracy withstand these attacks when other bureaucracies that were similarly capable did not? Carpenter⁸ has shown that having allies willing to engage in political advocacy—to defend a program in the political arena—is necessary for bureaucracies to defend against attacks on their ability to design and regulate policies. While acknowledging that political advocacy is one source of support for bureaucracies under attack, we argue that political advocacy is often insufficient to protect bureaucracies from attacks on their ability to *implement* the policies they design. When bureaucracies pursue policy implementation, they are subject not only to direct political attacks but also to attacks that occur outside the political arena. We contribute to the understanding of bureaucratic resilience by identifying two additional types of support for bureaucracies under attack—resource provision and social activism—that come into play during the implementation phase of policy. In conjunction with political advocacy, resource provision and social activism bolster bureaucracies under attack by filling in where other forms of support fall short.

This article sheds new light on the drivers of bureaucratic resilience in the face of presidential attacks, an understudied but politically salient topic. Recent studies have explored the

ⁱ For updated Covid-19 vaccine rates in Brazil, see

https://infoms.saude.gov.br/extensions/DEMAS_C19_Vacina_v2/DEMAS_C19_Vacina_v2.html (last accessed August 26, 2022).

strategies populist presidents use to control the state⁹⁻¹¹ and how political attacks contribute to the loss of bureaucratic capacity.^{11,12} Scholars have also explored the origins and consequences of institutional weakness and decline more broadly^{13,14}. Thus far, however, less attention has been paid to bureaucratic strength and resilience over time.¹⁵ We contribute to this literature by shedding new light on how expert institutions retain power and authority in the face of attack.

In the next section, we elaborate our argument about bureaucratic resilience in relation to existing scholarship on bureaucratic capacity. We then explain our logic of case selection. Subsequent sections use evidence from Brazil to illustrate our argument, drawing on a combination of media and government reports, semi-structured interviews, and quantitative indicators of vaccine acceptance. First, we describe how presidential attacks on Brazil's health system diminished its capacity to implement Covid-19 prevention and treatment campaigns. We then illustrate our argument about bureaucratic resilience by exploring the health system's subsequent success in implementing a Covid-19 vaccine campaign. Here, we show how political advocacy was necessary but not sufficient in defending Brazil's health system, and we highlight how two additional mechanisms of support—resource provision and social activism—played complementary roles in promoting bureaucratic resilience. We conclude with a broader discussion that sets a research agenda for studies of bureaucratic resilience.

How Do Bureaucracies Survive Attack?

Given the special authority a president possesses as head of the executive branch and its myriad agencies, presidential attacks can be especially damaging to bureaucratic autonomy and capacity.¹⁶ With populist and ideological extremist presidents in power around the world, challenges to building state capacity have increased in the last decade. Presidents can redirect executive agencies

in pursuit of their political objectives, but recently they have instead sought to weaken or dismantle the agencies administering policies they oppose.^{11,12}

In the field of public administration, a growing literature has sought to understand the causes and consequences of capacity loss. Some studies have drawn on theories of institutional change to examine the strategies presidents use to undermine or dismantle bureaucracies.^{9,10} Other scholars have focused on the organizational dynamics of bureaucratic decline.¹⁷ As of yet, however, little attention has been paid to exploring why attacks on bureaucracies sometimes fail—that is, how bureaucracies successfully defend themselves from attack. The complex dynamics of bureaucratic resilience—the forms of resistance against different types of attacks—remain elusive.

Among studies that do address bureaucratic resilience, some have emphasized how structural factors such as federalism affect the power of presidents to impose their agendas. Current events suggest that, in a federalist system, governors and mayors can defend bureaucracies against populist authoritarian presidents by using their independent authority to disobey national orders.¹⁸ As a large body of scholarship shows, however, decentralized authority cuts both ways. Sometimes, avoiding governors in federal systems is fundamental for the implementation, continuation, and resilience of policy programs.¹⁹⁻²¹ In extreme cases, federalism has given rise to what some have called subnational authoritarianism.²² Empirically, different executive agencies within a single country can vary widely in their ability to fend off presidential attacks. In these countries, federalism is at play for both those that fail to fight off attacks and those that succeed. Federalism, on its own, cannot determine bureaucratic resilience.

Other work addressing bureaucratic resilience has emphasized the agency of bureaucrats as independent actors, showing how they sometimes resist executive orders that counter the missions of their agencies. In the classic text *Working, Shirking, and Sabotage*, Brehm and Gates ²³ introduce two strategies of resistance: dissent-shirking (refusing to work for principled reasons) and principled sabotage (negative work that forces other bureaucrats to devote more time to producing a particular output if they want it to be produced). Recent scholarship has built on these ideas by introducing more complex theories of subversive bureaucratic action, by introducing the concept of "guerilla government,"²⁴⁻²⁶ and by suggesting that different types of executive attacks may generate different forms of resistance.²⁷ A related body of scholarship has shown how bureaucrats can cultivate allies in civil society as a strategy to defend their policy reforms.^{28,29}

Studies of bureaucrats as subversive actors contribute to our understanding of bureaucratic resilience by revealing the sometimes hidden ways bureaucrats attempt to defend their programs. In many cases, however, even bureaucracies with the most creative and capable bureaucrats have succumbed to attacks.² Such scholarship, focusing narrowly on the strategies bureaucrats use to defend their programs, cannot fully explain why bureaucrats sometimes succeed in defending their agencies but other times fail.

Three Sources of Bureaucratic Resilience

This article builds on existing literature by focusing on the resources that allow bureaucrats to succeed in defending their programs from attack. With few resources to directly defend their programs from presidential attacks, national bureaucrats often seek outside sources of support. Building on studies of bureaucratic autonomy, we call attention to three types of support for bureaucracies under attack: political advocacy, resource provision, and social activism. As we argue, each type of support plays a unique and complementary role in promoting bureaucratic resilience, filling in where another falls short.

Political advocacy

As an earlier literature on bureaucratic autonomy has shown, political advocacy (advocacy that takes place in the political arena) can play a crucial role in helping bureaucrats defend their ability to independently design new policies and policy regulations.⁸ Political attacks on bureaucratic autonomy are common, if only because every bureaucracy will at some point make a decision that advances its mission but conflicts with a politician's electoral interests.² Because the scope of a bureaucracy's formal authority depends largely on the support of presidents and legislatures—on some of the very actors who may oppose their policy decisions—bureaucracies can struggle to defend their autonomy against political attacks.

Politicians and civil-society groups can help bureaucracies defend their autonomy through political advocacy by mobilizing political pressure against attacks from within the government^{8,30}. One way civil-society groups defend agencies through political advocacy is by filing judicial court cases that would prevent legislative attempts to overturn policy decisions.^{29,31} Politicians and civil-society groups may also defend an agency's autonomy through lobbying or mobilizing public pressure on politicians attacking the bureaucracy.²⁹ Such political advocacy may be sufficient for bureaucrats to overcome attempts to weaken or dismantle their agencies, especially in regulatory agencies that focus narrowly on making rules and overseeing them.

Resource Provision

In practice, however, most government bureaucracies have broad purviews that include implementing their adopted policies. Political advocacy—the focus of the literature on bureaucratic autonomy—is often insufficient to help bureaucrats successfully defend their agencies from attacks on policy implementation. This is because bureaucrats depend not only on

autonomy, but also on resources to successfully implement policies or programs. A health bureaucracy, for example, may depend on such resources as medical supplies and pharmaceuticals. A defense agency may require supplies of steel and semiconductors, while an education bureaucracy may need computers and office supplies. All these agencies, moreover, depend on having large enough budgets to be able to purchase the supplies they need. Presidents may therefore attack bureaucracies not just through direct political means, but also through economic means. They might do this by cutting budgets, by refusing to increase budgets in response to new needs, or by otherwise obstructing their ability to purchase essential supplies. Political advocacy may be less effective against such economic attacks because presidents have many ways to deprive an agency of resources without broad political approval.

Yet, just as presidents may attack bureaucracies through economic means, allies may defend bureaucracies under attack through economic means. Businesses, for example, may support an embattled bureaucracy by sharing their own personnel, to help an understaffed agency deal with the logistics of procuring and distributing equipment. Philanthropies may donate funding for a bureaucraciy to purchase supplies when a president cuts its budget, or they may directly donate crucial equipment. Even politicians can provide critical resources to defend a bureaucracy's ability to implement policy. In federal systems, for example, governors may use their independent authority to secure funding for a bureaucracy that has been drained of resources. In sum, resource provision is a distinct mechanism through which allies can support bureaucracies under political attack—coming into play during a stage in the policy process when political advocacy is less effective.

Social Activism

Bureaucracies sometimes face society-centered attacks on their ability to implement policy as well—attacks that target communities. This kind of attack is most common when a bureaucracy needs citizens to change their everyday behavior in order to achieve its policy objective. The range of government objectives that require citizen compliance varies widely, from reducing smoking, to lowering personal debt, to disease prevention. Bureaucracies employ a range of strategies to secure citizen compliance, including incentives, bans, mandates, and public information campaigns.³² In such instances, bureaucrats depend on their legitimacy—on a belief among the general population in their mandate—to successfully implement its policy ^{33,34}. Bureaucrats face society-centered attacks on policy implementation when presidents publicly undermine their legitimacy. Presidents might do this by vocally criticizing policy experts, circulating "alternative facts," encouraging others to engage in disinformation campaigns, or issuing contradictory policy guidelines ¹¹.

Grassroots groups can support bureaucracies against these attacks by convincing citizens to follow policy guidelines despite a president's attempts to undermine expert authority. Grassroots groups engage in such social activism at the local level by passing around flyers, postering a neighborhood, conducting door-to-door campaigns. They might proclaim support for the bureaucracy through community news outlets and social media. At the national level, social activism might include media campaigns (using traditional news outlets as well as social media) featuring trusted national public figures. The types of social activism we feature here differ from political advocacy not only because they focus on citizens and communities rather than politicians, but also because they help bureaucrats defend their ability to implement policy rather than create policy. Political advocacy, resource provision, and social activism can thus complement each other by defending bureaucracies from different kinds of attacks, at different stages in the policy process.

Contrary to recent scholarship on presidents who attack the state, which focuses on fights that occur inside the political arena, this argument suggests that the question of bureaucratic resilience is more broadly intertwined with the question of state-society relations. It builds on studies of what Evans ³⁵ calls "state-society synergy"—alliances between bureaucrats and nonstate actors to achieve shared policy goals. Thus far, most scholarship on synergy focuses on the potential for state-society alliances to improve development outcomes ^{34,36-40}, underplaying the implications of these alliances for state capacity once the surrounding political context changes. This article contributes a new explanation for how synergy affects state capacity by showing how policy alliances formed at a given point in time, for specific development goals, can also make bureaucracies more politically resilient to future presidential attacks.

In the following sections, we illustrate our argument using the case of Brazil's health system during the Covid-19 pandemic, an extreme example of presidential attacks on the bureaucracy. By showing how allies helped bureaucrats successfully defend Brazil's vaccine program, we demonstrate how the three sources of bureaucratic resilience can complement each other, while suggesting new questions for future studies to explore.

Brazil's Health Bureaucracy: A Case of Resilience against Extreme Attacks

The Covid-19 pandemic offers a rare opportunity for researchers to observe the dynamics of bureaucratic resilience in the face of political, economic, or social attack. Ordinarily, cases of bureaucratic resilience may be difficult to discern, particularly if the attacks on a bureaucracy are conducted by political subterfuge. In contrast to capacity loss, which can be identified when bureaucrats are fired and budgets are drained, bureaucratic resilience in the face of attack is more commonly hidden from view and often overlooked by the press. Indeed, a successful defense of

bureaucratic capacity may appear to be a non-event. During the Covid-19 pandemic, however, the obstruction of health-system capabilities by presidents across the world was glaringly obvious. The battles between obstructionist presidents and technocratic bureaucracies were, moreover, covered widely in the press. The processes and mechanisms of bureaucratic erosion and bureaucratic resilience were newly visible in publicly available documents.

Academics and journalists agree that Bolsonaro, as the only national leader to actively contravene international scientific consensus during the entirety of the pandemic, launched extreme attacks on Brazil's health bureaucracy ⁴¹. Extreme cases are useful when we seek to identify potential causes of an underexplored outcome, because they allow us to more clearly see the mechanisms at work ^{42,43}. The successful defense of Brazil's national vaccine program in the face of extreme presidential attacks thus offers an ideal case study into the sources of bureaucratic resilience. In Brazil, Bolsonaro attacked Brazil's national health bureaucracy at the start of the Covid-19 pandemic by withholding emergency resources and encouraging citizens to ignore their Covid-19 prevention guidance. Experts both in Brazil and across the world accused Bolsonaro of crimes against humanity for intentionally obstructing the health system's emergency response. As we would expect, Bolsonaro's early efforts at obstruction eroded the health bureaucracy's capacity to respond to the pandemic through non-pharmaceutical measures, leading Brazil to rank third in total Covid-19 cases and second in total deaths.⁴⁴ Surprisingly, however, Brazil's health bureaucracy later overcame Bolsonaro's attacks on its vaccine campaign. This leads to the central empirical puzzle of this study: How did Brazil's health bureaucrats succeed in defending their vaccine program despite the extreme attacks they faced?

We draw on a mix of qualitative and quantitative indicators to generate new hypotheses about the sources of bureaucratic resilience. To describe Bolsonaro's attacks on health-system capacity to fight Covid-19, we tapped into an original database of over 2,000 newspaper articles.ⁱⁱ We then used government reports from a variety of health and scientific agencies to corroborate our news-based information. These reports detail the challenges that health-system bureaucrats faced in implementing Covid-19 policies, as well as the strategies they used to overcome them. Next, to tease out the mechanisms through which outside allies helped government bureaucrats defend the health system, we conducted interviews with 27 key informants. Interviewees were divided into four categories based on where they worked, with particular attention to collecting information about attacks that occurred in each phase of the vaccine campaign.ⁱⁱⁱ Finally, to provide evidence of the health system's ultimate success in overcoming presidential attacks, we draw from comparative public-opinion data and quantitative indicators of vaccine uptake.

Background: Health-System Capacity in Brazil

The Unified Health System (abbreviated in Portuguese as SUS), Brazil's sprawling health bureaucracy, guarantees basic access to health care for Brazilians and provides critical infrastructure for pandemic responses as part of its legally prescribed mission. Prior to the Covid-

ii We consider our news reports to provide more evidentiary weight than most news data, because many of these news reports covered sworn testimony that was televised live in a months-long parliamentary investigation into the president's handling of the Covid-19 pandemic. iii First, we interviewed officials from the laboratories that produced Brazil's vaccines: two public laboratories and two private pharmaceutical companies. Second, we interviewed officials from the Ministries of Health and Finance, and from the World Health Organization. Finally, we interviewed the directors of eleven grassroots organizations involved in promoting vaccine uptake across underserved neighborhoods in the city of Rio de Janeiro.

19 pandemic, Brazil's health system was globally renowned for its comparatively strong bureaucratic capacity⁴⁵ and known within Brazil as a relatively high functioning state agency.

In terms of capacity, Brazil is the only country of over 100 million citizens with a universal public-health system that guarantees all citizens access to basic health care regardless of their ability to pay ⁴⁶. Brazil operates the largest community-based primary care program in the world, covering around 64% of the Brazilian population.⁴⁶ These encompassing, community-based health programs have contributed to some of the world's largest improvements in health outcomes over the last several decades, especially for vulnerable marginalized groups.^{47,48} In terms of communicable diseases, these community-based programs also aid in the implementation of testing, tracing, and social isolation practices.⁴⁹

Brazil is also renowned for its extensive and effective vaccine program, especially given the country's large size.⁵⁰ Brazil's forty-year-old National Immunization Program (PNI) regularly offers nineteen vaccines to everyone from newborns to seniors, including recently developed vaccines, such as that for HPV. Funded by public resources and serving the entire population, the PNI has 38,000 immunization rooms distributed throughout more than 5500 municipalities; it can staff 50,000 rooms during vaccination campaigns.⁵¹ Such campaigns typically mobilize over 100,000 health professionals. Citizens can also access vaccines at any time of the year at one of Brazil's 10,000 Basic Health Units. At the start of the Covid-19 pandemic, PNI was, moreover, coordinated by a public health expert with extensive prior experience in the health ministry, Francieli Fantinato.

Indeed, the 2019 Global Health and Security Index rated Brazil the most prepared nation in all of Latin America to prevent and manage a disease outbreak.⁵² At the start of the pandemic, Brazil's legislature enacted emergency measures that would allow the president to spend extrabudgetary resources on public health. On March 20, 2020, the national congress declared a "state of emergency,"⁵³ which waived ordinary limits on public expenses and allowed the president to make unilateral spending decisions without prior legislative approval. On May 8, 2020, congress amended the constitution to create a "war budget," which eliminated legal limits on Covid-19 related spending and opened new lines of credit.⁵⁴ Between March and July, the president allocated a total of R\$505 billion (\$92.6 billion USD) for extra-budgetary spending on Covid-19.⁵⁵ Brazil thus had both the public-health infrastructure and the financial resources to respond successfully to the Covid-19 pandemic.

The Initial Erosion of Bureaucratic Capacity for Covid-19 Prevention

Jair Bolsonaro was inaugurated as Brazil's president on January 1, 2019, having won a campaign that focused on law and order as well as his version of family values. Stylistically, Bolsonaro presented himself as an anti-establishment outsider, leading a populist campaign not only against traditional political parties but also against such experts as scientists and academics.^{56,57} When Brazil's first cases of Covid-19 were detected in March 2020, President Bolsonaro immediately launched unprecedented attacks on Brazil's health system, inspired by the United States president, Donald Trump. As we would expect, these attacks initially weakened the capacity of the health bureaucracy to respond to the pandemic through non-pharmaceutical measures, just as in other countries with seemingly strong state capacity in the health sector.¹⁸

A combination of political constraints and incentives led Bolsonaro to attack the ability of SUS to contain Covid-19. Whereas an effective response to Covid-19 demanded science-based policy and hard compromise, Bolsonaro had cultivated an image of scientists as untrustworthy and portrayed compromise as weak. Upon taking office, he further bolstered his anti-expert image by cutting funding for Brazil's science, environment, and education ministries, as well as for universities.⁵⁸ Bolsonaro's anti-science politics limited his options for responding to the pandemic. Bolsonaro chose to deflect blame by doubling-down on his attack against science,⁵⁹ undermining rather than supporting Brazil's national health bureaucracy in its efforts to stem the spread of the virus.

At the same time, Bolsonaro had political incentives to distance himself from Covid-19 prevention efforts, to blame them for the potentially devastating effects of Covid-19 on the Brazilian economy. Bolsonaro had emphasized economic growth rates and budget surpluses during his 2018 presidential campaign, relying on business owners and bankers for political support during the 2018 election. According to him, lockdowns to stop the spread of Covid-19 threatened to slow economic growth, which would hurt his business constituency and ruin promises of a federal budget surplus. Opposing public health interventions supported by SUS was thus an act of political expediency.

President Bolsonaro undermined the initial capacity of Brazil's health system to respond to Covid-19 in four main ways, which have been discussed extensively in the literature and the media. First, he withheld emergency resources from Brazil's national health bureaucracy. During the pandemic, SUS required additional financial resources to purchase personal protective equipment, medicines, ventilators, and vaccines. Even as Bolsonaro used executive orders to mobilize emergency funding for Covid-19 responses as early as April 2020, he withheld the vast majority of that funding from the health bureaucracy—channeling it instead toward economic relief and other politically advantageous projects. Of the federal funding allocated for Covid-19 responses in 2020, the national Ministry of Health received only 7.5%, amounting to a mere R\$39 billion (\$7.15 billion USD) of the R\$ 524 billion (\$101 billion USD) invested to fight Covid-19. By contrast, the Ministry of Citizenship received 56% of federal Covid-19 funding and the Ministry of the Economy 34%.⁵⁵ While spending on social and economic assistance was necessary so that people could stay at home, so was spending on direct health prevention and treatment, both of which required significant resources. As we would expect, Bolsonaro's failure to supply additional funds to the Ministry of Health reduced bureaucrats' relative capacity to quickly purchase essential resources for preventing Covid's spread and for treating patients.

Second, Bolsonaro jettisoned the health ministry's senior leadership, which disrupted the bureaucracy's capacity to spend the funding it did receive. Between April and May 2020, Bolsonaro fired one qualified national health minister, pressured a second to quit, and ultimately replaced them both with an active-duty military officer with no health credentials.⁶⁰ Each time a new health minister stepped in to replace the outgoing minister, he needed time not only to adapt to the new job but also to construct a new leadership team. Through this constant interference in personnel toward the start of the pandemic, Bolsonaro reduced the health system's administrative capacity to procure essential resources. By July 2020, the health ministry had spent less than a third of its emergency Covid-19 funding.⁶¹

Third, Bolsonaro immediately started spreading misinformation about Covid-19 that contradicted facts disseminated by public-health officials. For example, Bolsonaro promoted chloroquine to treat Covid, a drug not recommended by health experts.⁶² In March 2020, he was shouting to crowds, "God is Brazilian, the cure is right here! Chloroquine is working everywhere!".⁶³ Between March 2020 and March 2021, fifty-two million tablets of four unproven Covid-19 drugs promoted by the Bolsonaro Administration were sold in Brazil.⁶⁴ These cues

signaled to Bolsonaro's supporters and political allies that expert, mainstream medical advice was not to be trusted and that alternative, unproven, cures should be used.

Finally, Bolsonaro actively encouraged his supporters to flaunt social distancing measures and protest lockdowns. Instead of imploring Brazilians to heed safety guidelines and pause their daily routines, Bolsonaro urged people to return to work and school before vaccines, and even masks, were widely available.⁶⁵⁻⁶⁸ As Covid cases and deaths started to increase, Bolsonaro called the virus a "little flu"⁶⁹ and reasoned "Some people will die; they will die; that's life. [...] You can't stop a car factory because of traffic deaths." ⁶⁶ On social media, Bolsonaro broadcast videos and pictures of himself greeting supporters without a mask⁶⁸ and joining crowded anti-lockdown protests.⁷⁰ His social media campaign "Brazil Can't Stop" encouraged supporters to protest movement restrictions and pressure governors to roll back lockdown measures.⁷¹ By attacking the legitimacy of health officials, Bolsonaro undercut the ability of SUS to ensure citizen compliance with Covid-19 prevention guidance.

In undermining SUS's response efforts, Bolsonaro exacerbated the negative effects of the Covid-19 pandemic.⁷² As of May 1, 2021, the country's population had suffered a cumulative 14.5 million confirmed cases and over 400,000 deaths.⁷³ As the Pandemic Investigation Commission reported: "Had non-pharmaceutical interventions been systematically implemented, transmission rates could have been reduced by about 40%, which means 120,000 lives could have been saved by the end of March 2021."⁷⁴ Brazil's total cases and deaths, moreover, likely reflect a severe undercount given the lack of testing capacity in the country.⁷⁵

The Resilience of Bureaucratic Capacity for Covid-19 Vaccination

After Bolsonaro's initial attacks, the health system had appeared on the verge of collapse. By the time his attacks had turned to vaccines, however, bureaucrats had been able to marshal support in defense of SUS from allies across the state-society divide. In the following sections, we show how allies used political advocacy, resource provision, and social activism to successfully defend Brazil's vaccine program—with each form of support playing a unique and complementary role in promoting bureaucratic resilience.

Political Advocacy to Combat Attacks on Vaccine Regulation

Bolsonaro attacked SUS's ability to regulate vaccine policy through a variety of pressure campaigns on Brazil's national health regulatory agency, called Anvisa. In one of his earlier attacks, Bolsonaro publicly pressured Anvisa to slow approval for the vaccine sponsored by his political opponent, Sinovac.⁷⁶ Using his radio, TV, and social-media platforms, Bolsonaro also stoked fears about the Sinovac vaccine.⁷⁷ Later, Bolsonaro pressured Anvisa to ban pediatric vaccines, arguing that children had not been dying enough to justify a vaccine. As part of his pressure campaign, he publicly threatened to reveal the names of the Anvisa officials who approved pediatric doses to his army of social media followers.⁷⁸ Bolsonaro's appointed health minister also called for a public hearing to determine whether the pediatric vaccine should be made available only with a medical prescription, contravening Anvisa's decision to allow its use for all children aged 5-11.⁷⁸ One consequence of the Bolsonaro administration's public criticism was that Anvisa board members suffered both online and offline harassment, including over 150 death threats ⁷⁹.

Political advocacy, however, helped SUS bureaucrats successfully defend their ability to regulate Brazil's vaccine policy. Most prominently, allies in civil society used their lobbying power and public platforms to advocate for SUS. Twenty-two of Brazil's most powerful business associations, from across the political spectrum, co-signed a public manifesto denouncing his attacks on Anvisa officials as harming Brazil's ability to solve the Covid-19 crisis, and praising Anvisa officials for their "excellent and priceless" work.^{iv} Civil-society networks and trade unions similarly wrote public manifestos expressing support for SUS, including the Brazilian Association of Collective Health and the Brazilian Academy of Science. Media outlets across the political spectrum also publicly supported SUS' immunization program.⁸⁰ Such public manifestos in support of Anvisa raised the salience of Bolsonaro's attacks and, thus, the political costs they would entail.

Political advocacy, in addition to helping SUS defend its regulatory autonomy, helped SUS to some extent in defending its capacity for policy implementation. For example, members of the multi-partisan parliamentary Commission for Fighting Covid-19 lobbied Bolsonaro to allocate critical funding for vaccines. According to a key informant from Brazil's leading health research institute, Fiocruz, members of the commission visited the institute in July 2020 to discuss various strategies for defending SUS's vaccination campaign.^v At the meeting, they agreed to exert pressure on President Bolsonaro to pay for Brazil to produce foreign-developed vaccines in local facilities ⁸¹. Following that meeting, in August 2020, the Bolsonaro administration allocated 97 million USD for Oxford University's AstraZeneca to transfer its vaccine technology to Brazil's Biomanguinhos laboratory.⁸²

iv https://sindusfarma.org.br/noticias/indice/exibir/16653-manifesto-em-defesa-da-anvisa (last accessed November 14, 2022)

v Interview with Fiocruz official, July 7, 2021.

Given Bolsonaro's public disavowal of vaccines, backroom congressional lobbying likely proved essential in defending SUS's ability to develop vaccines and a vaccination program. As multiple informants emphasized, Bolsonaro's funding for vaccine technology would have been much smaller, and allocated much later, were it not for congressional pressure. According to an official from the Butantan Institute, a leading public laboratory and vaccine manufacturer, "We had multi-party support from politicians in Congress—politicians who were all interested in finding a solution to the pandemic."^{vi} In the words of the informant from Butantan, "they helped us politically a lot."

At the same time, a multi-partisan coalition in Congress, called the Sustainability Network, appealed to the Supreme Court to defend Anvisa ⁸³. As countries began to reopen their borders to vaccinated travelers, and to those who supplied the results of a negative COVID-19 test, Anvisa had requested that Brazil require vaccine certificates. Bolsonaro, however, publicly criticized Anvisa for what he called a vaccination passport requirement, remarking, "Anvisa wants to close the country's airspace now. Not again, damn it".⁸⁴ In immediate response, the Sustainability Network appealed to the Supreme Court to defend Anvisa.⁸³ Subsequently, the Supreme Court ruled that all travelers arriving in the country would have to show proof of vaccination against Covid-19, based on the imminent risk of Brazil becoming a destination for anti-vaccine tourism. In December 2021, following the court mandate, the executive government issued a ministerial decree requiring proof of vaccination for entering the country.⁸⁵

Resource Provision to Combat Attacks on Vaccine Procurement and Production

vi Anonymous interview with high-ranking official at the Butantan Institute, October 27, 2022.

On its own, however, political advocacy was not enough to overcome Bolsonaro's attacks on SUS's capacity to implement its national vaccine policy. SUS bureaucrats required not just autonomy, but also resources to procure and produce vaccine doses.

Bolsonaro attacked SUS's ability to implement its vaccine campaign by withholding crucial support for vaccine procurement and production. Specifically, while Bolsonaro supported government procurement of the Astra-Zeneca vaccine⁸⁶, he disrupted important opportunities to expand vaccine procurement to other suppliers—an expansion that was necessary to fully vaccinate Brazil's population. In October of 2020, Bolsonaro publicly rejected an offer of 46 million doses of the Chinese Sinovac vaccine, casting doubt on its effectiveness and arguing that he would not let the Brazilian population be "guinea pigs".⁸⁷ Between August and November 2020, the Bolsonaro administration reportedly ignored over one hundred emails sent by Pfizer to offer 73 million vaccines for 10 USD each—half the price paid by the United States and European Union ^{88,89}.

Multiple sources confirm that Bolsonaro disrupted vaccine procurement in Brazil. In the words of the Pandemic Investigation Commission report, the administration "systematically ignored solid and trustworthy vaccine offers," causing an "unjustifiable delay that directly impacted vaccine procurement".⁷⁴ The report further concluded that the Bolsonaro administration had "delayed negotiations [...] as much as possible, leaving it clear that acquiring vaccines was not a priority" of the administration⁷⁴.^{vii} According to one informant, "the many obstacles Bolsonaro

vii Brazil's pharmaceutical regulatory agency, called Anvisa, also delayed procurement of the Pfizer and Sinovac vaccines to some extent, given its slower and more rigorous approval process compared to countries such as the United States. However, Bolsonaro threatened even further delays, based on different motivations that ran counter to ANVISA efforts to secure a stable supply of safe vaccines for Brazilians.

posed [to delay vaccine acquisition] were worse [than the vaccine misinformation campaigns] that were covered by the media."^{viii}

At the same time, a wide range of allies helped SUS bureaucrats successfully overcome Bolsonaro's obstruction by providing critical financial, material, and operational resources. In São Paulo, Governor João Doria, a former Bolsonaro ally who had cut ties because of the president's Covid-19 denial, allowed a public research laboratory in his state to coordinate its own negotiations with a Chinese vaccine producer.⁹⁰ Using an economic development office in Shanghai, initially set up in 2019 to attract Chinese business investment, representatives from the São Paulo based Butantan Institute held a series of in-person meetings with representatives from the Chinese Sinovac laboratory.⁹¹ Although Bolsonaro heavily criticized Butantan's negotiations with Sinovac in the press, starting a twitter campaign called #chinesevaccineNO, Butantan was shielded from Bolsonaro's attacks because it was funded by the state of São Paulo. Ultimately, Doria helped Butantan succeed in enticing Sinovac to conduct clinical trials in Brazil and transfer the technology needed for Butantan to domestically produce its own Coronavac vaccines.

Similarly, governors across Brazil's northeastern states coordinated their own efforts to procure vaccines from foreign vaccine producers and international organizations through a network known as the Northeast Consortium.⁹² At the same time as Brazil's National Immunization Program was under presidential attack and struggling to speed vaccine procurement, the Northeast Consortium began its own negotiations with the Gamaleya Institute to purchase

viii

Anonymous interview with high-ranking official at the Butantan Institute, October 27, 2022.

doses of the Sputnik V vaccine.^{ix} Governors, acting within their powers under Brazil's federal political system, used their independent political authority to provide SUS with essential vaccine supplies.^x The head of the national immunization program, Francieli Fantinato, declared in a Congressional inquiry: "I remained in office due to the diligent efforts of my team, which had been working and supporting me in all actions, as well as the support of the National Council of Municipal and State Secretariats (...) All decisions taken at the National Immunization Program was shared with them".⁹³

At the same time, private corporations and philanthropic organizations supplied Brazilian pharmaceutical laboratories with critical funding to fill gaps in government subsidies for vaccine production. One coalition of business groups donated R\$ 100 million (almost 20 million USD) to help the BioManguinhos laboratory adapt its infrastructure so that it could produce the Astrazeneca vaccine.^{71,94} Another coalition of 35 corporations contributed R\$ 170 million (33.5 million USD) to help the Butantan laboratory produce the Coronavac vaccine.⁹⁵ The Lemann Foundation, a philanthropic organization created by billionaire Jorge Paulo Lemann, funded AstraZeneca's clinical trials in Brazil.⁹⁶ One of Brazil's largest banks, Banco Itaú, provided R\$1 billion (197 million USD) to create a new health surveillance institute.⁹⁷ Private businesses provided SUS with

https://g1.globo.com/pi/piaui/noticia/2021/08/05/presidente-do-consorcio-nordeste-anuncia-a-suspensao-da-compra-de-doses-da-vacina-sputnikv.ghtml (last accessed November 14, 2022).

ix The Consortium ultimately suspended their purchase of Sputnik, based on lack of proven effectiveness. See:

x Private pharmaceutical companies also assisted SUS in procuring vaccines by securing private agreements for domestic vaccine production. For example, the Brazilian pharmaceutical company Eurofarma secured a contract with Pfizer to locally manufacture their vaccine. Similarly, the Brazilian pharmaceutical company União Química pursued a contract with Moscow's Gamaleya Research Institute.

operational support as well. For example, Ambev, one of the largest firms in South America, directed its own logistics team to help BioManguinhos obtain supplies and equipment for Covid-19 vaccine production.⁷¹

Through their support for vaccine production, these allies also strengthened SUS's capacity to manufacture vaccines for other epidemics and future pandemics. For example, by October 2022 Butantan had already constructed a new laboratory for producing Covid tests as well as tests for other common illnesses such as influenza.⁴¹ Similarly, Butantan was in the final phase of constructing a new vaccine production facility, which would expand the number of vaccines Brazil could manufacture not only for Covid but also for other illness such as dengue or chikungunya. Butantan used private donations to construct new cold warehouses to store vaccines. Just as with Butantan, the Biomanguinhos laboratory expanded its overall vaccine production capacity through the private donations it received during the Covid-19 pandemic.⁴¹ A wide range of allies, facilitated in part by Brazil's federal structure of government, thus helped SUS defend its capacity to procure and produce vaccines by providing crucial resources in the absence of government support.

To some extent, allies similarly helped defend SUS's capacity to distribute Covid-19 vaccines, which required extraordinary resources as well. For example, a multi-partisan nonprofit organization called Women of Brazil (*Mulheres do Brasil*), founded by billionaire Luisa Trajano, surveyed every municipality to determine what supplies they were missing, then called on private

xi https://valor.globo.com/brasil/noticia/2020/08/20/fapesp-e-todos-pela-sade-aportam-r-825-milhes-no-instituto-butantan.ghtml (last accessed November 14, 2022)

xii https://fundacaolemann.org.br/releases/empresas-e-fundacoes-montarao-fabrica-da-vacina-contra-covid (last accessed November 14, 2022)

businesses to help meet their vaccine infrastructure needs. According to Margareth Dalcolmo, a prominent pulmonologist and consultant on the campaign:

Luiza [Trajano, the founder of Women of Brazil,] asked me to arrange an online meeting with this big group of empresarios, to ask for their support. So I held a meeting and told these empresarios that it wouldn't be useful for them to buy any vaccines before they received regulatory approval in Brazil—that this would be a wasted effort. I convinced them to, instead, join the initiative that Luiza had coordinated to provide municipalities with all the supplies they needed for vaccination.

[Long pause.]

All the [municipal] requests were met, without one cent of government money being used. Everything was provided [by Women of Brazil]. So, say Municipality X asked for two refrigerators, two coolers, and two computers. They would receive those items. And the operational logistics of how [Women of Brazil] distributed these supplies were excellent, because the private companies [who volunteered to join her initiative] were coordinating the logistics. This initiative helped the government a lot in vaccinating the population.^{xiii}

By identifying gaps in vaccine distribution infrastructure, Women of Brazil supported SUS's vaccine program by offering critical material and operational resources.^{xiv}

Social Activism to Combat Attacks on Vaccine Distribution

While outside resources helped SUS overcome barriers to vaccine procurement and production, the barriers to vaccine distribution were different and required a different form of support. After SUS bureaucrats had obtained enough supplies to vaccinate the Brazilian population, they still faced one major distribution challenge: getting shots into arms. Without Bolsonaro, Brazil would have been well positioned to succeed on this front. Health bureaucrats had already worked for over fifty years to imbue Brazilians with a general trust in vaccines—what others have called a deeply ingrained vaccine culture⁹⁸—by promoting them and making them easily accessible. To further encourage vaccination, health bureaucrats had even created a national vaccine mascot, Ze Gotinha (Droplet Joe)—akin to Smokey the Bear, the mascot who taught generations of American schoolchildren the importance of preventing forest fires. As a result of these efforts, no large-scale anti-vax movement had ever developed in Brazil, and public-health experts were broadly seen as legitimate authorities.

xiii Interview with Margareth Dalcolmo, pulmonologist and researcher at the Fiocruz Foundation and one of Brazil's most prominent Covid-19 authorities in the media, November 2, 2022.

^{xiv} See also CNN Brasil 2021.

However, obstructionist presidents can undermine the legitimacy of executive-branch agencies when they vocally criticize policy experts and circulate "alternative facts" ¹¹. In Brazil, during the Covid-19 pandemic, Bolsonaro attacked SUS's historically strong legitimacy by spreading disinformation with the goal of sowing distrust of health experts. Bolsonaro first undermined the messaging of Brazil's public-health officials to encourage vaccine uptake at the outset of the pandemic, in 2020, by declaring that he would not take the vaccine⁹⁹ and by warning they could have dangerous side-effects, suggesting that vaccines might turn people into "crocodiles" or "bearded ladies".¹⁰⁰ In October 2021, after vaccines had been introduced for adults, he falsely claimed that vaccinated people had an increased chance of contracting AIDS.¹⁰¹ That December, when Anvisa approved pediatric vaccines, Bolsonaro publicly declared he would not vaccinate his 11-year-old daughter.¹⁰² As others have shown, attacks on policy expertise can be particularly effective during crises, which are characterized by rapidly evolving information ¹⁰³. Bolsonaro, by contradicting the messages of public-health officials, created a context of "informational chaos" ¹⁰⁴--forcing citizens to choose between trusting their president or trusting public-health experts.⁶⁸

Both public-opinion and interview evidence suggest that Bolsonaro's disinformation campaigns threatened to undercut the public's previously strong trust in vaccines. One study, conducted shortly before vaccines were made available, provided evidence that Bolsonaro's campaign to cast doubt on the "Chinese" vaccine had indeed negatively affected public trust. According to the study's survey results, Brazilians indicated they were far less likely to take the Chinese vaccine than the American or British vaccine—with Bolsonaro supporters displaying the least confidence in the "Chinese" vaccine as compared to others.¹⁰⁵ In a media interivew, the PNI director, Francieli Fantinato, worried that "we have seen people are beginning to have doubts about

the vaccine."¹⁰⁶ Fantinato further attributed these doubts to Bolsonaro, declaring that "Bolsonaro is dividing public opinion."¹⁰⁶

At first, bureaucrats inside the national immunization program (PNI) attempted to fight misinformation by appealing to Bolsonaro's politically appointed health minister, Eduardo Pazuello, the military general with no prior experience in health. The health minister, however, ignored their appeals to support an advertising campaign about the safety and efficacy of vaccines. As the PNI director, Francieli Fantinato, explained, "during [General Eduardo] Pazuello's administration, it was rarely possible to achieve effective communication. I would contact his communication team, which would then get in touch with his press office, and [very few times would they even get back to me]." By July 1, 2021, Fantinato had resigned from her position, describing how Bolsonaro had made it impossible for her to successfully execute a national vaccine campaign and citing disinformation as one of the causes.¹⁰⁶

Civil-society groups, however, stepped in to defend SUS from attacks on its expert authority by mobilizing information campaigns, especially in underserved communities.¹⁰⁷ Many of these civil-society groups already existed but shifted their focus to dispelling misinformation during the pandemic. Other groups were formed specifically to respond to the pandemic. In fact, so many civil-society groups organized to combat the pandemic and counter Bolsonaro's attacks on SUS's vaccination program that research activists even started organizing meta-initiatives to map the civil society campaigns bubbling up across the country. By early 2021, one mapping project had identified over 1300 grassroots campaigns and over 800 university campaigns^{107, xv}

xv For example of more pro-vaccine campaigns, see https://repositoriomobilizacovid.resocie.org/vacinacao/

These groups used a variety of strategies to dispel misinformation. Some employed traditional, offline strategies such as community newspapers, flyers, vans with loudspeakers, and door-to-door walks through the community. For example, one grassroots group distributed 5,000 posters across the neighborhood of Rocinha encouraging people to get vaccinated.^{xvi} Campaigns were also launched online. Some groups mobilized social media influencers to produce content explaining how to prevent the disease through such measures as wearing masks and getting vaccinated. The group Tamo Junto Rocinha published a book with games and lessons for kids and adults to do together while school was canceled—all with vaccination information embedded.^{xvii} In Rio de Janeiro, Voz das Comunidades even created a smartphone application to combat misinformation through daily reporting, while also providing daily notifications of cases and death tallies in Rio's underserved communities.^{xviii}

Civil-society groups even mobilized campaigns to expand access to digital information among impoverished and isolated communities. Indigenous organizations and their supporters installed Wi-Fi spots in remote tribal areas, while other groups disseminated cell phone chips and new Wi-Fi hardware in areas with poor connections. Moreover, civil-society groups developed capacity-building programs to teach previously digitally illiterate people how to access socialmedia platforms.¹⁰⁴ These initiatives, while focused on giving people broad access to information, allowed activists to promote vaccine campaigns.

21, 2023.

xvi Interview with Antônio Firmino, Co-Founder and Executive Coordinator of the Sankofa Museum: Memories and Histories of Rocinha, April

xvii Interview with Dênis Neves, founder of Tamo Junto Rocinha, April 20, 2023.

xviii See https://repositoriomobilizacovid.resocie.org/mobilizacoes_covid/aplicativo-voz-das-comunidades-rj/

Together, these efforts helped to combat Bolsonaro's attacks on the authority of SUS experts by providing the most vulnerable members of society with credible alternative sources of information. According to Rafaela França, leader of a grassroots orgnazations in the Complexo do Alemão neighborhood of Rio de Janeiro:

There were [a lot of] people in the community who didn't know the most basic things. So when we stop and talk to them, give them information, clarify information for them, we're helping people overcome barriers [to getting vaccinated].

And the people in the community who get information from us then multiply the effect of our work. They go out and give this information to someone else in their family, to [their friends].

[...]

I know these campaigns worked well, because a lot of people ended up getting in touch with us via social media to ask us for information.^{xix}

Across Brazil, grassroots groups gave residents of underserved and isolated communities easy access to information based on public-health guidance.

These information campaigns were effective in part because the people who produced the campaigns lived in the same communities as their target audience.⁷⁶ As Rafaela explained, "The

xix Interview with Rafaela França, Founder and Director of Neem, a grassroots organization in the Complexo do Alemão neighborhood of Rio de Janeiro, April 10, 2023.

people in the community believe in us a lot, understand?" Campaign organizers lived the same daily realities as their audience; therefore, they could understand their audience's dilemmas and communicate information using a language that was intelligible to them. According to Denis Neves, leader of Tamos Juntos Rocinha neighborhood and organizer of the book with lessons for kids:

We're not here portraying the president of the United States in our campaigns. No. We're using the guy who's famous who is also the child's neighbor. The guy who walks through that child's community, who knows the history of their community, who lives the life of their community. [In our campaigns], there has to be the kind of language that speaks to the specific child who is studying here [in Rocinha].^{xx}

These civil-society organizers, seen as legitimate sources of information and who used language that resonated with their audience, were well positioned to persuade community members to follow their guidance.

Another likely reason these campaigns were effective is because these grassroots groups did not center their campaigns on Covid-19 prevention guidance alone. At the same time as these civil-society groups were mobilizing community members to vaccinate themselves as a form of protection, they were using the same information platforms to connect community members to basic services, such as food donations.¹⁰⁸ For example, one grassroots group focused on organizing monthly conversation circles with mothers in their community. During these monthly conversations, the group would address the issues that the women had expressed most interest in,

xx Interview with Dênis Neves, founder of Tamo Junto Rocinha, April 20, 2023.

such as domestic violence and mental health, while also working to counter vaccine misinformation. At these meetings, the group would also give each of the one hundred mothers in their project a food basket, masks, hand sanitizer, as well as educational pamphlets promoting vaccines.^{xxi} In other words, grassroots groups were responding to the needs that community members had identified themselves, in addition to offering information about Covid-19 vaccination and other forms of prevention.

Ultimately, Brazilians overwhelmingly opted to trust and obey public-health experts over the president's misinformation. Multiple forms of evidence support this claim. First, although Bolsonaro's anti-vaccine cues initially undercut Brazilians' expressed willingness to get vaccinated, public-opinion data shows that Brazilians overwhelmingly accepted vaccines within several months after they were made available. Brazilians' willingness to get vaccinated increased from 73% to 91% between December 2020, when shots were about to be released, and May 2021.¹⁰⁹ This vaccine willingness includes Brazilians of all ethnicities, income levels, and party affiliations, including many Bolsonaro supporters. Only those Bolsonaro supporters who self-identified as "far-right" and "very strong" supporters expressed vaccine hesitancy after May 2021 in ongoing Datafolha surveys.¹⁰⁹ As a 28-year-old Bolsonaro supporter described, "I have decided to get vaccinated after having a sit-down with my physician, and we did our checks and balances regarding my health issues."¹¹⁰

Second, Brazil's rise in Covid-19 vaccine approval during early 2021 corresponded with a decline in public support for President Jair Bolsonaro's overall handling of the Covid-19

xxi Interview with Andréia Barbosa, Co-Founder of Instituto Dom, a nonprofit organization working on behalf of underserved neighborhoods of Rio de Janeiro, April 19, 2023.

pandemic. According to Datafolha, Brazilians' approval of Bolsonaro's Covid-19 response dropped from 30% to 22% between December 2020 and March 2021.¹⁰⁹ During the same period, Bolsonaro's former political allies who had broken with him to promote vaccines rose in popularity.¹⁰⁹ By early March 2021, Bolsonaro's advisors had notified the president that he was losing the support of business leaders, a key constituency, due to his anti-vaccine rhetoric.¹¹¹ In response to these developments, Bolsonaro attended a press conference in mid-March, where he publicly wore a mask and signed three measures to advance vaccine purchases.¹¹² By March 19, Bolsonaro had signed agreements with Pfizer/BioNTech, a company he had previously criticized, and Johnson & Johnson to acquire over 138 million additional vaccine doses.¹¹³

Finally, evidence also shows that public support for SUS's vaccine policy translated into public compliance with SUS recommendations. As vaccine production increased during the summer of 2021, the number of vaccines administered per capita nearly tripled, with Brazilians eager for vaccinations lining up to receive them. Vaccines administered per 100 people rose from 33.28 in July 2021 to 92.19 in September 2021. By August 2022, 88% of Brazil's adult population had received at least one dose of the vaccine and 81% were fully vaccinated. Even Brazil's indigenous populations, whose hard-to-reach territories had been specific targets of attack under the Bolsonaro administration, achieved high vaccination rates. By October 2022, 90% of indigenous adults had received at least one dose and 85% had received 2 doses.¹¹⁴ These vaccination rates are equal to that of high-income countries such as New Zealand and the Netherlands, and well above that of the United States, where 79% had received a first dose and only 67% were fully vaccinated.⁶

Civil society thus helped the health system overcome Bolsonaro's attacks on vaccine distribution by using social activism to persuade people to receive their shots, despite the conflicting directives of the president.

Conclusion

This article sheds new light on the sources of bureaucratic resilience by calling attention to the types of support that allow bureaucrats to defend their programs from attack. Political advocacy, the focus of existing literature, can play a crucial role in helping bureaucrats defend against attacks on policy design and regulation. As we show, however, political advocacy is often insufficient to help bureaucrats protect against attacks during the implementation phase of the policy process, because these attacks often occur outside the formal political arena. Resource provision and social activism, by contrast, can play critical roles in helping bureaucrats defend against attacks that occur outside the political arena—in the market sphere, and in the community sphere. Together, we argue, these three sources of support complement each other by defending bureaucracies from different kinds of attacks, and at different stages in the policy process.

While the interaction of these three support types has not yet been analyzed in other contexts, evidence suggests that our framework may help to explain bureaucratic resilience versus decline across a range of countries and policy sectors. In the United States, another federal system, the Covid-19 vaccine program was similarly attacked by presidential disinformation campaigns but failed to overcome them.¹¹⁵ Our argument suggests that the U.S. health system may have succumbed to attacks on vaccination because, while resources were available, it was unable to draw on broad political advocacy or social activism. In Brazil, the environmental bureaucracy was arguably as capable as its health system prior to Bolsonaro's attacks and had allies who often

engaged in social activism. Yet it failed, comparatively, to defend itself.² Our framework suggests that Brazil's environmental bureaucracy was less resilient than its health system because it was unable to draw on cross-partisan political advocacy or alternative resources in the face of government cutbacks.

At the same time, we should not expect that all bureaucracies will depend on all three types of support for political resilience. Regulatory agencies may survive attacks using political advocacy as their lone form of support because the bulk of their activity occurs inside the formal political arena. Agencies that promote human rights may not require allies who can provide resources, as their activity does not involve expensive equipment or supplies. Moreover, the types of support a bureaucracy needs to successfully defend itself at any given point in time should depend on the types of attacks it faces.

Our theoretical framework thus raises important new questions for scholars of bureaucracy as well as for scholars of institutional weakness. Others have noted the fragile nature of new institutions that promote social citizenship¹³, emphasizing how right-wing groups seek influence over the executive branch to unravel social policy expansions and new rights for identity-based groups.¹¹⁶ In this hypothesis generating article, we showed how multiple types of support may work together to protect bureaucracies from attacks on executive-branch agencies. Yet our findings do not explain the origins of different forms of support. Is such variation a path-dependent product of historical legacies, or can political entrepreneurs foster different types of allies as a strategy to protect their agencies? We call for a research agenda that explores why bureaucrats in some agencies can call upon allies for political advocacy, for resource provision, or for social activism whereas bureaucrats in other agencies are not.

This research agenda has important normative implications as well. Populist authoritarian presidents erode democracy in part by seeking to control the state. Answering the underexplored question of how to make bureaucracies more resilient to attack is essential for defending democracy across the world.

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