Routledge
Taylor & Francis Group

Journal of Comparative Policy Analysis: Research and Practice

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/fcpa20

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To cite this article: Mildred E. Warner & Xue Zhang (2021) Social Safety Nets and COVID-19 Stay Home Orders across US States: A Comparative Policy Analysis, Journal of Comparative Policy Analysis: Research and Practice, 23:2, 176-190, DOI: 10.1080/13876988.2021.1874243

To link to this article: https://doi.org/10.1080/13876988.2021.1874243

Published online: 21 Apr 2021.

Journal of Comparative Policy Analysis, 2021
Vol. 23, No. 2, 176–190, https://doi.org/10.1080/13876988.2021.1874243

Social Safety Nets and COVID-19 Stay Home Orders across US States: A Comparative Policy Analysis

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(Received 1 September 2020; accepted 5 January 2021)

ABSTRACT *Sub-national policy responses to the COVID-19 pandemic have been politicized in the US. Survival analysis was run on when stay-at-home orders were enacted and lifted across US states from March to June 2020. Results show a strong linkage between pre-crisis social safety net protections (paid sick leave, expanded Medicaid Health Insurance, higher state minimum wage, higher welfare benefits) and crisis policy response – whether a state shuts down earlier and reopens later. Republican-controlled states imposed stay-at-home orders later and reopened sooner. This comparative policy research shows that providing social safety net protections is a policy complement to public health.*

Keywords: COVID-19; stay-at-home orders; social safety net; comparative analysis of US states; survival analysis; politicization; public health

Introduction

The COVID-19 pandemic created a need for governments to engage in public health in ways that have not been seen for over a hundred years. As with the 1918 flu pandemic, differences in subnational polices on social distancing could lead to differences in the rate of spread of the disease (Markel et al. 2007). Social distancing is achieved through stay-at-home orders which, in most countries, encourage all except essential workers to stay home, limit travel and limit social engagement. The goal of stay-at-home orders was to slow the spread of the virus and reduce the rate of infections, to "flatten the curve", so hospitals would not be overwhelmed.

The countries which experienced the first COVID-19 cases were the first to implement a crisis policy response. Mainland China, Vietnam, South Korea and Taiwan (Hsiang et

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al. 2020) were the first countries to impose stay-at-home orders and these were more stringent than in the US. In the US, stay-at-home orders did not appear until after WHO declared COVID-19 a pandemic on March 11, 2020, and there was wide variation across states. The first state to implement a stay-at-home order was California on March 19, followed by Illinois and New Jersey on March 21, and New York on March 23, 2020 (New York Times 2020). These states had the highest case rates in the early stages of the pandemic. Many states implemented similar crisis policies in the subsequent weeks. But some more rural states in the mountainous west never imposed stay-at-home orders. We explore the factors which differentiate the timing of stay-at-home orders and reopen orders across US states during the first wave of the COVID-19 pandemic. While most COVID-19 literature has focused on national differences in policy response (Goniewicz et al. 2020; Hsiang et al. 2020), our research contributes to the broader comparative policy literature by highlighting the importance of subnational policy. We explore the factors that differentiate crisis policy response across US states with special attention to the effect of the pre-crisis policy environment of state social safety net supports.

In many states the shutdown orders closed schools, factories and businesses, except those deemed essential (such as healthcare, transportation, groceries and pharmacies). Unemployment soared, and by May 2020, 40 million US workers had filed for unemployment (BLS 2020a). This severe economic dislocation illustrates the high economic costs of stay-at-home orders. The first states to reopen were rural (Alaska and Montana) and southern (South Carolina, Georgia, Oklahoma, Alabama and Mississippi). While most of these states had lower total cases, their rates were growing at the time they reopened. After reopening, COVID-19 case rates began to soar in June and July 2020 in some of these states, especially Florida, Arizona, Texas and Oklahoma (Pell et al. 2020; Zhang and Warner 2020).

This paper assesses which factors differentiate when states imposed stay-at-home orders and when they reopened their economies in the first wave of the pandemic. Public health concerns (average rate of COVID-19 infections), economic dislocation (unemployment), inequality (poverty, Gini coefficient), demographics (percentage urban, race, age) and political partisanship (Republican control of the governorship and state legislature) are controlled for in the models. Special attention is given to differences in pre-crisis social safety net protections across the states (paid sick leave, expansion of access to Medicaid Health Insurance, higher state minimum wage, higher welfare benefits). It is expected that a strong pre-crisis social safety net could lessen economic hardship and make it easier for a state to impose and maintain a crisis response, such as a stay-at-home order, until it was safe, from a public health perspective, to lift it. It is shown that pre-crisis policymaking (social safety net) affects government ability to conduct crisis policymaking in response to COVID-19 (stay-at-home and reopen orders). This balance between social protection and public health has important lessons for comparative policy analysis.

Politics, Economics and Public Health

The US is a federal country and the 50 states have wide discretion in their policies, and thus provide a useful comparative case study on the role of subnational policy in crisis response (Bowman and McKenzie 2020). Unlike other countries where the national government took the lead in the COVID-19 response, President Trump was clear that the responsibility for responding to the pandemic rested with the states – for testing, ensuring adequate medical

supplies, and deciding when to shut down and when to reopen their economies (Kettl 2020; Shear et al. 2020; White House and CDC 2020). While there are always challenges for policy coordination in a multi-level governance system (Liu et al. 2021), the US case shows particularly dramatic differences across states (Zhang and Warner 2020). States had to craft a balance between the public health benefits of social distancing and the economic disruption of shutting down businesses and schools. President Trump had little patience for extending stay-at-home orders, arguing that he wanted to reopen by Easter (April 12, 2020) and have church pews crowded (Karni and McNeil 2020). He then began to encourage citizens to pressure their states to reopen with a series of tweets to "liberate" their state – mostly aimed at states with Democratic governors considered competitive in the upcoming November 2020 presidential race, such as Michigan, Minnesota and Virginia. Protest rallies to "liberate" states followed, with mostly white residents demanding that states reopen (Mauger and LeBlanc 2020). Shocking media images included protestors entering the Michigan state capitol building with assault rifles on April 15, protesting against Governor Gretchen Whitmer's extension of the stay-at-home order to May 15 (Panetta 2020). For Democratic governors in states with Republican-dominated state legislatures, partisan conflict made imposing crisis policies more difficult, but in states with Republican control of both the legislature and the governor, stay-at-home policies were least likely to be implemented (Kettl 2020). It is important for policy scholars to pay attention to political control in both the executive branch and legislative branch of subnational state governments.

From a public policy perspective, public health and economic dislocation were presented as a trade-off and this contributed to the politicization of the state response. Stay-at-home orders led to huge economic dislocation, for both individuals and firms, but social distancing was the only public health response to reduce the spread of COVID-19 infection. The political debate in spring 2020 centered on the trade-off between public health and the economy, rather than the idea that controlling the virus would help the economy to reopen. However, both economists and public health experts have challenged this as a false trade-off, arguing instead that policies to protect public health are the only way to restart the economy (Chetty et al. 2020; Romer 2020).

Research suggests that, in fact, the US was late to impose shutdown orders. Community spread was already happening, undetected, long before shutdowns occurred. Simulations run by scholars at Colombia University estimated that 61 percent of infections and 55 percent of deaths by May 3, could have been prevented if shutdown orders had been implemented just one week earlier (Pei et al. 2020). In New York State, Governor Cuomo cited as justification for the state's early action the report's estimate that 36,000 more deaths would have happened in New York if the state had not shut down when it did.

Both the economic and the health effects of the pandemic have fallen heaviest on low-income communities of color (Selden and Berdahl 2020). Unemployment is higher among Blacks and Latinos (Brown 2020). For those who retained their jobs, people of color are more likely to be deemed essential workers in jobs that are low paid and offer minimal social safety net protections (food service, delivery, etc.). By contrast, those able to work from home (and thus avoid virus exposure) are more likely to be white and higher paid. Thus, both the economic and health risks are borne more heavily by those on low incomes, and people of color. When COVID-19 strikes, the presence of comorbidities (diabetes, obesity, preexisting health conditions) further disadvantages people of color, whose infection and death rates vastly exceed those of whites (CDC 2020). The legacy of institutional

racism in access to healthcare, housing and economic opportunity also contributes to the higher incidence of COVID-19 in minority communities (Pirtle 2020).

Chetty et al. (2020) found that spending in the US dropped most among the highest-income earners and this also contributed to the economic dislocation of lower-income workers. They argue that congressional aid, like the Pay Check Protection Program, which targeted businesses, did little to address this discrepancy. The CARES act, passed by Congress on March 27, 2020, also expanded unemployment insurance and helped reduce discrepancies across states by guaranteeing a minimum weekly payment of US$600. Unemployment insurance reaches middle- and lower-income workers who are more likely to spend the funds received, and this has a stimulus effect on the broader economy. Addressing the needs of those on middle and lower incomes, actually has a more positive effect on the overall economy. Inequality has been a rising concern in advanced industrialized economies, as evidenced in Piketty's (2014) work on returns to capital versus returns to labor. Improvements in wages and worker protections can be good not only for workers, but also have a broader positive stimulus effect on the economy.

Federalism and the Patchwork of US Safety Net Policies

As a federal nation, many labor and social welfare policies are made at the state level in the US. Scholars have written about the importance of federalism to promote policy innovation and fiscal responsibility (Oates 1972). Others have noted the role of "states' rights" in creating an uneven landscape of policies across the country (MacLean 2017; Hertel-Fernandez 2019; Kettl 2020). The role of the subnational state in the US is critical in determining access to services and social citizenship rights (Kim and Warner 2018). This is especially true when it comes to social safety net policies and labor rights (Katz 2002; Kim et al. 2020; Warner and Xu 2021). In the US, policies for "deserving" workers, like unemployment insurance, are much more generous than policies for the "undeserving" poor like welfare and Medicaid (Katz 2002). We explore this distinction in our analysis, differentiating unemployment from broader social safety net supports.

As part of its crisis policymaking response to COVID-19, the US Congress gave heavy emphasis to expanding unemployment benefits provided by the 50 states. The CARES act, passed in March 2020, extended the time limit for unemployment benefits and expanded worker eligibility to include gig workers (US Treasury 2020). It also added US$600/week to the state level of unemployment compensation (which, pre-crisis, varied widely by state from a low of US$235/week in Mississippi to a high of US$823/week in Massachusetts). The CARES act increased unemployment insurance for workers across all 50 states, but it did not address paid sick leave or Medicaid access.

Pre-crisis policy regarding health and social safety net programs sets the environment in which crisis policy response (such as stay-at-home and reopen orders) are implemented. These pre-crisis social safety net policies are highly variable across the states and provide an important context for our analysis. Under the Affordable Care Act in 2010, states were given the opportunity to expand Medicaid (the health insurance program for low-income residents). Thirty-six states expanded Medicaid access for those too poor to purchase healthcare insurance on the market-based exchanges (Kaiser Family Foundation 2020a). This is especially important for those without employer-provided health insurance, as state programs can help address the need. The US federalist approach gives states wide discretion

in how Medicaid is designed and implemented, and these differences in state benefit levels affect residents' level of political engagement (Michener 2018).

Sick leave is another area of difference across states. There is no federal policy on paid sick leave, and many workers have none. Only 13 states require private employers to provide paid sick leave (Arizona, California, Connecticut, Maryland, Massachusetts, Michigan, New York, Oregon, Rhode Island, Vermont, Washington) (A Better Balance 2020). Paid leave is critical to allow sick workers to stay at home. For those at the bottom of the labor market, state policies set the floor on employer actions, and we control for Medicaid expansion and paid sick leave in our analysis.

Minimum wage is another important area of state variation. The federal minimum wage of US$7.25 per hour has only one-third the purchasing power it had in 1970 (Lafer 2017). Twenty-nine states have raised their state minimum wage above the federal minimum (EPI 2020). In the 2018 elections, even traditionally conservative states like Arkansas, Arizona and Missouri increased their states' minimum wage above the federal level (EPI 2020).

Welfare benefits are limited to a small set of eligible citizens. The primary program, Temporary Assistance for Needy Families (TANF), shows dramatic differences in both the level of benefits and eligibility across states (Urban Institute 2018). This variation is significantly tied to race, as states with higher African American populations offer lower benefits (Hahn et al. 2017). Katz (2002) has termed this variation in social rights, the "price of citizenship". Katz notes that social safety net policies for the "undeserving" poor are more limited than policies for "deserving" workers, such as unemployment insurance.

Progressive political movements have sought to build coalitions between labor, social activists and state and local governments to broaden access to social rights. Success has been seen in labor rights – minimum wage and paid sick leave (Doussard 2013). But conservative political movements have pushed back on social rights. For example, the American Legislative Exchange Council (ALEC), funded by the Koch brothers, pushes an anti-labor agenda at the state level because it sees the subnational state as easier to penetrate than the federal government, especially in states with consolidated Republican control (legislature and governor) (Kim et al. 2020). State legislatures are often part time, lack policy think tanks and increasingly are under Republican control. Lafer (2017) argues that ALEC's efforts are designed to reduce the citizen's expectation of rights that can be protected by the state. But in the context of the COVID-19 pandemic, states which have a broader pre-crisis set of social safety net policies may be more likely to impose and maintain stay-at-home orders because the economic hardship is partly ameliorated. The importance of pre-crisis policy on the crisis policy choice at the subnational level is one of the core questions explored in this paper.

Data

We are interested in the extent to which the date of stay-at-home orders and reopening can be explained by public health, social safety net benefits, political partisanship, economic hardship and demographic factors during the first wave of the COVID-19 pandemic (March to mid-June 2020). The New York Times (2020) developed trackers of state policy and of COVID-19 case rates, which we use in our study. The earliest state to impose stay-at-home orders did so eight days after the pandemic was declared (California), and the latest state imposed the order 27 days after (South Carolina). There are eight states that never imposed a stay-at-home order (Figure 1, shown as

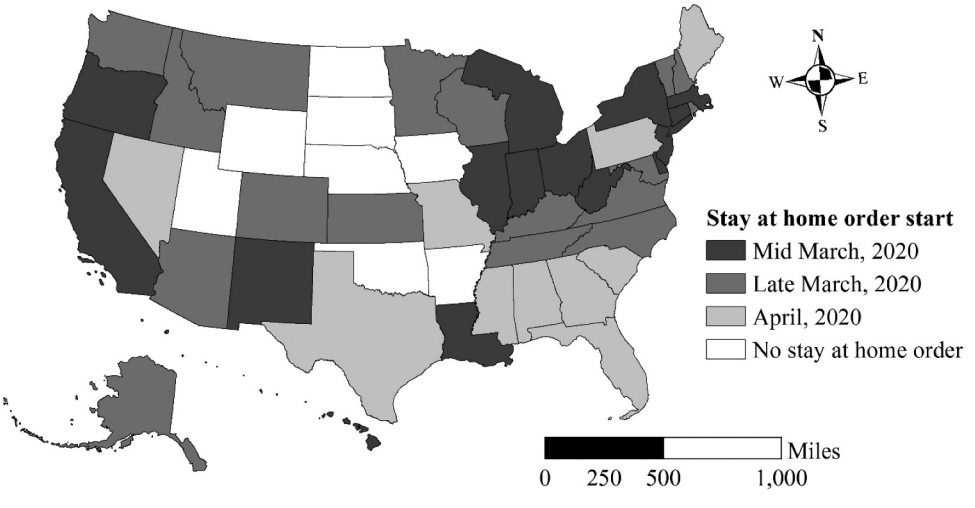
blank), and we coded the start dates of those states as 99 to differentiate them from other states.

The *New York Times* reported the reopen date as the earliest regional reopen date within the states. The earliest reopening date was 40 days after March 11 (South Carolina, followed by Georgia), but most states began reopening after 60 days (see Figure 2). New Jersey had the latest reopening date (90 days after March 11). Tennessee was the only state still in regional shutdown on June 22 (when we conducted our analysis), so we used the stay-at-home order expire date as the reopen date in our analysis. For the eight states that did not impose a statewide stay-at-home order, they still announced a reopening date and thus form part of our analysis.

We built a database for all 50 states and ran survival analysis on factors related to the start date of state stay-at-home orders and start date of state reopening orders. Descriptive statistics of model variables are shown in Table 1. We test shutdown and reopening against the level of COVID-19 infections. We use average COVID-19 infections/tests as of March 31 in the shutdown model and the average infections/tests as of May 31 in the reopening model. Both COVID-19 measures are calculated by the total number of confirmed cases divided by total number of tests as of the end of March 2020 and as of the end of May 2020 to capture the COVID-19 spread when most states shut down (end of March, Figure 1) and reopened (end of May, Figure 2). Table 1 shows that the average infection rate was higher at the end of March than at the end of May 2020. Stay-at-home orders were in response to the high infection rate, and we also expect state reopening to be related to a decline in the average COVID-19 infection rate, as this was part of the Centers for Disease Control and Prevention (CDC) guidelines for reopening (White House and CDC 2020).

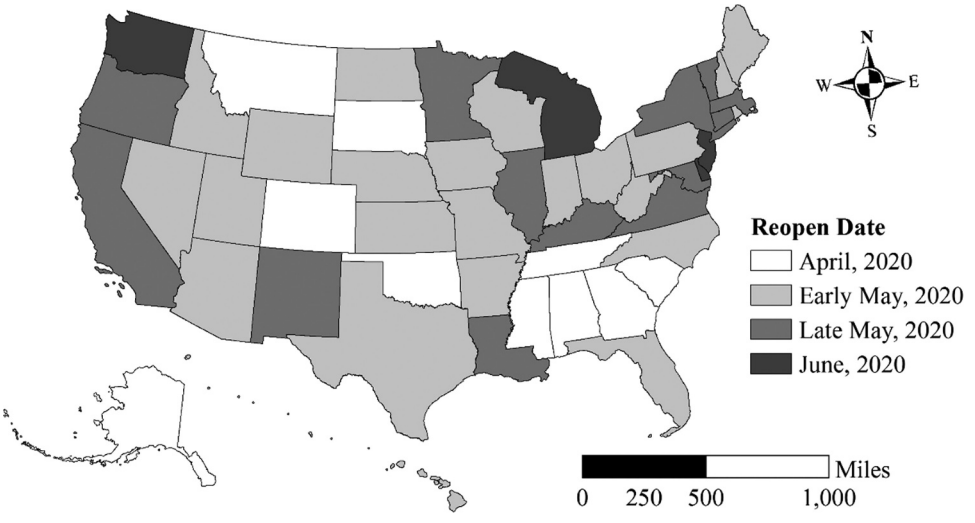
For political partisanship we differentiate states where there is unified Republican control of both the state legislature and the governorship, using data from the National Conference of State Legislatures (2020). Governors may issue public health orders, but

Figure 1. COVID-19 stay-at-home orders



Source: Author analysis of New York Times COVID-19 Tracker Data Base.

Figure 2. COVID-19 reopen dates



Source: Author analysis of New York Times COVID-19 Tracker Data Base.

Table 1. Descriptive statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
Start date of stay-at-home order (days since March 11, missing value = 99)[1]	50	29.76	30.83	8	99
Reopening date (days since March 11)[1]	50	59.08	11.33	40	90
Social safety net (factor score)	50	0.00	1.00	−1.44	1.95
Inequality (factor score)	50	0.00	1.00	−1.92	2.00
Unified Republican control (1 = yes) [2]	50	0.44	0.50	0	1
Unemployment rate (03/2020, %)[3]	50	4.16	1.14	2.2	6.9
Unemployment rate (05/2020, %)[3]	50	11.27	3.85	3.49	27.15
COVID-19 positive cases/tests (as of 03/31)[4]	50	11.46	9.16	2.24	40.85
COVID-19 positive cases/tests (as of 05/31)[4]	50	8.59	5.03	0.84	21.50
Urban population (%)[5]	50	73.59	14.57	38.7	95
Minority population (%)[6]	50	30.89	15.65	6.62	77.88
Population over 65 (%)[6]	50	15.64	1.81	10.52	19.73

Data sources: 1. New York Times States reopen map, https://www.nytimes.com/interactive/2020/us/states-reopen-map-coronavirus.html (accessed June 22). 2. National Conference of State Legislatures, State Partisan Composition (2020). 3. U.S. Bureau of Labor Statistics (2020a). 4. New York Times COVID-19 Tracker (2020). 5. US Census (2010). 6. American Community Survey (2014–2018).
Note: social safety net and inequality are based on factor analysis. Data sources are shown in Table 2.

cannot maintain them if they do not have support from the state legislature. We expect states with consolidated Republican control to impose stay-at-home orders later and reopen sooner. In states where Democratic governors faced Republican legislatures, maintaining stay-at-home orders was more contested (as in Wisconsin where the governor's stay-at-home order was overruled by the legislature). In states with Republican

governors and Democratic legislatures, such as Maryland, Massachusetts, New Hampshire and Vermont, public health orders were more similar in timing to those in Democratic-controlled states.

For economic dislocation we use the unemployment rate from the Bureau of Labor Statistics from March 2020 in the shutdown model, and from May 2020 in the reopening model. We expect that states with higher unemployment rates may have felt pressured to reopen sooner. For demographic data we use percentage urban from the 2010 US Census, and race and age from the most recent data from the American Community Survey 2014–2018 rolling averages). Urban areas were hit first with the virus, and COVID-19 case rates were higher among minorities and the poor. COVID-19 case rates also were higher among the elderly. States facing more COVID-19 public health challenges would be expected to shut down earlier and reopen later.

Our measure of the social safety net includes four elements: (1) Medicaid expansion (drawn from the Kaiser Family Foundation (2020a), states which adopted Medicaid expansion are coded as 1); (2) state minimum wage (drawn from EPI 2020, dollars per hour); (3) Paid sick leave (drawn from A Better Balance 2020, states with paid sick leave are coded as 1); and (4) TANF benefit (drawn from the Urban Institute Welfare Rules Database 2018, maximum monthly benefit ($) for a family of three). We ran a factor analysis, shown in Table 2, which differentiated these social safety net policies into one factor, and economic inequality (poverty and Gini coefficient) into another factor. Poverty and the Gini coefficient of inequality are drawn from the American Community Survey (2014–2018; rolling averages, the most recent available data). We run these two factors in our models.

Analysis

We assess which factors differentiate the date of stay-at-home and reopening orders, based on public health, economic dislocation, social safety net, political partisanship and demographic factors. We also control for the stay-at-home order start date in the reopening model. The framework for our analysis is given in Figure 3.

We use survival analysis to test our two dependent variables, stay-at-home and reopen date. We ran a Cox Proportional Hazards model using survival analysis to explore the relation between the start date of the stay-at-home order and the date of reopening and the covariates. An earlier stay-at-home order date would be good for public health, and an earlier reopening date would be deleterious to public health, as cases were still rising in all 50 states in April and May 2020. Models are calculated in STATA 14.

Table 2. Factor analysis results: social safety net and inequality

	Social safety net		**Inequality**
Medicaid Expansion (1 = adopted)[1]	0.6875	Gini index (0–1)[5]	0.8758
State minimum wage ($)[2]	0.879		
Paid sick leave (1 = yes)[3]	0.8168	Poverty (%)[5]	0.8758
TANF benefit (family of three, $)[4]	0.6704		

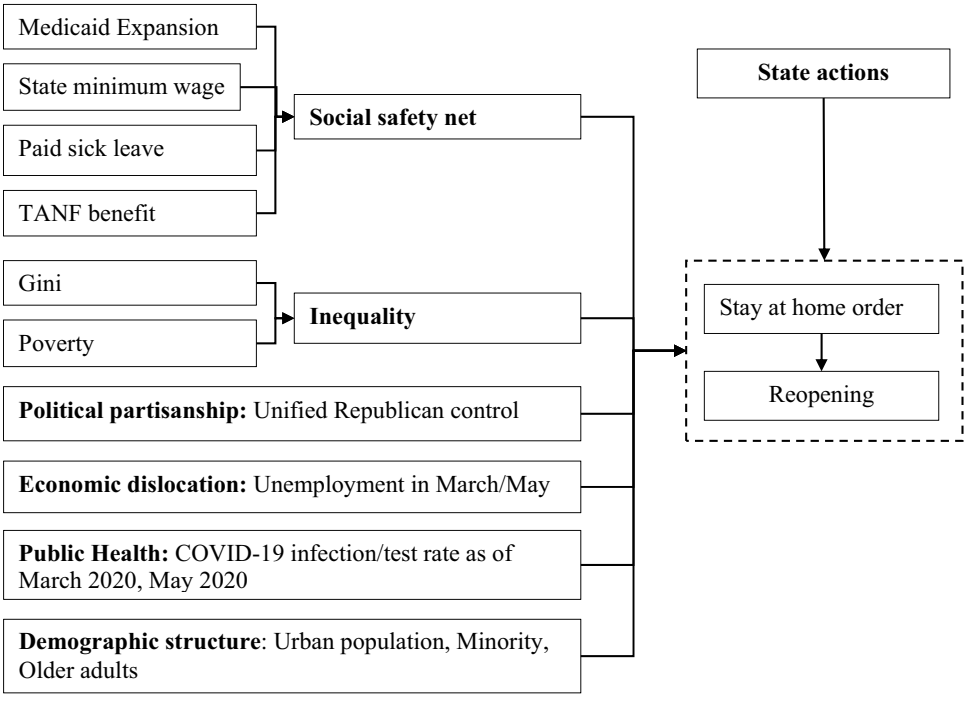
Data source: 1. Kaiser Family Foundation. Status of State Medicaid Expansion Decisions: Interactive Map (2020a). 2. Employment Policies Institute, Minimum Wage Facts & Analysis (2020). 3. A Better Balance interactive overview of paid sick time laws in the United States (2020). 4. Urban Institute Welfare Rules Database (2018), Table II.A.4. Maximum Monthly Benefit for a Family of Three with No Income. 5. American Community Survey (2014–2018).

The Cox Proportional Hazard model analyzes the time it takes for a "hazard event" to occur (Cox 1972), which in this case is how many days it takes a state to implement a stay-at-home order and a reopening order after the COVID-19 pandemic was declared on March 11, 2020. Compared to other survival models, which are limited to categorical independent variables, Cox Proportional Hazard regression can analyze continuous data and measure the impact of several factors simultaneously (Cox 1972). The test of proportional hazards assumptions (StataCorp 2017) shows that the hazard-ratio function is constant over time, and the assumption is not violated for either the stay-at-home order model (global test $p = 0.98$) or the reopening model (global test $p = 0.96$).

Results (Table 3) show that stay-at-home orders were imposed earlier in states with more robust social safety nets (hazard ratio 1.59), and a higher level of inequality (hazard ratio 1.67). They were imposed later in states with unified Republican control (hazard ratio 0.16). The opposite results are found for reopen dates. States with more robust social safety nets and more inequality reopened later (hazard ratio 0.65, 0.64 respectively), and those with unified Republican control reopened earlier (hazard ratio 8.56). We used natural breaks to separate the social safety net into three levels: low, medium and high. Republican-controlled states tend to have lower social safety net protections (Figure 4).

In addition, states with a higher percentage of minorities reopened earlier (hazard ratio 1.04), while states with a higher percentage of urban population reopened later (hazard ratio 0.96). None of the other model variables are significant. Economic dislocation (unemployment) is not a driving factor; nor is the COVID-19 case rate. Thus, despite the

Figure 3. Research framework



argument of the trade-off between economic and public health concerns, neither economic dislocation nor the COVID-19 case rate differentiate the date of state stay-at-home and reopen orders. Most demographic variables do not differentiate the dates of these orders either. States with more older residents did not shut down or reopen earlier, while more urban states reopened later. However, states with more minority population did reopen earlier, despite higher COVID-19 infection rates in minority populations.

Discussion

Our analysis of state policy choices on shutdown and reopening shows that neither the COVID-19 case rate nor unemployment differentiate the dates of shutdown and reopen orders across states. What differentiates subnational state policy differences in crisis policy response is the pre-crisis social safety net policies, and Republican partisan control. When we excluded the social safety net factor from the model, unemployment and COVID-19 case rate are still not significant. We also ran models including unemployment insurance levels pre- and post-crisis, but neither variable was significant. The key variables differentiating the timing of state crisis policies were pre-crisis social safety net policy and political partisanship.

Although cases were higher in urban areas first, and in low-income minority communities and among the elderly (CDC 2020), demographic characteristics generally do not differentiate state action on stay-at-home orders. While urban areas are more likely to have had a later reopen date, states with a higher percentage of minorities had an earlier reopen date.

We also tested if New York State might be an influential outlier. New York State was an early COVID-19 hotspot. It had the highest COVID-19 case rates in the nation, high minority population, high inequality, more generous social safety net policies and it shut

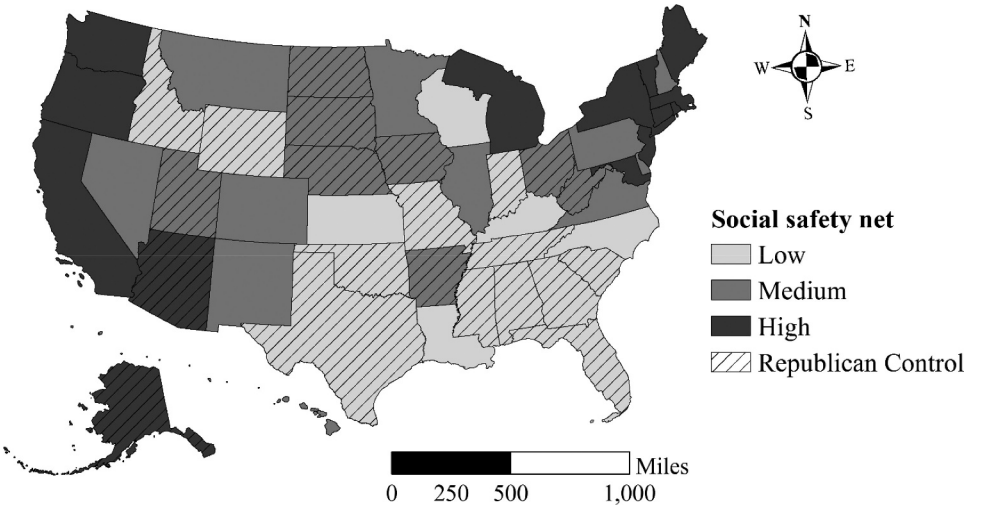
Table 3. Model results: COVID-19 stay-at-home and reopen orders, US states

	Stay-at-home Early start date[1]		**Reopen Early start date[1]**	
	Haz. ratio	**Std. Err.**	**Haz. ratio**	**Std. Err.**
Social safety net (factor score)	1.59*	(0.32)	0.65*	(0.13)
Inequality (factor score)	1.67*	(0.43)	0.64*	(0.13)
Unified Republican control (1 = yes)[2]	0.16**	(0.08)	8.56**	(4.56)
Unemployment rate (03/2020, %)[3]	0.96	(0.17)	–	–
Unemployment rate (05/2020, %)[3]	–	–	0.95	(0.05)
COVID-19 positive/test rate as of 03/31 (%)[4]	1.01	(0.02)	–	–
COVID-19 positive/test rate as of 05/31 (%)[4]	–	–	0.95	(0.04)
Percentage of urban population (%)[5]	1.01	(0.02)	0.96*	(0.02)
Percentage of minority population (%)[6]	1.00	(0.02)	1.04*	(0.02)
Percentage of population over 65 (%)[6]	0.95	(0.10)	0.94	(0.10)
Stay-at-home start date[1]	–	–	1.00	(0.01)
N	50		50	
Log likelihood	−136.00		−128.4	

Survival analysis, * $p < 0.05$, ** $p < 0.01$.

Data sources: 1. New York Times States reopen map https://www.nytimes.com/interactive/2020/us/states-reopen-map-coronavirus.html (accessed June 22, 2020). 2. National Conference of State Legislatures, State Partisan Composition (2020). 3. Bureau of Labor Statistics. U.S. Department of Labor (2020a). 4. New York Times COVID-19 Tracker (2020). 5. US Census (2010). 6. American Community Survey (2014–2018).

Figure 4. Social safety net and unified Republican control



Source: Author analysis based on data from Table 1 and Table 2 (2018–2020).

down earlier. However, when we exclude New York from the model, we obtain similar results, except inequality is not significant in the stay-at-home model.

What are the lessons for public policy? One of the core policy questions in the pandemic has been the trade-off between the public health benefits of stay-at-home orders and the economic dislocation caused by them. Economists and public health experts have argued that policies to protect public health are the only way to restart the economy (Chetty et al. 2020; Romer 2020). Our models show safety nets are a critical component of public health. Our findings contribute to the vast literature on the social determinants of health that makes clear the connection between social supports and public health (US HSS 2020). Without a social safety net, it is more difficult for a state to impose a stay-at-home order and it is more likely to feel pressured to reopen sooner. Many states that opened up early began experiencing severe spikes in COVID-19 infection rates in June 2020 (e.g. Alabama, Florida and Texas).

Second, subnational policy matters. Public health has become politicized in the US. States with unified Republican control imposed shutdown orders later and reopening orders sooner, despite their level of COVID-19 infections or demographic characteristics related to higher infection rates. The politicization was influenced from the top, as President Trump expressed impatience with public health directives and focused more on the need to open up the economy. Consolidated partisan control across legislative and executive branches led Republican governors in Republican-controlled state legislatures to follow the president's lead and open up. Democratic governors did not reopen sooner, even if they were targets of President Trump and his encouragement of civil protests in the "Liberate" rallies. Republican governors in states with Democratic legislatures were also more likely to impose earlier stay-at-home orders and later reopening. Polls show the majority of residents across the country supported the public health criteria for shutdown and reopening (Kaiser Family Foundation 2020b), but the differences

across the states reflect the increasing division in policy approaches across states in the US federal system and the role of Republican partisan control at the subnational level (Kettl 2020).

Third, social safety nets are critical. Most social supports in the US are limited to "deserving" workers (Katz 2002). The federalist structure of health and welfare programs results in states with the highest poverty and more minority populations offering more meager social safety net benefits (Hahn et al. 2017; Kaiser Family Foundation 2020a). These are also the states least likely to protect public health. The structure of social welfare programs contributes to lower political participation (Michener 2018), and the erosion of citizen expectations of the state (Lafer 2017) makes it possible for these states to eschew crisis policies to protect public health.

From a comparative policy perspective, the US is understood to be a market-oriented state (Esping-Andersen 1990). Most social welfare supports are linked to labor market participation and primarily delivered through employers. Comparative policy analysis uses the welfare conventions framework to differentiate the political rationales and tools that underly welfare approaches across national contexts (Chiapello and Knoll 2020). In the US, the market/entrepreneurial approach makes it difficult for policymakers to use the civic and communitarian conventions that are more appropriate to a public health response. Entrepreneurial/market welfare conventions are most common where social rights are least secure (Tse and Warner 2020). The limited social rights in the US help explain why many states do not make a direct connection between social safety net protections and broader public health.

An important lesson of this research is that social safety nets are important *both* for public health and for economic recovery. This dual role of social safety nets could lead to a reinterpretation of the market/entrepreneurial welfare convention in the US that recognizes social safety nets as contributing to both social welfare and economic stimulus. While the impacts on economic recovery are beyond the scope of this research, economic simulations show the importance of a public health approach that is complemented by economic policy that addresses both inequality and economic dislocation (Chetty et al. 2020). For example, consumer spending is a critical component of the US economy and those in the bottom income quintiles spend all they make. These expenditures especially stimulate the local economy because they are concentrated in local goods and services, such as housing, transportation and food (Warner and Liu 2005; BLS 2020b). International comparative research is beginning to investigate the economic impacts of safety net, tax and business stimulus policies (Devereux et al. 2020; Hale et al. 2020). The COVID-19 pandemic could give more force to policy proposals such as universal basic income, universal access to healthcare and paid sick leave – both for their economic stimulus benefits and their contribution to social welfare.

Another policy lesson is how to overcome the challenge of the politicization of public health (Goldberg 2012). Public health is a broad public good, but the costs of the COVID-19 pandemic have been borne unequally. Infection and death as well as economic dislocation have hit low-income, minority and elderly residents the hardest (CDC 2020). COVID-19 has highlighted structural racism in US society (Pirtle 2020). In Republican-controlled states with more meager social safety nets, the welfare of these groups has been sacrificed to economic reopening. Republican-controlled states also were less likely to protect low-income residents from water disconnection during the pandemic (Warner et al. 2020). The US faces a challenge in how to build a sense of public health, public good and shared sacrifice. The COVID-19 pandemic response is heightening inequalities. It is also heightening awareness of the challenges of subnational policy coordination in a multi-level governance system (Kettl 2020; Liu et al. 2021).

Conclusion

The public health response to the COVID-19 pandemic required social distancing and led many US states to impose stay-at-home orders. This analysis explored which factors differentiate when states imposed stay-at-home orders and when they reopened their economies in the first wave of the pandemic (March–June 2020). After controlling for COVID-19 infection rates, demographic factors and economic dislocation, our models find that states with more robust social safety nets imposed stay-at-home orders sooner and lifted them later. This shows safety nets are part of a public health response. They represent the pre-crisis policy environment that enables an appropriate crisis policy response. Partisan control at the subnational level is also an issue, as states with unified Republican control of both the governorship and state legislature imposed stay-at-home orders later and lifted them sooner. This shows the politicization of public health. The COVID-19 pandemic has revealed problems with structural inequality in US society, not just by race and class but also by geography, as Republican-controlled states were slower to enact appropriate public health policies. Comparative analysis across the 50 US states shows the importance of studying differences in subnational policy and the role of pre-crisis social safety net policies in facilitating an appropriate policy response to a public health crisis. This is a critical lesson from COVID-19.

Funding

This work was supported in part by the Agricultural and Food Research Initiative of the United States Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA) [grant number #2019-68006-29674, #2021-67023-34437] and by the Cornell Center for Social Sciences and the Cornell Center for the Study of Inequality.

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