Local Political Institutions and First-Mover Policy Responses to COVID-19

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ABSTRACT

In the United States, the federal government's slow response to the COVID-19 pandemic and localized instances of outbreaks devolved initial policy responses to state and local governments. But not all local governments reacted in equal measure. Was a delayed response in cities due simply to timing of infections, or did politics and political institutions play a role? We use crowd-sourced data to assess local governments' policy responses to the pandemic amidst escalating cases and a scattershot approach to policymaking. Combining a unique dataset of the presence of local shelter-in-place, business closure, and gathering size policies with data on local COVID cases, ideology, partisanship, and institutional capacity, we find that evidence that federalism, demand, and ideology influence local governments' COVID-19 policy responses.

Keywords: COVID; local governments; policy response; partisanship; fiscal capacity; federalism

The Center for Disease Control received notification of the first confirmed case of COVID-19 in the United States on January 22, 2020 and warned

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the American public to prepare for local outbreaks by the end of February. COVID-19 is a novel, highly contagious respiratory illness colloquially known as coronavirus, a category of virus which includes other respiratory infections, such as the common cold, and causes symptoms that range from mild to severe and/or fatal.

Following localized instances of outbreaks and the federal government's dysfunctional and slow response to the epidemic, local and state leaders crafted varied initial public health policy responses to slow the progression of the virus, as the CDC warned widespread disease transmission might overload healthcare systems. Beginning with Seattle and Washington State where the first cases of COVID-19 were detected, state and local leaders declared states of emergency and began issuing restrictions as local transmission spread throughout the country. But not all local governments reacted in equal measure. Indeed, by the time COVID-19 had spread to all 50 states on March 17, local governments had constructed a patchwork of COVID-related policies.

Some cities reacted slowly to the rapidly spreading pandemic. While New York City Mayor Bill de Blasio joked at a press conference that New Yorkers should go get one last drink at their favorite neighborhood bar, Seattle's Mayor Jenny Durkan declared a state of emergency (Goodman, 2020). These reactions suggest an uneven response to COVID cases: when de Blasio ordered schools to be closed on March 15, the city already had 329 cases. In comparison, San Francisco ordered schools to be on March 12, three days earlier to that on de Blasio, with 12 total cases.

Was the delay in response in some cities — and the quick response in others — due simply related to the timing of infections, or did political institutions and politics play a role? We examine local COVID responses within potential institutional and policy demand explanations. Federalism recognizes that local governments in the United States operate within a system of state policy supremacy and state reactions may shape local government responses. Demand suggests cities were simply responding to infection rates from COVID, and responses will be commensurate to the risk from the pandemic. Institutional capacity recognizes that some local governments are better able to respond with agility and resources because of local power structures or finances. Finally, politics acknowledges that the United States is a highly polarized nation (Mason, 2018) and partisanship shapes both the views of the COVID-19 crisis and local policy, so that Democratic mayors and liberal cities may have reacted more quickly to the threat of COVID.

In this article, we explore what shapes local leaders' responses to the pandemic at the very beginning of policymaking. We collected crowd-sourced data (Sumner *et al.*, 2020) on whether every city with a population of 5,000 or more residents in the United States had created a local policy or policies to address COVID at the beginning of the crisis (March 19–21, 2020). Pairing this with information about local COVID cases, partisanship, ideology, and

institutional capacity, we find that local government policy relates to state policy, demand from cases, and local ideology, with little evidence of partisanship or institutional capacity shaping reactions.

Local Policymaking in the United States

The United States' system of federalism constitutionally shares governing powers between the national and state governments; this sharing can include separate powers or overlapping powers. State governments then share powers with local governments via city charters, state legislation, and federal mandates, devolving authority and policy to state and local governments. Although nonentities in the constitution, local governments often act independently to make important policy decisions. Facing political, societal, and economic pressures, cities adopt different policy solutions at different times to shared problems (Shipan and Volden, 2006). New and emerging problems or policy vacuums from inaction at the federal level prompt local policy innovation; for example, local and state governments have taken the lead in addressing climate change as the national government has failed to act (Bromley-Trujillo and Holman, 2020).

The quick spread of the COVID-19 pandemic across the world and throughout America prompted a variety of local interventions. In other countries, national governments led. After a delayed response, China reacted with an aggressive lockdown. Strong national responses in countries ranging from Iceland to New Zealand to South Korea involved lockdowns, aggressive testing, and contact tracing protocols. The federal government in the United States failed to pursue any of these strategies.

Instead, the US federal government's haphazard and uncoordinated response to the COVID pandemic and localized instances of outbreaks devolved initial policy responses to state and local governments. As it became clear that sustained community transmission would contribute substantially to the spread of COVID, state and local leaders still received inconsistent and unclear guidelines from federal leaders (Kettl, 2020). Within the context of COVID, chaos at the federal level produced a vacuum, leaving policy-making up to state and local governments.

Beginning on March 16, 2020 in the Bay area in California, local governments began issuing stay-at-home orders. The state of California soon issued a state-wide stay at home order. Governors and public health officials in other states followed suit, issuing stay-at-home orders, closing businesses, and limiting the size of gatherings. In other states (such as Florida and Texas), the state governments initially left policymaking up to local officials. Other governors resisted any kind of policy response, even going as far as to limit

the ability of local governments to create policies. As a result, policy decisions were often left up to local governments.

Local Responses to COVID

We examine four potential factors that shaped local COVID policy: federalism, demand, institutional capacity, and politics.

Federalism: State governments can limit local government autonomy, as well as overlap in policy, potentially causing conflict in state-local relations (Einstein and Glick, 2017). By March 19, only one state (California) had implemented a stay-at-home order. Eleven days later, with 186,000 cases of COVID across the United States, 32 states had stay-at-home order in effect (Kates et al., 2020). Under these unique circumstances, local leaders may look to state officials to cover the policy need or local governments may need to act in the absence of state action. Alternatively, cities in states where the state government has already acted in a policy arena could take a cue from the state government and choose to duplicate that policy by offering their own, potentially more aggressive, local policy. For example, in a state where gatherings had been limited to 25 people, a local government might choose to cap the gathering size to 10 people.

Demand: It is intuitive to expect that the severity of a problem in a locale ought to drive policy focus and response. For example, in exploring Canadian municipal COVID policy, Armstrong and Lucas (2020) find that municipal COVID policy response relates to the city's case totals. Cities in our sample may simply respond to infection rates and deaths from COVID; we expect responses will be commensurate to the risk from the spreading pandemic.

Institutional Capacity: Not all local governments are equally able to respond with agility and resources. Indeed, the fiscal capacity of local governments varies dramatically across the United States (Borge et al., 2008), with some local governments controlling a wide set of resources and others teetering on the brink of financial ruin. Some mayors are able to more quickly react to challenges because the institutional structure of their position (specifically, a strong-mayor system) allows them executive power not afforded to other mayors, who govern in a council-manager system and need agreement from other political leaders (Nelson and Svara, 2012). We look specifically at whether those cities with a mayor-council system of government and those cities with more financial capacity were better able to quickly respond to policy demands.

Politics: Affective polarization in the United States in 2020 means that partisanship shapes how people view a wide set of policy issues, process political information, and trust political actors. Donald Trump's reactions to the pandemic, particularly calling it a Democratic conspiracy, heightened polarization around the issue. A central outcome has been that partisanship shapes views of the COVID crisis (Gadarian et al., 2020) and willingness to comply with government recommendations (Grossman et al., 2020). This translated to communications and policy: Democratic members of Congress discussed COVID more frequently (Green et al., 2020) and Democratic governors acted more quickly to implement social distancing measures (Adolph et al., 2020).

With the increasingly nationalized politics across America (Hopkins, 2018) and partisan divide over pandemic responses, we expect that Democratic mayors and cities with more liberal voters may be quicker to respond with local COVID policy. Local politicians may be responsive to the ideology and preferences of their local community, as citizens' preferences shape city policies, at least in part through the election of the mayor (Tausanovitch and Warshaw, 2014). Mayoral partisanship impacts local fiscal policy with more liberal cities and counties generally electing more Democratic mayors and county commissioners who increase municipal and county expenditures (de Benedictis-Kessner and Warshaw, 2016, 2020). Mayors and local-elected officials may also lead public opinion by creating policy that then shapes public preferences. Given the lack of federal coordination during the pandemic, Democratic mayors or cities with more Democratic voters may be more likely to react quickly and aggressively. We explore the partial partial of the mayor and governor and the ideology of the city's voters to examine questions of responsiveness and representation in setting local COVID policy.

Data and Methods

Our dependent variable is the city's policy reaction to COVID-19. Identifying local responses to COVID is a methodological challenge: slim information was available about early local responses¹ and with over 1,000 municipalities (and 3,000 counties and 700 special health districts), the manual data collection presents an obstacle (Trounstine, 2020). For example, there are more than 650 cities with a population over 5,000 residents in the United States. Collecting time sensitive data, such as which cities have implemented a COVID policy at the beginning of the crisis, makes manual data collection almost impossible. We thus turn to a new crowdsourcing method (Sumner et al., 2020) that allows for a quick and reliable collection of a large set of data across a wide set of local jurisdictions.

¹Like much work on urban policymaking more generally, the National League of Cities dataset primarily focuses on larger cities.

For the 674 cities with a population over 5,000, we asked at least three workers on Amazon's MTurk platform to find COVID policy information about a specific city on March 19–21, 2020. In addition to what policies were in place in that city, workers provided which level of government had responded (local city, local county, appointed, or state-level). Because multiple workers collected information on each city, we established a "consensus" (see Sumner et al., 2020) answer of whether a policy exists in a particular place. For those cities with policies, we collected and verified the form of the policy, including limiting the size of social gatherings (28% of cities), closing certain types of businesses, such as bars or music venues (30% of cities), and mandating shelter-in-place (7% of cities).

Key Independent Variables

To examine which cities were "first movers" in crafting policy in response to COVID by March 21, 2020, we collected a wide set of data on city and state characteristics. We note the variables of interest below, with the sources provided in parentheses.

We measure federalism by looking at the policy implemented at the state level (Kates et al., 2020). For demand for COVID policy, we look at the total number of infections and the change over the previous two weeks reported in the urban area, using March 22 as the date by which we calculated cases and change (COVID Resource Center). We also control for the number of available hospital beds in the state (Center for Disease Control). Responses may vary by the institutional capacity of the city, measured by form of government (mayor council or council manager; International City/County Management Association), and the ratio of the city's revenues to expenditures (Lincoln Institute for Land Policy). A city's policy reactions may be shaped by the partisanship of the mayor (Ballotpedia and internet searches³), the partisanship of the governor (Ballotpedia), and the ideology of the city's population (Tausanovitch and Warshaw, 2014).

Methods

We use multilevel logistic regression models with clustered errors at the urban area and state level. We estimate a model with just the variables noted and

²Cities operate in location-based economic markets that transcend their boundaries into nearby cities and counties; because of this, COVID spread across cities within the same metro area. To account for this pattern, we aggregate county COVID-19 counts up to the urban area or urban cluster, a census designation based on residential population density (Census Bureau, 2012), which creates a measure of COVID-19 cases for the entire urban area assigned to each city within that urban area.

 $^{^3}$ We were able to find partisan information for all mayors elected via partisan elections and for 66% of mayors elected to non-partisan elections.

controls for population, the median income, and the racial demographics of each city. See appendix for each model from figures below, full models with all these factors together, and a count dependent variable with a Poisson model.

Results

We start by looking at whether local government COVID-related policies replicate state-level policies or fill a vacuum when states have not acted. Recall that, under federalism, US cities' behavior can be constrained by state policy decisions or cities can act independently to craft policy. In the COVID environment, we see cities and states act in response to concerns about COVID, sometimes in tandem and sometimes in isolation; Figure 1 explores the relationship between local and state policy.

For policies limiting the size of gatherings and closing businesses, state restrictions are unrelated to local policy. For shelter-in-place policies, in comparison, cities are more likely to act in tandem with the state. This may be an artifact of cities acting before state governments. For example, London

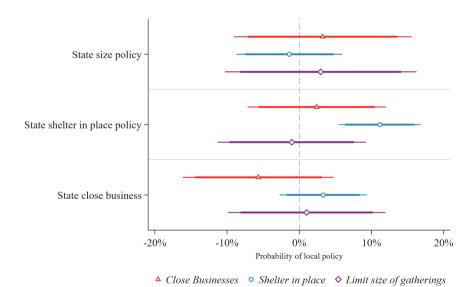


Figure 1: Federalism and state policies.

Note: This figure presents coefficients from multilevel logistic regression models predicting the presence of a local policy with controls for state policies; urban area and state serves as second and third levels. Bars represent 95% (thick) and 90% (thin) confidence intervals. Controls include city's population, 65+ percent, and percent white.

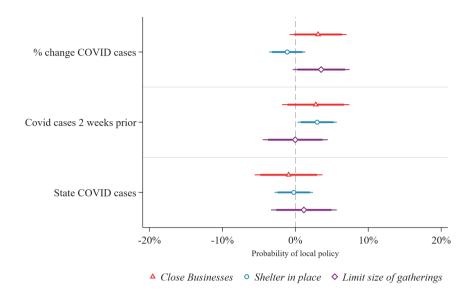


Figure 2: COVID cases and local policies.

Breed, the Mayor of San Francisco, issued a shelter in place restriction a week before Gavin Newsom, California's governor, issued the restrictions.

Given that COVID's early effects were highly concentrated by geographic location, we also anticipated that cities located in places with higher levels of COVID cases or rapidly increasing levels of infection would be early movers to create policies. We also estimate the effect of the total number of cases in the state, as cities may react not just to the cases in their immediate area but also to the threat of cases from elsewhere (see Figure 2).

Local governments responded to local threats. We again see that local shelter-in-place policies are associated with a distinct set of calculi than size or business closure policies. While business closure and size policies relate to the growth in COVID cases, shelter policies positively relate to the number of cases. Local policies seem unrelated to the overall number of cases at the state level.

We examine whether institutional and financial capacity relates to the choice by local governments to make COVID policy (Figure 3). Recall that we anticipated that mayors in strong mayor systems and those with more financial resources might be better equipped to react early on with COVID-related policies. We find the opposite of what we expect: strong mayor cities were less likely to implement shelter-in-place policies.

Because of elevated levels of negative partisanship as well as Donald Trump's reactions to the pandemic, partisanship and ideology shape how individuals

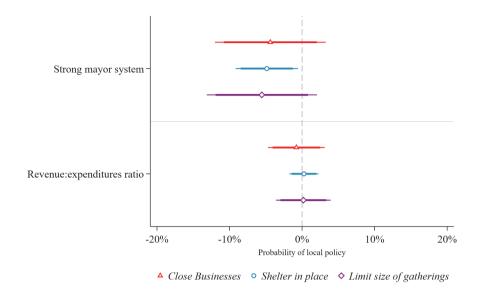


Figure 3: Institutional capacity.

view the disease and its threats, as well as whether people will take individual action to address the concern. This also matters for local policy: in Canada, Armstrong and Lucas (2020) find a moderate relationship between ideology and local COVID restrictions.

We estimate the effects of partisanship and ideology in three ways: the partisanship of the mayor, the ideology of the city's population (where lower values are more liberal cities), and the presence of a Democratic state governor (Figure 4).⁴ We find that cities with more conservative populations are less likely to issue an early shelter-in-place policy, but that the mayor's partisanship and the governor's partisanship are unrelated to local COVID policies., suggesting that polarization at the citizen level (as opposed to at the elite level) drive responses. Given that liberal populations elect Democrats (even to non-partisan offices), these factors clearly relate to each other and may reinforce responses in some jurisdictions.

⁴Because more than half of the cities in our sample have non-partisan elections, we estimate the effect of partisanship in two ways: Democratic mayors compared to Republicans and Democratic mayors compared to Republican mayors with a non-partisan control. Neither estimation strategy results in a significant relationship between mayoral partisanship and COVID policies.

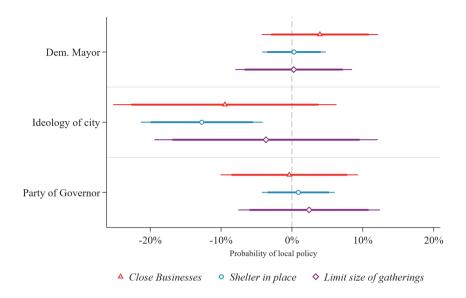


Figure 4: Partisanship and Ideology.

Note: Ideology coded so that more liberal city populations have a higher value.

Conclusions

COVID policy in the United States is diffuse and uneven. One consequence of the patchwork on local and state regulations has been confusion, which has reduced the effectiveness of the policies put into place (Leonhardt and Leatherby, 2020). For instance, Texas Governor Greg Abbott faced criticism for unclear and changing guidance. In Mississippi, confusion over whether a mandate by the governor to designate most businesses to be essential (and thus, not required to close) overrode local COVID restrictions led to cities rescinding their COVID policies.

COVID-19 is not the first pandemic challenge to lead to varying policies at the local level. During the 1918 Spanish Flu pandemic, cities varied in their interventions and their response timing; St. Louis implemented a quicker set of measures to promote social distancing than Philadelphia, resulting in significantly worse consequences for Philadelphia (Hatchett et al., 2007). And, cities' reactions to yellow fever meant highly localized policy responses, including investment in infrastructure (Colten, 2002). Early evaluations of local COVID policies in the United States and Canada suggest they have been effective in shaping mobilization behavior (Armstrong et al., 2020). Understanding which local governments reacted and why has implications for also understanding the long-term impacts of COVID-19 on local communities.

Additional research might consider the role of policy diffusion (Einstein et al., 2019; Bromley-Trujillo et al., 2016) in shaping how and when cities learned from each other in responding to COVID. Other leader characteristics, including gender, race, and occupation (Aldrich and Lotito, 2020; Barnes and Holman, 2020; Shay, 2020) could shape the interest and ability of local governments to respond to COVID. For example, Funk (2020) describes how women mayors in America enacted innovative policies in responding to COVID early with effective leadership. As information about the disproportionate impact of COVID on Black communities emerged (Gaynor and Wilson, 2020), the presence of a Black mayor might have shaped later policy decisions. Research shows that leadership characteristics shape whether urban residents comply with emergency orders (Lucero et al., 2020); future research might consider whether compliance with COVID restrictions at the local level relates to the race, gender, or partisanship of local leaders.

Appendix

Data Collection Instrument

We are interested in how local governments are responding to the COVID-19 and coronavirus pandemic in the United States. For this task, we are going to ask you to find information about the city of XXXX.

We would like you to search the internet to see what the response in **this city** has been to the pandemic and answer some questions about the response. When you find information, please note the source of the information — we will ask you for it!

Have local leaders in city of e://Field/item responded specifically to COVID-19 and the coronavirus?

- Yes, local leaders have responded
- Yes, but it isn't clear if it is local leaders or state officials
- No

Display This Question:

If Have local leaders in city of $\{e://Field/item\}$ responded specifically to COVID-19 and the corona...= Yes, local leaders have responded

Or Have local leaders in city of $\{e://Field/item\}$ responded specifically to COVID-19 and the corona... = Yes, but it isn't clear if it is local leaders or state officials

What has been the local response? Please select all that apply.

- Recommend social distancing
- Limit the hours of businesses
- Close certain types of businesses (such as bars or music venues)
- Limit the size of gatherings
- Set up testing stations, including drive through stations
- Order residents to shelter in place
- Something else _____

Display This Question:

If Have local leaders in city of $\{e://Field/item\}$ responded specifically to COVID-19 and the corona...= Yes, local leaders have responded

Or Have local leaders in city of $\{e://Field/item\}$ responded specifically to COVID-19 and the corona... = Yes, but it isn't clear if it is local leaders or state officials

Who has responded? Please select all that apply.

- Local city officials, including Mayor or City Council
- \bullet Local county officials, such as the Sheriff or County Commissioner
- $\bullet\,$ Local appointed leaders like a Director of Public Health or a Police Chief
- State officials, like a Governor or State Public Health Director

Where did you get the information about the **local response** to COVID-19 and the coronavirus? We only want links about the **local response** in city of $e^{-\frac{1}{2}}$. Please provide a link or links below.

Link 1.	
Link 2	
Link 3	

Table A1: Federalism.

	Local close	Local shelter	Local limit size
	businesses	in place	of gathering
	Main		
Population	0.03^{*}	0.03***	0.03
	(0.02)	(0.01)	(0.02)
% over 65	-0.01	0.01	0.01
	(0.02)	(0.01)	(0.02)
% White	-0.02	-0.01	-0.04^*
	(0.02)	(0.01)	(0.02)
State size policy	0.04	-0.01	0.05
	(0.06)	(0.04)	(0.07)
State shelter in place policy	0.04	0.12^{***}	-0.01
	(0.05)	(0.03)	(0.05)
State close business	-0.05	0.03	0.00
	(0.05)	(0.03)	(0.06)
Constant	0.28***	0.03	0.22***
	(0.06)	(0.04)	(0.06)
Observations	550	558	545

Standard errors in parentheses. Multilevel logistic regression. Clustered errors at the urban area and state level. p < 0.10, p < 0.05, p < 0.01.

Table A2: COVID cases.

	Local close businesses	Local shelter in place	Local limit size of gathering
	Main		
Population	0.03	0.02**	0.02
	(0.02)	(0.01)	(0.02)
% over 65	0.01	0.00	0.02
	(0.02)	(0.01)	(0.02)
% White	-0.01	-0.02	-0.02
	(0.02)	(0.01)	(0.02)
% change COVID cases	0.03	-0.01	0.03
	(0.02)	(0.01)	(0.02)
			(Continued)

Table A2: (Continued)

	Local close businesses	Local shelter in place	Local limit size of gathering
Covid cases 2 weeks prior	0.01	0.02	-0.00
_	(0.02)	(0.01)	(0.02)
State COVID cases	$-0.00^{'}$	-0.00°	0.01
	(0.02)	(0.01)	(0.02)
Constant	0.29***	0.07***	0.28***
	(0.02)	(0.01)	(0.02)
Constant	-0.79^{***}	-1.40^{***}	-0.81^{***}
	(0.05)	(0.03)	(0.03)
Observations	601	610	595

Standard errors in parentheses. Multilevel logistic regression. Clustered errors at the urban area and state level. p < 0.10; p < 0.05; p < 0.01.

Table A3: Politics.

	Local close	Local shelter	Local limit size
	businesses	in place	of gathering
	Main		
Population	0.03	0.02^{**}	0.02
	(0.02)	(0.01)	(0.02)
% over 65	0.01	0.00	0.03
	(0.02)	(0.01)	(0.02)
% White	0.00	0.01	-0.02
	(0.02)	(0.01)	(0.02)
Dem. Mayor	0.04	0.00	0.00
	(0.04)	(0.02)	(0.04)
Ideology of city	-0.09	-0.13^{***}	-0.04
	(0.08)	(0.04)	(0.08)
Party of Governor	-0.00	0.01	0.02
	(0.05)	(0.03)	(0.05)
Constant	0.26***	0.02	0.23***
	(0.08)	(0.04)	(0.08)
Observations	601	610	595

Standard errors in parentheses. Multilevel logistic regression. Clustered errors at the urban area and state level.

^{*}p < 0.10; ***p < 0.05; ****p < 0.01.

Table A4: Capacity.

	Local close	Local shelter	Local limit size
	businesses	in place	of gathering
	Main		
Population	0.03^{*}	0.03^{***}	0.03
	(0.02)	(0.01)	(0.02)
% over 65	0.01	0.00	0.02
	(0.02)	(0.01)	(0.02)
% White	-0.02	-0.02^*	-0.03^*
	(0.02)	(0.01)	(0.02)
Strong mayor system	-0.04	-0.05**	-0.06
	(0.04)	(0.02)	(0.04)
Revenue expenditures ratio	-0.01	0.00	0.00
	(0.02)	(0.01)	(0.02)
Constant	0.31***	0.09***	0.30***
	(0.02)	(0.01)	(0.02)
Observations	600	609	594

Standard errors in parentheses. Multilevel logistic regression. Clustered errors at the urban area and state level.

Table A5: Full models with all controls results.

	Local		Local limit	
	shelter	Local close	size of	Count of
	in place	businesses	gathering	policies
	Mai	n		
State size policy	-0.04	0.07	0.09	0.15
	(0.04)	(0.07)	(0.07)	(0.32)
State shelter in place policy	0.12^{***}	0.03	-0.03	0.10
	(0.03)	(0.05)	(0.05)	(0.23)
State close business	0.04	-0.05	-0.01	-0.08
	(0.03)	(0.06)	(0.06)	(0.24)
% change COVID cases	-0.02	0.03	0.04^{**}	0.15
	(0.01)	(0.02)	(0.02)	(0.12)
Covid cases 2 weeks prior	0.03^{*}	0.02	-0.00	0.00
	(0.01)	(0.02)	(0.02)	(0.11)
State COVID cases	-0.01	-0.00	0.01	0.01
	(0.01)	(0.03)	(0.03)	(0.10)
				(Continued)

p < 0.10; p < 0.05; p < 0.01.

Table	A5:	(Continued)

	Local		Local limit	
	shelter	Local close	size of	Count of
	in place	businesses	gathering	policies
Strong mayor system	-0.05^{*}	-0.07	-0.09**	-0.29^*
	(0.02)	(0.04)	(0.04)	(0.15)
Revenue:expenditures ratio	0.00	-0.02	-0.02	0.01
	(0.01)	(0.02)	(0.02)	(0.06)
Dem. Mayor	0.01	0.03	-0.00	0.12
	(0.02)	(0.04)	(0.04)	(0.13)
Ideology of city	-0.15^{***}	-0.06	0.03	-0.41
	(0.05)	(0.09)	(0.09)	(0.28)
Party of Governor	-0.03	-0.01	0.03	0.15
	(0.03)	(0.06)	(0.06)	(0.23)
Population	0.02^{**}	0.03	0.03	0.05
	(0.01)	(0.02)	(0.02)	(0.04)
% over 65	0.01	-0.01	0.01	-0.00
	(0.01)	(0.02)	(0.02)	(0.06)
% White	0.00	-0.00	-0.03	-0.03
	(0.01)	(0.02)	(0.02)	(0.07)
Constant	0.09^{*}	0.28***	0.20**	-1.06***
	(0.05)	(0.09)	(0.09)	(0.41)
Observations	557	549	544	580

Standard errors in parentheses; Multi-level logistic regression (clustered standard errors at the urban area and state level) for models I–III; Poisson count model for model IV; $^*p < 0.10$; $^{**}p < 0.05$; $^{***}p < 0.01$.

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