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Comparing Motivations for Including Enforcement in US COVID-19 State Executive Orders

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ABSTRACT *The United States' response to COVID-19 has been predominantly led by state governments. To understand if, why, and how state governments include enforcement language in their executive order response, this article conducts an analysis based on 1,357 coded executive orders. It is found that decisions to include enforcement language are influenced by a governor's political circumstances and perceived risks associated with the crisis. This paper offers insight into how these findings are important for future research and an explanation of the distinct ways that US state governments are choosing to address COVID-19.*

Keywords: enforcement; COVID-19; policy design; compliance

Introduction

During the COVID-19 pandemic, a series of policies, including wearing masks, staying at home, social distancing, quarantining when sick, and getting tested have been put into place (CDC 2020; Cohen and Kupferschmidt 2020; Fowler et al. 2020a). However, in some cases these actions and their public adoption (i.e. mask wearing) have been linked to political ideology (Makridis and Rothwell 2020), which when paired with distrust in the scientific community (Klofstad et al. 2019) may limit the ability of the government to

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rely solely on voluntary compliance (Curley and Swann 2018). The design of policy varies substantially, particularly with respect to emphasis placed on including enforcement (Curley and Federman 2020). In the absence of federal action in the United States (Bowman and McKenzie 2020), state governors have largely led the response to COVID-19; state-level executive orders have proliferated rapidly and with wide degrees of variation (Curley and Federman 2020).

Existing literature on enforcement emphasizes the enforcement of a policy (May and Winter 2011), not the factors that motivate enforcement in policy design. This paper addresses this gap by exploring determinants that shape the use of enforcement language in state executive orders during the United States' response to COVID-19. The purpose of this comparison is to increase the internal validity of this research (Radin and Weimer 2018). Given that little empirical work has explored the determinants of enforcement-oriented policy design, we answer the question: what factors influence the decision of a US state government to include enforcement mechanisms within their executive orders in response to COVID-19? To answer this question, 1,357 US state executive orders, spanning January through May 2020, have been coded and analyzed. This work has implications for how we understand the United States' COVID-19 state-level policy response during the initial closures and enables future research to explore the implications of this enforcement design choice on policy outcomes.

In the next section, we provide context for the US COVID-19 policy response insight. We then proceed to outline two frames explaining why enforcement language is included by some governors: (1) political self-interest and (2) perceived risks. Following this, we describe our data, modeling, and results. We offer a series of conclusions and suggestions for future research related to this avenue of study.

Executive Order Context

To fight COVID-19, a range of executive orders were signed into effect by the US governors, including public health policies meant to restrict the movements of the public (Gostin and Wiley 2020). These policies included stay-at-home orders, business closures, restaurant closures, capacity limits, gathering bans, and travel quarantines. Many of these orders have been explored in policy analysis as primarily binary, not allowing for much variation in their content. Recent research provides conflicting evidence about the value of stay-at-home orders, which suggests there may be something that existing research is missing. **Scholars have suggested that a binary understanding of COVID-19 orders is a relatively reductive approach to understanding the content of these orders** (Curley and Federman 2020). Some of these orders have largely relied on voluntary compliance without including much of a formal sanction or mandate.

In the US, response executive orders were commonly used to increase the power of the governor and control over their administration (Ferguson and Bowling 2008). The use of executive orders as emergency powers in times of crisis have been reviewed by law scholars, with hesitancy and fear about overreach on the part of governors (Tyler 2008). While gubernatorial power to issue executive orders varies across states, most of the COVID-19 executive orders draw powers issued from the declaration of an emergency. Across 49 states during the year 2004–2005, 3,456 executive orders had been adopted

(Ferguson and Bowling 2008). These are a relatively common policy creation tool at the state level, particularly in times of crisis.

As an element of policy design, sanctions or enforcement serve an important role in understanding the proposed burdens and benefits anticipated from a particular policy. However, sanctions and the motives for their inclusion remain understudied (Siddiki et al. 2019). Typically, the concept of enforcement has been studied in terms of how rules are enforced (May and Winter 2011), not necessarily the motives behind designing the rules. However, some work exists that explores the range of potential mechanisms that can be used as sanctions. Holley et al. (2020, p. 416) provide a list of mechanisms for designing enforcement, while Ayres and Braithwaite (1992) put together a pyramid of potential actions that increase in stringency.

In a qualitative exploration of enforcement language included in these orders, we discovered that sanctions largely included jail time, fines, and, and consequences related to licensing and permits. Out of over 1,300 executive orders related to COVID-19 from February to May there were roughly 180 orders that included enforcement language that embedded some form of sanction for non-compliance. This includes a wide range of orders that involved enforcement, such as gathering bans, travel quarantines, business closures, capacity limits, school closures, and stay-at-home orders; these often had multiple targets of enforcement, such as businesses, individuals, and occasionally local governments. Enforcement language includes a wide range of statements that use terms like violation, punishment, compliance, enforcement, imposed, and penalized. These orders require compliance in order to be deemed effective; compliance may be encouraged when there are sanctions in place to punish non-compliance. However, given the politicization of the pandemic, compliance has become a political statement rather than a necessary response to a deadly virus. This has been seen in the use of masks (Lyu and Wehby 2020), the adoption of stay-at-home orders (Corder et al. 2020), and even the speed with which states responded to the pandemic (Fowler et al. 2020b). Despite the politicization of these policies, compliance is a necessary condition for the orders to work, which means that enforcement mechanisms may be adopted to alter the costs associated with non-compliance. Given the emphasis of existing research on the politicization of the COVID-19 response in the US, it is likely that decisions to include sanctions or enforcement language may be dictated by the political self-interest and perceived risks of the decision maker.

Theoretical Framing

In this section two concepts – political self-interest and perceived risk – are outlined. Both concepts should influence governors' decisions to include enforcement language in their executive orders. Following the discussion of these frames, we detail our data and the variables that operationalize these theoretical framings, conduct our analysis, and discuss how our findings are related to the political and risk frames as described in this section.

Political Self-Interest

Research on the US political system suggests that Democratic or liberal-leaning officials are more likely to support enforcement (Mete 2002), particularly on environmental issues (Innes and Mitra 2015). This may be due to the long-standing assumption that Democrats are considered pro-regulation and Republicans anti-regulation (Teske 2004). As enforcement may potentially be costly, these choices may also be related to differing perspectives on government spending, understanding that Republicans typically take a more fiscally conservative stance (Mete 2002). Despite the underlying motivation, if it is true that Democrats are more likely to support enforcement, then it follows that they may be more likely to introduce policies with embedded enforcement mechanisms. Previous research suggests that individuals and firms are more likely to increase compliance levels when there are Democrats in positions of power (Mete 2002). This establishes the first frame: that the presence of enforcement language is largely political, and will be more likely under a Democratic governor and less likely under a Republican governor.

The politicization of the pandemic has been particularly evident in the delaying of lockdowns and stay-at-home orders, with Democratic governors being viewed as quicker to respond (Fowler et al. 2020b). In addition to stay-at-home orders, other policies have been politicized, including mask wearing (Halpern 2020). The current response of the US to COVID-19 has been termed “pandemic politics” and has largely emphasized the role of party affiliation in the US context (Solano et al. 2020). While this may be the case, there are other elements related to political motives that might prove relevant to the inclusion of enforcement language. Reelection is an important political element that shapes the types of policies politicians pursue (Pulejo and Querubin 2020). **Being up for reelection is one element that is important to how governors make decisions**, but the public’s party affiliation and commitment to that party affiliation is also relevant in considering a bid for reelection and public support for specific policy actions.

Perceived Risk

Beyond political motives, governors may be motivated to act by a commitment to the public good. How governors perceive risks associated with a particular problem might influence their willingness to adopt certain policies (Somers and Svava 2009), and/or potentially increase the stringency of those policies. While research related to governors’ risk perceptions is limited, emergency managers have been shown to have different perspectives of risk based on their income or education. Research suggests that female managers are more likely to perceive risk accurately and have more concern about potential negative outcomes (Peerbolte and Collins 2013).

We do know that states are more likely to adopt policy when experiencing high levels of a problem or vulnerability to the problem (Rai 2020). Research on COVID-19 suggests that people of color (Wright and Merritt 2020), the elderly (Zheng et al. 2020), and men (Griffith et al. 2020) are considered more at risk of severe disease outcomes such as hospitalization. In addition, governors may perceive hospitalizations, infection rates, and positive cases as indicators of the severity of COVID-19. Asymptomatic spread and associated cases complicate the accuracy of current measures that gauge the severity of the pandemic (Gandhi et al. 2020).

People perceive their own risk in nuanced and layered ways, and it has been suggested that the way populations perceive their own risk may be associated with the policy choices leaders make (Kam and Simas 2010). Given that people infer their own risk in varied ways, it would follow that compliance levels among the public would also vary; and the predictions of compliance levels might influence the choice to rely on voluntary compliance (Curley and Swann 2018). If a governor perceived compliance levels to be high, they may be less likely to rely on formal sanctions. Research related to this idea suggests that women are more likely to comply with these types of mandates than men (Zajenkowski et al. 2020). Other characteristics such as age, education, political ideology, and income may also impact on risk taking (Kam and Simas 2010).

Data and Methods

The data used in this paper stems from systematic coding of state-level executive orders adopted in response to the COVID-19 pandemic from February to May 2020. The orders were hand coded (Bennett and Checkel 2015). Given the choice of this document review and coding strategy, each executive order was read and coded by at least two individuals, providing an increase in inter-coder reliability, and building code agreement.

The first step in our coding process was to search for and collect executive orders released in each state. The individuals coding then developed a database from the executive orders that captured how the orders were changing over time by developing panel data for each state. Given that this process is iterative, the coders captured initial variables based on popularized policy changes but expanded these as each order yielded additional information. The focus was to qualitatively capture the text related to each “category” identified in the initial coding process, which led to the statements around enforcement being gathered through the initial process-tracing strategy. We conducted a second robustness check on our coding for enforcement language on the orders adopted from January through April for all 50 states using keywords (i.e. violation, punishment, penalty, enforcement, impose, compliance). Our original data collection correctly identified 75 percent of observations where enforcement was present.

Other data gathered for the purpose of this analysis includes state-level demographic data (i.e. age, median income, race, gender) from the 2019 population estimates conducted by the United States Census Bureau (2019); information on the governors comes from government websites from each of the 50 states; and information on party affiliation comes from a 2017 Gallup Poll (Gallup 2017). We also utilize confirmed COVID-19 cases released from USA Facts (2020). Future iterations of this data might also include changes to mobility, as this indicator has been utilized in several projects that examine the impacts of policy efforts to slow the spread of COVID-19 (Yilmazkuday 2020), particularly during this time period, as data on testing, hospitalizations, and death have issues inherent in reporting (Bauchner et al. 2020).

This analysis explores decisions to include enforcement language within executive orders. While many comparative policy analysis studies have taken a qualitative and/or case study approach (Agranoff and Radin 1991), here we utilize quantitative analysis to determine indicators of enforcement language. This methodological choice allows for a close empirical comparison of subnational governments and is made possible by the fact that much of the cultural and constitutional elements are

constants, given the adherence of all to norms and laws of the United States. Further, this inter-state approach allows for relevant comparison between similar political systems, as each of the states is bound by the Constitution to a republican form of government (Radin and Weimer 2018).

The *dependent variable* is binary, where the observation takes a value of 1 if the executive order includes enforcement language and a value of 0 if it does not. Given that there are 187/1,361 orders that include enforcement language and there is no hard-and-fast rule for when rare events bias coefficients in binary dependent variable analysis, we conduct a series of analyses, probit, logit, and firth logits to test the stability of our findings, given the potential for a rare events bias in the data. The firth logit model is commonly used when seeking to predict binary outcomes that are unbalanced, meaning there is a small number of outcomes with values equal to 1; this is supposed to reduce “bias in the maximum likelihood estimates of coefficients” (Puhr et al. 2017, p. 1). The findings in terms of their significance and directionality are consistent across model specifications. This suggests that our models, despite the penalty in the firth logit, may not require its inclusion. Results between logistic and probit analysis tend to be similar (Zelner 2009), and we choose to report the probit models because of ease of interpretability.

The models will include a series of *independent* variables referring to political motives present in enforcement decisions, operationalized through the governor’s party affiliation, reelection information, and tenure. We also include a variable termed “competitive politics”, which refers to the potential of a state to swing between the parties. Gallup data classifies this as a “competitive” state, meaning that the aggregate voter registration allows for a state to sway between Republican (conservative) and Democrat (liberal) representatives with more ease. More specifically, a competitive state is one where one party has less than a five percentage-point advantage in registered voters over the other. This variable is operationalized to demonstrate the potential need for governors to appeal to voters on both sides to stay in office; therefore, competitive politics takes on a value of one if the state is considered competitive by Gallup, and a zero otherwise.

The second set of variables relates to perceived risk of the COVID-19 outbreak, operationalized by the gender of the governor (impacts valuation of risk), potential at-risk groups (percentage of minority and individuals over 65; impacts expected case severity), the percentage of women in that state (impacts expectations of compliance), and lagged cases (characterize the status of the outbreak). Lagged cases are operationalized as a one-day lag on the reported positive case rate in the state. Given the rapid proliferation of executive orders at this time and the lack of accurate and reliable metrics on outbreak severity available to decision makers during the early months of the pandemic (i.e. complete absence of or low access to testing), while we include positive cases in the model, it is not expected that this played a large role in decision making this early in the public health crisis. Lastly, we include a series of potential control variables such as the state’s capacity to enforce, operationalized by the education level, income levels, and responsiveness of the public, operationalized by party affiliation of registered voters. These concepts for state-level capacity to enforce are drawn from research conducted by Schwartz (2003) on factors that lead to increased enforcement capacity.

Several independent variables that represent policies are included in the analysis as well. This data is collected from the executive orders and is primarily captured as binary,

where the item takes a value of 1 if the directive is mentioned. There are two variables that are rated according to the stringency of the directive: gathering bans and travel quarantines. Gathering bans are scored based on how strict the ban is, with a value of 1 representing a gathering ban on at least 1,000 people and proceeding until a score of 8 represents a stated ban on gatherings outside of the immediate family. The travel quarantine takes a value of 1 if there is any limited (typically by geography) requirement for a two-week quarantine for out-of-state travel, and a value of 2 if it is an inclusive two-week quarantine requirement for all travelers. Table 1 provides additional insight into the summary statistics.

Findings

Four different model specifications are used to determine the stability of the findings. The first model presented depicts the full model with state-clustered standard errors. The second model presents the controls specific to the orders; this also includes a state-clustered standard error even though all variables are at the order level. The data includes the entire range of potential orders (i.e. declaring a state emergency, rule suspensions, etc.), so the chosen control variables are those that are more often linked with activities that may lead to enforcement. The second model presented here consists of the variables that make up our

Table 1. Summary statistics

Frame	Variables	N	Mean	sd	Min	Max
DV	Enforcement	1,361	13.7%	0.344	0	1
C	Gathering ban	1,357	0.198	0.709	0	3
C	Stay-at-home orders	1,361	4.26%	0.202	0	1
C	Restaurant closures	1,361	5.44%	0.226	0	1
C	Gym closures	1,361	5.73%	0.229	0	1
C	Self-care closures	1,361	2.17%	0.145	0	1
C	Entertainment venue closures	1,361	6.25%	0.232	0	1
C	Outdoor recreation closures	1,361	1.32%	0.0930	0	1
C	Daycare closures	1,361	1.65%	0.116	0	1
C	School closures	1,361	7.05%	0.252	0	1
C	Travel quarantines	1,361	0.0610	0.274	0	2
Risk: +	% pop over 65	1,361	17.1%	0.0194	0.114	0.212
Risk: -	% pop female	1,361	50.6%	0.00720	0.479	0.517
Risk: -	% pop white	1,361	78.7%	0.113	0.255	0.944
Risk: +	% Pop high school +	1,361	89.3%	0.0281	0.829	0.932
Risk: +	Median HH income	1,361	61,466	10,298	43,567	81,868
Political: -	% registered republicans	1,361	39.21%	7.207	26	56
Risk: +	Confirmed cases (lag)	1,361	6,457	15,437	0	202,208
Risk: +	Gov female	1,361	16.9%	0.375	0	1
Political: -	Competitive politics	1,361	28.4%	0.451	0	1
Political: +	Gov reelection years away	1,361	1.655	0.858	0	3
Political: -	Gov eligible for reelection	1,361	67.7%	0.468	0	1
Political: -	Republican	1,361	50.2%	0.500	0	1

C refers to a control variable; The symbol +(-) refers to an expected probability increase (decrease) between the variable and inclusion of enforcement language.

two framings without controls; these are measured at the state level. The analysis includes state-clustered standard errors. According to existing research, clustering of standard errors is one of many acceptable approaches to handling nested data, as is present in this case (Huang 2016). The results from the analysis are presented in [Table 2](#) and discussed below.

Political Self-Interest

The probit analysis provides us with insight as to what factors increase the likelihood of an order including enforcement language. Supportive of our political self-interest framing, Republican governors are consistently found to be less likely than governors of other parties to include enforcement mechanisms in their executive orders. Some of our other politically related variables are also salient. The analysis suggests that a governor's political circumstances influence the decision to include enforcement language in the executive order directives. A competitive political environment increases the probability of enforcement, which suggests that in states where voters do not strictly follow party registrations, governors are more likely to include enforcement language. In addition, it appears that a governor being further away from reelection decreases the probability of including enforcement language. These findings suggest that the inclusion of enforcement is political in nature; that it is more likely to occur in states that are politically competitive, helmed by Democrats, and with newer governors.

Perceived Risk

Risk perception influences governors' decisions about the inclusion of enforcement language. Many of these variables are insignificant in the current modeling strategy. However, when not controlling for the order type, it appears that the more individuals within a state are white, the less likely the state is to establish an executive order with an enforcement mechanism. This is a potentially concerning finding that requires additional exploration. One potential explanation, consistent with risk-related motivations, is that COVID-19 is impacting minority communities at higher rates than non-minority communities, meaning that where there is an increased presence of at-risk groups a governor more frequently adopts order types linked to enforcement language. However, for this to be true, we might anticipate that states with higher percentages of individuals over the age of 65 would also be more likely to adopt enforcement directives. One concerning explanation is that governors may perceive minority communities as less likely to voluntarily comply with mandates, this poses extremely significant and important directions for future research. Therefore, the inclusion of enforcement language, if linked to expectation of compliance, has extraordinarily important social justice and equity implications that warrant further research.

The analysis presented here suggests that enforcement language is more likely when orders related to gathering bans, travel quarantines, outdoor recreation, and stay-at-home orders are issued; there is limited support for entertainment venue closures and daycare closures, increasing the inclusion of enforcement language. As a note of caveat, these state orders may be enhanced by local government action that creates their own enforcement of directives or closures in addition to those at the state level. The variation across order

Table 2. Probit model with state-clustered standard errors

Variables	Full model	Frames
Gov eligible for reelection	−0.333 (0.267)	−0.298 (0.244)
Gov reelection years away	−0.359** (0.162)	−0.288* (0.149)
Competitive politics	0.579** (0.257)	0.537** (0.239)
Republican	−0.637*** (0.200)	−0.611*** (0.186)
% registered Republicans	−0.00418 (0.0263)	0.00361 (0.0240)
Govern female	0.469 (0.285)	0.357 (0.229)
% Pop age over 65	−9.926 (7.590)	−6.231 (6.407)
% pop female	14.88 (18.22)	12.81 (16.61)
% pop white	−1.539 (1.030)	−2.244*** (0.839)
% pop high school +	−0.0745 (5.918)	1.369 (5.640)
Median HH income	1.31e-05 (1.93e-05)	7.88e-06 (1.81e-05)
Confirmed cases (lag)	2.64e-06 (3.62e-06)	2.45e-06 (2.86e-06)
Stay-at-home orders	3.86e-05*** (1.20e-05)	
Restaurant closures	−0.201 (0.252)	
Gym closures	0.714** (0.289)	
Self-care closures	0.00690 (0.315)	
Entertainment venue closures	0.443* (0.251)	
Outdoor recreation closures	0.913*** (0.333)	
Daycare closures	0.715** (0.346)	
School closures	0.196 (0.195)	
Travel quarantines	0.907*** (0.226)	
Gathering ban	0.230*** (0.0774)	
Constant	−5.841 (11.41)	−5.938 (10.72)
Pseudo R2	0.2178	0.0931
Observations	1,357	1,361

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

directives and the presence of enforcement language suggests that a deeper dive into what enforcement looks like in practice, rather than gubernatorial intent, is necessary.

Lastly, we included the female governor variable in the model because there has been a debate about the differences in male and female leadership's response to crises like the pandemic. This analysis suggests that by themselves female governors are perhaps no different in their political motivations to the adoption of enforcement language; however, given the limited number of female governors and the inclusion of state-level clusters, this finding may be questionable. Other research has found that female leaders have had different responses to the pandemic than male leaders (Aldrich and Lotito 2020), and this should continue to be explored given the limitations of our current analysis.

Conclusion

The inclusion of sanctions and enforcement language in the response to COVID-19 among US states is politically motivated. We see strong and consistent evidence for political affiliation and the competitiveness of state politics as a motivating factor in enforcement decisions. This means that future research on enforcement should strongly consider the political culture of specific environments. We have seen evidence from studies around the world that suggest governments face difficulties in encouraging compliance due to the costs of monitoring and enforcement (Ramirez de la Cruz et al. 2020), which is particularly difficult under the politicization of a pandemic. It is important to consider how cultural and political context may inform these elements – especially if the ability to enforce is political. There is some evidence that enforcement language may be responsive to public demands, in terms of the political implications but also the demands of the public as evidenced by the repeal of enforcement language regarding Indiana's mask mandate (Lange 2020). The default for many US governor-led executive orders is to rely on voluntary compliance, which is largely influenced by individual motives (Curley and Swann 2018).

This work builds on previous research that suggests the unique nature of politics in the United States can be relevant in a comparative context, and that the fragmentation of the political system in that country is the “point of departure” for federalism (Radin and Boase 2000). Given that we know the importance of party ideology for executives and the critical need for a comparative approach to public administration, this research furthers the goal of developing theory and method to understand the unique role executive orders play in the distribution and execution of administrative power (Van de Walle and Brans 2018). Radin and Weimer (2018, p. 69) call on scholars to produce “research that makes comparisons across sub-national government ... [since] by holding national constitutional and some aspects of culture constant, they offer the possibility of more confident inferences about policy impacts”. This work speaks to that behest and provides a starting point for further comparative work on enforcement.

This paper faces limitations, including the accuracy of testing data as well as the capacity of testing. The data focuses on the initial round of closures, which does not include questions of legitimacy regarding enforcement language, as raised by legislatures regarding the scope of executive orders in emergency, and in some cases describes the inclusion of enforcement language as an overreach of gubernatorial power. This article only captures the governor's intent to allow enforcement, and not the actual enforcement of

the orders. In addition, the analysis would be enhanced with multi-level modeling, a longer timeline, and data on actual enforcement. Additional variables such as regionality can be included; the South has a long-standing history of disenfranchisement, racism, and the carceral state (Soss et al. 2008), which may contribute to some of the findings.

Future research should work to gather orders and directives at the local level related to local decisions to enforce state directives. To gauge the effectiveness of public health responses to the pandemic it will be necessary to identify data that captures the ability to enforce and the dollars spent on compliance enforcers, fines, and arrests to determine the degree to which the penalties were implemented. While state and local government budgets are stretched, implementing costly enforcement policy that requires high monitoring costs may decrease available resources for other important policies to curb the public health and social costs associated with the COVID-19 outbreak. Therefore, the motives for or against enforcement may prove important to understanding how communities address outbreaks in the future. Given that enforcement language adopted in executive orders appears to be politically motivated it is important to determine if enforcement changes public health outcomes.

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