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Political polarization, social fragmentation, and cooperation during a pandemic

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Abstract

We study the impact of political polarization on the willingness of people to comply with social distancing directives during the COVID-19 pandemic. We find a reduced compliance with these measures when the state governor differs from the preferred party of survey respondents. Exploring a number of possible mechanisms, we show that these results are strongest in states where the opposing party's advocates are more hostile and provide evidence that compliance is low when recommendations come from an out-group member. This paper, more broadly, demonstrates the consequences of political polarization on the willingness to contribute to public goods.

JEL codes: I1, P16, Z1

1   Introduction

Republicans and Democrats in the U.S. are becoming increasingly hostile to one another. For example, Gentzkow (2016) reports that, as of 2008, nearly half of Americans classified members of the other party as "selfish", up from around 20% in 1960. The same report shows that 20-30% of Americans would be upset if their son or daughter married a member of the other party, up from around 5% in 1960.

This growing inter-party hostility (or "affective polarization") has coincided with another important trend: a growing overlap between demographic characteristics and political affiliation (e.g. Klein (2020)). It is increasingly easy to predict an individual's political affiliation based on their education, geographic location, race, and religion. Together, these two trends suggest a growing degree of social fragmentation between two groups in the United States: one highly educated, urban, racially diverse, secular, and liberal; the other less educated, rural, white, predominantly Christian, and conservative.[1]

There are many reasons to be concerned about social fragmentation, both as an intrinsic "bad" and because of its consequences for the effective functioning of society. Economists have focused in particular on the role of social fragmentation along ethnic lines in limiting individuals' willingness to contribute to public goods (e.g., Alesina et al. (1999),Algan et al. (2016).) This willingness underpins, for example, the ability of governments to raise taxes to pay for roads, schools, and other public infrastructure, to keep streets clean and free from crime, and (as in our setting) the ability to coordinate collective action in a crisis. While there is little empirical work examining the consequences of political fragmentation specifically, Perez-Truglia (2018) shows that individuals are more politically active (a type of contribution to public goods) after they have moved to more politically homogenous communities.

Does social fragmentation along political lines hamper the ability of American society to act collectively for the public interest? In this paper, we argue that it does. Specifically, we show that affective polarization reduces people's willingness to comply with social distancing during the COVID-19 crisis. Social distancing measures have been identified as a method to reduce daily new infections, particularly for the benefit of high risk patients (Lin et al., 2020; Adda, 2016; Fang et al., 2020). In the absence of a government-enforced lock-down, these measures critically hinge on the willingness of the public to cooperate with government directives and with others in their neighborhoods. The pandemic therefore creates a classic cooperative problem: should individuals contribute to the public good by staying home and taking other preventative measures, or should they free-ride on the contributions of others?

We first demonstrate that individuals report less compliance with social distancing measures when their state's governor comes from the other party.[2]

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[1]The sociological literature defines social fragmentation as the absence of social ties between two or more groups within society, combined with feelings of distrust or intolerance between groups (e.g.,Dynes (1994)).

[2]In doing so, we are able to move beyond a descriptive discussion of partisanship, as

We focus on a set of states where the governor's race was close in order to limit the potential that our results are driven by individuals with "contrarian" personalities, which might be correlated with being in the minority in states dominated by a single party, or other sources of endogeneity. Both OLS and regression discontinuity designs show that individuals report significantly fewer preventative actions (such as hand washing, staying home, or canceling planned travel) when the other party has narrowly won the election. This is equally true for Democrats and Republicans.

Examining potential channels for this result, we show that there are no effects of living in an opposite party state on general social trust, differences in information sources related to the pandemic, exposure to information skeptical of social distancing, or on the estimated compliance of other people. While living in an opposite party state does reduce trust in the state and local government, this explains very little of the reduced compliance with social distancing measures. The most plausible explanation appears to be that individuals are simply less motivated to comply with suggested measures when the suggestion comes from an out-group member.[3]

We next ask whether reduced compliance in opposite party states is made worse by political polarization, as the literature on other types of social fragmentation would suggest. Using state-level measures of polarization from the 2016 American National Election Survey, we show that the response to an opposite-party governor is stronger in states with more inter-party hostility. Interestingly, this is *not* true when we use individual level measures of political polarization: the response to an other-party governor is strongest among those who report lower levels of relative hostility to the other party. It may therefore be perceptions of the hostility of other people, rather than an individual's own hostility, that undermines cooperative behavior.

2 Data

2.1 Sample

We ran a survey of MTurk workers in March of 2020.[4] We recruited approximately 1,200 workers from the 12 states that had close election results (Republican share of the vote between 47.5% and 52.5%) in the last gubernatorial elec-

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in Kushner Gadarian et al. (2020), to causally identify the underlying mechanisms driving polarization and hostility.

[3]While some Republican politicians have expressed skepticism about social distancing measures, this is not a factor in our main analysis sample; all of the governors of the 12 states that form the close-election sample have encouraged their constituents to stay at home and take social distancing seriously. These states all declared public emergencies within the 2 week period from March 1 to March 14, and 11 of the 12 had closed schools at the time of our survey.

[4]An initial survey was run on March 24th, with additional responses recruited on March 26th. The vast majority of our respondents (98.4%) took the survey on one of these two days. Because the surveys were available for a week, however, a small number of respondents completed the survey later that week.

tion. We oversampled from the smaller states in order to ensure that we could calculate sample means with precision in each state. After excluding approximately 160 respondents who reported that they did not vote either Democrat or Republican consistently, our main analysis sample for the OLS results is made up of 1,041 MTurk workers.[5]

As in all research using MTurk, it is important to note that our sample is not representative of the U.S. population. The sample is younger, more highly educated, more likely to be white and/or non-Latinx, and is more heavily concentrated in the South than the American population at large. We would also expect that they are more internet-literate than the rest of the population. As noted in the results section, we examine whether our estimated responses to an opposing-party governor vary with these characteristics, and show that the differences in observable characteristics would predict a similar response in the broader population.

For the regression discontinuity version of our results, we also require a sample outside of the close-election states. We recruited a further 925 workers from states with Republican vote shares under 47.5% or over 52.5%. We ensured that approximately half of these came from states just outside the boundary (in the 45-47.% or 52.5-55% Republican vote share range) in order to maximize the precision of the RD.

2.2 Election data

Data on gubernatorial election outcomes was gathered from the website Ballotopedia.com. The 12 states with close elections were: Nevada, Montana, Connecticut, Louisiana, Wisconsin, Kentucky, North Carolina, Florida, Georgia, Iowa, South Dakota, and Ohio.

2.3 Political orientation

We ask respondents to indicate which party they usually vote for: Democrats, Republicans, or neither. We use this variable to classify respondents as Democrats or Republicans. We drop respondents who do not consistently vote for either party.

We also want to examine whether our results are stronger for respondents who are more polarized, either in the affective sense (those who show high levels of hostility towards the other party), or in the issue sense (those who have relatively extreme political positions.) Our measure of affective polarization is based on the difference in the degree of "warmth" the workers feel towards their own party and towards the other party. Workers were asked to rate their level of warmth for each party on a scale of 0-100, and we measure the absolute value of the difference between the two ratings. We classify respondents as "hostile" to the other party if this difference exceeds 50, the median in the sample. Our

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[5]Results are similar but slightly smaller if we include the respondents who do not vote consistently for either party, or if we code these respondents as Democrats or Republicans based on their reported left/right orientation.

measure of issue polarization is based on the worker's self-reported left-right wing orientation, on a scale of 0 to 6. We classify respondents as "extreme" if they report either a 0, 1, 5, or 6. Approximately half the sample is classified as extreme.

Because the COVID-19 epidemic may have affected political polarization, we also attempted to recontact a set of workers who were included in a previous survey on political polarization in the fall of 2019. We were successful in re-surveying approximately 200 of these. The results are very similar using pre-COVID measures of polarization in this sample (available upon request).

2.4   State polarization

The willingness to contribute to a public good may depend not only on a respondent's polarization, but also on their perceptions of the polarization of their community. We therefore also examine whether the response to an opposite party governor differs by state polarization prior to the COVID outbreak. To capture state polarization, we use measures taken from the American National Election Study in 2016. For affective polarization, we use two questions about warmth towards political parties that are identical to the questions we ask respondents in our surveys. We take the absolute difference between these, and take the mean at the state level. We classify as state as "hostile" if the state average is above the median (39.6). For issue polarization, we use a question that asks respondents to place themselves on a left-right scale from 0 to 10. We calculate the fraction of the population that gives themselves a rating of 0, 1, 9, or 10, and classify a state as "extreme" if this fraction is above the median (0.186).

2.5   Outcomes

Our key outcomes are measures related to compliance with recommended measures to combat the spread of COVID-19. To measure compliance, we ask respondents about whether they have left the house in the past 48 hours, and if so, where they went; whether they are working remotely; and about whether they are engaging in specific behaviors like hand washing more frequently than usual.

Table 1 shows the means of our outcome variables for Democrats and Republicans living in states with a Democratic/Republican governor. We first construct a measure of whether the respondent had left their home for "non-essential" reasons (excluding work, the doctor, or groceries). Approximately 20-30% of the sample reported leaving their home for non-essential travel in the previous 48 hours. Both Democrats and Republicans report leaving home more often in Republican states, although the difference is larger for Democrats.

The next rows of the table report the probability that a respondent reports taking various preventative measures more frequently than usual in the past week. For the first three measures - washing hands or using hand sanitizer,

staying home, and canceling planned travel - both Democrats and Republicans are less likely to report these behaviors when living in states run by the other party. For the other three measures, there is no consistent opposite-party pattern. On net, the number of behaviors reported by individuals in opposing-party states is about 0.2 lower (compared to an average of about 3) than for individuals in own-party states.

2.6 Empirical strategy

We first begin by estimating the effect of an opposing-party governor on the likelihood of engaging in distancing measures. We estimate the following:

$$Y_{ips} = \alpha + \beta_1 Opposing_{ips} + \beta_2 Democrat_i + \beta_3 \mathbf{X}_i + \gamma_s \epsilon_{ips} \qquad (1)$$

where Y_{ips} is a dummy variable equal to 1 if individual i, with political party/ideology p, in state s, engaged in each of the preventative measures [6]. $Opposing_{ips}$ takes the value of 1 if the respondent's political party p is different from the party of the state governor, and 0 otherwise. $Democrat_i$ takes the value 1 if individual i aligns themselves with the democratic party and 0 otherwise. $\mathbf{X}_i$ is a vector of demographic characteristics including age, age squared, an indicator for 4 education levels (high school or less, some college, bachelor's degree, post-graduate degree), 4 racial categories (white, black, Asian, and other), indicator for Latinx and an indicator for female.[7]

We run this regression at the individual level because we will eventually interact our key independent variable, $Opposing_{ips}$, with individual levels of polarization. For this non-interacted version of the regression, however, the results are very similar if we collapse the data to the state by party level.[8] Because our key dependent variable varies at the state by party level, we would typically cluster standard errors in this regression at the state by party level. In this case, however, clustering reduces the standard errors.[9] In order to be conservative, we have left the standard errors unclustered.

For this regression to capture a causal effect of having an opposing party governor, it must be that there is no other reason for individuals who are in the political minority in their state to show reduced compliance with social distancing. This might not be the case if, for example, political minorities are

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[6]Leaving the home for non-essential reasons, increased hand washing, staying home, canceling travel, limiting contact with high-risk individuals, wearing a mask, other, and the number of these measures taken.

[7]We did not include a control for the number of cases of COVID-19 in a state, because this outcome is endogenous to compliance behavior. However, if we do include the number of cases per 100,000, this does not alter the results. The number of cases does not predict behavior in our sample more broadly, but does strongly predict compliance behavior among the older members of our sample.

[8]For example, on our summary dependent variable, the number of preventative measures taken, the coefficient is -0.17 and significant at the 5% level in our individual level OLS results, and is -0.19 and significant at the 5% level in the unweighted state by party level results.

[9]The results are also robust to clustering at the state level, which leaves the standard errors effectively unchanged from the main specification.

unusually contrarian, or are more likely to have moved from out of state (and therefore have fewer social ties in the state). If either of these stories was true, we might see reduced compliance for political minorities, but this would not be the result of having an other-party governor.

In order to ensure that we compare individuals who would otherwise show similar behavior, we therefore focus on a set of states where the election was close and present both OLS and RD versions of our results. This strategy was first used by Lee (2008) to estimate the causal effect of incumbency on future election. Eggers et al. (2015) provides additional evidence that this strategy is valid for estimating treatment effects in most contexts.[10]

3 Results

3.1 Results on preventative behaviors

The first panel of Table 2 shows the coefficients from the OLS regression, using the close-election sample. The table shows that individuals are significantly less likely to report hand washing, staying home, and canceling planned travel when they live in states governed by the other party. They are also less likely to limit contact with high-risk friends and relatives or wear protective gear when outside of the house, although these latter two results are not statistically significant. On net, individuals in opposite-party states report significantly fewer preventative behaviors than individuals in own-party states.[11]

The second panel of Table 2 shows the results when we collapse the data to the state level and use a regression discontinuity design.[12] The dependent variable in this regression is the average difference in a behavior between Democrats and Republicans within a state.[13] When Republicans are elected, the mean difference in washing hands and canceling travel shows a significant decline; there are also declines in limiting contact with high risk friends and relatives and wearing protective gear, although these are not significant. The gap in the number of behaviors taken falls by 0.4. While not shown in the table, the regression coefficients are extremely similar for Democrats and Republicans. When the

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[10]As we will show below, the estimates are actually *more* negative when we limit the sample to close states or use the RD design. Because the sources of bias we expect are all downward, we suspect that this result occurs because the causal effect of an opposite-party governor is smaller when the election result is a foregone conclusion. We discuss reasons why this might be the case below.

[11]Note that because there are state fixed effects in these regressions, we have not included a direct effect of having a Republican governor. If we omit the state fixed effects and include a Republican governor indicator, the coefficients are close to zero and insignificant. The coefficient on an *individual* being Republican, however, are negative and significant. This accords with other work showing that there are political differences in compliance behavior (e.g., Kushner Gadarian et al. (2020); Barrios and Hochberg (2020)).

[12]We implement this regression using the Stata package rdrobust, which optimally selects the bandwidth (Calonico et al., 2014).

[13]We have 43 states where we observe both Democrats and Republicans, which is why the number of observations is 43 in this table.

Republican share of the vote crosses the 50% threshold, the number of preventative behaviors for Democrats falls by -0.156. For Republicans, it increases by 0.169. Therefore, members of both parties contribute equally to the declining gap.

As noted in the Data section, the MTurk sample is demographically different from the broader U.S. population. In results not shown here (available upon request), we have examined whether the response to an opposite-party governor differs by age, education, race, ethnicity, or gender. The only significant difference is by age, with the older respondents in our sample showing a more negative response than the younger respondents. This would imply a *weaker* response in our sample than in the population as a whole (recall that the MTurk sample is younger than average.) However, this relationship is quantitatively small: adjusting the response to fit the age distribution of the U.S. population results in a coefficient of -0.19, as opposed to -0.17. We get similar results when adjusting for any other demographic characteristic.

3.2   Mechanisms

Why do people in opposite-party states comply less with social distancing measures? In Table 3, we examine the effect of opposite-party governance on some intermediate variables that may shed light on this question. In the first two columns, we examine whether opposite-party governance affects individual's perception of the seriousness of the COVID-19 crisis. The dependent variable in the first column is a respondent's 0-10 rating of the importance of social distancing, while the second is an indicator for whether the respondent indicated being unworried about either getting or transmitting the virus. These coefficients are insignificant and, if anything, indicate that individuals in opposite-party states take the COVID-19 crisis more seriously. In the third and fourth columns, we examine whether individuals report less trust in either medical organizations or the state government.[14] There is no significant impact on trust in medical organizations (although the coefficient is negative), but a large impact on trust in the state government. This variable explains relatively little of the total treatment effect, however; including it as a control in our main regression reduces the coefficient on "opposing party" for the number of preventative behaviors from -0.17 to -0.14.[15] In the fifth column, we examine a respondent's estimated compliance of other people in an individual's community. This variables ranges from 0-100. While there is a slight decline in estimated compliance in opposing-party states, this is small and insignificant. Finally, we examine whether people in opposing-party states receive different information about the COVID-19 epidemic. In the sixth column, the dependent variable is an indicator for whether the respondent

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[14]The specific organizations we ask about are the CDC, the AMA, and the WHO. The dependent variable is an average of the three. Effects on all three variables are in the same direction, and are statistically insignificant.

[15]We also ask questions about generalized trust, trust towards neighbors, trust towards corporations, and trust towards local government. Of these, only the local government coefficient is significant. Including this as a control does not change the coefficient in our main regression.

has seen any information skeptical about the importance of social distancing. There is no effect of opposite party-status on this variable.[16]

In sum, respondents living in states where the other party narrowly won the election show little difference in attitudes towards the COVID-19 crisis or social distancing, do not appear to trust medical organizations less, do not believe their neighbors are "cheating", and do not get exposed to more skeptical information about the social distancing. Nonetheless, they cooperate significantly less with social distancing. We believe that the most probable explanation for this pattern is that individuals are simply less willing to cooperate when the leader of their state - and the person who is typically the public face of efforts to combat COVID-19 - is from the other party.

3.3   The effect of polarization

Table 4 examines whether the response to an opposite-party governor is related to political polarization. We first examine whether the response is concentrated in more polarized states, as measured in the 2016 American National Election Study. We use our broader sample of respondents from 49 states for this set of regressions.[17] The first column of the table replicates our main regression for the number of preventative behaviors in this sample. The estimated effect of having an opposing party governor is -0.080, about half as large as our estimate in the close election sample, and is statistically insignificant. As noted previously, we believe that any bias in the regression using the full sample is likely to be downward. The fact that our estimate moves upwards when we switch to the full sample suggests that, rather than reflecting bias, the smaller coefficient reflects a treatment effect that is smaller in states dominated by a single party. This could be because the elections are less bitter when one party dominates a state, or because individuals willing to live in states where they are the political minority are more tolerant of opposite-party rule.

In the second column, we examine the difference between states that are more and less polarized. We split states on the basis of their relative hostility index, which is the absolute difference between average own-party warmth and other-party. This variable ranges from 0-100 and has both a mean and a median of about 40 (across individuals and across states). As shown in the second column of Table 4, there is no effect of an opposite party governor in the non-polarized states, and an effect of -0.183 (significant at the 10% level) in the polarized states. In the third column, we interact the opposing party indicator with the relative hostility index. The coefficient is negative and statistically insignificant. It is fairly large in magnitude, however; it implies a coefficient on "opposing party" of approximately -0.06 for the least polarized state, and -0.125 for the most polarized state. In sum, it appears to be individuals in the more affectively polarized states that are driving our results.

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[16]We also ask about the respondent's key source of COVID-19 related information, to examine whether individuals are less likely to rely on governmental or health organization information when they are in opposite-party states. This does not appear to be the case.

[17]Results are similar if we use the close election sample.

We next examine whether individuals who are more hostile to the other party show a bigger opposite-party response. In the fourth and fifth columns of Table 4, we repeat the polarization regressions using individual measures of relatively hostility.[18] Somewhat surprisingly, the more polarized respondents show a *smaller* response to an opposite party governor. The treatment effect for the more polarized part of our sample is effectively zero, and there is a significant and positive coefficient on the interaction of "opposing party" and the relative hostility index.[19]

The fact that the opposite-party response is greater in more polarized states, but not among more polarized individuals, suggests that the mechanism for our effect is not an individual's overt hostility towards the other party. Instead, it seems that features of a more polarized political environment - in particular, perhaps the individual's perceptions of political opponents hostility towards *them* - that undermine cooperation.

4 Conclusion

We present evidence that political fragmentation reduces compliance with recommended social distancing measures. We focus on states with close elections, to limit the potential for results to be driven by individuals with contrarian views or other sources of endogeneity. Possible channels for this result are reduced social trust or exposure to different information sources. We find these channels explain very little of the reduction in distancing behaviors. Finally, we focus on the role of inter-party hostility as a key driver of polarization. We show the negative response to an opposite-party governor is stronger in states with more inter-party hostility. We interpret this finding to show that perceptions of the opposing party's hostility towards these individuals makes them unwilling to contribute to the public good of social distancing measures.

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[18]Our sample appears to be more polarized on average than Americans as a whole: the mean difference between own- and other-party hostility in our sample is around 50, as opposed to 40 in the ANES. We use the threshold of 40 in the results in Table 4, but the results are similar if we use a threshold of 50.

[19]This effect is driven by individuals in the top quartile of relative hostility (not shown in the table); the response to an opposite-party governor is quite similar for individuals in the bottom 3 quartiles.

5 Tables

Table 1: Preventative health measures, by political party and governor's political party (close election sample)

	Respondent's party:			
	Democrat	Democrat	Republican	Republican
Governor's party	Democrat	Republican	Democrat	Republican
Left house - non-essential	23.9%	28.5%	31.1%	32.8%
Wash hands	95.0%	93.3%	86.6%	93.0%
Stay home	94.0%	91.5%	83.7%	88.6%
Cancel planned travel	43.9%	39.4%	30.1%	40.3%
Limit contact w. high-risk	77.1%	70.0%	67.4%	63.7%
Wear mask or gloves	22.3%	23.9%	21.5%	27.4%
Other	3.7%	2.7%	3.3%	2.0%
Number of behaviors	3.4	3.2	2.9	3.1
N	301	330	209	201

This table shows the proportion of Democrats/Republicans in close election states who report that they undertook various measures to limit the spread of COVID-19, broken down by whether they lived in a state with a Democrat/Republican in the Governor's office.

Table 2: Regression results, preventative measures

Panel 1: OLS

	Left house	Wash hands	Stay home	Cancel travel	Limit contact	Wear mask	Other	Number
Opposing party	0.015	-0.038**	-0.037*	-0.069**	-0.017	-0.018	0.002	-0.176**
	(0.029)	(0.017)	(0.019)	(0.031)	(0.029)	(0.027)	(0.011)	(0.070)
N	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041
R²	0.050	0.049	0.071	0.049	0.068	0.065	0.027	0.076

Panel 2: State-level Regression Discontinuity

	Left house	Wash hands	Stay home	Cancel travel	Limit contact	Wear mask	Other	Number
Opposing party	0.027	-0.040***	-0.002	-0.227***	-0.020	-0.037	0.003	-0.399**
	(0.101)	(0.014)	(0.040)	(0.078)	(0.105)	(0.094)	(0.032)	(0.175)
N	43	43	43	43	43	43	43	43
Party	Y	Y	Y	Y	Y	Y	Y	Y
Demographics	Y	Y	Y	Y	Y	Y	Y	Y
State FE	Y	Y	Y	Y	Y	Y	Y	Y
Mean of dep. var.	0.285	0.924	0.901	0.390	0.703	0.236	0.030	3.184

This table reports the results from regressions of the indicated preventative measures on an indicator for living in a state with an opposite-party governor. Panel 1 shows the OLS results using the close-election sample, while Panel 2 shows the results using a state-level regression discontinuity. The regressions also include a control for being a Democrat, state fixed effects, and the following demographic controls: age, age squared, indicators for 4 education levels, indicators for 3 racial categories, an indicator for Latinx, and an indicator for female.

Table 3: Regression results, potential channels

	Imp. of SD	Unworried	Trust in med. orgs.	Trust in state govt.	Est. compliance	Skeptical info
Opposing party	0.029	-0.019	-0.073	-0.679***	-0.111	-0.010
	(0.051)	(0.020)	(0.125)	(0.138)	(1.319)	(0.030)
N	1,041	1,041	1,041	1,041	1,041	1,041
R^2	0.049	0.049	0.096	0.103	0.049	0.053
Party	Y	Y	Y	Y	Y	Y
Dem. Controls	Y	Y	Y	Y	Y	Y
State FE	Y	Y	Y	Y	Y	Y
Mean of dep. var.	2.4	0.113	7.1	5.2	53.7	0.368

This table reports the results from regressions of the indicated measures on an indicator for living in a state with an opposite-party governor. The regressions also include a control for being a Democrat, state fixed effects (which absorb the effect of having a Republican governor, as well as the Republican vote share), and the following demographic controls: age, age squared, indicators for 4 education levels, indicators for 3 racial categories, an indicator for Latinx, and an indicator for female.

Table 4: Regression results, by level of polarization

	Dependent variable: number of preventative measures				
Opposing	-0.086	0.023	-0.011	-0.182 **	-0.302***
	(0.054)	(0.085)	(0.402)	(0.088)	(0.103)
Opposing x polarized state		-0.183*			
		(0.085)			
Opposing x state polarization			-0.002		
			(0.010)		
Opposing x polarized respondent				0.150	
				(0.088)	
Opposing x respondent polarization					0.004**
					(0.002)
N	1,854	1,854	1,854	1,854	1,854
R^2	0.072	0.074	0.072	0.073	0.076

References

Adda, J. (2016). Economic activity and the spread of viral diseases: Evidence from high frequency data. *The Quarterly Journal of Economics*, 131(2):891–941.

Alesina, A., Baqir, R., and Easterly, W. (1999). Public goods and ethnic divisions. *The Quarterly journal of economics*, 114(4):1243–1284.

Algan, Y., Hémet, C., and Laitin, D. D. (2016). The social effects of ethnic diversity at the local level: A natural experiment with exogenous residential allocation. *Journal of Political Economy*, 124(3):696–733.

Barrios, J. M. and Hochberg, Y. V. (2020). Risk perception through the lens of politics in the time of the covid-19 pandemic. *Working paper*.

Calonico, S., Cattaneo, M. D., and Titiunik, R. (2014). Robust nonparametric confidence intervals for regression-discontinuity designs. *Econometrica*, 82(6):2295–2326.

Dynes, R. R. (1994). *Disasters, collective behavior, and social organization.* University of Delaware Press.

Eggers, A. C., Fowler, A., Hainmueller, J., Hall, A. B., and Snyder Jr, J. M. (2015). On the validity of the regression discontinuity design for estimating electoral effects: New evidence from over 40,000 close races. *American Journal of Political Science*, 59(1):259–274.

Fang, H., Wang, L., and Yang, Z. (2020). Human mobility restrictions and the spread of the novel coronavirus (2019-ncov) in china.

Gentzkow, M. (2016). Polarization in 2016. *Toulouse Network for Information Technology Whitepaper*, pages 1–23.

Klein, E. (2020). *Why We're Polarized.* Profile.

Kushner Gadarian, S., Goodman, S. W., and Pepinsky, T. B. (2020). Partisanship, health behavior, and policy attitudes in the early stages of the covid-19 pandemic.

Lee, D. S. (2008). Randomized experiments from non-random selection in us house elections. *Journal of Econometrics*, 142(2):675–697.

Lin, Q., Zhao, S., Gao, D., Lou, Y., Yang, S., Musa, S. S., Wang, M. H., Cai, Y., Wang, W., Yang, L., et al. (2020). A conceptual model for the coronavirus disease 2019 (covid-19) outbreak in wuhan, china with individual reaction and governmental action. *International journal of infectious diseases*.

Perez-Truglia, R. (2018). Political conformity: event-study evidence from the united states. *Review of Economics and Statistics*, 100(1):14–28.