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Midwest Governors' Rhetoric During the COVID-19 Pandemic

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I Hereby Reaffirm the Lawrence University Honor Code

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Abstract

There has been an explosion of research measuring governments' COVID-19 response both in the U.S. and globally. The response from the U.S. federal government to the COVID-19 pandemic was not consistent. Therefore, state governors had a variety of responses. Publicly available cell phone movement data was used to explore governors' impact on citizens' adherence to stay-at-home orders. This data was used to assess the impact of governors' press conferences, controlling for COVID-19 case count, partisanship, median income, and other factors. There were 13 Midwest states observed over 13 months from February 1, 2020, to February 26, 2021. The results of the regressions are that all state governors, with one exception, had an impact on citizens' movement, meaning the more press statements the governor gave on the danger of the pandemic, the fewer citizens moved. To further test governors' press statements, I undertook a qualitative analysis of rhetoric by governors using classical rhetoric tools of persuasion using arguments of moral character, logic, and emotion. The results are that governors' statements are critical to ensuring stay-at-home compliance.

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Introduction

The global COVID-19 pandemic has caused a series of different policy responses both in the U.S. and worldwide. Stay-at-home orders must be adhered to by citizens in order to be effective. This paper aims to show how governors' statements influence citizens' movements. Public opinion formation and policy adherence are difficult to measure; many survey methods can be unreliable with such a highly politicized issue as the COVID-19 pandemic in the U.S. It is well established that President Donald Trump's positive and negative tweets about the pandemic affected citizens' confidence in public health compliance with preventive health measures (Bisbee and Lee, 2021). States had varying policy responses to address the COVID-19 health crisis (Kinkaid and Lickrone, 2021).

Do governors have an effect on the policy compliance of citizens relating to stay-at-home orders? In order to measure the effect of governors' statements, my study examined 13 states within the Midwest and used cell phone mobility data to measure citizens' movement from February 1, 2020, to February 26, 2021, weekly for every county in each state in my sample. Cell phone movement data was compared to the 2019 movement, using seven factors to determine differences in movement. Press conferences were coded by the number of times a governor spoke within a week, both positive and negative statements. Control variables included; COVID-19 case count, partisanship, median income, and other factors, were added to the regression model.

The results show that most governors within my sample do have an impact on their citizens. 12 out of 13 governors' statements examined resulted in less movement. The other significant difference is that there is less movement in communities with a high median income. Median income was a factor in reducing movement. The effects of partnership were measured

through Republican vote share. The results of the regression found that in terms of press statements effects, only one governor did not affect movement, and that was Iowa's, Governor Kim Reynolds. Partisanship was also smaller of a factor compared to previous literature. COVID-19 cases' effect on movement needed to be more consistent throughout the states observed to better analyze rhetoric.

I examined the statements at the most critical points of the 2020 COVID-19 pandemic looking for classical rhetorical tools of persuasion using moral character, logic, and emotion by looking at the press statements. All governors use character and logic. This often culminates in an "us" versus "them" type of statement, urging citizens to act out of a sense of unity. The only state diverging from an "us" versus "them" framing was Iowa's Governor Kim Reynolds. Iowa's governor did not influence the movement on a statistically significant level. The findings when examining persuasion tactics show that unity works best in persuading citizens to stay at home. This means that when giving guidance to persuade citizens to stay at home, personal statements that bring unity with a sense of commonality are how governors and other local and state officials influence citizens.

Literature Review

In 2019 a new disease emerged, SARS-COV-2. Its rapid spread required an immediate public health response worldwide, and literature quickly emerged (Kavanagh and Singh, 2020) studying this new phenomenon and government response to this dangerous disease. Governments worldwide used five main policy instruments: mask mandates, domestic lockdowns, international travel bans, mass gathering bans, and closures, including schools, businesses, and restaurants. Articles focusing on the global response proved that mask mandates and domestic lockdowns were the best way to prevent the spread of the disease (An. et al. 2021).

In addition, many European states have shown that their rules and regulations could better mitigate the pandemic than most U.S. states (An. et al. 2021). Each country had a unique approach to mitigating COVID-19 infections.

The most effective policies within the U.S. states are proven to be the effectiveness of mask mandates and lockdowns with the United States, these policies lead to lower infections (Fareed et al. 2021, Fowler et al. 2021, Krigel and Voyer. 2022, Tellis et al. 2022). The literature also shows that the severity of the pandemic was made worse by U.S. federal government inaction (Kinkaid and Lickrone, 2021). Some U.S. governors prioritized the economy instead of abiding by health guidelines (Murray and Susan, 2022). These differences in the severity of the pandemic can be blamed on federalism and the separation of state from the federal government, and there only provide loose guidelines (Kinkaid and Lickrone, 2021 and Murray and Susan, 2022). These findings indicate a need to examine the governors' role in the pandemic.

The U.S.'s strategy for addressing the pandemic was to let each state address public health concerns (An. Et al. 2021 and Krigel and Voyer, 2022). The national government had economic impact, but health guidelines were not consistent (Kinkaid and Lincrone 2021). Responses from the federal government may be to blame for the ongoing struggle to eliminate the virus because states allowed sections to reopen based on additional guidance (Courtemanche et al. 2021). However, policy from the federal government is only loosely followed and not universally taken or applied (Courtemanche et al. 2021).

A select few states did not issue a stay-at-home order; one of the prime examples is Governor Kristi Noem, the Republican Governor of South Dakota, who was reluctant to issue a stay-at-home order, while other governors quickly approved a stay-at-home order (Sergent and Stajkovic, 2020). When looking at governors and their response to COVID-19, there

immediately arises a trend that early during the COVID-19 pandemic, mitigation practices became politically charged, with Republicans putting concern over the closure affecting the economy. In contrast, democrats put safety as their high priority (Kinkaid and Lickrone, 2021).

Studies about leadership have been mainly focused on the presidents and the federal response (Kinkaid and Lickrone 2021). However, before the pandemic, a study by Jong et al. (2016) demonstrates complete collections of studies done on governors and mayors responding to crises that both leaders play pivotal roles in the response. The study also shows that governors and mayors are crucial in communicating during a disaster; however, in a crisis, in general, there is no clear, correct way to play the role that governors and mayors play (Jong et al. 2016). Regarding the pandemic and the governors' leadership, some literature exists measuring the effects (Grossman et al. 2020, Sergent and Stajkovic, 2020). There are claims that women governors in the U.S. had much more successful at limiting cases than leaders that were men (Sergent and Stajkovic, 2020).

It is difficult to determine the role governors have during a pandemic; however, through analysis of the literature, it generally seems that much of the decision-making on health restriction came down to individual state responses from governors (Fowler et al. 2020). The reason for the confusion in response to the COVID-19 pandemic is partially due to the federal government's response (Kinkaid and Leckrone, 2021). When COVID-19 began to appear in the U.S., the responsibility of addressing the pandemic fell onto President Donald Trump, the Centers for Disease Control and Prevention (CDC), and state public health officials. Unfortunately, as the pandemic persisted, President Trump began engaging in combative rhetoric with governors and began delving into messages that went against public health officials (Kinkaid and Lickrone, 2021). This confusing and combative rhetoric could have been more

productive in aiding the governor's response; these tactics were often used in varying ways to discredit officials in the U.S. but also to focus on rhetoric about anti-Chinese sentiments (Santis, 2020). This is an example of how leaders can manipulate the right to shift the blame, as often demonstrated in politics (Santis, 2020).

In terms of literature on presidential leadership, there is an extensive amount of analysis methods to measure a president's leadership (Maskor et al. 2021). The focus on leadership during the pandemic has mainly focused on President Trump and his rhetoric, measuring this using several different tools (Bisbee and Lee, 2021, Santis, 2020). The literature mainly focuses on how the president's rhetoric affects the citizens and how each president or presidential candidate builds trust among the people. Literature tends to also focus on negative tactics of rhetoric, such as negativity toward the opposing party, political institutions, and foreign states (Maskor et al. 2021 and Santis, 2020). There needs to be more literature focusing on governors' rhetoric and leadership during COVID-19.

After the initial stages of the pandemic, many citizens of the U.S. started to develop their own opinions on the pandemic, which were influenced by many different sources, including news media outlets and political leaders. A study by Hart et al. (2020) finds that news coverage throughout the first stages of the pandemic, March and April, are not highly politicized and, over time, becomes more polarized (2020). Hart et al. inference begins that these highly politicized events contributed to more long-term effects of divisive public opinion about the pandemic (Hart et al. 2020). The results indicate that after the initial stages, more political leaders were present (Hart et al. 2020). This gives further evidence of the influence that, over time, political leaders were referred to as the primary source of information. Both Trump and the news media's focus quickly fell apart as public opinion shifted in the U.S. Over time, the formation of opinions has

been a complex topic for political scientists to determine not only the opinion but also how citizens form their opinions. Belief structures are mainly hard to define, but generally, simple categories yield the most accurate account for classification (Stimson 1975). Public opinion of the policies matters. A positive public opinion will affect citizens' compliance with the policy. Therefore, the more positively a citizen agrees and has a favorable opinion of a policy, the more likely they will heed public safety measures, which was demonstrated in the initial stages of the pandemic, caused by a degree of uncertainty.

Examining literature on public influences has primarily been focused on survey data (Hart et al. 2020); however, through new methods, studies have appeared that show a less partisan response (Bisbee and Lee 2021, Grossman et al. 2020 and Xiong et al. 2020). This study uses the methods from Bisbee and Lee's statistical analysis to examine the relationship between President Trump's tweets and cell phone movement data. (Bisbee and Lee 2021). Bisbee and Lee manually coded each tweet made by President Trump as either positively defined reinforcement of pandemic policies or reinforcing the severity of illness. Bisbee and Lee defined negative comments as downplaying the pandemic or reassuring that the pandemic was not severe or "will leave quickly." The tweets were coded by using keywords and phrases specific to the pandemic. Bisbee and Lee estimated the difference in political views and how tweets affected both Democrats and Republicans; the research also examined voter data from 2016 provided by Townhall.com. Bisbee and Lee showed that either a Democratic or Republican county is classified as a county 6 with more than 60% vote share for any party. Separating counties by vote share was crucial in determining independent counties, defined as vote shares for either party that was less than 50%. The research further acknowledges that both Democrat and Republican

counties are vastly different regarding demographics, along with urban and rural differences (Bisbee and Lee, 2021).

The result from the study of Bisbee and Lee finds that during the initial stages of the pandemic, rhetoric is significant and impacts citizens' willingness to abide by Shelter in Place (SIP). The findings from Bisbee and Lee indicate that Trump's tweets are ineffective at influencing Democrats' habits. There is no statistically significant effect on independent counties. While Republicans' habits impacts were initially strongly affected by the nature of Trump's tweets, effectiveness quickly and sharply declined. This is especially true during the summer months of July and onwards. Many even positive comments had little to no significant effect on movement (Bisbee and Lee, 2021). Due to the various state responses and the political divide on how to respond to COVID-19, there is a question of whether President Trump's positive and negative reinforcement of the pandemic had any effect on citizens' beliefs and behaviors regarding COVID-19 policy, a question asked by Bisbee and Lee in their 2021 study. In order to determine the effectiveness of politicians' rhetoric on promoting stay-at-home orders, the study by Bisbee and Lee observes President Trump's tweets to show the willingness of citizens to stay at home if President Trump tweets to encourage citizens to stay at home. Bisbee and Lee established that elite cues influenced voters' policy stance and that there is ample research to define this as stated before; therefore, Donald Trump, a polarizing figure who made both positive and negative comments about the pandemic, would be necessary to voters however governors did not have the same presence on Twitter. To determine the effects of tweets, first, the authors gathered publicly available GPS data provided by Cuebiq, a private data company. The data was accrued from January 23 to October 26, 2020. The Cuebiq mobile data measures the distance a person traveled away from their home and will show whether a person traveled more than 330

feet away from their home. The data used mobile devices data publicly available through Cuebiq, which provided data specified when there was a SIP order given. These metrics are calculated and sorted at the county level.

Research Design

This paper aims to measure the effects of governors' rhetoric affirmations of the pandemic and its effect on citizens' movement which is measured from cellular phones. Governors' press conferences are recorded as the independent variable. There are multiple control variables that are used to account for different explanations of the phenomenon.

Quantitative

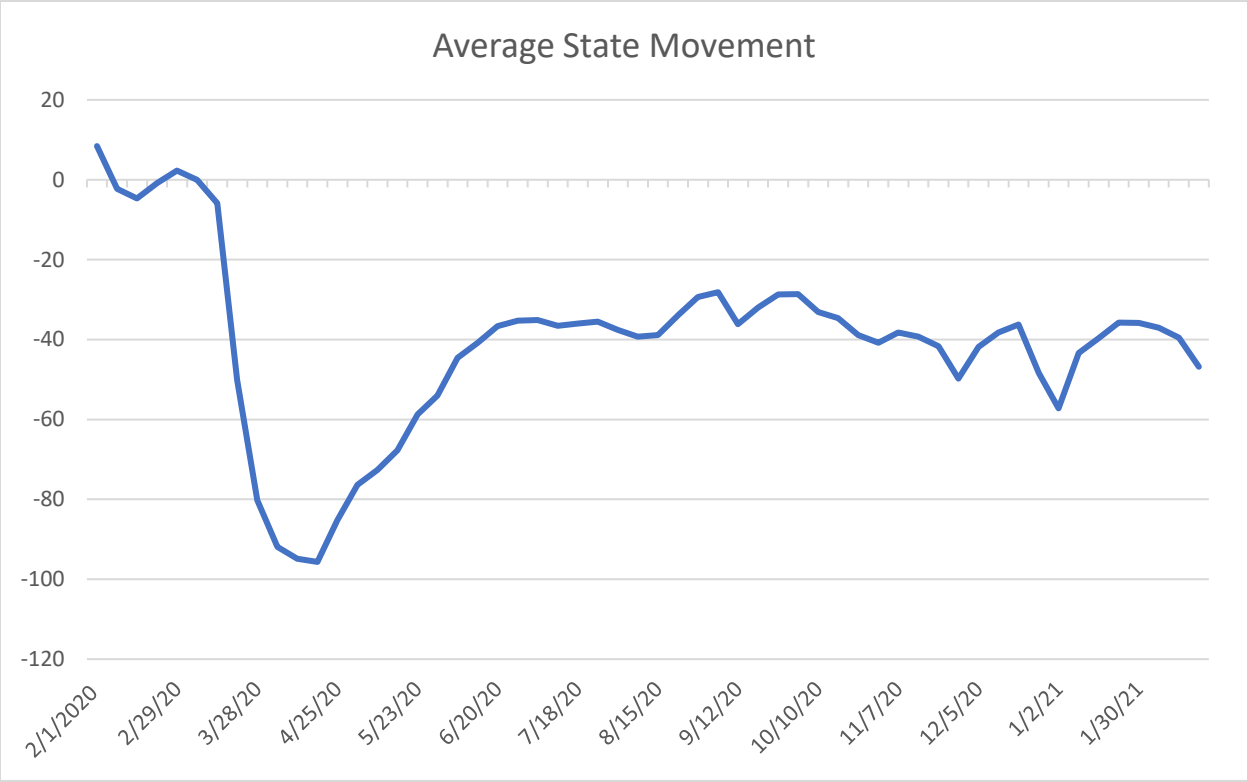
First, this paper uses mobility data from the Federal Reserve Bank of Dallas. Mobility data is from cell phone tower pings, which track citizens' movement at the county level to create the mobility and engagement index (MEI). The reason for using MEI data instead of survey data is that MEI data is an accurate, objective way to measure movement without biases. The MEI is averaged to seven variables (Atkinson et al. 2021).

- the fraction of devices leaving home in a day
- the fraction of devices away from home for three to six hours at a fixed location
- the fraction of devices longer than six hours at a fixed location
- an adjusted average of daytime hours spent at home
- the fraction of devices taking trips longer than 16 kilometers (10 miles)
- the fraction of devices taking trips less than 2 kilometers (1.2 miles)
- average time spent at locations far from home

The MEI is from January 1, 2020, to March 27, 2021. The MEI is a combination of all variables listed above through a weighted average (Atkinson et al. 2021). The MEI is compared

to the 2019 averages for the same week. A negative value indicates that the average movement in a county show there was less movement in that county than in 2019 (Atkinson et al. 2021). The MEI is from each county in the United States at the weekly level. The total average movement data for all states observed is displayed in Figure 1.

Figure 1: Average State Movement



Note this data is from the MEI index (Atkinson et al. 2021).

The reason to use the Dallas Federal Reserve MEI index is because of the seven variables that better define the degree of movement or lack thereof. The reason for this difference between the MEI data and the data used by Bisbee and Lee is their movement data was defined as someone moving 330 feet from their house (2021) MEI shows more specific criteria to better define movement.

In this study, I use a linear regression model to estimate the effects of governor's press releases on citizens' willingness to abide by state-at-home orders. My observations measure almost all counties within the thirteen states in the Midwest. These states include Illinois, Indiana Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, North Dakota, Ohio, South Dakota, Wisconsin, and Wyoming[1]. The time frame for this study is each week from February 1, 2020, to February 26, 2021, at the county level. The rationale is that after late December 2020, the vaccine began to be distributed, and movement began to revert to normal levels shortly after major vaccine distribution.

I measure governors' efforts to influence citizens' behavior by coding them as positive or negative and adding them up for each week of the press conferences in each week. Each of the press conferences was coded as either positive, meaning reaffirming health safety measures and explaining the severity of the pandemic, or negative, meaning wanting to mitigate fear over the pandemic or lowering public trust in safety measures .The process for coding governors' statements, this will be similar to what Bisbee and Lee (2021) used for coding tweets on President Trump's tweets. The reason to use press conferences over tweets is that President Trump had a unique presence on Twitter, and governors did not have that same presence; therefore, the closest form of communication used is the governor's press conferences. In a study done by Grossman et al. both tweets and press conferences are interchangeable, containing the same message (2021). Press conferences were found on individual governors' websites or state websites. The press conferences were marked on the same time frame per week, similar to the MEI county data.

1. [1] Wyoming is not traditionally considered part of the Midwest but was a substitute for Nebraska. Former Nebraska Governor Pete Rickett's press releases were not available.

To control for partisan differences which I define as Republican vote share, I used data from the 2020 election between Trump and Biden (Politico, 2020). The data used by Bisbee and Lee (2021) were from the 2016 election between Trump and Clinton. In this paper, I will use the 2020 election using the partisan differences as Republican vote share.

All states observed are located in the Midwest; the only exception is Wyoming which was substituted since press conference data for Nebraska was not accessible. The reason for examining the Midwest is a mix of Republican and Democratic states. Shown in Table 1, the descriptive statistics of each state highlight the political makeup with different governors' parties, their gender, and the makeup of the Republican vote share meant to represent the political makeup of the state.

The division between the state's electorate and the political affiliation of the governor is critical to note in Table 1, as this may affect the degree to which citizens obey their governor's orders. As shown in Table 1, some governors, such as Kentucky and Kansas, have Democratic governors, with the majority being Republican; these differences are important to highlight to help explain differences in effect of governors' statements. A democratic governor with a majority republican electorate may not have the same effect on their citizens as a democratic governor with a majority democrat electorate. The gender of the governor as a man or woman is also another critical component to observe.

Another control variable was the COVID-19 case count, which was also measured at the weekly county level. The reason that COVID-19 cases were used over COVID-19-related deaths was that as shown by Bisbee and Lee, COVID-19 infection leading to death would happen at a much later date (2021). COVID-19-related deaths will cause deaths later than their initial infection. When observing counties at a weekly

Table 1

States	IL	IN	IA	KS	KY	MI	MN	MO	ND	OH	SD	WI	WY
Governor political party	DEM	REP	REP	DEM	DEM	DEM	DEM	REP	REP	REP	REP	DEM	REP
Gender	Man	Man	Woman	Woman	Man	Woman	Man	Man	Man	Man	Woman	Man	Man
Population 2020 in Millions	12.8	6.5	3.1	2.9	4.5	10.0	5.7	6.1	0.7	11.7	0.8	5.8	0.5
Vote Percentage in 2020 Election GOP/Dem	40.6%/57.5%	57.1%/41%	53.2%/45%	56.2%/41.6%	62.1%/36.2%	47.6%/50.6%	52.6%/45.4%	56.8%/41.4%	65.5%/31.9%	49.6%/48.9%	61.8%35.6%	48.9%/49.6%	70.4%/26.7%
Median Income	71,234	60,974	63,362	63,214	54,074	61,352	75,489	58,812	64,289	60,360	61,149	64,901	67,284

level, deaths may happen at a later point than the point of infection, which is more of an immediate indication. The control variables are a county's median income, unemployment rate, population size, rural population percentages, high school graduate percentages, college graduation percentages, as well as the percentage of White, Black, Asian, and Hispanic populations. Median income and the unemployment rate were used from the 2019 American Community Survey (2021). Population and race controls were obtained through the most recent 2020 U.S. Census (2020). Rural percentages were used from 2010 since this was the most recent data set (Census Bureau, 2010). Finally, high school and college graduation rates by county (U.S. Department of Agriculture, 2019). There are currently 1,104 counties in the thirteen states; 47 counties were not included due to a lack of mobility data.

The regression was run by averaging each county week into a thirteen-month time frame. The reason for this is there are specific points of measurement rather than what Bisbee and Lee did by breaking their time frame into sections (2021). Instead, my data is by month in order to better capture changes in movement, such as in March were citizens were very responsive to staying at home all month, as shown in Grossman et al. article (2020).

The MEI data was provided by a company called Safegraphs which sometimes gathers data without the consent of its users. This brings in some legal controversy shown in an article by Gebhart (2020). However, the MEI index is publicly available and vetted by the Federal Reserve Bank of Dallas. Grossman uses the same data as the MEI (Grossman et al. 2020). Bisbee and Lee use a similar company to Safegraph called Cuebiq (Bisbee and Lee, 2021). The MEI index is used because it is randomized and anonymous, eliminating any personal information.

To give more examples of this type of analysis being done with other studies, we turn to Xiong et al. The researchers in Xiong's article took mobility data from mobile devices and

charted rises and falls in mobility between February 2020 until mid-April 2020 at a state level by showing the effectiveness of SIP during the early stages of the pandemic (Xiong et al. 2020). Xiong et al. took data from 20 million individuals over this time period. The researchers then took policy measures and compared those numbers with the rate of change, specifically when there was a high number of COVID-19 cases. When comparing states, the research made the number of COVID-19 cases the control variable. For example, in Xiong's article, exceptions for religious gatherings vary state by state, such as California having more relaxed policies on religious gatherings versus other states. Other articles have looked at state differences even more closely; for example, Pennsylvania demands liquor stores as services that needed to close despite no other state implementing this policy (Kinkaid and Lickrone 2021). State differences in SIP orders made comparing states even more challenging simply due to the nuance changes in the implementation of SIP.

Another example of these methods being used is Grossman et al. who do observe Governors' tweets compared to movement data (2020). Bisbee and Lee's (2021) research may be a better analysis than Grossman et al. (2020) due to the use of deaths instead of COVID-19 case count. Using case count to obtain a more accurate reflection of political statements, while deaths will lag behind the COVID-19 case count (Bisbee and Lee, 2021). Grosseman et al. also only observed the month of March 2020, which now is considered to be the most reflective time of the pandemic when there was the most uncertainty of the pandemic (Bisbee and Lee, 2021, Grossman et al. 2020).

The opportunity to examine state responses to the pandemic is needed to be better able to determine leadership in a pandemic, promotion of policy, and how citizens form opinions on public policy. Evidence of both uses is shown quantitatively. However, these may be only

patterns that are shown to gain insight into differences in states further; qualitative methods are needed to enforce the statistical findings. There is a number of tools to address what additional factors caused differences in citizens' responses to the governors' statement.

Qualitative

The quantitative methods show the impact of press statements. However, to further supplement the qualitative findings and to expand on the question of why some governors have an impact and others do not, I use a content analysis. The explanation may come from what governors said, notably how they established their reasoning and the persuasion methods they used. In order to do this, classical linguistic methods will need to be used to determine differences in rhetoric. The methods I use are shown in the book *Analysing Political Speeches Rhetoric, Discourse and Metaphor* by Charteris-Black (2018).

Charteris-Black presentive five types of persuasion: establishing integrity (ethos), expressing political argument (logos), thinking right, heightening emotional impact (pathos), mental representations, myths, frames and schemata and appearance, hair dress, and gesture (Charteris -Black, 2018). The methods of persuasion that will be focused on are establishing integrity and expressing political arguments or, in a classical sense, ethos, and logos. Governors did evoke an emotional response (pathos), but pathos is often used to invoke fear, which is not a tool used by governors with the exemption of the beginning of the pandemic. This unknown is primarily caused by little information on how to combat the virus (An et al. 2021). Furthermore, this study will also use the "us" versus "them" approach outlined in Charteris-Black's book. This "us" versus "them" approach uses statements that evoke "us" being that we as a people different from "them". The "them" can vary based on intention by a politician (Charteris -Black, 2018).

These statements are almost exclusively used in a negative way. The examination will look for statements the governor made to help explain the difference in effectiveness.

In order to properly establish reasoning within press conferences, certain moments in time will be used. These moments are determined to be pivotal movements during the pandemic in 2020. The dates are as follows: when COVID-19 was first announced to be a threat by each governor, when the governors reaffirmed staying at home the first 15 days of May 2020, and when COVID-19 cases were highest in both 2020 to determine the use of rhetoric during the most critically important time. The exact date of the first statement regarding the pandemic varies by state, along with the first announcement of stay-at-home orders. The beginning of May is the period when the states observed began to diverge in their approach to the pandemic. All states had the highest number of cases in 2020, concentrated in mid to late November, indicative of a surge in COVID-19 cases. All press conferences were taken from the governor's official website and or state website. Videos were also observed if they were included with the statement, except for panels that focused on several different experts. In some cases, governors had separate statements in their comments. For the qualitative sections, mere statements of COVID-19 cases or testing sites were not included due to the repetitive nature of the statements. When observing, it is essential to note that many governors gave more press statements early during the pandemic March-April of 2020. So, while these methods help observe show tactics, the governors may not always give a persuasive statement, it may just be a statement of fact.

Literature examining political rhetoric during the COVID-19 pandemic is specifically centered around President Trump's examining rhetoric (Clark and Nickels, 2020, and Santis, 2020). The literature surrounding the U.S. government's rhetoric during the COVID-19 pandemic is limited (Sergent and Stajkovic, 2020). When President Trump mentioned COVID-

19, he often framed much of the blame and negativity towards China and the Chinese Communist Party and created an adversarial dialect to establish his intent (Santis, 2020). Using China as an enemy was a way to show improper regulations and preparedness for the pandemic, and President Trump contrasted that to the U.S. being better prepared, establishing that President Trump had the right intentions and information. This type of rhetoric is similar to classic forms of literature, such as in Charteris -Black's book *Analysing Political Speeches Rhetoric, Discourse and Metaphor*. Charteris-Black begins to utilize classical rhetorical analysis tools, including ethos, logos, pathos, mental representations, myths, frames and schemata, and appearance, hair, dress, and gesture, all meant to persuade the listener to think a certain way (Charteris -Black, 2018). Persuasion is critical to focus on as the general body of literature focuses on how the elites within a party manipulate their followers shown by Ward et al. (2021).

Studying Trump's rhetoric and how this was used for political benefit has been a focus of the literature surrounding Trump. Studies show framing in politics and how President Trump framed issues like the pandemic for political benefit (Clark and Nickels, 2020 and Benford and Snow, 2000). The framing shown in the study proves that types of rhetoric are to shift blame to another group or redefine the narrative for political gain (Clark and Nickels, 2020). One example used by Clark and Nickels is Trump's framing of himself as a wartime president as an attempt to gain more control and divert funds to aid in funding the pandemic response (2020). A similar example that the article highlighted was the use of rhetoric like the "Wuhan virus" to link this directly with Asian Americans to create an "us" versus "them" narrative (Clark and Nickels, 2020). The comments were meant to accomplish greater party support, shift blame and add restrictions (Clark and Nickels, 2020). This tactic of blaming external groups for current

problems is observed in sociology; the "other" is to be blamed for current problems (Hameleers, Bos, and De Vreese, 2017).

Results

In order to find a link between governors' citizens staying at home, I created a regression analysis. Previous literature finds that Republican vote share has been the most significant predictor of movement or lack thereof (Bisbee and Lee, 2021). The same statistical significance tests were used by Bisbee and Lee with one modification. The Midwest is a unique area located in the center of the United States with multiple different governors and different citizen populations.

Midwest Governors had little negativity regarding pandemic guidelines regardless of party affiliation, with one exception, which was South Dakota. South Dakota's governor did have plenty of negativity towards stay-at-home order recommendations, academic scholars, and anti-school closures. Generally, governors had few negative press releases since the numbers of negative press releases were too low to be included in the regression; therefore, all press releases would be considered positive, reaffirming the dangers of COVID-19, with one exception being South Dakota. South Dakota's regression was run with one more variable compared to all the other states. This is partly due to the fractured response from the federal government's inaction and the coalition of governors within some areas of the U.S. creating pacts of states. These would aid each other in guiding pandemic responses who named regional pacts that may be more likely to give what would be classified as positive statements reaffirming health and safety measures. Overall, when looking at each state, it is crucial to keep in mind the demographic statistics displayed in Table 1. Particular variables to examine closely are press conferences, state

COVID-19 rates, Republican vote share, and median income; this is because variables had a consistent impact on citizens' movement.

In order to properly show if there is statistical significance with the data like Bisbee and Lee, we will be using P-values 0.1, 0.05, and 0.01; each will determine the significance levels. To calculate the significance level for each test, instead of solely the significance P-values shown above, I will be using the Bonferroni correction, which aids in calculating the significance values when multiple regressions are run (Warne, 2018). This will be done by dividing the P-value by 13, the number corresponding with the number of states, which is the number of regressions being run. Meaning the new values are now 0.0076, 0.0038, and 0.0007. Each regression analysis is calculated separately. As stated before, 47 counties were removed due to a lack of mobility data. The rest of the results are also found in Table 2.

First, the most critical variable to observe is the governor's press releases and how they affect movement. All governors caused less movement when speaking about the risks of COVID-19, and all but one governor had a statistically significant impact on movement, which indicates that the more a governor talked, the less citizens moved. The only exception is Iowa's governor, who did not have a statistically significant impact on the movement. These results point to evidence that citizens largely heeded warnings of governors and stayed home. This means there is something that differentiates Iowa's governor in her ability to encourage stay-at-home orders. These results do indicate the importance of leaders reaffirming stay-at-home orders to deter movement better. This does prove the hypothesis that people in the Midwest do heed the governor's warnings and have fewer movement results.

Another significant result to highlight is how statewide COVID-19 cases count and its effect on movement[2]. The results vary more than with the governor's press statements. Five of the thirteen states show a positive coefficient meaning that the more cases, the more movement there was, which is counterintuitive. If there are high amounts of cases, it is theorized that there will be less movement due to a greater risk to the general public in five states that did not occur. Besides the state of Wyoming, all the other four states had statistically significant results. The other eight states had statistically significant results, with the exceptions of Kansas and Kentucky. Kentucky had less significant results. This variable was the biggest factor in determining lack of movement as stated before this is different from other studies that find republican vote share to be the most significant factor (Bisbee and Lee, 2021).

Partisanship is defined as the vote share percentage of the individuals who voted for Trump during the 2020 election. In Bisbee and Lee's article, through more advanced statistical testing, the conclusion of the best predictor of movement was, in fact, partisanship. The more Republicans in a county, the more likely a person was to move. However, the data was from the 2016 vote share (Bisbee and Lee, 2021). These results may be of particular interest to observe. The results are that in 10 of the 13 states, there is a positive confirmation between vote share and movement, meaning the higher the vote share of Republicans, the more likely a person was to move. However, the statistical confidence was not found to be high in many of the states that were observed. Only four states yielded statistically significant results: Kansas, Kentucky, and Missouri.

1. [2] State COVID-19 case count is two days behind the MEI data

Table 2: Regression Analysis of Movement

States	IL	IN	IA	KS	KY	MI	MN	MO	ND	OH	SD	WI	WY
Governors Press Statements	-5.59 ***	-8.69 ***	-0.07	-4.18 ***	-4.05 ***	-5.88 ***	-6.42***	-5.77***	-10.38 ***	-7.70 ***	Positive -7.98 *** Negative -30.84 ***	-2.83 ***	-9.57 ***
COVID-19 Case Count	0.0002***	-0.0003 ***	6.0E-06 ***	-0.0003	28.65 **	-0.0004 ***	-0.0002 ***	0.0005 ***	-0.0002	-9.3E-05 ***	-0.0006 *	-7.2E-05	0.0007
Partisanship	8.32	7.48	31.72	22.88 ***	0.0004***	9.53	-14.84	-1.61 ***	23.45 *	6.51	0.23	6.70	-2.11
Median Income	-0.0005 ***	-0.0002 ***	-0.0004 ***	-0.0003 ***	-5.7E-05	-0.0006 ***	-0.0004 ***	-0.0004 ***	-0.0003 ***	-0.0005 ***	-5.4E-06	-0.0005 ***	-4.1E-05
Unemploy-ment	-0.21	0.03	-0.81	-0.34	-0.62	-0.43	-2.53	-0.27	-0.13	-1.49	-0.16 *	-0.70	2.2
Population	2.5E-07	2.0E-05	6.0E-05	-6.7E-06	1.2E-06	-1.9E-06	-2.8E-05	-2.5E-05 ***	-0.0001	-5.7E-06	0.0007	-1.2E-05	-0.0001
High School Completion Percentages	27.85	-0.85	15.57	-1.42	-40.79	24.35	18.43	25.39	7.15	17.83	37.10	-18.81	23.65
College Completion Percentage	-39.27	-59.34 ***	-13.05 **	-22.43	-92.50	10.90	-50.08	27.28	8.61	-23.18	30.65	-39.23	-21.42
Rural Percentages	0.03	0.01	0.05	-0.03	0.03	0.14 ***	0.09	0.09 **	0.12 ***	0.13 **	0.08	0.09	0.11
White population percentages	107.70	-170.13	-19.45	44.11	63.23	-57.98 ***	-5.2E-06	48.56	9.05	-151.76	-0.001	-14.31	7.19

Black population percentages	88.60	-250.93	38.08	72.80	88.52	-51.44	0.0002	76.62	0	-124.80	0.002	34.52	617.83
Asian population percentages	205.12	-164.49	20.49	-115.72	232.87	-26.95	-7.12E-05	-161.10	154.16	-121.48	-0.0004	-97.90	166.59
Hispanic population percentages	-23.53	13.13	27.67	-3.31	-30.82	13.67	7.4	9.37	64.92	49.85	0.001	8.24	0.53
Sample Size	1430	1290	1388	1415	1639	1150	1219	1611	590	1233	701	1010	309

Note: Observations occur from February 1st, 2020, to February 26th, 2021. Data includes 1,057 counties in the 13 states. 47 counties are not represented due to lack of mobility data. COVID-19 cases by monthly rates are 2 days off since COVID-19 cases are reported every Wednesday not every Friday as movement data is recorded. Sample size references to the number of cells within the data set. Observations are presented as reggresion coefficient and the statistical significance of the P value.

*$p<0.0076$;

**$p<0.0038$;

***$p<0.0007$.

The median income is a factor where we expect to see that the higher someone's wealth, the less movement there is, and this is confirmed in the results. The results do vary in terms of the level of statistical significance; there are three states that have no correlation, including Kentucky, South Dakota, and Wyoming. There is one state with a slight correlation, that being North Dakota. These states are primarily rural states. The other states can confirm that the higher the median income, the fewer people move, which would be an expected result.

The other controls in the regression are located within the regression in Table 2. These are mainly controlled facts that may be difficult to interpret. In order to test the validity of the results, further robustness tests were conducted, including residuals. Residuals are meant to determine the accuracy of the model to show whether a model is not appearing by chance (Warne, 2018). The residual plots are not clustered together as shown in Appendix C which shows the validity of the data. The results of the residuals are from South Dakota, which are representative of the rest of the residuals.

Qualitative

This study will use classical rhetoric analysis to explain the differences in rhetoric to confirm further the findings and why there appeared to be differences. The results above indicate clearly that Kim Reynolds, Governor of Iowa, did not have an impact on her state in the same way as other governors. There may need to be more than statistics to explain the differences. As stated before, the tools used come from classical rhetoric, focusing specifically on ethos and logos[3]. The most common and universal

[3] Dates and states examined for the qualitative analysis include: Iowa (03/08, 03/09, 03/12, 05/06, 05/13, 05/14, and 11/17), Kansas (03/04, 03/07, 03/12, 03/17, 05/01, 05/07, and 11/20), Minnesota (03/10, 03/12, 05/05, 05/07, 05/08, 05/11, 05/12, 05/14, 05/15, 11/18), North Dakota (03/10, 03/11, 05/01,05/06,

tactic governors use is logos, using fact-based and logical arguments to encourage citizens to stay at home. All governors observed were shown to have had appeals using logic often by presenting state comprehensive COVID-19 cases and hospitalizations, implying that high cases pose a greater risk to the public. Most governors used ethos to establish both their moral arguments and their experts, such as federal leaders, local hospitals, and state health departments, to give credence to their proclamations. Pathos, an argument using fear, was used most frequently during the pre-COVID-19 times caused by uncertainty of a new virus. Some statements were excluded because of mere statements of fact since they only gave statements that cases were high and did not make any arguments or persuasion.

When examining and comparing, and contrasting critical statements from each of the governors, Iowa does have a slightly different tone of messages. Instead of referring to the people of Iowa as “us” or “we” as many other state governors did, Iowa’s governor instead focused on giving the individual person a choice weighing the risks and benefits. Many other Republican governors had this same type of appeal, mostly centered around ethos and establishment of this rationale as the reason for these decisions. This may be caused by the culture of the given state or by the politician's political strategy; this is outlined as directly the definition of ethos in Charteris Black's book *Analysing Political speeches Rhetoric, Discourse and Metaphor* (2018). Governor Noem was notable for only allowing for individual choice to restrict movement but also for criticizing other government regulations for combating the spread of COVID-19.

05/07, 05/08, 05/12, 05/13, 11/18, 11/19), South Dakota (03/04, 03/10, 05/01, 11/20), and Wisconsin (03/12, 03/24, 05/05, 05/07. 05/08, 05/09, 05/11, 05/14, 05/15, 11/19 11/20).

Iowa may be the most critical case to observe, as said before. Many citizens should have heeded warnings from the governor of Iowa. Governor Reynolds made appeals to logos using logic and as well-made appeals to ethos. What was different was not only the personal choice line, but what was absent was the unity. This appeal is in contrast with the other states observed. As the other states develop this sense of unity, establishing ethos and logos arguments, Governor Reynolds makes no mention of state unity within Iowa. While it is possible that Kim Reynolds did make appeals to unity at the most pivotal moments when infection rates were at their highest, appeals to unity were not included; it was not a tool that was prioritized.

Governor Noem had several negative statements, such as anti-lockdown statements framing the other states as enemies. Still, ethos and logos were used. Ethos because the establishment of her morals is to allow individuals to make their own decisions on what was or is best for a citizen in their own personal circumstances. She also gave logos arguments but in a much different way than other governors. South Dakota has much more inclusive statements like our state all have, and this inclusivity played a vital role in South Dakota's governor Kirsti Noem's statements; despite being somewhat negative, she states that she is following the sciences giving a sense of ethos establishment that she is following the experts. Who the experts are may vary, but the establishment of experts and the language gives credence that states plainly why these decisions are being made. In many statements, there are establishment logos talking about hospital capacity and a number of cases and projections being low or high as reasons why this guides Governor Noem. This study focuses on what is said and not addressing as much what is not said, but the data and, as shown, the experts can be

used in a subjective way to manipulate the message; however, we are just taking these results for as they stand.

The most intriguing statements Governor Noem made were when COVID-19 cases were at their highest levels in 2020, promoting anti-lockdown rhetoric. Governor Noem does draw on logos and pathos for her anti-lockdown argument. "Us" versus "them" arguments, as examples given in Charteris-Black's book arguments often use fear as a rationale to show "us" as good and "them" as bad. One example is that the state of South Dakota is good for not enforcing lockdowns, and other states that had much more strict lockdowns are the enemy, and those policies are threatening South Dakota. This is a much more pathos argument as a form of fear of being forced to lock down. The logos comes from the statement that "The truth is, there is no science to support the claim that lockdowns stop the spread of the virus. The virus will spread – we cannot stop it until there is a cure – but we can slow it down with mitigation measures." (Noem, 2020). The quote demonstrates logos because there is scientific proof where these measures do not work. Where Governor Noem is drawing on the information from is unclear, but regardless, citizens may be less willing to question her statements since there has been the establishment of ethos since she is the governor. Therefore, the average citizen may not question these proclamations as rigorously. The anti-lockdown rhetoric was economically motivated since lockdowns restrict movement and limit economic activity as Governor Noem made clear in her statement (Noem, 2020).

Minnesota, unlike other states examined, is majority Democratic with a Democrat governor. Right away, when announcing preparation for the COVID-19 pandemic in state legislation, the governor announces the need for unity. "Preparing our state for the

coronavirus has become our top priority," said Governor Tim Walz (Walz, 2020). In this commitment, Tim Walz uses both forms of "we" or, in this case, "our," both referring to people in a position of power, him and others, and as well as the state along with its citizens. This, as stated before, shows an indication of morals which is ethos. Many initial arguments are ethos, an argument that they are leaders and should be listened to because they are the experts. To give even more credence to these arguments, Walz did frequently have conversations with large hospitals within the state, such as the Mayo Clinic, and presented this as a clear indication of ethos. This is a practice together with experts within the health field, which demonstrates an argument using ethos, clearly a common tactic that has led to abiding by stay-at-home orders. He did have brief mentions of us only when talking about receiving donations from other states or the federal government. This is in composition with logos which present more numbers-based logical arguments. A phrase used often is “our most vulnerable citizens” (Walz, 2020). This is evidence of not only common values but belief in the protection of the collective group, further demonstrating ethos. This is a general finding of most of the governors.

When Governor Tony Evers of Wisconsin talks about the COVID-19 pandemic, he reinforces the need to stay at home in order to protect the community and establish ethos by relating the community's needs to help protect one another. He then proceeds to announce a safer-at-home order with a different connotation than the other governors. Evers states, "Issuing a Safer at Home Order is not something I thought we would have to do, and it is not something I take lightly, but here is the bottom line: folks need to start taking this seriously," said Gov. Evers (Evers, 2020). This quote gives

credence to his morals and sense of unity. The Safer-at-home order is very different from the typical directive stay-at-home orders implying that an individual is not mandated to stay at home but the state views. Safer also implies a danger which is an indication of pathos appeal rather than stay, which in itself indicates order versus an implication of danger which is evidence of tactics that differ from other states. An average example of what is defined as the "us" and the "we" is "We have now more than tripled our 7-day average, averaging now 6,400 new positive cases per day (Evers, 2020). This is a clear and common trend of many of the other governors, including Governor Evers. While the governor is not talking to the citizens about their personal choices, he is showing clearly that, in this case, the high case count is to try and use logic to underline why citizens should adhere to safer at home orders. To make a logos argument, one must have an underlying premise and a conclusion based on the premise (Charteris-Black 2018). In this case, the underlying premise is that high cases are dangerous to the health of citizens; therefore, in Wisconsin, the governor's comments impact the movement.

Kansas is a unique example and one to draw more information from since this is a majority Republican state with a Democrat woman as the governor. According to the results of the regression, this is made even more challenging since political ideologies differ to some extent to heed stay-at-home policies. This starts with her giving a statement ahead of any COVID-19 cases, a rare occurrence for any governor. In the first statement, there was apparent stress on unity for the collective good and used state unity to encourage stay-at-home orders. Governor Kelly stated, "Currently, in Kansas, the overall risk of the virus is low, but that does not mean we can rest easy. We take

this situation seriously” (Kelly, 2020). This quote demonstrates a pathos argument that risk and fear are prevalent and measures must be taken to prevent the danger but including unity. Ethos is also taken as the statement and resource that the people in power are prepared and ready to apply mitigation measures when cases appear.

In North Dakota, there was clear evidence early on in the pandemic that the governor was reforming ethos arguments. The arguments pointed to the federal government early as a leader, which is not common in many states, hinting at more of a political strategy, in this case, to appeal to the Republican party. Very early in the pandemic, North Dakota's governor gave the same ethos approach as the other governors giving state unity and appealing to the moral reasoning that one should care about the state and protect it collectively.

The common trend was statements of facts such as high hospitalizations, high amounts of infections, and high amounts of deaths. These facts were stated based on statewide amounts when examining previous governors' statements. There is a common trend of a collective community, but one Republican governor at the beginning of the pandemic did mention the federal government's leadership, and they continued to message.

Discussion

This paper answers the question of the governors' influence on citizens' movement during the COVID-19 pandemic by using both a statistical regression to prove causal effect and a content analysis to reinforce the statistical results. The results show that governors who promoted a message of unity at the most critical times had the best success. The statements on individual choice did affect whether citizens obeyed

the stay-at-home orders, with the exception of Iowa; instead, a message of unity created the least amount of movement. Governors' press statements had the most consistent effect on movement, with the next closest being partisanship. Ultimately the governor's press statements had the greatest effect on influencing the movement of citizens.

This contributes to the paper on governors' leadership and whether there is a response to statements by the governors. Most public opinion uses survey methods, but this is an alternative method to determine and prove motivating factors for behavior and opinion. The paper also shows that the stay-at-home orders and reaffirmation of them reduce movement.

The most significant result is that all but one governor had an effect in reducing movement. The one governor that did not affect movement as much as the other governors observed was Iowa's, Governor Kim Reynolds. These findings are further supported by the qualitative analysis showing that the rhetoric of "us" versus "them" was present in other governor's speeches but not Governor Reynold's. A surprising result is that the COVID-19 case count did not have a consistent effect of reducing movement. Another surprising result is that partisan influence was not the most consistent factor in determining movement. This result diverged from the literature, which finds that partisanship was more of an influence than politicians' statements (Bisbee and Lee, 2021).

The reason why these results may have diverged from previous literature is that other studies are based on nationwide data, such as in the Bisbee and Lee article that finds a high Republican presence leads to more movement (Bisbee and Lee, 2021).

Conservative states still considered what their governor said, which is not the expected outcome according to the literature (Bisbee and Lee, 2021). The counter-indications lead us to believe that, within Midwest states, there was high adherence to governors' statements regardless of party officials. This may go against assumptions and proves that a bipartisan effort from state leaders can affect adherence to policy measures (Ahlquist and Levi, 2011). These results indicate that regardless of a governor's party affiliation, they have the ability to appeal to both Republicans and Democrats. This is important to understand since this may have been one factor that was going to cause variation in the results.

One surprising result of the regressions is the variance in the impact of statewide COVID-19 cases and effects on movement. Other studies find that COVID-19 cases have a similar impact to partisan differences on movement (Bisbee and Lee, 2021). The results in this paper show contrary results to another research. A high number of cases can result in more movement, which is counterintuitive, and this was observed in half the states. This may be caused by this paper using a statewide case count instead of the county. Bisbee and Lee used county-level COVID-19 case count (2021). This is an assumption that citizens know the county-level case count. A counterargument is that since governors often present state COVID-19 case count. Citizens are more aware of state case counts than individual county case counts. This could give further credence to the idea that citizens look towards governors to decide to move less and do not take into account the number of cases in the state.

Other countries' leaders were shown to either prioritize the economy or health mitigations, and often, women would prioritize health safety measures (An et al. 2020).

In the U.S., this is determined by party affiliation (Kincaid and Leckrone, 2021). Despite the prioritization of the economy by Republicans, a study done by Tellis et al. finds that there are criteria for issuing COVID-19 cases via a cost-benefit analysis, and taking these considerations can better determine the need for lockdowns. Having guidance as well as a personal choice along with an affirmation that the "whole community can prevent more cases" can be a good alternative to strict lockdowns if the cases are in line with the same criteria in the study by Tellis et al. (2022). These support the findings of this paper because some states did not issue official stay-at-home orders like South Dakota, yet messaging engaging the phrase "we as a state" still helped prevent movement.

The biggest takeaway from this paper is that most governors have an impact on their citizens' movement. Public cooperation is needed, which is crucial with stay-at-home policies. Citizens will take steps to adhere to the policies if there is a push from the leaders. In this case, observing the governor's influences on citizens, there is evidence that governors can influence movement with statements that use state unity and populist arguments that puts the people as a collective group at the forefront, not just the individual. It is not surprising that unity language impacts citizens. Stay-at-home orders require isolation, as some governors point out. However, if there is an appeal to the idea that all people can overcome this pandemic, then there is motivation not to defer orders because of the need to protect one another. Take Trump's statements as a national leader. While not measured within the study, the president made negative statements about the pandemic (Santis, 2020). Nevertheless, governors did not have many negative comments besides South Dakota, which, even with negative comments,

still showed a reduction in citizens' movement. Citizens who follow state-level guidance must put some value on what governors say, showing how influential each statement is informing citizens. Citizens' response to governors' statements also proves they do not abide by statements from national leaders; instead, they also account for state leaders and their comments.

In South Dakota's particular situation, the governor's appeals to personal choice worked. The regression showed a statistical correlation between people staying at home and anti-COVID-19 restrictions. The results appear to not have encouraged movement as Governor Noem intended as citizens prioritized remaining at home. This indicates citizens making their own rational choices, even when Governor Noem is signaling that SIP orders are not in place and rather a movement is necessary for the economy. This phenomenon may result from messaging from the governor working in deterring movement. The more messages about COVID-19, the less likely others will engage in leaving their home. If we look at the other factors for the state, such as statewide case count, there is statistically some evidence to indicate that citizens did consider case count statewide to be an essential factor in determining the lack of movement. The only other factor with some evidence of a causal relationship is the unemployment rate, but this does not help explain why negative comments still worked in reducing movement. There is the issue of whether governors prioritize one area of the government over the other such as with South Dakota's clear rhetoric in favor of economic activity over health and safety. These state differences give different areas of research to explore along with framing and governors' prioritization.

Governors also formed regional pacts between groups of states. In the Midwest, this was a bipartisan group. The reason for this pact was due to limited federal support. In the Midwest Governors' Regional Pact, there is some evidence that the rhetoric made by governors was one of unity to help provide specific regional guidance for the states and a timeline with a clear path and goals to meet to help ensure citizens a pathway out of the pandemic (Lahut, 2020). While not a central focus, this is worth mentioning since this did help establish justification for the reason for reopening and provided guidance within the states as a substitute for federal guidance.

This leads to another point of framing. Where some governors framed the situation as "us as a state" and often the "them" as the virus. With this, there is also a sense of isolation. There may have been fewer reasons for the citizens of Iowa to adhere to and consider the governor's statements about the pandemic. Even when accounting for high amounts of Republican voters in some states there is still a reduction in movement regardless of political affiliation. When looking at alternative factors for why Iowa was different, Iowa's governor is a woman; however, so is Kansas. Kansas is a majority Republican electorate that elected a Democratic Women governor, and she still had an impact in reducing the amount of movement among her citizens. When further discussing women's leadership, it may be difficult to conclude differences between women and men leaders as this sample size was not very large.

The reason for using rhetorical analysis to supplement the statistics is due to the differences in results. There might be an underlying cause that statistics cannot explain. When just using statistics to explain why Governor Reynolds was not as effective, there needs to be more explanation and some rationale for the cause of the differences. With

different additional analyses to observe her tactics, we get more explicit evidence of actual cause and effect. The reason for examining this is to show persuasion and how governors convey their messages. Fear as a tactic is not uncommon throughout politics but is uncommon to see when addressing a health issue (Santis, 2020). Framing the argument for the benefit of the politician to shift the blame is not uncommon during the pandemic, as seen by President Trump's comments about shifting the blame on the severity of the pandemic (Santis, 2020).

The two most common moral arguments were the authority of the governor and the health department. The second most common moral argument was an appeal to the moral character of state unity. State unity is stated by governors as "we as a state," giving personal nature to the argument of moral reasoning and logical reasoning that the only way to stay safe during the pandemic is to stay home. At times these arguments may merge, and since persuasion borrows multiple different classical terms, as described by Chartieris-Black (2018), persuasion arguments may come from multiple different classical rhetorical arguments. When observing politicians, often there is a degree of certainty with their statements, but with the COVID-19 pandemic there was a degree of uncertainty (An et al. 2020). Uncertainty causes a politician to display their core values and best political tactics to use (Benford and Snow, 2000). As shown, the types of rhetoric used highlight the best way to convince the public to follow policy. During the pandemic, periods of isolation may have differing effects on citizens (Tellis et al. 2022). With a message based in logic and unity, Governors can reduce their citizens' movement during the pandemic. This is supported by the results of the regression showing governors' statements as the most consistent influencer of

movement. This result is further shown as COVID-19 cases did not deter movement, and partnership had less of an effect than previously theorized.

The limited nature of viewing through only a few statements makes a precise overarching conclusion difficult; however, the period of time examined was identified as the critical point in the pandemic. Governors would use political tactics they are most familiar with to solve the issue (Benford and Snow, 2000). Also, at critical times these tactics may result in the tone of the message that the governor feels has the most impact and ensure people stay at home. The tool of "us" versus "them" is very often used as a political tool, and President Trump has used us versus them rhetoric quite frequently (Santis, 2020). With governors, it clearly shows that they are trying to invoke fear, much like Trump's speeches invoking anti-Chinese rhetoric when referring to foreign policy. In this context, the "them" is less of people but rather the COVID-19 virus in most cases. Framing in this way allows a governor to play on fear and emotion to ensure citizens' safety. When discussing the "us" versus "them" in this context, this amorphic virus implies a certain degree of unfamiliarity and unknown. With this, there are implications from the speeches that there is some fear, especially considering the unknown time patterns and virus transmission. Governors evoked combative rhetoric, evidence that they framed the "us" versus "them" as shown Charteris-Black and the literature stated that unity is a tool to create an enemy and garner support (Charteris-Black, 2018 Clark and Nickels, 2020). In this case, "us" versus "them" is meant for unity and accomplishes eliminating the feeling of isolation. Part of the strategy for influencing people to stay home may indicate fear, which is pathos. The premise is that all citizens

need to cooperate to reduce infections. This premise and implication alone may lead to greater adherence rather than an explicit order.

This test yielded very different results than similar previous studies, such as those by Bisbee and Lee (2021) and Grossman et al. (2020). However, there are significant differences between this study and others with similar methods. The difference is this study's use of a qualitative analysis as well as the criteria for movement.

This study uses data from the Dallas Federal Reserve, which uses seven equally weighted categories to calculate movement. This data set is still new, and this method of examining the state of politics and opinion is still limited to finding only very few articles. While the rhetoric tools are not new, using this qualitative analysis method in examining U.S. local or state leaders is new. Proving there is a difference supporting the statistics and giving evidence for difference in approach. To this extent, persuasion is a valuable tool, and what works becomes the central question of the best way to influence citizens to stay at home. Unity is the primary way, and rhetoric that signals and highlights the risk of not obeying orders is a critical tool.

A limitation of this study is that policy differences across the states were not examined in detail; instead, one policy was examined for stay-at-home orders. This policy still has variations within the implication, which is worth analyzing. In addition, the individual policies enacted, or lack thereof may have impacted the results. 42 US states issued stay-at-home orders (Doerr, 2021). While eight states did not issue official stay-at-home orders, as shown by the results, there is evidence of governors influencing and persuading people to stay at home but even without an official mandate.

Some other limitations of this study are accounting for other political figures' statements, such as Trump's, Dr. Faccci's, and Andrew Cuomo's. President Trump's comments, particularly anti-media comments, could be controlled. South Dakota's governors' negative statements can be further analyzed in comparison to President Trump as well as the political intentions of the comments. Further limitations are that all of the governors observed were either elected within a year and before the pandemic or had successful reelection following the pandemic. Further studies may examine governors not reelected to observe if there is a different citizen response from governors that were voted out of office. In addition, more advanced statistical models can be used to demonstrate better the robustness and reliability of each result of this study. The limited number of states is also a concern; another study could observe more states and regional pacts. Finally, the media and the types of messages the media portrays should be considered. Many citizens may have obtained their news in a variety of ways, with news organizations and different modes to obtain news. Survey data could be used in conjunction with these findings to see if media consumption played a role. The timeline this study looks at does go beyond Trump's presidency into Joe Biden's presidency. This means that leadership effects and guidance may have changed, or responsiveness to health measures may be changed or guidance in with the shift in the presidency. Policy guidance from the CDC does evolve over time, as with the understanding of the virus; however, this needs to be more examined. Further studies could examine if there is change by governors because of guidance change.

This paper is meant to find citizens' opinions on policy by studying their behavior. Other articles with findings at a national level show that partisanship is a significant

reason for adherence to policy. However, party leaders also have their influence showing that both partisanship and party leaders are critical factors in determining adherence to policy. This study does prove that in the Midwest, reaffirmation of risks and a message of unity deterred citizens from moving. Not only a clear message, but the phases implemented by the Midwest pact may have also contributed to the coherent message. This paper talks less about whether party leaders and their influence gain citizen cooperation.

Public policy needs citizens' cooperation, especially in responding to this public health emergency. It is critical to account for the formation of public opinions on policy in order to ensure proper adherence to a given policy. With a highly politicized issue such as the COVID-19 pandemic, it is crucial to understand proper tactics that can help prevent infection.

Conclusion

The question proposed was, are citizens persuaded to stay home by governors, or is another factor causing them to stay home? Results indicate that citizens are affected by the governor's press statements. Other factors, such as median income, had an impact on lack of movement. The two factors that were anticipated to be critical factors were partisanship and COVID-19 case count; these factors were different in some states. To further validate the statistical results, there was an examination of the governors' statements using classical rhetorical methods. These results lead to the conclusion that most governors who used unity and the "we" were more successful in getting their citizens to stay at home. Persistent statements that talk about unity and collective attitudes are necessary to persuade citizens to adhere to health policy.

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Appendix A

A.1 Table 3: Descriptive Statistics: Movement

	IL	IN	IA	KS	KY	MI	MN	MO	ND	OH	SD	WI	WY
Mean	-38.71	-30.89	-27.51	-27.95	-34.14	-33.32	-38.0	-21.69	-27.58	-34.59	-23.17	-38.46	-22.28
Median	-31.85	-25.76	-23.58	-24.75	-30.85	-28.65	-35.94	-16.98	-26.05	-29.91	-20.69	-36.65	-20.57
Range	147.07	150.94	163.91	140.27	135.68	161.44	163.98	146.96	146.41	155.50	143.63	152.12	93.65
Minimum	-138.0	-143.4	-136.6	-131.0	-126.6	-145.8	-144.1	-124.1	-116.1	-148.6	-108.7	-132.8	-80.3
Maximum	8.99	7.47	27.30	9.21	8.99	15.62	19.82	22.82	30.25	6.82	34.85	19.23	13.27

A.2 Table 4: Descriptive Statistics: Press Statements

	IL	IN	IA	KS	KY	MI	MN	MO	ND	OH	SD Pos	SD Neg	WI	WY
Mean	9.26	3.12	2.86	4.62	8.16	8	4.14	2.66	2.01	3.75	1.19	0.35	5.12	1.01
Median	9.75	2.5	2.25	4.62	8.62	7.87	3.75	2.25	1.75	3.62	1	0.25	4.37	1
Range	12.75	8.5	9.5	8	10.25	13.5	8.75	6.75	4.5	6.25	3.5	1.25	12	1.75
Minimum	0.25	0	0	0	0.25	0.5	0	0	0	0.25	0	0	0	0
Maximum	13	8.5	9.5	8	10.5	14	8.75	6.75	4.5	6.5	3.5	1.25	12	1.75

A.3 Table 5: Descriptive Statistics: COVID-19 Case Count Monthly Statewide

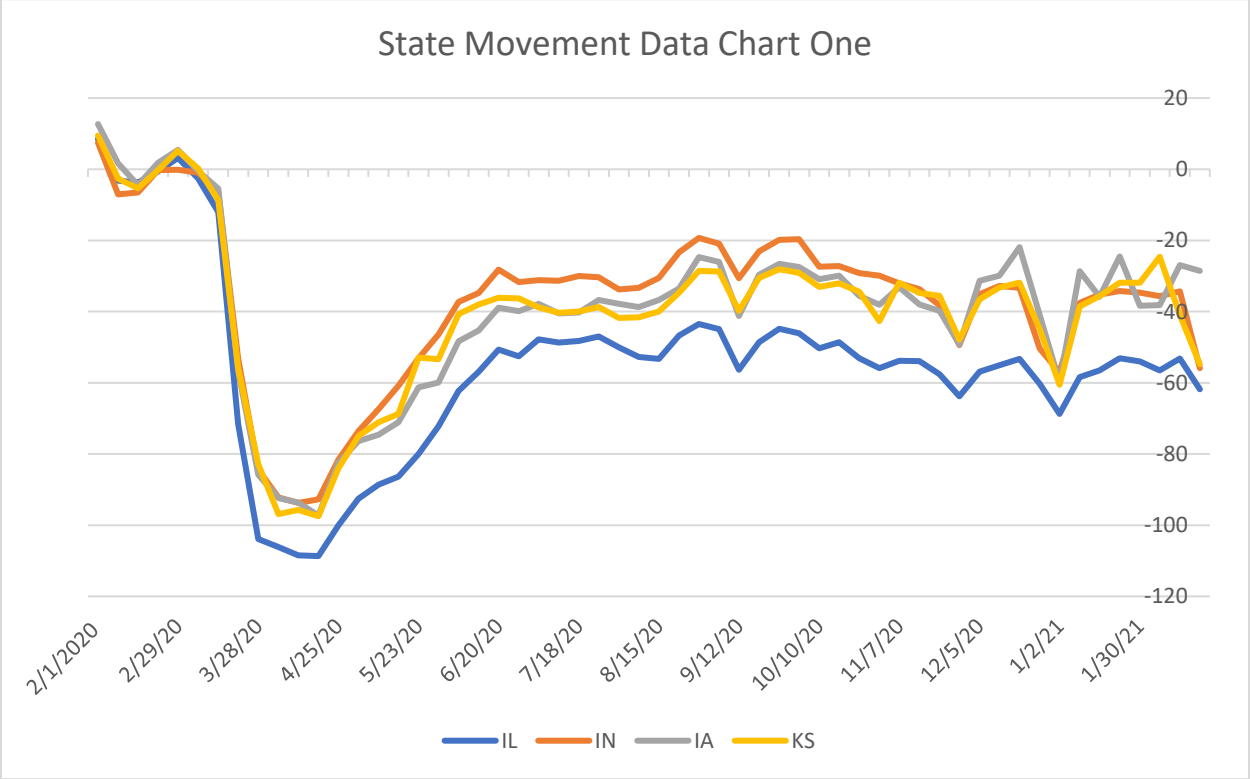
	IL	IN	IA	KS	KY	MI	MN	MO	ND	OH	SD	WI	WY
Mean	21053.04	11292.79	5956.24	5259.83	7334.32	11442.41	8596.83	10039.33	1778.29	17140.46	1998.06	10878.46	972.32
Median	13802.37	5181.8	3309.25	3373.25	191.38	5891	4724.75	7735.37	721.25	7309.37	835.12	5497.5	285.25
Range	76199.5	41004.25	24736.25	17833	21978.75	47690.25	42178.25	31365.5	7193.25	63205	7331.75	42720.5	4627
Minimum	0.5	0	0	0	0	0	0	0	0	0	0	0	0
Maximum	76200	41004.25		17833	21978.75	47690.25	42178.25	31365.5	7193.25	63205	7331.75	42720.5	4627

A.4 Table 6: Descriptive Statistics: Partisanship GOP Vote Share County Level 2020 Election

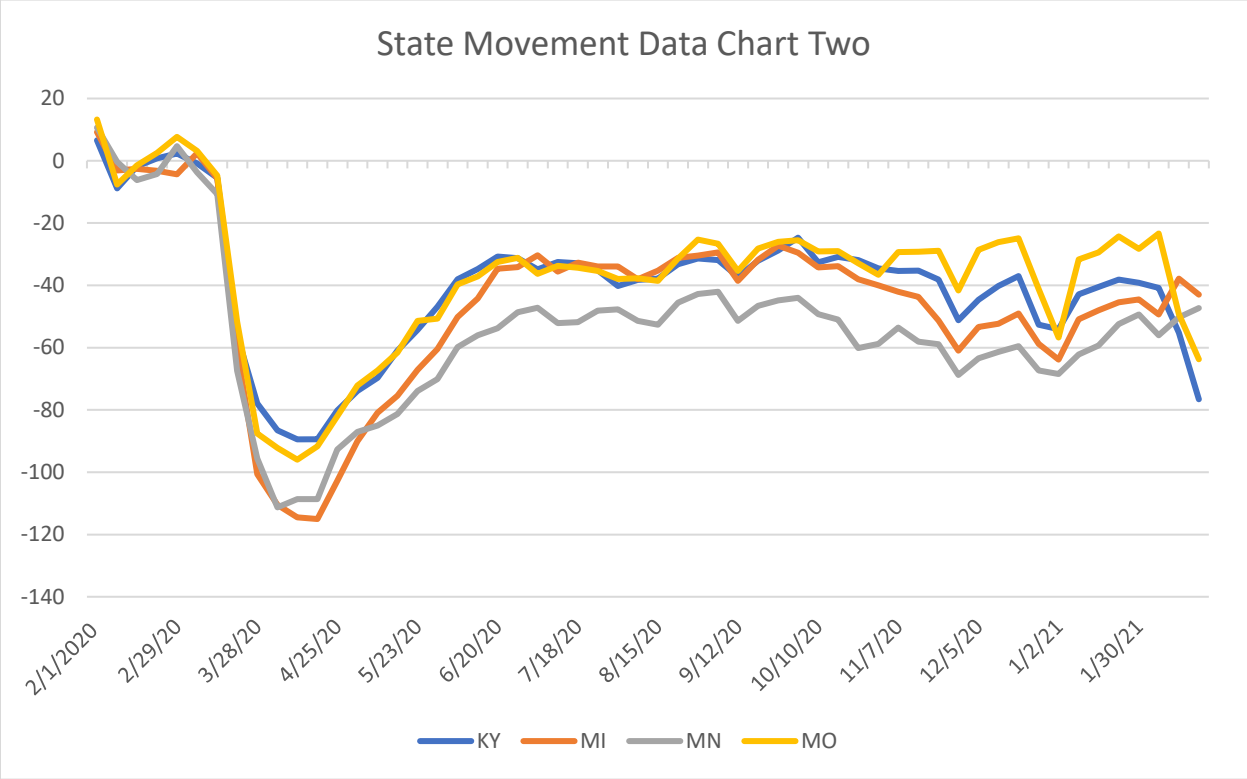
	IL	IN	IA	KS	KY	MI	MN	MO	ND	OH	SD	WI	WY
Mean	0.65	0.68	0.63	0.74	0.74	0.59	0.60	0.76	0.72	0.67	0.80	0.56	0.75
Median	0.68	0.72	0.657	0.77	0.75	0.62	0.63	0.78	0.74	0.705	0.71	0.58	0.78
Range	0.60	0.46	0.55	0.64	0.51	0.49	0.49	0.49	0.53	0.51	13.76	0.55	0.59
Minimum	0.24	0.34	0.27	0.29	0.38	0.26	0.26	0.37	0.33	0.32	0.09	0.17	0.29
Maximum	0.84	0.80	0.83	0.93	0.89	0.75	0.75	0.86	0.86	0.83	13.76	0.72	0.88

Appendix B:

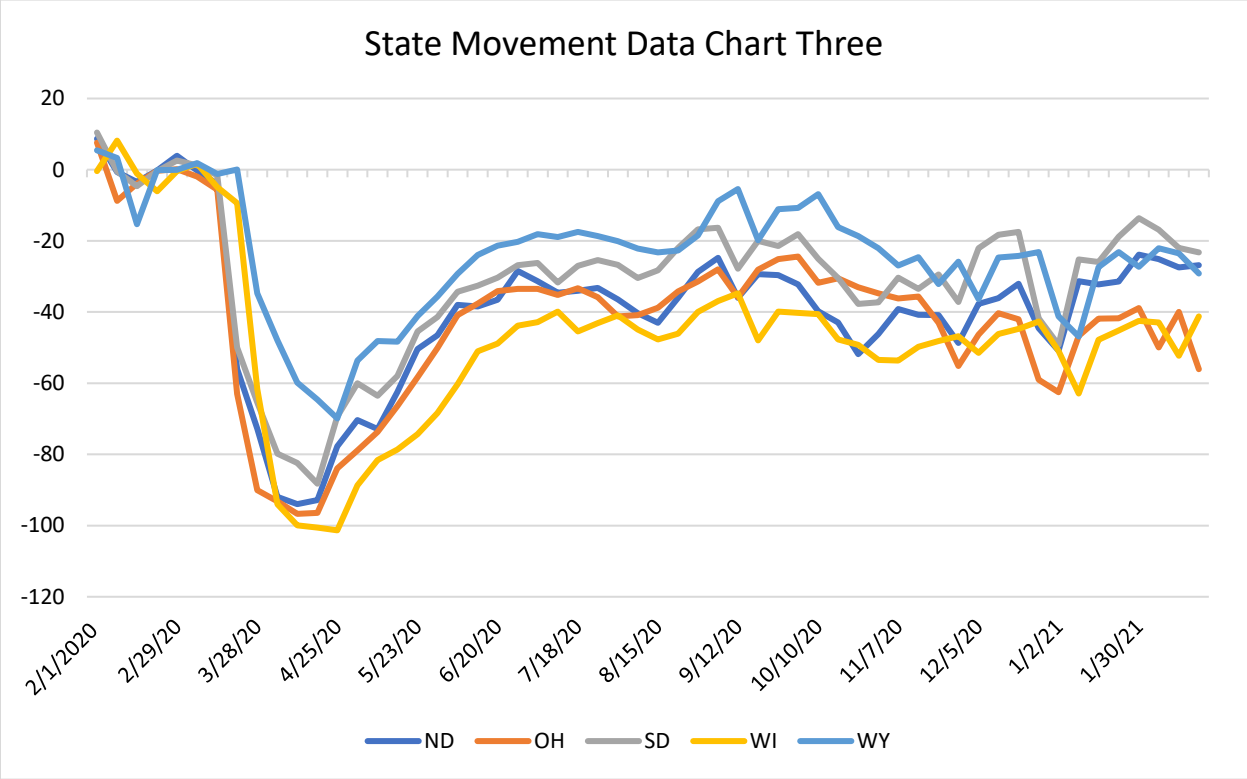
B.1 Figure 2: State Movement Data Chart One



B.2 Figure 3: State Movement Data Chart Two

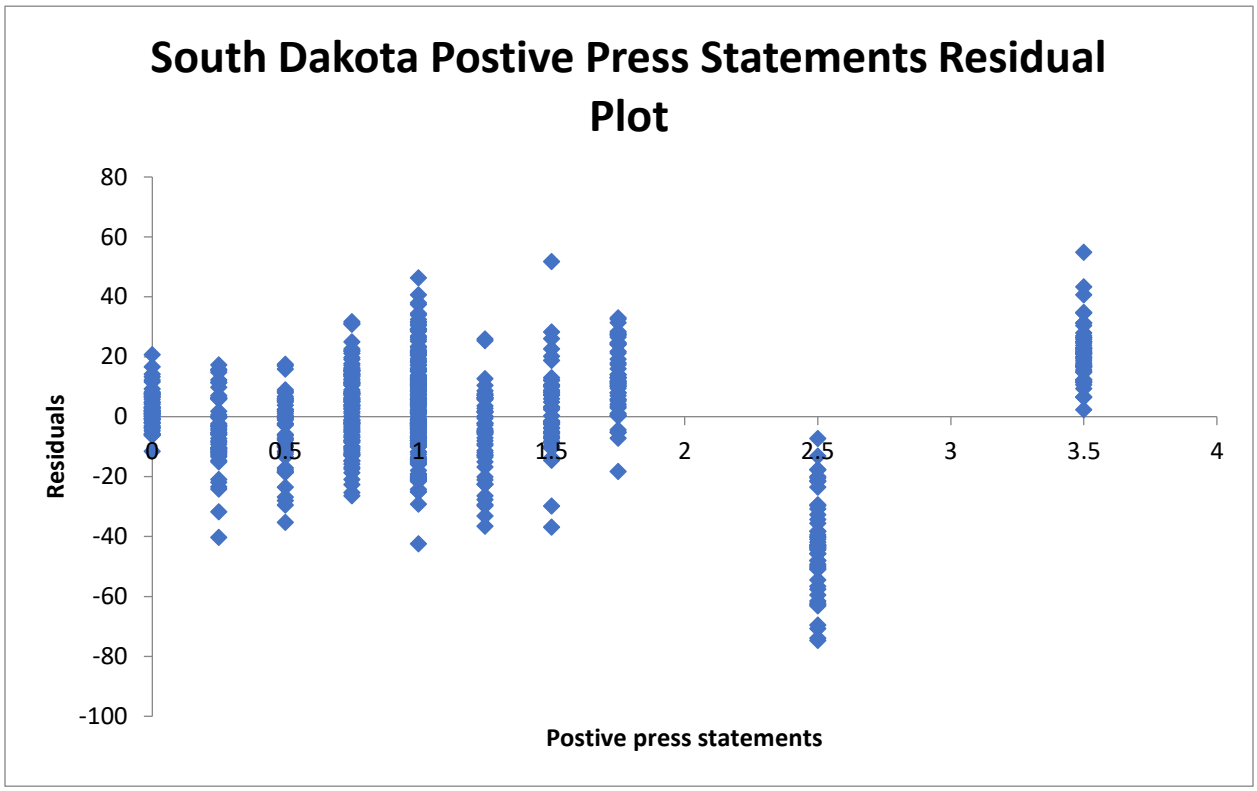


B.3 Figure 4: State Movement Data Chart Three

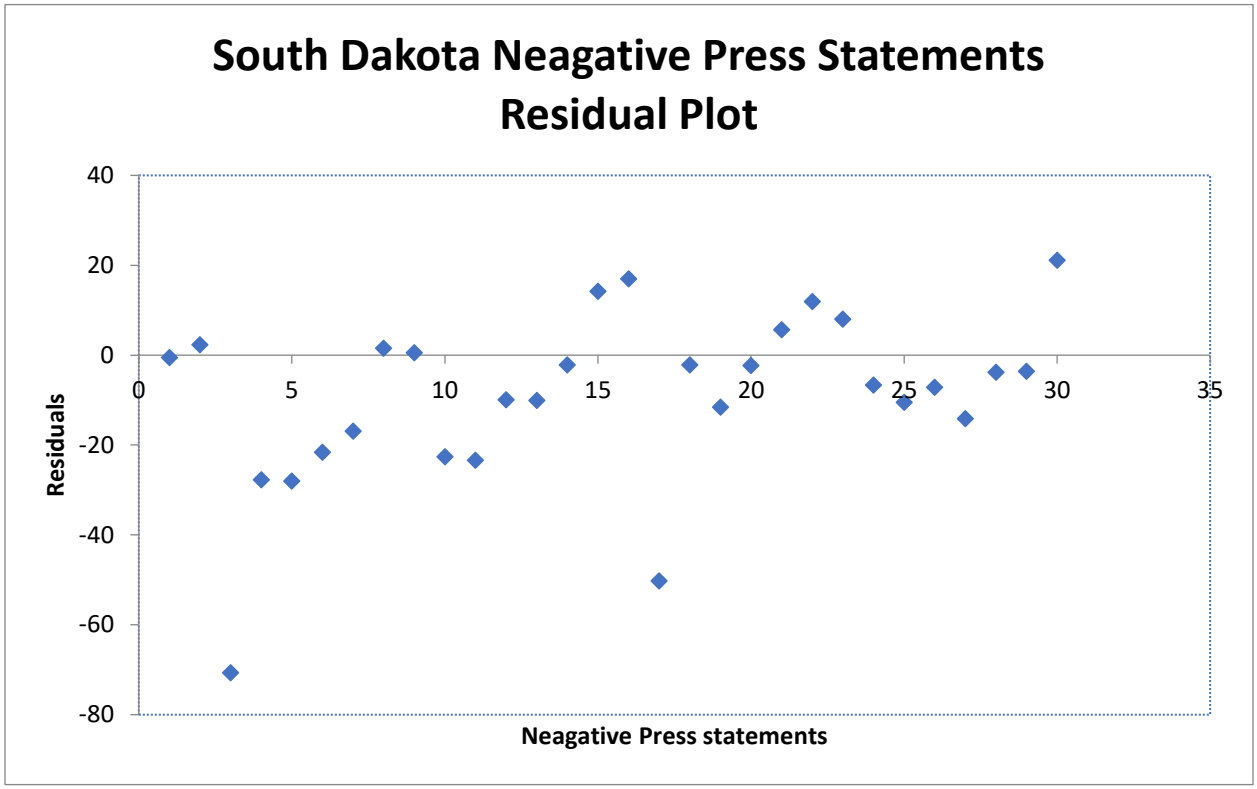


Appendix C

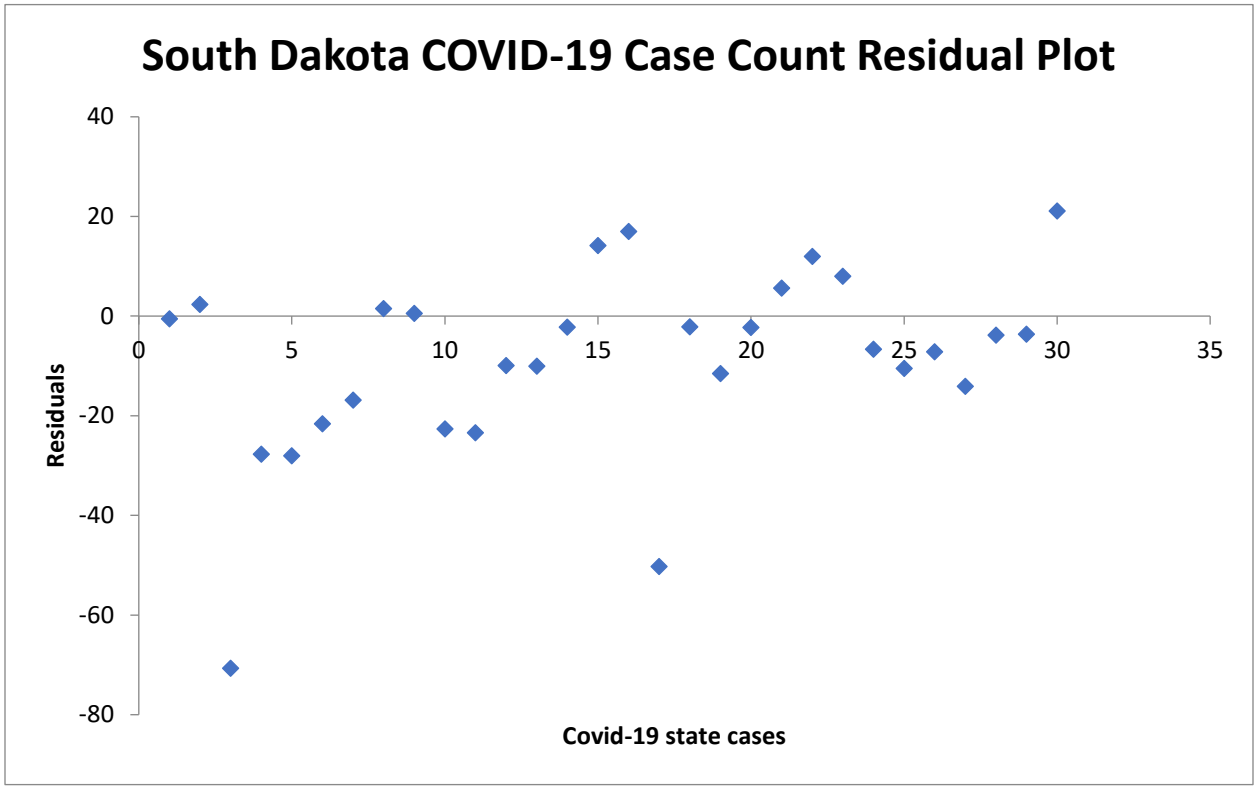
C.1 Figure 5: South Dakota Positive Press Statements Residual Plot



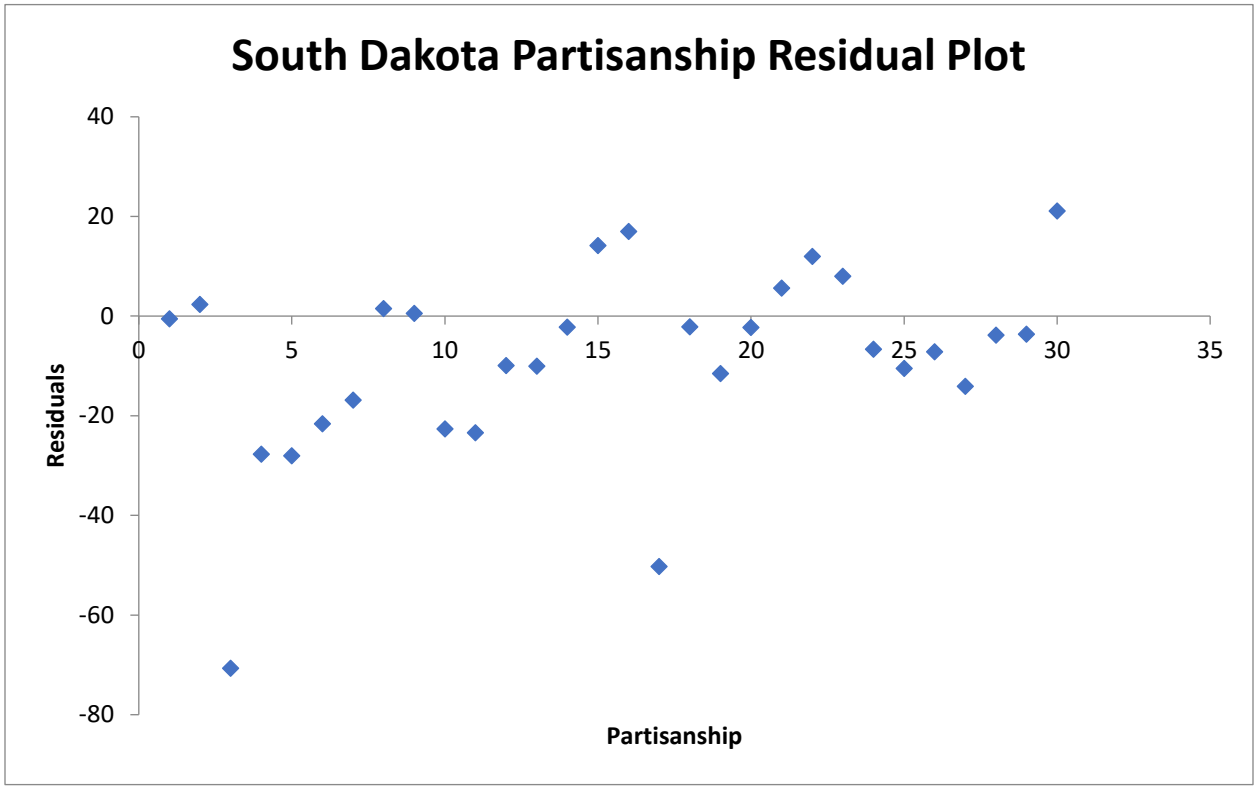
C.2 Figure 6: South Dakota Negative Press Statements Residual Plot



C.3 Figure 7: South Dakota COVID-19 Case Count Residual Plot



C.4 Figure 8: South Dakota Partisanship Residual Plot



C.4 Figure 9: South Dakota Median Household Income Residual Plot