

The Effect of Gerrymandering on Voter Turnout

by
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A THESIS

submitted to
Oregon State University
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Honors Baccalaureate of Arts in Political Science
(Honors Scholar)

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Christopher Stout

The relationship between partisan gerrymandering and voter participation has still not been fully understood. Although it is clear that there are many factors that affect voter participation, the effect of gerrymandering on voter participation still has not been studied. In this study, I will be examining if partisan gerrymandering affects voter turnout. I expect that voter participation will decrease the more gerrymandered a state is. I expect this decrease because of the impact gerrymandering has on the winner-loser framework and voter efficacy. To test my hypothesis, I will be studying data from all 50 states from the 2018 congressional election. I found that there is a significant relationship between gerrymandering and voter participation. I also found that a variety of other factors, such as race, play a significant role in decreasing voter participation. Ultimately, my research demonstrates that gerrymandering does affect voter participation to a significant extent.

Key Words: Gerrymander, voter turnout, voter participation

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Honors Baccalaureate of Arts in Political Science project of Alexa Blaskowsky presented on May 21, 2021.

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I understand that my project will become part of the permanent collection of Oregon State University, Honors College. My signature below authorizes release of my project to any reader upon request.

Alexa Blaskowsky, Author

Introduction

Gerrymandering has never been considered a positive practice. However, gerrymandering is still conducted in 44 states, that being all states with more than one congressional district, to varying degrees. Gerrymandering has been known to skew election results in the past, making it extremely controversial (McKee 641). An example of the impact gerrymandering can have on the electoral system comes from the 2010 congressional election. In 2010, 59 seats in the House of Representatives were affected by gerrymandering, meaning that they would have gone to the other party had gerrymandering not occurred (Tausanovitch). Furthermore, after the 2010-2011 redistricting, 45 state legislatures had extreme partisan bias, which means giving one party 10% more seats than the other party (Keena et. al). Gerrymandering has high stakes as well. In most states, although not all, state legislatures redraw districts. They draw not only congressional districts, but districts for the state legislature as well (Kenna et. al). Since the state legislature has the power to draw its own districts, the party in power can ensure they have control of the state legislature and congressional seats for decades to come (Keena et. al). Gerrymandering has damaging effects on voters as well. Gerrymandering has the potential to cause people to no longer want to participate in the electoral system because gerrymandering sways how they view the electoral system (Fraga et. al 28). Clearly, gerrymandering can have incredibly damaging effects to the democratic process that the United States has. It is crucial to investigate exactly how damaging these effects are in order to uphold the democratic nature of the electoral system.

Political participation, specifically voter turnout, is a key facet of democracy. Without adequate participation from citizens in elections, it is impossible for a democracy to function as it should. If too few people vote, then congressional districts will not be accurately represented by their elected officials, as their representatives will be chosen by the small sect of people who do choose to vote. Specifically, in the present system that the United States has, congressional districts can influence the level of influence citizens have (Fraga 19). In congressional districts, individuals' votes matter as they influence who will represent them in government (Fraga 19). Voter turnout is essential to ensure that everyone is properly represented. If voter turnout is not high enough, there is no way that people are being represented well. The issue of voter turnout is amplified when voter turnout is decreased by factors like race, level of education, and other common reasons for lack of political participation. These groups of people then lose their voice because they are not voting, meaning they are not having a voice in who represents them. It is crucial to examine whether gerrymandering exacerbates the issue of low voter turnout, or even causes it.

In this study, I will be investigating the relationship between gerrymandering and voter turnout. In order to investigate the relationship, I will be examining data from the 2018 congressional election from all 50 states. These data points include voter participation in the election and how gerrymandered a state is. The data will be tested in two ways: a bivariate Pearson's R test and a logit regression. The Pearson's R will measure how strong the relationship between gerrymandering and voter turnout is, while the logit regression will measure for strength while also accounting

for control variables. I expect that as the level of gerrymandering increases in a state, voter turnout will decrease. I believe voter turnout will decrease because gerrymander affects peoples' perception of the electoral system and ultimately makes people feel disenfranchised. People are far less likely to participate in the electoral system if they feel as though their candidate does not have a good chance of winning.

Literature Review

The effect gerrymandering has on turnout has yet to be fully investigated by current researchers. While both gerrymandering and turnout have been researched extensively independently, there is still much to be explored when looking at the two together. Given that every state has congressional districts that can be changed, the consequences of redistricting have researched heavily. More specifically, the impact redistricting can have on electoral behavior when paired with other variables. Turnout can be affected by other factors as well. Levels of polarization have been found to influence turnout. Polarization can actually encourage turnout, as elections are viewed as more consequential. Although none of the aforementioned topics are gerrymandering itself, they are related to or impacted by gerrymandering to some extent. By examining how other factors affect turnout, it can be better understood.

Elections and competition go hand in hand. In society elections are often framed as competitions with winners and losers (Davis and Hitt 676). Constituents pick a team, that being a political party, to root for (Davis and Hitt 676). Elections are often viewed as high stakes competitions because politicians are viewed as people who control resources (Davis and Hitt 678). The most competitive and high stakes competition stem from the concern of controlling resources (Davis and Hitt 678).

People will generally feel strongly about elections because they view it as a way for their party to gain control of resources and distribute them in a way constituents would want (Davis and Hitt 678). Voters feel sensitive towards elections because it represents control of resources. Constituents personally relate to political parties like they would a sports team, making both winning and losing an election feel very personal (Davis and Hitt 677). Identifying with a group makes people feel as though they are in it themselves and makes them want to achieve the same goals as the group as a whole (Davis and Hitt 677). In politics, people who are a part of the winning party will feel like the government is more likely to listen to what they want, while the losing party will be concerned that their voices won't be heard by the new government (Davis and Hitt 676). This phenomenon can be described as the winner-loser framework, in which constituents have varying perceptions of external efficacy depending on whether their "team" won or lost (Davis and Hitt 676). External efficacy is a voter's perception of how well the government will respond to their demands. Efficacy plays a crucial role in whether a person will vote or not because efficacy is what provides motivation for people to vote. Generally speaking, voters in the winning party will experience increased external efficacy when they're candidate wins as they vicariously experience the victory through their representative (Davis and Hitt 685). That being said, the initial feeling of increased efficacy is short-lived. As time passes, the feeling of efficacy will decrease among the winners, either because the government has not lived up to expectations or because the election is just so far in the past the effect of the election does not last (Davis and Hitt 685). Similarly, voters in the losing party will begin to feel better about the loss with time

and tend to see that they have more efficacy than initially believed (Davis and Hitt 685). Voters are encouraged to turnout to an election because it is a competition that people are sensitive to. Voters want their team to win so they are motivated to mobilize to get their party to win. Although initially after an election, losers may feel discouraged and winners may feel secure, by the time the next election comes both groups feel motivated to turn out and vote. Moreover, research has found that winning tends to validate peoples' opinions and make them feel as though they are right (Duina 29). Therefore, winning becomes even more important to people because it assures them that whatever they think is correct and whatever their competition believes is wrong (Duina 29). People will be more likely to turn out to vote when there is strong competition because they want validation that their beliefs are the "correct" ones. The validation that can come with winning can also relate to efficacy. Winners may feel a stronger sense of efficacy because their beliefs have been reaffirmed through winning. Losers may feel a lesser sense of efficacy because they have just been told that their beliefs are incorrect. The psychology of winning and losing seems to have some effect on voter turnout.

An important question to examine is why winning and losing play such an important role in the American electoral system. In order to answer that question, the psychology behind winning and losing needs be examined. Americans tend to embrace competition much more than people in other countries (Duina 11). According to the World Values Survey, half of American surveyed believe that competition is good, which is significantly more than any other industrialized country (Duina 11). In comparison, only a fifth of Japan's population thinks competition is

good (Duina 11). Moreover, in American society, there is a fear of losing and a love of winning (Duina 11). More importantly, what makes winning so appealing is not the act of winning itself, it is winning after the risk of losing is high (Duina 17). For example, if the competition is close, winning will be much more satisfactory because the risk of losing is higher than if competition was not close (Duina 17). In regards to losing, the act of losing tends to result in people reflecting on the actions and looking for errors so they can win in the future (Duina 31). Winners will tend to not search for errors at all, which can put them at a disadvantage in the long run (Duina 30-31). Overall, Americans tend to view winning as a gateway to finding our place in the world (Duina 122). Psychologically, winning goes beyond just the satisfaction of victory, it holds significance (Duina 122). Winning and losing also gives people direction and mobilizes them to whatever challenge they face (Duina 131). Whether a political party wins or loses, their supporters will be encouraged to continue to mobilize because both winning and losing mobilizes them. The psychology of winning and losing seems to have some impact on behaviors that could influence voter turnout.

That being said, gerrymandering seems to throw a wrench in this theory. When a district is gerrymandered in order to make a district less competitive, meaning people of the same party are packed into a district, the perceptions of those in the district may be altered (Fraga et. al 28). Packing people together can improve voters' perceptions of representation (Fraga et. al 28). Despite packing districts making winners feel better about the electoral process, there are still consequences. Losers in packed districts may leave the electoral system altogether because they are

not being represented consistently, if at all (Fraga et. al 29). The process of exiting, is in contrast with the research done by Davis and Hitts. There is the potential that with enough time between elections losers may not exit the electoral system at all. In order for a gerrymandered district to be representative at all the increase in turnout in the winning group would need to offset the losing group leaving the process (Fraga et. al 29). Gerrymandering is not about being representative though. Gerrymandering is designed to provide an advantage to a specific party and mobilize those party members to vote. Gerrymandering actually has the capability to increase turnout among certain parties just because their party is consistently winning. Furthermore, based on the research done by Davis and Hitt, members of the losing party may still continue to vote rather than exit the electoral system. Ultimately, research surrounding winners and losers has yet to reveal what kind of effect gerrymandering has on turnout.

Polarization goes hand in hand with party competition. Polarization is another major contributing factor in changes in voter turnout as well as a potential effect of gerrymandering. In the 1960s, there was a major decline in voter participation (Dodson 443). This decline in voter participation can be attributed to the decrease in political competition at the time (Dodson 443). Not only did parties decrease their mobilization efforts, but citizens became increasingly disaffected with the political system itself (Dodson 443). However, that all changed in the 1980s when polarization increased (Dodson 444). Polarization is an important topic when it comes to the electoral system. Polarization signals to voters that parties are diverging on important policies and issues (Dodson 444). This signal in turn encourages increased voter

turnout because it raises the stakes for voters, increasing competition (Dodson 444). Ultimately, the more polarized a voting district is, the more participation there will be because citizens are more engaged. Mass disengagement is a major contributor to a lack of voter participation (Dodson 448). Polarization, and in turn, competition, encourage voter participation. That being said, gerrymandering is not the main cause of polarization. Research has shown that how people are sorted into districts has a limited effect on the level of polarization (McCarty et al 678). Polarization tends to social and economic factors and geographic sorting (McCarty et al 678). Moreover, research has shown that even if gerrymandering was reformed, it would only reduce polarization by a very small amount (McCarty et al 679). That being said, research has shown that there are some redistricting reforms that could reduce polarization enough to be useful. For example, blind redistricting has been shown to create the most heterogeneous districts, which could reduce polarization as there would be a wider variety of people voting in each district (McCarty et al 679). Moreover, gerrymandering is still important to address because it has been shown to have negative effects on electoral competition as a whole (McCarty et al 679). Although gerrymandering does not cause polarization, polarization is exacerbated by gerrymandering. Furthermore, if gerrymandering does exacerbate polarization, polarization's effect on voter turnout is also exacerbated. Regardless of what effect gerrymandering has on polarization, gerrymandering and polarization plays a crucial impact on voter turnout and competition.

Methods

The data used for this study is primarily collected from the *Guide to the 2018 Cooperative Congressional Election Survey*. This study was conducted by 60 different research teams and surveys a wide variety of facets of the 2018 congressional elections. However, the data points for ease of voting came from the appendix of a study done by Liberty Publishers.

This study utilized a Pearson's R correlation test as a bivariate study and a logit regression to account for control variables. Logit regression was used because the dependent variable in this study is a dichotomous bivariate variable, meaning that a person either voted or did not vote. The variable is not continuous. Furthermore, a bivariate Pearson's R correlation test was used to test just the dichotomous dependent variable against the continuous independent variable.

Data

This study utilizes data collected from 44 states in their voter turnout and their gerrymander index score. The dependent variable of voter turnout for this study is derived from the research question "does gerrymandering have an effect on voter turnout?" Voter turnout is coded as "votervalidate1" and appears as "Avg. Turnout" on the two figures included below. Voter Turnout was measured as a dichotomous variable, meaning it was scored as 1 if the person voted and 0 if they did not. The average turnout variable also accounts for anyone lying about whether they voted. All of the survey responses were confirmed with state records to confirm whether the respondent actually voted or not. The independent variable of gerrymandering, specifically the gerrymandering index score, is coded as "gerrymander."

Gerrymandering was scored based on the Gerrymander Index in which states are

scored based on how gerrymandered they were. These scores were created by using a ratio of a districts' area and the perimeter of a circle.

The controls for this study which are utilized in the logit regression are the ease of voting score, whether a person is black, Latino, Asian American, or female, level of education, income, a person's partisanship, and absolute pvi, which is how partisan a district is or how competitive a district is. Ease of voting is measured using the Cost of Voting Index, which encompasses 7 indicators. The 7 indicators are: registration deadline, voter registration restrictions, registration drive requirements, pre-registration, voting inconvenience, voter identification requirements and poll hours. All of the indicators affect how easy or difficult it is to vote in a state. Partisanship is coded on a scale of 1-7, with 1 being a strong democrat and 7 being a strong republican. Absolute pvi coded on a scale of 0-10. A score of 0 is a tie while a score of 10 is a situation in which a party wins by 10% of the vote. The rest of the control variables are coded in a straightforward manner.

All of the variables being controlled for are variables that also have some known effect on voter turnout. For example, a person's race or gender can impact their likelihood to vote because it can affect how enfranchised or disenfranchised they are. Race and gender both play a large role in whether people feel represented by their elected officials. The same is true for education and income as income and education can affect how enfranchised a person is. There are voting laws that directly impact people of lower income and lower education level. Ease of voting, partisanship, and absolute pvi all relate to how motivated a person might be to turnout to vote because voting can become more challenging or people may believe a win for the party is

assured in their district. For example, if voting laws in a state make it challenging to vote, people may choose not to vote because they view voting as not worth all the trouble. Moreover, partisanship plays a role because how partisan a person is can make them more or less likely to vote. If a person is not partisan, they may be less likely to vote because they do not feel strongly about who represents them. Absolute pvi also can affect voter turnout because if a district is mostly one party, the minority party may be less motivated to vote because the district isn't competitive. However, if a district has a mix of parties, voters may be more inclined to vote because they have more sway over who their representatives will be. All of these factors could influence voter turnout more or less than gerrymandering already does.

Figure 1.

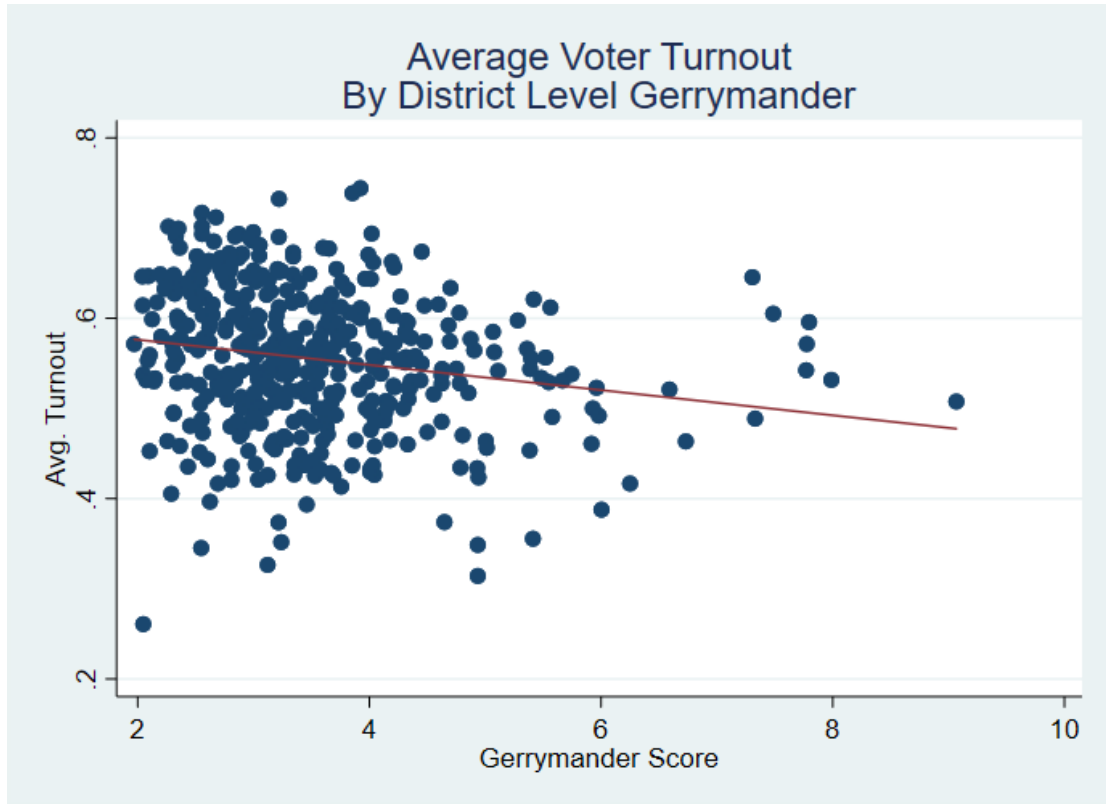
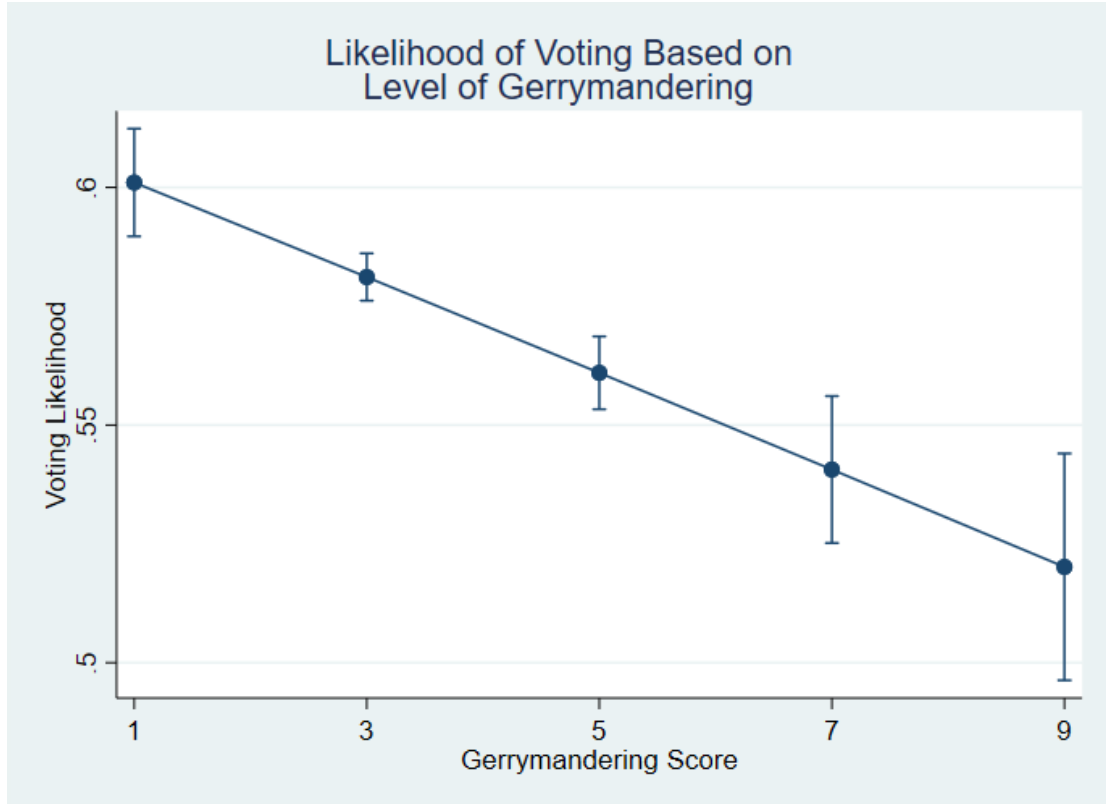


Table 1.

	A	B
	Baseline	Full Model
Gerrymander Score	-0.06*** (0.01)	-0.04*** (0.01)
Ease of Voting Score		-0.13*** (0.02)
Absolute PVI		-0.01*** (0.00)
Black		-0.53*** (0.03)
Latino		-0.82*** (0.04)
Asian Am.		-1.38*** (0.06)
Female		-0.20*** (0.02)
Education		0.13*** (0.00)
Income		0.00*** (0.00)
Partisanship (Strong Dem to Strong Rep)		-0.03*** (0.00)
Constant	0.46*** (0.03)	-1.05*** (0.08)
Observations	58,747	44,261

Figure 2.



Results

The Pearson's R test and the logit regression found that there is a significant negative relationship between gerrymandering and voter turnout. The Pearson's R had a score of -0.2, making the correlation significant and negative. As the gerrymander score increases, the likelihood of voting decreases to a statically significant degree. Although the correlation was not as strong as expected, the results still demonstrate that there is a negative correlation as predicted.

The logit regression also found a significant negative relationship between gerrymandering and voter turnout. As seen in Figure 2, there is a significant negative relationship between gerrymandering and likelihood of voting. With a gerrymander

score of 1, there is a 60% chance a person will vote. On the other side of the spectrum, with a gerrymander score of 9, there is a less than 55% chance that people will turn out to vote. These results were as expected. Although gerrymandering did not have a huge impact on voter turnout, it did have a significant impact. It seems as though gerrymandering has enough of an impact on voter turnout that it is important to study and rectify.

The control variables also provided some interesting results. It appears as though race plays a negative role on voter turnout. This result makes sense as gerrymandering has the tendency to more negatively affect people of color. Moreover, there are also other barriers to voting such as ease of voting that disproportionately affect people of color. Both partisanship and absolute pvi play a negative role in voter turnout. It makes sense that absolute pvi has a negative effect on voter turnout because if a district feels like it is not competitive, the people in the district will feel less motivated to vote. The negative result also makes sense for partisanship as only the most partisan people are motivated to vote frequently. Most people are not that partisan, so their incentive to vote is much lower. Gender also has a negative effect on voter turnout. This could be the result of lingering sexism surrounding voting, specifically women voting. Interestingly, income does not have an effect on voter turnout. Regardless of a person's income level they are equally as likely to vote. This could be because there are much more significant barriers to voting outside of income that affects constituents more. Finally, education seems to have a positive effect on voter turnout. This result makes sense, as people who are more highly educated tend to vote more than people who are not. These control

results leave a lot of questions that still need to be answered about barriers to voting and other factors that effect voter turnout.

Conclusion

Gerrymandering is undoubtedly a harmful practice, yet is still extremely prevalent. I have argued that the more gerrymandered a state is, the less voter participation that state will have. Given that gerrymandering affects voter perceptions, voters are less inclined to mobilize to vote when a gerrymandered district makes them feel certain that they will lose. If people feel as though their party will lose, they will be less inclined to participate in the electoral process because psychologically, Americans do not like to lose. Previous research has found that winning and losing can affect how motivated voters are to participate. Research has shown that winning and losing directly affects voters' perceptions of efficacy. If voters perceive that they have less efficacy, they will be less motivated to vote. Psychologically, American's place more value on winning than any other country. Winning is associated with efficacy in America, so people associated winning and losing with gaining and losing efficacy. Moreover, research has found the polarization is not caused by gerrymandering. That being said, gerrymandering does exacerbate polarization, so gerrymandering does still have a negative effect on polarization.

The results from my study were what I expected. I hypothesized that gerrymandering would cause voter turnout to decrease. I found that gerrymandering does have a negative effect on voter turnout. The correlation between gerrymandering and voter turnout is negative and significant. Furthermore, when accounting for control variables, there is still a negative and statistically significant relationship

between gerrymandering and voter turnout. However, there were control variables that seemed to have an even more significant negative relationship with voter turnout. The results demonstrated that race seems to play an extremely large role in whether a person will participate in the electoral system or not. That being said, gerrymandering still plays a crucial role in whether voters decide to vote or not.

This study is not without its limitations though. This study only looked at data from the congressional election in 2018. It would have been useful to examine more election data, including presidential elections. If more data had been investigated, I could have also looked for data trends over time to better understand the relationship between gerrymandering and voter turnout. Furthermore, it may have been useful to run more tests beyond the Pearson's R bivariate test and the logit regression. More variation in the tests I ran could have increased confidence in my results.

More research needs to be done on the relationship between gerrymandering and voter turnout. Given the results of this study, it is clear that gerrymandering has harmful effects on voter participation. In order to keep the democratic process as pure as possible, it is important that gerrymandering be addressed. Voters should have an equal say over who their representative is. Gerrymandering prevents that from happening. Voter perception over their efficacy is important and gerrymandering affects their perception. Regardless of how strong or weak the relationship between gerrymandering and voter turnout is, gerrymandering is still harmful to our democratic system. For future studies, I would like to examine how race relates to gerrymandering and voter turnout for a more intersectional study. Furthermore, I would like to study how income inequality relates to gerrymandering and voter

turnout. For future research, it would also be useful to do a case study that would examine certain elections, certain states, or even primaries for a more comparative study.

Given that there is a clear relationship between partisan gerrymandering and voter participation, it is important to also consider potential solutions. The harm that gerrymandering causes makes it challenging to keep the practice in place. In order to keep elections fair and democratic, gerrymandering in its current form needs to be eliminated. There are a couple ways in which this can happen. First and foremost, and arguably the most attainable solution is to require by law that all states utilize independent commissions to draw their districts. These commissions would be made up of non-partisan people who would draw districts based on fairness instead of drawing districts that would benefit a certain party. Independent commissions are already utilized in several states and the bill H.R. 1 that is currently going through Congress would require states to establish independent commissions (“H.R. 1- For the People Act”). Currently, independent commissions can only be put in place via public referendum in states and there are many states that don’t allow for laws to be put in place solely from popular referenda (Keena et. al). H.R. 1 would eliminate this common barrier to independent commissions. The main issue with the solution of an independent commission is it would be incredibly difficult to find people who are truly unbiased. Another potential solution would be to create an algorithm to draw districts in every state. The problem with bias still exists with the algorithm as well as biases can exist in algorithms because a human has to write the algorithm. A person’s personal biases can come through even in an algorithm. Finally, the most unrealistic

solution would be to completely alter the political system so there are no congressional districts at all. If there were no congressional districts at all then gerrymandering couldn't occur. However, changing the entire system is unrealistic and would not necessarily solve the issue of lacking political participation. The best available solutions are independent commissions or algorithms because they at least start to take the politics out of drawing districts. Although districts still may not be perfectly fair, they would certainly be fairer than they are now. Any progress in taking the politics out of redistricting is a great step towards increasing political participation in every state.

This study demonstrates that gerrymandering has a significant impact on voter participation. What makes our democracy function is the participation of average citizens in the electoral system. The United States has prided itself over the years over its political participation and the belief that every person should have a say on who represents them. Gerrymandering strips away this efficacy from American citizens and allows politicians to decide who represents us. In order to uphold the democratic ideals that the United States values, gerrymandering needs to be eliminated to give the voice back to the people. The only way the United States can continue to uphold its ideals is through increasing participation in the electoral system by eliminating gerrymandering.

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