A Cross County Examination of Fiscal Federalism in the 2016 Election

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A Cross County Examination of Fiscal Federalism in the 2016 Election

by

Sarah Kaplan

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Submitted in partial fulfillment of the requirements for Honors in the Department of Economics

UNION COLLEGE

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ABSTRACT

KAPLAN, SARAH BURKE: A Cross County Examination of Fiscal Federalism in the 2016 Election

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The 2016 election has often been referred to as one of the most unorthodox elections in United States history. Both major candidates had their own unusual qualities about them. Hillary Clinton was the first woman to receive a major party’s nomination. Donald Trump ran with no political experience, using a rhetoric that was foreign to the established political world. And yet, Donald Trump did the unthinkable and was elected to the highest office in the nation. He triggered a voice that many felt was silenced in recent years. By laughing in the face of political correctness, and speaking about what many felt too ashamed to say out loud, he created a whole new political climate. His wars on immigration, socialism, and the media became fighting points for all of his supporters. Cries of “Build that Wall” and “Make America Great Again” flooded the internet, Trump’s rallies, and the streets of the US. Trump became a force which has never been seen before.

Within the established political sphere, each party was known to align itself with certain traditional ideas. One major policy point the GOP fights for is smaller government, and less government intervention. Fiscal federalism is the term used to describe the levels of centralized power, and what power should be allocated to which level of the government. This thesis seeks to investigate whether the voting population is actually voting for these policies, or if something else is a driving factor. Using county-level data, specifically per capita net federal assistance as the measure for fiscal federalism, together with several control variable, regressions were run to understand how voting in the 2016 election measured up with these beliefs. Hypothetically,
counties that voted Republican, should value small government. Under that assumption, they
should be taking the least federal assistance, and paying the most in taxes. However, our results
show that the higher Republican vote share a county had, the larger their net federal assistance to
the Federal government. This positive and robust relationship is completely at odds with the
established ideas as to what the GOP stands for.
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CHAPTER ONE
INTRODUCTION

I. BACKGROUND INFORMATION

American politics has been a complex and intricate issue since the creation of the Declaration of Independence. Understanding the mentality and motivation behind the American voter is essential to understanding how to better this country. A democracy is rooted in the voice of the people, which is why it is important to listen and understand exactly what a voter may be championing for. Even more important though than the voices of American voters are the actions and real life implications of every choice made. These choices determine the economic and political health of the nation.

The GOP has always been the party of “small government.” The modern conservative movement is one that has always been one that has fought for limited government intervention. Inspired by economists like Adam Smith, they hold the idea of invisible hand economics to be the true regulator of the economy. Other countries, namely in Europe, have diverged from this ideology to include social welfare programs like universal health care and free higher education. The conservative movement has been outspoken in its opposition to these kinds of programs. Their fight from government “tyranny” begins by having privatized business dictated by rules of supply and demand, not government regulation. Many speak to the idea that privatization of institutions makes them better run than anything bogged down by the burden of bureaucracy in the government. Utilizing the Constitution as the major document to support their ideologies, the conservative movement in the US seeks to promote an America that would make the founding fathers proud.
These sentiments are accurately discussed by Wilson (2018) when he speaks of the conservative movement he has always supported. He describes the proper conservative candidate as one who stands by messages promoting “liberty, equality, the rule of law, and a reverence for the Constitution.” (Wilson, 2018, 5) This speaks to the heart of the conservative movement in the US. The conservatives have continued to oppose their liberal counterparts as they attempt to increase taxes and burden hard working Americans in the name of social welfare. These are the issues the conservative movement advocates for, the preservation of the American ideals of independence.

The political spectrum in the US has shifted and evolved many times over the course of American history. Parties have flipped in beliefs, and as new issues arise they discover their positions to assess and solve them. “Liberal” or “Conservative” have changes drastically in the policies they promote. Looking back specifically on the past 60 years, one can notice a few policies that seem out of line with the current political understanding of these ideologies. For example, Republican President Nixon signed the OSHA, or the Occupational Safety and Health Act of 1970. Nixon also established the Environmental Protection Agency as an agency of the federal government, by executive order no less. This increase in government agencies, and federal influence is at odds with the current conservative agenda. Even more divergence from what is now deemed conservative came under the leadership of Republican President Eisenhower. During his term, from 1953-1961, he implemented a 90% marginal income tax rate. The likes of this would never be supported by a modern Republican. Even perceived liberal radicals like Bernie Sanders or Alexandria Ocasio-Cortez have only proposed tax policies with maximums of 70%. The modern conservative movement has clearly developed in a new
direction, making the current voting patterns even more relevant to a political understanding of the United States in 2016.

These issues have taken a quantitative dimension when discussing fiscal federalism. Oates (1999) discusses the basics of fiscal federalism, a measure as to the size and influence of government in terms of fiscal policy. Oates discusses how the government is responsible for the macroeconomic stability of the country, as well as providing for the poor if the citizens see fit. He goes on to describe how this is the central understanding of the fiscal federalism debate—how much power should the government be given in terms of achieving this stability? How much the government should be providing for its citizens? How much is too much in terms of collecting tax revenue. These questions are at the heart of an understanding of fiscal federalism, and the political debate in modern America. On one side are the right leaning conservatives, who preach for small government size and influence. On the other side are the left leaning liberals who lobby for larger government responsibility to those in need.

As years have passed, this debate has become more and more important in the American political sphere. As other parts of the worlds are embracing democratic socialism, the question becomes if the US will join them. Never was this question more central in a presidential race than in 2016. Donald Trump and Hillary Clinton became megaphones for those fighting for these issues on both sides of the aisle. Haughton et al (2016) show how their proposed tax policies represented these two sides of the debate. Trump calling for massive tax breaks, mostly for the wealthy, while Clinton advocated for a massive increase in tax revenue to fund government programming. They represented two opposite ends of the spectrum.
II. STATEMENT OF CORE RESEARCH QUESTION

2016 has been marked as one of the most unorthodox elections in American history, for many reasons. This thesis aims to study whether the election of Donald Trump came because of resonance with conservative messages, or if it was a result of the other narratives that were perpetuated through the 2016 campaign season. To do so, this thesis poises the following question: *Are counties that voted Republican in 2016 the same counties which took the least in federal assistance and provided the most in tax revenue?* This study will be a cross county analysis of America during 2016, taking into account their Republican vote share, federal assistance, and tax revenue, among other controls. This analysis will exclude the state of Virginia because of its abnormal county planning. Some counties are drawn by city metropolitan areas, while others are not. Because of this confusion, some data sources have trouble with overlay or double counting. Virginia was omitted as a result. All of the data, unless otherwise specified, will be in terms of the fiscal year 2016. This representation of fiscal federalism was chosen in an attempt to be unbiased, numbers of dollars cannot be skewed based on political affiliation. The working hypothesis to be tested is that counties with a higher Republican vote share in fact incur higher debt to the federal government [receive higher net Federal assistance], when measures of education, unemployment, and poverty are accounted for.

III. SIGNIFICANCE OF THESIS

As stated before, the aspect of American politics that is far more important than what voters say, is what they do. This study attempts to understand the actual usage of federal assistance, not just the words candidates speak of. With this understanding of actual implementation of these policies, a better understanding as to why and how Americans vote can be achieved. With this broad scope and granularity, this thesis attempts to encompass the
American mentality in 2016. In an ever changing political environment, it is important to understand which messages people agree with, and which they practice in their daily lives. This is relevant to the entire American political system.

Within a democratic country, the voice of the people is expected to be the most important deciding factor in any major political decision. The power in a democracy comes directly from the citizens. With this in mind, one must have a comprehensive view as to what those voices are saying, and even more so, if the actions of these individuals correspond. This thesis seeks to understand if these presumptions are in fact being enacted in the United States, through the lens of the most unorthodox election in American history.

With the every changing structure of political alignment in the US, it is important to understand the implications behind every political decision, policy implementation, and vote cast. Where do the hearts of the modern American lay? Is it with the modern conservative movement, and if so why? Is it because of their ideas of fiscal federalism, and policy choices in that realm of influence? Or does their loyalty stem from another narrative? This is the central objective of this thesis, to seek a point of understanding. A better comprehension of the needs and views of Americans leads to better policy, and better politics.

IV. STRUCTURE OF THESIS

This thesis is divided into five chapters. Chapters One and Five are the introduction and conclusion, respectively. Chapters Two, Three, and Four present the foundation, and specifications of regression analysis, and empirical data. Chapter Two offers a review of previous literature pertaining to fiscal federalism, tax policy, political affiliation, and the 2016 election specifically. This chapter also provides anecdotal explanations of these phenomena in American politics. Chapter Three presents the data selection, model specification, and regression
framework needed to accumulate results. Chapter Four contains the discussion of implications of these findings. This is followed by a discussion on voter motivation and what truly inspired an American to cast a certain vote in 2016.
CHAPTER TWO
LITERATURE REVIEW

I. INTRODUCTION

Fiscal federalism is indeed a complex topic, interwoven with other aspects of economics and political science. To properly explore this thesis topic one must understand a multitude of contributing factors. The basis of fiscal federalism itself, the determinants of tax choice independent of fiscal federalism, the determinants of voting for Trump independent of fiscal federalism, and more anecdotal understanding of exactly what happened in the 2016 election. The first steps to be taken when establishing this research pattern was defining what fiscal federalism exactly is, and furthermore which aspects to make the central focus of this thesis. To achieve this goal, previous literature and research on the basics of fiscal federalism had to be aggregated and read through. This became the first pillar of the supporting literature behind this research- the general background and understanding of fiscal federalism. What exactly does fiscal federalism consist of, and furthermore, with such a complex topic, where was the focus should be made.

II. THE BASICS OF FISCAL FEDERALISM

Oates (1999) begins his work by attempting to define and understand the basic theories of fiscal federalism and what it may mean in a more traditional sense. In his work he concisely defines it as “a general normative framework for the assignment of functions to different levels of government and the appropriate fiscal instruments for carrying out these functions.” (Oates, 1999) He then goes on to elaborate on this traditional perception, where central governments are responsible for economic stability on a macroscale, and assistance may need to be given to the poor. Oates proceeds to evaluate these arguments, finding validity in some points and potential
problem areas in others. Both of the aspects are rooted in limiting the power of lower levels of government in order to provide for citizens. He also acknowledges the potential economic constraints of assistance type programming, especially in conjunction with other national public goods like national defense. Oates uses this piece as a vehicle to show an almost case study of the different fiscal federalism themes that each country around the world has adapted. He speaks on the nature of certain European countries that seek to provide for their citizens regardless of the larger price tag; he focuses on the specifics of countries like the UK and its regional decisions, or more dramatic actions in countries like Italy. But the major component of this discussion is the decentralization of fiscal federalism responsibility that the US has embraced. So many aspects of Federal authority have been transferred to States’ governments, welfare, Medicare, and housing among others. Oates effectively discusses the more traditional perception of fiscal federalism while applying these teachings to modern nation’s actions.

Hueglin (2003) speaks a bit more broadly than Oates does, expanding this discussion of power allocation, not just in the fiscal sense. He implements a more widespread view. Hueglin delineates the contestation of previous certainties in America. Specifically he speaks on how the local, state, and federal governments decide on how to give out power and assign responsibility. Hueglin goes on to explain that in readings of the Federalist Papers, as well as other pieces from the era, regard the federal government as more powerful, rather than equal to the states. He elaborates on how this mentality can cause a focus on “national prerogatives rather than regionally differentiated policy needs.” (Hueglin, 2003) Alternatively he speaks that in modern times the country has been looking more into regional differences in policy decisions and requirements. This shift has caused more collaborative actions to be taken in order to achieve political harmony. What once was a hierarchy, has seen a power shift. Though this is not directly
affiliated with fiscal federalism, it speaks to a voter’s perspective and the national temperament regarding policy, both fiscal and lack thereof. The country as a whole has shifted from major national goals and rather is focusing on the needs of an individual state or local government. Perhaps this explains the general lack of bipartisanship that led to the rise of an anti-establishment far leaning candidate like Trump. It may even explain why one may be so focused on the fiscal health of their personal county but lack the same empathy for a person across the nation.

Ryan (2011) speaks quite a bit on the boundary between the federal and state power areas, where there may be areas of conflict, where they do not interact, and where there is harmony. She goes on to explain the concept of checks and balances and how it may apply to federalism in the sense that power can never be seized unconstitutionally. Once again, this general scope on federalism lacks the specific fiscal component that is so central to this thesis, but still offers some valuable information in the form of understanding where fiscal decisions are made, and where responsibility is held. In a specific section regarding spending power, Ryan discusses the controversy that may happen when both local and federal governments attempt to work together. She speaks to the fact that most of these problems that arise are from a lack of communication between bodies of power- “most worrying are those that afford the least discretion to states and invite the least meaningful participation.” (Ryan, 2011) This lack of communication, and its induced confusion, trickles down to the everyday individual and voter.

Sorens’ (2014) work concludes this general background on fiscal federalism. He focuses specifically on the direct effect of Fiscal Federalism when it reduces the size of government. Sorens defines fiscal federalism as “(1) politically autonomous sub central governments enjoy primary authority over some economic policy-making; (2) sub central governments must fund
their own Fiscal federalism, jurisdictional competition, and the size of government programs largely out of their own taxation, over which they have discretion as to rates; (3) goods, services, and people may flow freely across the borders of the sub central governments” (Sorens, 2014)

He then specifically looks at the effect on the welfare state, government consumption, and public investment, and the application of these concepts. Often those who are in favor of cutting spending, like Trump and his followers, do it in favor of reducing the size of the welfare state in an attempt to make people more independent and less reliant on the government for subsidies or help. To test if an increase in fiscal federalism actually affects these aspects of society, he must quantitatively define it. To do this he creates a quantitative definition. This definition allows for fiscal federalism to be measurable, where the larger the value the more autonomy a local level government has. Then he tests to see if an increase in fiscal federalism plays a role in the welfare state, government consumption, and public investment. Sorens actually finds that increasing fiscal federalism and reducing expenses affects administrative costs but does not affect the size of the welfare state. He also discovered that the effect of a change in fiscal federalism is significantly larger than discovered in previous works, and plays a much larger role in society than expected. The main takeaways from this piece, are a new version of this concise definition, the effects of fiscal federalism, and a quantitative model for defining fiscal federalism.

III. GENERAL TAX POLICY

The second pillar of background research required for this thesis is rooted in general decisions regarding tax policy and tax law. This section acts as a sort of control for tax understanding. It acts as a benchmark to grasp how tax decisions are made independently from fiscal federalism. Taxes allow an observation of politics in a way that is not biased, and remains objective no matter which side of the aisle one may look on from. Steady numbers that do not
change. They cannot be tainted with the biases of those who look at them. That is why tax numbers have become the focus of this thesis, they are the aspect of fiscal federalism most measurable and easily accessible. However tax policy is a complex topic, where many kinds of motivation can be cited in order to justify or explain why a tax may be implemented or removed. The next pieces of literature that were collected were those that were rooted in tax decision making and repercussions. These aspects though independent from fiscal federalism, are central to this thesis, as a point of reference for general taxation practices. Without this understanding the effect of fiscal federalism could be over or under measured.

To begin this area of background research, a blanket understanding of tax choice and its relation to voting patterns was required. To achieve this understanding Blackley and DeBoer (1987) created a median voter model of tax choice. In the model a median voter’s total liability was considered and different tax strategies were discussed. They specifically looked at property vs income tax. The major question was “If you were to experience in taxes, would you rather they be in the form of property tax or income tax?” Blackley and DeBoer found that counties who had more heavily taxable property tended to adopt a local income tax instead. This choice was made even with the understanding that those with less property in the county would struggle significantly more under this increase income tax. This learning and research is relevant for a number of reasons. For though it does not specifically look at fiscal federalism in the sense of government provided assistance. Nor does it accurately depict the power dynamic between levels of government, whether it be the local, state, or federal level. It does however speak to the mentality voters may be embracing. This perception of benefiting oneself over helping others. This speaks volumes to the general mentality behind fiscal federalism debates and that which surrounds the current political sphere- how much is one willing to give up for the greater good.
Another aspect that may affect tax collection, or spending done by the government is that of competition. Competition is a central component of any economic understanding. The business dictionary defines competition as “Rivalry in which every seller tries to get what other sellers are seeking at the same time: sales, profit, and market share by offering the best practicable combination of price, quality, and service.” The same theory, with some tweaking, can be applied to governments and tax choice. Tax choice implemented by a government, operates the same as price implemented by a company. And the abundance and usages of a government agency can be regarded the same as the quality and accessibility of a product. One consumer may be willing to pay more to utilize a better quality product. This is like a tax spender being willing to pay more for a better school district. More money translates to better quality, whether that be a private or public good. Two pieces utilize this idea of competition when assessing tax policy. Winner (2012) investigates about the effect fiscal competition has on public spending in empirical terms. He finds a significant impact that competition has on the creation and understanding of government spending in any specific region within his sample. The focus of this paper is specifically on Organization for Economic Co-operation and Development, or OECD countries. This sample speaks quite a bit to this thesis, so much of the current political rhetoric is surrounding comparing America to other OECD countries. So many politicians are quick to point out the faults or the success of countries in Europe adapting more progressive policies regarding welfare in the country; often citing that if a citizen likes another country’s policies better that he or she should move. The competitive nature of tax policy is what makes statements like this possible. It also is the reason other country’s tax choices have an effect on the United States at all.
Keen and Marchand (1997) explore a similar topic. The focus on this piece is not just on the level of public expenditure, but also on the composition of it. It serves as a breakdown of how spending is done differently because of competition, not solely from a quantitative standpoint. Keen and Marchand explore a bias in government spending patterns. They find that “starting from the noncooperative equilibrium, and holding tax rates constant, welfare would be improved by a coordinated reduction in the provision of local public inputs and a corresponding increase in the public provision of local public goods benefiting immobile consumers.” (Keen, Marchand, 1997) Though this may not be ground breaking news, the concepts they empirically prove show that tax policy has a direct effect on the welfare of a society and the people who live within it. The piece simultaneously proves a certain tax choices are a result of competition.

A central part of this thesis relies on tax policy being a proxy to measure the size of government. In other words that government spending habits and the composition of taxes are indicative of how “large” government is. Feld et al (2010) discuss this relationship between government power and government spending. They argue that the competitive pressure of fiscal federalism reduces public sector size, especially when comparing it to unitary states. To test this, they put their focus on their home country of Switzerland. Though it is very different from the United States, and lacks the intermediate gubernatorial power of the states, still has the difference in structure from the national to the local level when choosing tax policy. They attempt to empirically examine the effect of these various instruments and policy decisions on the size of government and its composition. They gather data based on the various levels of Swiss government, and the effects that different mechanisms may influence their tax choice. Feld et al find a multitude of results. Separating taxes between local and federal level, otherwise known as fragmentation, tends to reduce the size of government revenue. It also shifts the
government revenue from taxes to user charges instead. The reduction of revenue and
jurisdiction reduces the power of the federal government. This is where the relevant point of this
research comes to light. The authors assess the relationship between tax fragmentation and fiscal
federalism, and the size of government size of government to be a true one. When looking at the
structural differences between Switzerland and the US there is clearly no one to one relationship
for comparison, but it does shed a bit of light on the impact that fiscal federalism and its
mechanisms has on the size of government.

IV. TRUMP SPECIFIC LITERATURE

The next section of literature to look into is conceivably the most timely and currently
relevant- it is the section of research that immediately relates to Donald Trump. 2016 brought
one of the most unorthodox elections the United States had ever previously seen, both candidates
seemed to break molds in one way or another. No one had previously seen any political
candidate who ran a campaign the way Donald Trump did. He awoke a voter base that
previously had laid relatively dormant. He brought a certain rhetoric that had not been present in
the political world. An escalation in partisanship, a rise in hate crimes and hate speech, and a
change in the demographics that feel unrepresented, have all been results of this specific election.
Research is just starting to be completed on this post-Trump era, and what created it to begin
with.

The first piece worth looking at is the one that looks at the most early portion of Trump’s
campaign- the primaries. Askisson and Peach (2018) explore what drew voters to Trump rather
than more traditional establishment Republicans when he was seeking the Grand Old Party’s
nomination. He originally seemed like a joke. No one expected him to get the nomination in the
first place. The question was raised as to how he beat out more seasoned candidates like Marco
Rubio or Jeb Bush. Adkisson and Peach attempt to understand why in their research. They choose deep red Texas to allow for a general scope of the Republican Party in America. This is a state that has remained Republican so the authors hoped that translated to a general understanding of the entire party’s political leaning. They created an empirical model using exit poll data at the county level to understand the draw of Trump. What they discovered was that the anti-immigrant rhetoric, the call for building a wall, and for keeping illegal immigrants out of the states, was the real reason people responded so positively to Trump. He spoke like no politician had before, no nonsense, not scared of violence, and constantly displaying his strength, and his followers heavily responded to that. This piece gives insight as to the popularity of Trump within the Republican Party, and what made him so appealing.

Fisher (2016) continues to explore the motivation for supporting Trump. He expands this scope and looks nationwide at the areas of the country that came out in full force supporting Donald Trump. Fisher applies Daniel Elazar’s typology for political subcultures within the United States. This typology divides the country into three distinct political subcultures—moralistic, individualistic, and traditionalistic. Each of these subcultures has spread through the country, holding different sentiments close. For the moralistic, politics are a positive activity that promote the public good. The individualistic see government as something that should act when it is needed. Finally the traditionalistic political culture views politics as a privilege. This leads to a more elitist perception of government, and who the government serves. Fisher finds that when accounting for certain demographic changes between states, certain aspects of a state’s political culture play a strong undeniable role in terms of how much vote share Trump was given. Specifically, a more prevalent moralistic political culture was a significant determinant in the level of support given to Donald Trump, the more moral the political culture the less of the vote
share was allocated to Trump. However the more widespread traditional or individualistic values in the state’s culture the more likely they were to support Trump. These cultural components play a big role in one’s opinion on fiscal federalism, those whose political subculture is individualistic or traditionalist may be less likely to think that government intervention is necessary in helping those in need.

One of the more controversial aspects of Donald Trump’s election was his support from women, and white women specifically. His comments made about women, and sexual assault allegations would be expected to be major deterrents from women voting in support of him. Yet Setzler and Yanus (2018) point out that 40% of women, that number being even higher among white women, who went to the polls voted for him. They employ an anecdotal model, asking women across the nation, and focusing on key states like Pennsylvania, Ohio, and Michigan, to explain what exactly motivated them to give their vote to Donald Trump over Hillary Clinton. Setzler and Yanus asked questions regarding partisanship, demographics, and beliefs, and their role in motivating vote choice. They find that certain components of Donald Trump’s appeal were predictors for both genders. Sexism, racial resentment, and nationalist ideals did not discriminate on gender and in fact found homes in many politically active women. In fact racial resentment amid Trump voters was higher among women than men. And sexist beliefs were just barely higher among the men in comparison to the women who placed their vote for Trump. They also found that there were statistically significant relationships between being white, married, evangelical, and Republican and voting for Trump. These results speak to the many possible narratives of which Trump supporters choose to listen to, accounting for the other examples outside of fiscal federalism that pushed people to vote for Donald Trump.
Haughton et al (2017) study the proposed tax policies that each candidate wanted to implement. They attempt to display the true differences between the two candidates and try to determine which groups may support which one. The Clinton proposal discussed raising tax revenue, by $816 billion over ten years, in an attempt to fund multiple government entities and provide further services for the country while lowering debt. The authors find that 86% of this tax burden would fall on those in the top tenth of income distribution. Clinton also discussed increasing tax rates on capital gains and expanding estate taxes, those taxes that tend to only really affect those in the top tax bracket. Trump, on the other hand, proposed lowering tax revenue by $9.8 trillion. He spoke about implementing tax cuts, where 70% would go towards those in the top income bracket, gaining around $15,000 per person in this group and around $500 for the poorest 40% of Americans. He talked about dismantling government transfers and programs like healthcare or welfare. This argument is the key to understanding the fiscal federalism debate between the two candidates in 2016, and why one may relate a desire for smaller government and less government assistance to a vote for Donald Trump.

V. ANECDOTAL EXPLANATIONS OF THE 2016 ELECTION

Though all of this literature has been mostly quantitative and empirical, anecdotal representations of what has occurred in the 2016 elections are incredibly valuable. Numbers can tell a big story, but sometimes they need some supplemental explanation. The final pieces of literature to discuss are the anecdotal books. These two books delve into the understanding about what a single vote means. What makes a person vote a certain way, and what really sparked the Trump Train. Each book has different points to make, and were written at different times, but both undoubtedly contribute to the conversation around the 2016 election and its effects.
The first book is Thomas Frank’s *What’s the Matter with Kansas?* An iconic book when discussing partisanship and interest based voting. Frank examines Middle America, those that would benefit from government programming. He looks at the people who have something to gain from programs like food stamps, healthcare, social security, and other social welfare programs, yet still vote Republican. Frank attempts so answer why these people vote against their own self interests. He cites the social crusades that have been taken under by the big Democrat political players. Frank explains that issues like abortion and gay rights are a non-starter for many Americans, especially in the heartland. Fiscal policy has taken the backseat to what are now the major players- the social issues. Voting against self-interest is now acceptable because it for a bigger fight, the fight over American culture as a whole. They vilify the “liberal elite.” They see liberals as city folk, out of touch with the reality of the everyday American. This scapegoat has made it easier and easier for a person in Bible belt to disassociate from the Democratic Party. Frank emphasized how the people who consider themselves “real Americans” see themselves as the victims of an ever changing country. This speaks to the retaliation that resulted in the 2016 election of Donald Trump.

Rick Wilson tells a similar story in his recently released book, *Everything Trump Touches Dies*. Wilson is a former GOP strategist, working under major campaigns for Republican all-stars like George H. W. Bush and Dick Cheney. He, regardless of party affiliation, is a major part of the Never Trump movement. He discusses every aspect of Trump that he finds problematic. Specifically his description of how Trump won the election is incredibly relevant to this thesis. Like Frank discussed, Wilson also notes the way social issues like abortion and gay rights alienate a huge portion of America. He goes into depth about the power of the Evangelical Church in America. Wilson cites this body as being instrumental in getting Trump elected. He
explains how Trump capitalized off the perceived morality of Mike Pence, his VP choice. Mike Pence’s conservative and Christian sense of self overshadowed Trump’s multiple marriages, affairs, and activities with porn stars. Wilson zeros in on this “liberal elite” stereotype that Frank mentions. With Trump’s “Drain the Swamp” mentality he took advantage of this already set fear in the minds of many Americans. He fueled the “us vs them” mentality. Wilson also says the entire premise of “Making America Great Again” appealed to this voter base. This is a group of people who feel as though the country is moving away from them. The white, male, straight, hardworking American is being abandoned by someone more diverse. The anger that this group of people felt explains why these American patriots came out to support a man who avoided being drafted multiple times. Wilson speaks to the many ways 2016 was an emotional reaction, not one rooted in common sense or protection of one’s interest.

VI. CONCLUSION

This topic requires a broad scale of background information. The general principles of fiscal federalism are stagnant and effectively discussed in these pieces. This understanding of fiscal federalism is an obligatory prerequisite for the composition of this thesis. The authors of these pieces display where fiscal federalism is, and where it is going. This allows for application to the modern day and in the age of Trump. Tax choice is also something incredibly complex. There is no single determinant for why a population is taxed. A population can be taxed for a number of motivations. That is why it is so important to understand these reasons in order to examine fiscal federalism as an independent criteria. The pieces that examine tax choice in different areas allow for a broad scope and understanding of what may propel a certain tax to be implemented. Trump was obviously an unorthodox candidate, and those who voted for him understood this. To understand the complicated nature of a vote for Trump, one must look at
what appeal to his voter base. The research that went into this sphere attempted to empirically define who a Trump voter was. In connection with this definition, to also know which message they connected with. Trump made statements that have never been made before in a Presidential election. Voters may have connected with his stance on immigration. They also could have liked his white nationalist tendencies. Maybe Trump’s refusal of political correctness is what drew voters in. However regardless of which connection a person may feel, a vote is an endorsement of every message Trump spoke on. That is why this research is so important, to see if there is tangible evidence of connection to a certain policy. Reading this work was to understand Trump voters outside of the context of fiscal federalism, in order to properly understand their role within it. The anecdotal books discussing exactly why 2016 happened the way that it did, though not quantitative in their nature, provide insight from a human perspective. Thomas Frank and Rick Wilson find ways to understand this phenomenon where numbers may not be sufficient. By allowing for a human perspective, it fills in the gaps that cannot be simply understood by numbers. Without the combination of all of these sources, a proper background for this thesis could not be achieved.
CHAPTER THREE

ANALYTICAL FRAMEWORK

I. INTRODUCTION

This chapter contains the quantitative model used for evaluating the relationship between voting tendencies and fiscal federalism. The second section is a presentation of the original variables selected and the reasoning behind these choices. The third section describes the new variables that became evident and relevant in this study. The fourth and final section concludes this chapter and evaluates the post important findings.

II. ORIGINAL MODEL CREATION

When beginning this study the first model used was as followed:

\[ y = \beta_0 + \beta_1(x_1) + \beta_2(x_2) + \beta_3(x_3) + \beta_4(x_4) \]

Where:  
\( y \) = Republican vote share in 2016  
\( x_1 \) = Per Capita Net Federal Assistance  
\( x_2 \) = Unemployment rate in 2016  
\( x_3 \) = Education rate in 2016  
\( x_4 \) = Poverty rate in 2016

These original controls were chosen because of their natural association with voting patterns. They were the immediate controls that came to mind when assessing voting, but potentially more importantly these controls are also linked to federal assistance. All of these controls play a role in terms of how much money is allocated to a specific county. Whether it be in terms of welfare payments, unemployment benefits, or federally funded programing, they are all heavily linked with these controls as well. Blackley and DeBoer (1987) speak to this, citing unemployment and poverty as being the biggest determinants of both tax policy and government
planning. They speak to the median level of income in a county and the immense role that it plays when establishing decisions surrounding tax decisions and the revenue allocation. By contributing to both the main independent and dependent variable, these variables became the original controls.

The major dependent variable this thesis is observing is the federal debt incurred by a single county— that is the difference in federal assistance received compared to tax amount paid per county. Federal assistance is defined as “a federal program, service, or activity that directly aides organizations, individuals, or state/local/tribal governments.” (USA Spending, 2018) These programs can go to fund education, health, welfare, and safety among others. These payments could be made in many forms, whether it be grants, loans, direct payments, or insurance. This differs from government issued contract, where the federal government hires a private company to work for them. Often these payments are grouped together, as they can both be considered federal payments to a county. However only assistance follows the definition for the size of federal government intervention. This federal assistance and tax data becomes problematic however when looking at a certain scaling issue. Certain counties tend to be more populous than others, specifically more metropolitan and more democratic counties. Because of this tendency for democrats to live in more densely populated areas, the spending patterns may be affected. In order to accommodate this issue, all of these factors were set to a per capita measurement. When dividing by the population, it allows the noise of density bias to be cleared.

The major independent variable comes with Republican vote share. This vote share is intended to represent the percentage of people within the county who are voting for “smaller government.” Because the GOP is the major establishment pushing this narrative, it makes sense that those voting for these policies should be those who support an increase in local autonomy.
America is a democracy, where one vote is a measurement of personal beliefs and values. In such an unorthodox election as 2016, voices became heard that have maybe not been publicized. Never has the debate about federal assistance been louder than in current times. With the discussion of democratic socialism, and the rise of candidates like Bernie Sanders, the polarization between the parties has only grown. Each party grew more extreme in their beliefs. The Republican Party spread messages against government handouts louder than ever before. Donald Trump became a mouthpiece against welfare, unemployment benefits, and potentially the biggest place of contention healthcare.

When assessing federal spending however other aspects also play a role outside of just voting patterns. The first is that of unemployment, obviously counties with higher unemployment will receive more federal programming. Higher unemployment means more people reliant on government assistance. It also means less tax income as people are making less money. This raises the debt on both sides, paying less but taking more. Unemployment could also affect voting patterns. Many of those who came out to vote to “Make America Great Again” were those who have suffered from recent layoffs. Never is this seen more clearly than in the coal community, which was a group Trump targeted and capitalized on. This group of people has felt as though America has moved on without them. Though this is only one portion of the groups Trump marketed to, the sentiment was similar throughout the country. People feeling as though America was moving away from its old values, getting more diverse and straying from tradition. This can be seen qualitatively in unemployment rates and their changes throughout the years. As technology progresses, many people have found themselves obsolete. Trump fed into this fantasy of turning back time to when America was “great.” Though unemployment can be caused by many things, it is important to acknowledge its importance in this respect.
Education was the next control to be accounted for. Education has been known to affect voting patterns, income, tax payment, and reliance on federal assistance. It was important to account for it when collecting data. Especially because education can play a major role in many ways. This factor was measured by the percentage of people in each county that have a college degree. Those with a college degree are more likely to earn more, and pay higher taxes. However they also can incur debt from federal programs, specifically student loans. The Fed reported more than 1.3 trillion dollars of student debt is owned by American Households in 2016. (Feiveson, 2018) This education factor is important to consider on both sides of its effects. Both on its increase in a person’s individual income, but also on its potential to create debt. A college degree can shift how someone votes and thinks, as well as the taxes they fill out every year, making it pertinent to this thesis.

The final control to account for poverty. Similarly to education, this factor plays a major role with how individuals perceive government intervention and how they vote. Additionally poverty rates drastically impact the amount of federal assistance given to a county. The control is necessary when looking at this information. Poverty does not discriminate against one political party over another. However both sides have very different reactions as to how to deal with it. As more research was done regarding this model and the controls applicable, it became clear that the scope of understanding needed to be expanded. As a result of data analysis, and information from previous literature, new variables and measures were created.

III. VARIABLE CHANGES

IIIA. ECONOMIC ANXIETY

However certain distinctions exist that made it necessary to reevaluate aspects to this regression. To begin with, the complicated nuances of the unemployment variable need to be
addressed. The original variable for unemployment was the unemployment rate of each county specifically in 2016. However this rate does not entirely encompass the unemployment story. To begin with, unemployment does not entirely reflect the true employment nature in a specific county. This measurement only accounts for people actively seeking work. It does not account for those who have been discouraged from looking for employment, also known as discouraged workers. This statistic also does not take into account those who are underemployed, or working at a job that they may be overqualified for. This also is simply a look at unemployment at one singular instance. In truth the effect of unemployment in a single county over time is also important to take into account, it may affect the attitude of the county at large. These defects in measurement contribute to a larger conversation, that of situational and generational poverty. Situational poverty is often a result of a single instance, one person losing a job, a poor investment, or emergencies that drain a person's' resources. Generational poverty is a result of years of destitution. It is the cycle that occurs when a person is born into a family lacking resources. One individual’s inability to escape impoverishment leads to their children being born in the same situation. The poverty variable tends to properly explain the generational poverty story, as those born into impoverished areas have a harder time escaping. But the unemployment variable alone does not properly explain situational poverty, not without a bit of context as to what was happening in that county before 2016. These distinctions tend to affect how people vote. Blackley and DeBoer (1987) briefly touch upon these differences, and the way it affects mentality on government spending composition. They explain that those in generational poverty are more likely to support programs like welfare and food stamps, as they and their family have been accustomed to them. Blackley and DeBoer speak to a sense of hopelessness and a lack of
resources that many believe can only be fixed by government action. Situational poverty however does not hold these same ideologies.

To compensate for these shortcomings, unemployment is put in a more historical sense, by the creation of the economic anxiety measure. This measure was created as a difference between unemployment rates in 2016 and unemployment rates in 2006. With this ten year time span, a more detailed understanding of counties is drawn up. One county could have a relatively low unemployment rate, however if they see had seen a spike in job loss over the past 10 years, it may cause a very different political response. The converse should also be noted, a county with relatively high, but stable unemployment may have a different perception of government intervention and spending. Wilson (2018) speaks to these different attitudes. He cites that those who suddenly feel down on their luck are more likely to think things will quickly turn around for them. Those who have been living in an impoverished reality for their whole lives though, turn to similar solutions that they see family members, neighbors, and peers embrace. He also speaks to how Trump specifically capitalized on this anger people living in situational poverty may be feeling. Those who suddenly find that their county is not as economically strong as they once remembered. Wilson speaks to the coal industry specifically, and how Trump made these people feel as though their current state was fixable, and he could make them a huge part of the American economy again. They became full supporters of “Make America Great Again.” They became part of the country that wanted to revert back to when it was a simpler time, work was easy to find, and no one was worrying about their dying industry. Frank (2004) also touches on these differences in attitudes. He evaluates a certain “ruggedness” many poorer counties may embrace. Frank specifically speaks on the Midwestern states of America, the heartland. He discusses the outlook many people there employ, where so long as they are going to work, and
feel like progress is being made, they will stick to their independent nature. This is why the economic anxiety variable is created from unemployment rather than poverty. It has more to do with the helpless mentality many Americans were feeling in 2016. Something touched upon by many of the authors referenced in this paper, is that voting often has to do much more with feelings and sentiment, than hard facts. Never has this been seen so true as the 2016 election.

**Figure 1: Unemployment 2016 vs Economic Anxiety**

![Figure 1](image)

Source: United States Department of Labor, Bureau of Labor Statistics

Figure 1 shows both the unemployment rate and the economic anxiety factor being graphed for every county in the sample. The two factors are clearly closely related, as would be expected. However, there are discrepancies to be noticed. One county may have a relatively higher unemployment rate, but a lower economic anxiety factor. Potentially implying that the larger the gap the more stagnant the level of employment in a certain county is. The relationship between these two factors can potentially be more informative than either factor on its own.

Figure 1 shows that a single snapshot of one year is not as useful without the context of previous years. As can be seen in Regression II, there is little difference when accounting for this new economic anxiety variable as a replacement for unemployment. This put into question as to if
just the economic anxiety variable was telling the full story either. As a result the interaction variable consisting of both 2016 unemployment, and economic anxiety was created. This brought both current and historical understanding of unemployment in to play. Now this variable compensated for both past and current mentality a county may be experiencing. Allowing for a snapshot into 2016, still while keeping the comparative nature of the past. As a result of this new addition, the regression model was changed to portray the following equation:

\[ y = \beta_0 + \beta_1(x_1) + \beta_2(x_2) + \beta_3(x_3) + \beta_4(x_4 \cdot x_5) \]

Where: 
- \( y \) = Republican vote share in 2016
- \( x_1 \) = Per Capita Net Federal Assistance
- \( x_2 \) = Education rate in 2016
- \( x_3 \) = Poverty rate in 2016
- \( x_4 \) = Unemployment rate in 2016
- \( x_5 \) = Economic anxiety measure

IIIB: TRUMP SPECIFIC

Fisher (2016) speaks to the various political subcultures in America and how they affected Trump’s vote share. His utilization of Daniel Elazar’s typography allows for a deeper understanding of the typical Trump voter. The breakdown of country into three distinct groups—moralistic, individualistic, and traditionalistic. These types are not mutually exclusive, but measures of mentality. For example, one county can have high moralistic and individualistic tendencies at the same time. Fisher’s findings of a negative relationship between moralistic political culture and support for Donald Trump are a major reason to understand how Trump played a different role than previous Republican candidates. Fisher discusses how in previous elections, the connection to political subcultures was not nearly as strong. He speaks on how this
could be a result of the constant discussion of socialism that took place in 2016. But he also speaks on the unorthodox nature of the 2016 election, and how that changed how people thought and voted. His references to the shifting political climate speak wonders on how truly different and distinct this election was in American history.

Wilson (2018) asserts that Trump is unlike every other Republican who preceded him. As a Republican strategist, who worked on campaigns for GOP powerhouses like Giuliani, Rubio, and Cruz, (among many others) he denies the idea that Trump even resembles a conservative. Wilson alludes to how electing Trump delegitimized the Republican establishment, by throwing away dignity, vision, and bipartisanship. Wilson claims that Trump’s nationalist and authoritarian tendencies are part of what puts him at such odds with previous Republicans. He claims Trump took on the title of conservative as a convenience. Wilson argues that Trump laughs in the face of equality, rule of law, and even the constitution. These issues are what inspired Wilson, and those who think like him to join the “Never Trump” movement. They cite that country comes before party, and that Trump does not support their conservative agenda. These practices show how divided even just the Republican Party became in 2016. Trump as an individual was a candidate unlike any before him. He changed the precedent for what is required for a presidential candidate, and he won while doing so.

Because of this truly unconventional nature of this election, it became clear that an understanding of Trump’s effect specifically became necessary. This is what led to the creation of the Trump specific variable. This measure was constructed as an attempt to understand Trump’s own effect on the election. Because of America’s two party voting system, people tend to vote along their established party lines. This measurement was created by subtracting the Republican vote share in 2012 from the Republican vote share in 2016. Meaning the change is
what was inspired specifically by Trump. As stated before in chapter 3, this is not a perfect measure for the passion Trump stimulated. There are plenty of lifelong Republicans who have voted red in every election they have been eligible to, who became Trump’s biggest supporters. However it gives an attempt at understanding his popularity at a macro level. As a result of this new variable, the regression model was based on the following equation:

\[ y = \beta_0 + \beta_1(x_1) + \beta_2(x_2) + \beta_3(x_3) + \beta_4(x_4 \cdot x_5) + \beta_6(x_6) \]

Where:  
- \( y \) = Republican vote share in 2016
- \( x_1 \) = Per Capita Net Federal Assistance
- \( x_2 \) = Education rate in 2016
- \( x_3 \) = Poverty rate in 2016
- \( x_4 \) = Unemployment rate in 2016
- \( x_5 \) = Economic anxiety measure
- \( x_6 \) = Trump specific popularity

**Figure 2: Breakdown of the Trump Specific Variable**

![Source: The American Presidency Project, University of California Santa Barbara](image_url)
Figure 2 shows the statistical breakdown of the new Trump specific variable. Each value point represents a difference in vote share. A positive value means an increase in Republican vote share when Trump ran, and a negative value implies the opposite. From this histogram we can see that the most change made was relatively small, with the biggest changes being less than a single vote share points. This occurs at both ends of the spectrum, where Trump saw a gain in certain counties by as much as .138137, and saw a loss of as much as .115345. However the positive value of the mean and median is something noteworthy. These values imply that as a whole, when looking at Republican voters, a higher amount turned out for Trump.

**III.C. CLINTON SPECIFIC**

As mentioned earlier, the vote share measure is not one where only the people who cast ballots are accounted for. It is the actual number of votes divided by the population, so the actual percentage of how many people in that county voted for that candidate or party. It is also important to consider that even though practically this is a two party system, people can vote for other candidates. Third-party candidates like Jill Stein and Gary Johnson found a small popularity among certain American voters. Because of the nature of this measurement, it became clear to control for Democratic vote share. However Democratic vote share was not properly measuring what needed to be controlled for. It was not the general Democratic population, but rather the popularity of Hillary Clinton. Because this is looking specifically at 2016, and not the established Democratic Party, her specific effect on the Democratic vote share became worth noticing. It also should be noted that when looking at Clinton’s specific proposal for monetary policy and taxation, one can notice it is in line with the presumed nature of the liberal attitude towards fiscal federalism. Haughton et al (2017) compare her proposal to that which was proposed by Trump and find that each attempts to emulate what one would expect from their
parties. While Clinton was speaking about increasing tax revenue, and funding government programming, Trump was discussing tax cuts that were targeted to help the rich. These proposals fall into line with the mentality that voting Democratic would be a vote for larger government intervention and increased spending. They also make sense considering the conservative agenda of smaller government power. Haughton et al go on to say that Clinton’s proposal was one of the most radical and progressive proposals advocated for by a major party candidate. This is another reason why a Clinton specific measure instead of just the general Democratic vote share was used. This addition lead to the final regression model equation.

Figure 3: Breakdown of the Clinton Specific Variable

Figure 3 depicts the statistical analysis of the Clinton specific vote share. This histogram breakdown of the Clinton specific variable differs from the Trump specific results. One thing immediately noticeable is that as whole, this graph holds much more negative values. Ranging from a minimum of -0.156391 to a maximum of 0.064905, these values are lower than the ones that can be seen in the Trump specific histogram. Additionally, it’s worthy to note that both the mean...
and median values for this variable are negative. This implies that on average, Clinton lost votes that Obama had in 2012. When comparing the two graphs it becomes evident that Trump was more popular among Republicans than Hillary was among Democrats.

After all of these variables had been worked out and introduced, the final equation used for the regression was as follows:

\[ y = \beta_0 + \beta_1(x_1) + \beta_2(x_2) + \beta_3(x_3) + \beta_4(x_4 \cdot x_5) + \beta_6(x_6) + \beta_7(x_7) \]

Where:  
\( y = \) Republican vote share in 2016  
\( x_1 = \) Per Capita Net Federal Assistance  
\( x_2 = \) Education rate in 2016  
\( x_3 = \) Poverty rate in 2016  
\( x_4 = \) Unemployment rate in 2016  
\( x_5 = \) Economic anxiety measure  
\( x_6 = \) Trump specific popularity  
\( x_7 = \) Clinton specific popularity

IV. CONCLUSION

This model has clearly evolved and changed to compensate for certain places where it was previously lacking. So many aspects and narratives that motivate voting patterns cannot be summed up in a single statistic. The original model was thought of as adequate until further research and testing was done. Constant evaluation of research is necessary to keep the scope of factors understood. The additions of the unemployment interaction term, the Trump specific variable, and the Clinton specific variable, were calculated measures attempting to account for some of these secondary narratives. These additions were an attempt to create a tighter and more
accurate understanding of the relationship this thesis is evaluating. In Chapter 4, an evaluation of
these additions, and their respective regression results can be found.
CHAPTER FOUR

ANALYSIS OF RESULTS

I. SECTION I: INTRODUCTION

This chapter contains a discussion of the data collected, an analysis of econometric results, and a discussion of their implications. The next section will outline the data, the sources they each came from, and the exact definition of each measure. The third section reports and evaluates the econometric regressions used. The fourth section is an evaluation of the final model used, and the findings it produces. This chapter concludes with a discussion of the implications of this thesis for the future of American politics.

II. SOURCES OF DATA

Data for this thesis were gathered on a county level basis, for every county in the United States with the exception of Virginia. The state of Virginia employs a different system for characterizing counties, and because of this variation this state was removed from the sample. The federal assistance measure was collected from USA Spending, the official source for spending data by the U.S. government. All of this data was measured in terms of U.S. dollars in fiscal year 2016. USA Spending holds data for many aspects of government spending, this data however was gathered from the assistance specific spending. They define this measure as “A federal program, service, or activity that directly aids organizations, individuals, or state/local/tribal governments. Sectors include education, health, public safety and public welfare - to name a few. Financial assistance is distributed in many forms, including grants, loans, direct payments, or insurance.” (USA Spending, 2019) Other forms of government spending may include contracted work, in which the government hires a private company for a goods or services. This measure did not want to capture that aspect of federal spending, only the portion
that was directly linked with social welfare and programming. The reasoning behind this decision is linked to the rhetoric used in the 2016 election surrounding “socialism.” The more extreme liberals, like Bernie Sanders, advocating for social programming, became the major point of contention for the modern conservative movement. This programming included welfare programming from relieving student debt, to increasing healthcare coverage. This became the objection point, not government sponsored contracts, but federal funded programming. That is why this specific measure was used as the main independent variable.

The election data was collected from the American Presidency Project, a program run out of University of California Santa Barbara. The election data gathered were votes cast for each candidate in every county, for both 2016, and 2012. Out of these measures, the vote share, and candidate specific variables were created. The vote share variables were constructed by dividing the vote count by the population of the county. The candidate specific variables were created by looking at the difference in vote share from 2012, to 2016.

The poverty, population, unemployment, and education data were all collected from the United States Department of Agriculture, specifically from their economic research service. All of these measures were calculated for 2016, for each county. Poverty was measured by the percentage of people in each county living below the poverty line. Population was measured as the number of people living in that county that year. Unemployment was measured as the percentage of people considered “unemployed” in the year 2016, and 2006. Education was defined as the percentage of people who had completed a college degree. The unemployment data were also used in the creation of the economic anxiety variable, which was constructed by looking at the difference in unemployment from 2006 until 2016. See appendix for summary statistics on each of these variables.
III. PRELIMINARY REGRESSIONS

For the first, baseline regression, (Regression I) the main independent variable is Per Capita Net Federal assistance, meaning the per capita federal assistance minus per capita tax revenue. The dependent variable is Republican vote share in 2016. The other independent control variables are 2016 unemployment rates, education rates, and poverty rates in each county. It can be seen here that the per capita net federal assistance plays a statistically significant role, positive role, implying that counties with higher shares of net federal assistance, vote more Republican. All the controls play a statistically significant role, all maintaining negative relationships with Republican vote share. Implying that the higher unemployment, more educated, and higher poverty rates the less likely the county was to vote Republican.

When looking at the corresponding correlation matrix for this regression (Figure 4.) One can notice a few things. Specifically what to look for is the relationship between per capita net federal assistance and the other controls accounted for. This understanding leads for a more in depth analysis of who is using this federal assistance. With this understanding, a better idea of the narratives embraced by voters in 2016 can be reached. The central point of this thesis is an understanding of voter motivation; a better idea of what contributes to net federal assistance will help with this understanding. One can notice that per capita net federal assistance is positive correlated with poverty, and unemployment in 2016. This should be no surprise as one would expect counties that are struggling, fiscally, to be more in need of federal assistance. Education however is negatively correlated with per capita net federal assistance. Once again this makes sense, as those counties that have a higher educated population can be expected to perform better, and therefore require less in federal funding. One should hypothetically think that the relationships these controls have with net per capita federal assistance should correspond with
the relationships with Republican vote share. The fact that they do not is a point of interest worth investigating.

Regression II replaces the original unemployment rate with the economic anxiety factor in the regression. Once again, per capita net federal assistance holds a statistically significant positive role. Education and poverty rates both remain statistically significant with negative coefficients. The economic anxiety variable has a statistically significant effect, the higher economic anxiety the higher the Republican vote share in each county. Interestingly enough it is the opposite sign as the unemployment coefficient from the last regression. Though this value is statistically significant, so was unemployment alone in 2016. Perhaps this measurement alone does not adequately encompass the “Make America Great Again” sentiment that people in struggling counties felt and connected to. The correlation matrix (Figure 5) for this regression was evaluated as well, poverty and education maintain their established correlation signs with the per capita net federal assistance measure. However, an important aspect to notice is that the economic anxiety factor also holds a positive correlation with per capita net federal assistance. Once again, the implications behind this make sense, the harder time a county is having, the more they can be expected to need federal assistance and less capable of tax payment they are.

When looking further into the economic anxiety factor, understanding its relevance to the 2016 unemployment rate is incredibly important. (Figure 1) The fact that both of these variables hold statistical significance implies that their importance should not be overlooked. Obviously both unemployment rates and the economic anxiety factor are going to be related to each other, as the economic anxiety factor is based on change in unemployment from 2006 to 2016. However noticing discrepancies between the two is important for understanding exactly where the connection comes in. With this new understanding a better perception of how to treat them to
achieve a proper scope of information, and not just one piece of the story. This is why an interaction variable needed to be created, in order to account for both the true state of unemployment in a singular county.

Regression III depicts this new regression, accounting for this interaction variable. One can notice that this new interaction term holds a positive coefficient value, yet does not hold statistically significance. Without statistical significance, it becomes clear that the true nature of this variable’s effect, or even its existence on Republican vote share is unknown. However it is notable that the other control variables hold their value and their statistical significance. Even when accounting for both historical and current unemployment, per capita net federal assistance, education, and poverty rates still clearly affect how Americans voted in 2016. Further understanding as to how exactly this new variable interacts with the other controls requires another covariance matrix. The correlation matrix (Figure 6) has values that preserve previous correlations between per capita net federal assistance and poverty and education. This new unemployment interaction term also holds a positive relationship with per capita net federal assistance, which once again makes sense in the context of its meaning.

Regression IV includes this new Trump specific variable. One can notice that the coefficient for this variable is positive, as would be expected. It is also statistically significant, meaning that an increase in the Trump specific vote increased the Republican vote share of that county in 2016. Once again though, this factor is somewhat problematic in the sense that it does not truly capture the passion many Trump voters feel. Some may be citizens who always have voted for Republicans, but were especially excited about Trump, unfortunately there is no way to measure how a specific individual feels. This can be seen a bit in Figure 7. This graph shows the relationship between the Republican vote share in 2012, 2016, and the Trump specific factor.
The green line for the Trump specific factor represents the difference between the two other lines, one can notice that this difference in certain places can be minimal even if the Republican voter turnout remained relatively very high. A noteworthy observation is that per capita net federal assistance remains the same even when controlling for the Trump specific voters. The variable holds its positive value and statistical significance.

**Figure 7: Republican Vote Share 2016 vs Republican Vote Share 2012 vs Trump Specific**

An interesting occurrence appears when studying this regression’s correlation matrix (Figure 8.) One can notice that the Trump specific variable is positive correlated with the per capita net federal assistance. This makes sense, knowing that it shares the same correlation sign as the Republican vote share measure. However, it once again brings into question the true narrative that motivated people to vote for Trump. With a rhetoric so heavily discussing the dangers of socialism, and cuts for federal funding, one would expect not only a negative correlation to per capita net federal assistance, but one even more negative than the general Republican vote share. Though the Trump specific correlation takes a lower value, it still
maintains a positive relationship. This goes back to the almost hypocritical nature of this election. Trump can be so outspoken on the dangers of government spending, yet counties who generated excitement for him tended to have a higher per capita net federal assistance.

So far all the regressions have been heavily focused on the Republican vote share, ignoring the other major political party. Regression V introduces the Democratic vote share as a control variable. One can notice that the Democratic vote share is also a statistically significant value, with a t-Statistic of -36.94071. This value holds a negative value which should be expected. However it should be mentioned that the Democratic vote share and Republican vote share are not mutually exclusive. In addition, it is important to note that adding them together will also not give you 100%. This vote share data was calculated as the number of specific votes allocated to a party divided by the population. This means that a large section of people are not affected- the non-voters. Voter turnout in 2016 was estimated to be around 55.7%. (Pew Research Center, 2018) The remaining population however still pays taxes and reaps benefits from federal assistance. The vote share accounts for active participants in the political system. By accounting for the Democratic vote share, one can observe a new covariance matrix and understand the relationship between these factors and voting. Something worth taking notice of is the robustness of the per capita net federal assistance variable. It continues to remain positive and statistically significant through every regression run.

This correlation matrix (Figure 9) may introduce the most interesting narrative thus far. One can notice that the correlation values held by the Democratic vote share measure tell the story of the other side of the aisle. Specifically one can notice that the per capita net federal assistance variable holds a negative correlation to the Democratic vote share. This implies that counties with a higher Democratic population are also counties that tend to have a lower net
federal assistance. This means these counties either pay more in taxes or receive less in federal assistance, or perhaps a combination of both. This seems to be at odds with the philosophy of the Democratic Party, and the liberal movement. A question is raised as to if this comes from altruism, where these people are willing to sacrifice so others have a means of staying afloat. Democratic vote share is also positively linked with education, meaning counties with a higher percentage of college educated adults were more likely to vote blue in 2016. Another interesting aspect of this correlation matrix is the negative correlation that poverty, and the unemployment interaction variable, share with Democratic vote share. The fact that these measures hold negative correlations with Democratic vote share and Republican vote share may mean that the impoverished part of the United States may be less politically active.

When looking into this regression however, it raises the question as to if the total Democratic vote share is a useful control or if it would be better to utilize a Clinton specific measurement instead. Clinton in many ways served as a foil to Trump. She was established, had a long history in politics, and was much more restrained. Perhaps the Clinton specific measurement would be a better way of controlling for mentalities in the 2016 election rather than the general Democratic vote share. Again this measurement is not perfect, many of Clinton’s biggest supporters have been lifelong Democrats. But this Clinton specific variable reflects the fringe voters, and those that could be swayed by a single candidate. Perhaps replacing the general Democratic vote share with the Clinton specific variable would allow for a better scope of the American voter’s mentality in 2016.
This final regression shows some interesting discrepancies from previous regressions. Namely, when controlling for Trump and Clinton specific changes, the interaction unemployment variable now takes a statistically significant positive value. This goes in line with the story the variable is attempting to tell, that which is a connection to the “Make America Great Again” mentality. The Trump specific and Clinton specific controls act exactly how one would expect them to act. The Trump specific variable holds a positive statistically significant coefficient with Republican vote share. The Clinton specific measure holds a negative
statistically significant coefficient with Republican vote share. Education and poverty remain to hold statistically significant negative relationships, meaning that throughout all the regressions, the more educated or the more impoverished a county is, the lower their Republican vote share. But the most important key takeaway from all these regressions is the positive robust relationship between per capita net federal assistance and Republican vote share in 2016.

The final correlation matrix (Figure 10) shows the correlation relationship between all of these final factors. Notably, per capita net federal assistance maintains its positive correlation for both Republican vote share in 2016, and the Trump specific measure. This robustness of these relationships is astounding. In every regression one can notice that there is a positive relationship between net per capita federal assistance and Republican vote share in 2016. In every correlation matrix, both the Republican vote share measures hold positive correlations with per capita net federal assistance as well. These findings speak to the heart of this thesis, and the understanding of the American voter in 2016. One can also notice that the Clinton specific variable holds a negative correlation with per capita net federal assistance, implying that the counties that were specifically excited about Clinton in 2016 may have been those that are the most altruistic in a fiscal federalism sense.

The final finding worth pointing out is the correlation between the Clinton specific variable and the Trump specific variable. This negative correlation could mean one of two things. As previously mentioned, these vote share measures are not mutually exclusive, but rather the share of the population in that county who voted for these parties in 2016. These variables share a negative correlation. This could mean one of two things. The first is that the counties that were the most passionate about Trump, were also the ones the most negative about Clinton. This could lead to established Democrats to avoid coming out on Election Day for
Hillary Clinton. (The reciprocal also applies.) This makes sense in the sense that the rhetoric was so aggressively negative and partisan in this election. The other explanation lays with a popular narrative portrayed by the media. Tavernise and Gebeloff (2018) reference the swing voters who went from Obama voters in 2012, to Trump voters in 2016. Perhaps the appeal of Trump even swayed some previous Democrats. This could be the other explanation regarding this negative correlation.

V. IMPLICATIONS

These results are in some senses, shocking. The American ideal is that a vote is cast for the policies and ideas that align most with someone’s personal philosophy. With that thought known, it implies that the votes cast in 2016 were inspired by other messages besides that of fiscal federalism. It is no secret that Trump had many major messages he shared. Voters must have been inspired by one of the other things he advocated for. His aggressive stance on immigration for example became a shining light of his campaign, cries of “Build that Wall” and fear mongering about illegal immigrants became common place at his rallies. Many may have connected with his attitude towards women. The controversy regarding locker room talk, and anti-abortion rhetoric was surely a point of connection for many voters. Especially with the support of pro-life evangelical champion Mike Pence on his ballot. Perhaps the true connection came from Trump’s inability to succumb to political correctness. He never spared anyone’s feelings. His apparent tolerance of alt-right, and white nationalist movements may have also inspired some of his voters to follow him. Some are seeing this country getting more diverse, and their vote for Trump was their attempt to compensate for it. The angry attitude he put on to the “liberal media” fed into the anger many Americans must have felt, watching their country changing before their eyes. Trump’s strong man, near authoritarian, temperament undoubtedly
swayed some voters. Many were seeking a president who would not back down, who would put America first, even at the expense of the rest of the world.

These findings are in line with the understanding of a Trump voter presented by Askisson and Peach (2018.) They discovered that the things that drew voters to Trump, specifically in Texas, a big red state, was his anti-immigration stance. This was a problem that they felt took precedence over any other issue. Askisson and Peach also found that many cited Trump’s style of speaking as the main factor that drew them in. Many referred to Trump as “manly” and “tough” as someone who would not take nonsense from anyone, or any other institution. Setzler and Yanus (2018) had similar findings when they analyzed Trump voters. They found that when compared to those who opposed Trump, they displayed higher sentiments of sexism, racism, and nationalism. This analysis contributes to the precedent that the other narratives which were set forth by Trump were the really the motivating factors that inspired the Republican victory in 2016. Frank (2004) also speaks to these motivators. Specifically he zeros in on the social issues that have captured the heart of many American conservatives. These issues being abortion and gay marriage. The GOP has occupied this space, and by championing against these social issues, have drawn in Americans to support their agenda, even if it means voting against their own self-interest. This was an election that was decided because of feelings of inclusion, the mirage of a party representing a certain group of people, while actual fighting against the interest of those same people.

The one thing that these results show is that most voters were not voting because of the GOP’s stance on fiscal federalism. Even with all the cries about socialism, and the fear that the United States may become the next Venezuela, these red counties have no problem receiving government assistance, and not paying back to compensate for it. These other narratives much
more adequately explain those who voted Republican in 2016, because the actions of their counties prove that this was not an election based on fiscal or monetary policy. One thing is for sure, as Wilson (2018) mentioned, this was an election rooted in feelings and emotion, not necessarily policy. Trump appealed to the vexation of many Americans, he found his “silent majority.” For those who were too afraid to voice their opinions or viewpoints, Trump became their microphone. This election has clearly left the country more divided than ever, as the anger Trump has ignited in many does not seem to be dying down any time soon.

VI. NOTES ON OUTLIERS

When looking at the counties, a few appeared as outliers. Specifically, counties who received FEMA payments in 2016. This additional influx of federal payments, supplemented by a cut in taxes, lead to these counties having a much higher net federal assistance measure. Obviously these are outliers as a result of unorthodox issues, but not necessarily completely unlikely ones. However, because they act as outliers in the study, it became interesting to see if excluding these counties would result in a change in regression results. Regression VI employs this action. One can notice that for the most part the results remain the same. The coefficient values, and statistical significance of every measure continue to hold their old values. The R-Squared value also stays somewhat similar as the previous regressions. The only noteworthy aspect of this change, is the coefficient value for the per capita net federal assistance. This coefficient value increases by more than double, implying that when the outliers are not included, this relationship is even stronger than previously suspected.
CHAPTER FIVE

CONCLUSION

I. SUMMARY OF FINDINGS AND EVALUATION OF AMERICAN POLITICS

The results of this research show that there is a discrepancy between voters’ political leaning and actual practices they may engage in. The problem occurs when voters find themselves aligned with a political party that may represent them in certain issues, but does not adequately advocate for other matters they connect with. This can lead to a large group of Americans feeling as though they are not truly being represented. The American political system is clearly not a perfect one. These findings show some of the shortcomings of American politics. This disparity many voters may feel could be a result of one or more of these many shortcomings.

To begin with, the US has one of the lowest voter turnout rates in the developed world. Voter participation is not as heavily encouraged as it is in other countries. For one thing, barriers have been set that make it harder for people to vote. Many other democracies have automatic voter registration, in which citizens are already enrolled in the eligible voting population when they reach a certain age. The US not only requires active voter registration, but in some areas there are additional requirements before a person can enter a voting booth. Voter ID laws in certain places only allow voters to participate in elections if they provide photo identification. These laws that prevent votes, disproportionately affect those of lower socioeconomic status, making it harder for their voices and thoughts to be heard within the political sphere. This lack of representation for certain populations, or the hoops certain people are required to jump through, only cause lower participation and a more limited conversation.
Another major shortcoming of the American political system is the presence of a two-party system. This structure of choosing between either Democrat or Republican is highly problematic when one feels as though neither candidate, or party properly represents them. Indeed, there are third-parties, but the likelihood of them winning a general presidential election is practically zero. This is a result of the first-past-the-post voting system that the US utilizes. This system means that every citizen has one vote to cast. This system will always result in two major political parties taking all the power. Even if the United States began with over ten political parties, the nature of first-past-the-post voting will always end up culminating in two major parties. It also results in votes for third-party candidates being “runoff candidates.” This phenomenon occurs when a person places a vote for a third party candidate they may prefer to the two main candidates. Unfortunately though when a third party candidate cannot practically overcome the major candidates, it results in a vote that could be allocated to a major candidate to be taken away. This practice can help with the election of the major candidate the voter aligns with even less. For example, in 2016 many voters found themselves voting for Jill Stein, the Green Party presidential candidate. Out of the two major party candidates, the majority of Jill Stein voters would probably rather have Hillary Clinton in the White House instead of Donald Trump. However when casting a vote for Jill Stein, a vote was taken away from Hillary Clinton. Here lays the problem with third-party voting in a first-past-the-post voting system. This problem does not have an easy fix, but a different method of voting may prevent these problems from existing. One example is a ranking system, in which voters can rank their preferences of different candidates, rather than only choosing one. This system has been implemented in other countries, and results in higher diversity of political party representation, and a better understanding of diverse schools of thought.
The final problem with the American democracy comes with one of the most controversial institutions, the Electoral College. The Electoral College was put in place when the constitution was first written, as a preventive measure to make sure the people’s votes are properly voiced, and that small states are not overlooked. However, at this point in the country’s history, this system may be more destructive than constructive. 2016 was the third time a President was elected without winning the popular vote. (The other two times were Benjamin Harrison in 1888 and George W. Bush in 2000.) The Electoral College may have been necessary at the creation of the USA, but at this point it may be outdated. Obviously, fixing the innate problems in the American electoral system is not an easy task, nor will there be a seamless transition to new policies. However, these changes may provide the United States with a more democratic and representative structure.

II. SUGGESTIONS FOR FUTURE RESEARCH

Though this thesis has developed some interesting conclusions, much on the topic is still left to be explored. The first point of interest is in a potential reverse causality. Though this thesis assumes that a person casts a vote based on their beliefs, conceivably their beliefs could be shaped by their votes instead. It may be interesting to reverse the dependent and independent variables, and see the effect that Republican vote share has on net federal assistance in each county.

It also may be interesting to account for economic inequality. Even though poverty and unemployment have been taken into consideration, the full picture of the economic state of the county may not be entirely comprehended without a better view at the contrast a county may face. Having a population where there is both wealth and poverty may cause for a county to engage in a different composition of both tax policy and government funded programming. If
one were able to measure the inequality of wealth and/or income within a county it may be an interesting control measure.

Another interesting control may be a measurement for the characteristics of each county. Specifically, the rural or urban nature of a county. This may encompass major differences in attitudes, job composition, race, and socio-economic status of a county. All of these aspects may play a role in voting patterns, and beliefs of people inside that county. Even in one state one can notice major differences in these characteristics. New York for example, home to the biggest city in the United States, also has a huge rural population. These areas of the state operate completely differently from each other. Everything from tax policy, to spending efforts are varied. There is major variety in terms of how counties function as a result of these rural or urban characteristics. Controlling for these differences may be an interesting edition to the econometric results.

Additionally, a problem referenced earlier in this thesis was the measure for passion regarding the 2016 candidates. This clearly was an election that was dictated more so by feelings and emotion, than policy and established political history. As mentioned before the Trump-specific and Clinton-specific variable attempt to encompass these sentiments of passion and emotion. However these variables are incredibly imperfect. Some of the most passionate people in this election were lifelong supporters of their political party, meaning they would have voted the same way in previous elections. If there was a better measure as to how one voter felt about the candidates, outside of looking at their county’s previous voting record, it would be a great addition for a control.

III. CONCLUDING REMARKS

Overall this thesis has demonstrated that elections and voting are much more complex than one may have previously thought. A large and varied combination of reasons and rationale
contribute to every person’s decision to cast a vote. Clearly some Americans are comfortable voting against their own self-interests, if it means achieving other goals. Or perhaps a voter may not see it as their own self-interest. Much of the rhetoric in 2016, and modern politics as a whole, has been about alienating “the other.” Voters see these programs as helping someone on the opposite side of the country. These programs, in their minds, are for people who do not look like them, do not sound like the, and do not agree with them. Many hear the words used in 2016, and believe there is no way that could be describing them or anyone they know. This could explain the voting against one’s self interest, in the sense they do not see it that way.

The major message to be taken from this is that a deeper understanding of every American’s needs must be reached. Every day people are being affected by policies being put in place- whether it be food stamps, or health care, this country has people who feel the consequences of every decision. It means that people need to be more politically active, for their true voices to be heard. A great example of this need for political action occurred when discussion of repealing the Affordable Care Act resulted in town halls all through the country. These town halls contained concerned citizens, who were feeling the repercussions of policy decisions, and decided to fight for their own needs. America needs more active participation in politics, in conversation, and in understanding one another. This is not a country filled with people who are so unlike each other. Working past differences, coming to a realization that Americans all over the country struggle with similar things, may lead to a better political climate. The country needs less fear of “the other,” more unity, and politicians that advocate for that.
REFERENCES


APPENDIX A
Regression I

\( y = \) Republican vote share in 2016

\( x_1 = \) Per Capita Net Federal Assistance

\( x_2 = \) Unemployment rate in 2016

\( x_3 = \) Education rate in 2016

\( x_4 = \) Poverty rate in 2016

REREGRESSION I - Baseline

DEPENDENT VARIABLE: REPUBLICAN VOTE SHARE IN 2016

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R-squared      \( 0.309878 \)

Durbin-Watson \( 1.612527 \)

Observations \( 30003 \)

REREGRESSION I CORRELATION MATRIX

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APPENDIX B
Regression II

\( y = \) Republican vote share in 2016

\( x_1 = \) Per Capita Net Federal Assistance

\( x_2 = \) Economic Anxiety measure

\( x_3 = \) Education rate in 2016

\( x_4 = \) Poverty rate in 2016

REGRESSION II – EconAnx instead of Unemployment

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\( R \text{-squared} \) 0.289536

\( Durbin-Watson \) 1.553246

\( Observations \) 2996

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APPENDIX C
Regression III

\[ y = \text{Republican vote share in 2016} \]
\[ x_1 = \text{Per Capita Net Federal Assistance} \]
\[ x_2 = \text{Education rate in 2016} \]
\[ x_3 = \text{Poverty rate in 2016} \]
\[ x_4 = \text{Unemployment rate in 2016} \]
\[ x_5 = \text{Economic anxiety measure} \]

REGRESSION III – Unemployment Interaction Variable

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\[ Observations \] 2996

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<td>-0.48594</td>
<td>1.000000</td>
<td>0.239153</td>
</tr>
<tr>
<td>( x_4 \times x_5 )</td>
<td>-0.064098</td>
<td>0.035238</td>
<td>-0.119951</td>
<td>0.239153</td>
<td>1.000000</td>
</tr>
</tbody>
</table>
APPENDIX D
Regression IV

\[ y = \text{Republican vote share in 2016} \]
\[ x_1 = \text{Per Capita Net Federal Assistance} \]
\[ x_2 = \text{Education rate in 2016} \]
\[ x_3 = \text{Poverty rate in 2016} \]
\[ x_4 = \text{Unemployment rate in 2016} \]
\[ x_5 = \text{Economic anxiety measure} \]
\[ x_6 = \text{Trump specific popularity} \]

REgression IV – Introduction of Trump Specific Measure

DEPENDENT VARIABLE: REPUBLICAN VOTE SHARE IN 2016

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>( c )</td>
<td>0.420672</td>
<td>0.007749</td>
<td>54.28894</td>
<td>0.0000</td>
</tr>
<tr>
<td>( x_1 )</td>
<td>3.19E-07</td>
<td>6.96E-08</td>
<td>4.5837</td>
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</tr>
<tr>
<td>( x_2 )</td>
<td>-0.308000</td>
<td>0.018830</td>
<td>-16.35696</td>
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</tr>
<tr>
<td>( x_3 )</td>
<td>-0.006205</td>
<td>0.000248</td>
<td>-24.97082</td>
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</tr>
<tr>
<td>( x_4 * x_5 )</td>
<td>0.000149</td>
<td>0.000111</td>
<td>1.340778</td>
<td>0.1801</td>
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<tr>
<td>( x_6 )</td>
<td>0.855075</td>
<td>0.055430</td>
<td>15.42634</td>
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</tr>
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</table>

\( R \)-squared 0.340689

Durbin-Watson 1.565737

Observations 2996

REgression IV CORRELATION MATRIX

<table>
<thead>
<tr>
<th></th>
<th>( y )</th>
<th>( x_1 )</th>
<th>( x_2 )</th>
<th>( x_3 )</th>
<th>( x_4 * x_5 )</th>
<th>( x_7 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>( y  )</td>
<td>1.000000</td>
<td>0.08313495</td>
<td>-0.211192</td>
<td>-0.322793</td>
<td>-0.064098</td>
<td>0.443102</td>
</tr>
<tr>
<td>( x_1 )</td>
<td>0.083135</td>
<td>1.000000</td>
<td>-0.040805</td>
<td>0.031716</td>
<td>0.035238</td>
<td>0.058188</td>
</tr>
<tr>
<td>( x_2 )</td>
<td>-0.211192</td>
<td>-0.040805</td>
<td>1.000000</td>
<td>-0.485940</td>
<td>-0.119951</td>
<td>-0.399339</td>
</tr>
<tr>
<td>( x_3 )</td>
<td>-0.322793</td>
<td>0.031716</td>
<td>-0.485940</td>
<td>1.000000</td>
<td>0.239153</td>
<td>-0.092819</td>
</tr>
<tr>
<td>( x_4 * x_5 )</td>
<td>-0.064098</td>
<td>0.035238</td>
<td>-0.119951</td>
<td>0.239153</td>
<td>1.000000</td>
<td>-0.057079</td>
</tr>
<tr>
<td>( x_7 )</td>
<td>0.443102</td>
<td>0.058188</td>
<td>-0.399339</td>
<td>-0.092819</td>
<td>-0.057079</td>
<td>1.000000</td>
</tr>
</tbody>
</table>
APPENDIX E

Regression V

\[ y = \text{Republican vote share in 2016} \]

\[ x_1 = \text{Per Capita Net Federal Assistance} \]

\[ x_2 = \text{Education rate in 2016} \]

\[ x_3 = \text{Poverty rate in 2016} \]

\[ x_4 = \text{Unemployment rate in 2016} \]

\[ x_5 = \text{Economic anxiety measure} \]

\[ x_6 = \text{Democratic vote share in 2016} \]

REGRESSION V – Introduction of Democratic Vote Share Measure

DEPENDENT VARIABLE: REPUBLICAN VOTE SHARE IN 2016

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0.476352</td>
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<td>81.68734</td>
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</tr>
<tr>
<td>( x_1 )</td>
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<td>6.53E-08</td>
<td>5.014851</td>
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<tr>
<td>( x_2 )</td>
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</tr>
<tr>
<td>( x_3 )</td>
<td>-0.005600</td>
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</tr>
<tr>
<td>( x_4 \times x_5 )</td>
<td>-1.64E-05</td>
<td>0.000104</td>
<td>-0.0157690</td>
<td>0.8747</td>
</tr>
<tr>
<td>( x_6 )</td>
<td>-0.51131</td>
<td>0.019761</td>
<td>-25.87561</td>
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</tr>
</tbody>
</table>

\( R^2 \) = 0.418442

\( Durbin-Watson \) = 1.516189

\( Observations \) = 2996

REGRESSION V CORRELATION MATRIX

<table>
<thead>
<tr>
<th></th>
<th>( y )</th>
<th>( x_1 )</th>
<th>( x_2 )</th>
<th>( x_3 )</th>
<th>( x_4 \times x_5 )</th>
<th>( x_7 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>( y )</td>
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<td>0.083135</td>
<td>-0.211192</td>
<td>-0.322793</td>
<td>-0.064098</td>
<td>-0.538641</td>
</tr>
<tr>
<td>( x_1 )</td>
<td>0.083135</td>
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<td>0.031716</td>
<td>0.035238</td>
<td>-0.042349</td>
</tr>
<tr>
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<td>-0.040805</td>
<td>1.00000</td>
<td>-0.485940</td>
<td>-0.119951</td>
<td>0.505238</td>
</tr>
<tr>
<td>( x_3 )</td>
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<td>0.031716</td>
<td>-0.485940</td>
<td>1.00000</td>
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<td>-0.003534</td>
</tr>
<tr>
<td>( x_4 \times x_5 )</td>
<td>-0.064098</td>
<td>0.035238</td>
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<td>0.239153</td>
<td>1.00000</td>
<td>-0.029324</td>
</tr>
<tr>
<td>( x_7 )</td>
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<td>0.506238</td>
<td>-0.003534</td>
<td>-0.029324</td>
<td>1.00000</td>
</tr>
</tbody>
</table>
APPENDIX F
Regression VII

\[ y = \text{Republican vote share in 2016} \]

\[ x_1 = \text{Per Capita Net Federal Assistance} \]

\[ x_2 = \text{Education rate in 2016} \]

\[ x_3 = \text{Poverty rate in 2016} \]

\[ x_4 = \text{Unemployment rate in 2016} \]

\[ x_5 = \text{Economic anxiety measure} \]

\[ x_6 = \text{Trump specific popularity} \]

\[ x_7 = \text{Clinton specific popularity} \]

REGRESSION VII – Exclusion of FEMA Outlier Counties

**DEPENDENT VARIABLE: REPUBLICAN VOTE SHARE IN 2016**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>c</td>
<td>0.410967</td>
<td>0.008127</td>
<td>50.57000</td>
<td>0.0000</td>
</tr>
<tr>
<td>( x_1 )</td>
<td>6.52E-07</td>
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</tr>
<tr>
<td>( x_2 )</td>
<td>-0.287457</td>
<td>0.019659</td>
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<td>0.0000</td>
</tr>
<tr>
<td>( x_3 )</td>
<td>-0.006164</td>
<td>0.000248</td>
<td>-24.88102</td>
<td>0.0000</td>
</tr>
<tr>
<td>( x_4 ) * ( x_5 )</td>
<td>0.000205</td>
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<td>1.835786</td>
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</tr>
<tr>
<td>( x_6 )</td>
<td>0.794027</td>
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</table>

**R-Squared** 0.348902

**Durbin-Watson** 1.574704

**Observations** 2993