

THE ELECTION OF 2016 – POLITICAL SCIENCE 200C

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1 INTRODUCTION

1.1 AN ELECTION FOR THE AGES

From the first Presidential election in 1788 which saw George Washington unanimously elected to the election of Donald Trump in 2016, presidential elections have served as a cornerstone of American democracy and barometer of cultural attitudes. Yet, despite drastic changes in both demographics and the contentious issues surrounding the political climate of the time, some "universal truths" have remained in presidential elections. The influence of the economy, ethnicity, and religion have all been examples of factors that determine who will be chosen as President of the United States. So if salient divisions such as these run throughout all American elections what is it that makes a particular election monumental, or more specifically, surprising in the grand scheme of the nation's electoral history? Could it be the case that the vacancy of a supreme court seat and partisan control of the judiciary branch for a generation hung in the balance?¹ Was it the unprecedented unpopularity of the two major party candidates that drove unpredictable results?² Or was it the case that contrary to popular conception the results of the 2016 election should be unsurprising to those that understood the supposed "universal truths" of elections in the United States?

In order to really understand whether or not the presidential election of 2016 was unique in nature it is first necessary to place it in the correct historical context. By observing long term trends in major party dynamics and competition from the past century and the present we will be able to deduce whether or not similar longitudinal trends are present in the 2016 election as well. Through extensive statistical analysis and linear regression modeling this paper will seek to identify such trends and most importantly establish if the 2016 election was indeed one for the ages. Although history will have the last word, it still remains a contentious topic of conversation as to whether or not this election was lost by the Democrats or won by the Republicans. In order to best establish a burden of proof from the outset, this paper will

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mostly analyze this issue from the point of view of that it was indeed the Republicans who won the election of 2016. To this end, the data although structured in terms of Democratic Party vote shares, will be rearranged to reflect Republican Party vote shares by assuming that party voting in the United States is zero-sum. This assumption although not completely historically accurate – some may remember Ralph Nader and Ross Perot in particular – or presently accurate for the 2016 election which had unique independent party cases like that of Evan McMullin in Utah, is one that will increase the clarity of analysis and ease understanding of quantitative results. Ultimately this research hopes first to understand if and how the election of Donald J. Trump was different than previous presidents, and what, if any short term factors, propelled him to victory in 2016. The following analysis works to answer the former of these two very important questions.

2 THE ELECTION OF 2016 IN HISTORICAL CONTEXT

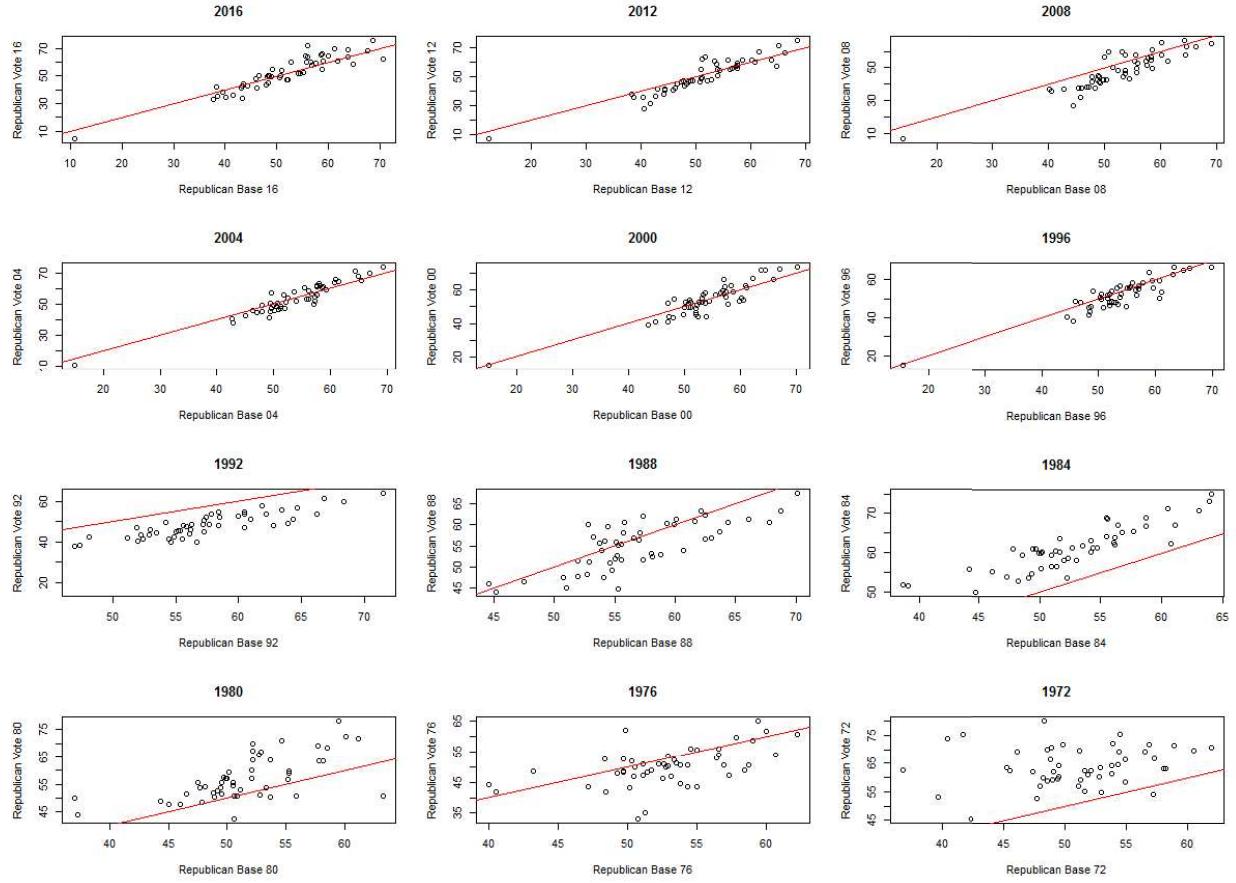
2.1 THE POLITICAL CONSOLIDATION OF A PARTY

Although the history of the Democratic and Republican Parties are extensive and richly documented, their more recent history, specifically from 1968 onward, will be the focus of this research from a data analysis perspective. 1968 was selected in particular due to its nature as a civil rights act protected election, which although not a panacea for minority vote suppression of the electorate, serves as a simple base-line for placing the electorate of 2016 in equal historical metrics in terms of the voting eligible population. Having established our baseline historical time horizon for comparison let us now answer the basic question of how has the Republican Party changed in presidential election performance over time. Presented on the following page is a series of data plots depicting the performance of the Republican Base versus the total Republican Vote in each presidential election since 1972.³

As can be observed from the results shown from plotting the Republican vote total against the Republican base total in figure one, since the 1972 election of Richard Nixon there appears to be a stark trend of consolidation. From 1972 to 1992 it appeared that there was certainly a level of discrepancy between Republican Party base voters ("Republican Base") and those individuals that voted Republican in the election ("Republican Vote"). In essence the prevalence of across the aisle or swing voting was much larger in these late twentieth century elections as opposed to more recent elections in the twenty-first century.

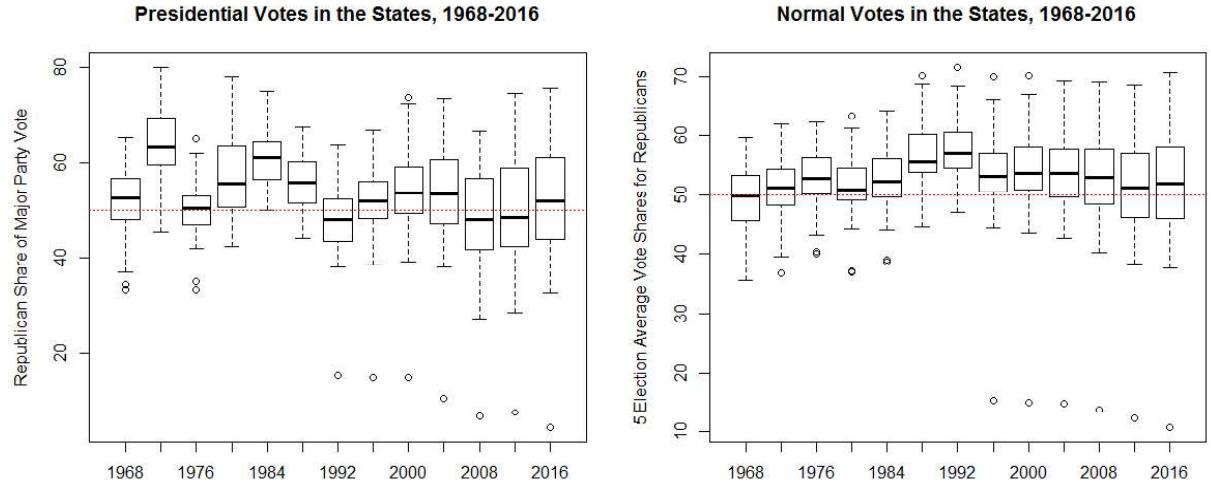
³The election of 1968 is excluded from the figure for figure aesthetic purposes but even with inclusion does not change the general trend of party consolidation

Figure 2.1: Political Consolidation of the Republican Party



The clustering of observations on the trend line for the elections between 1996 to 2016 is evidence of this consolidation where Republican Party base and non-base voters begin to become closer and closer to indistinguishable. However, it is important to note that consolidation in one of the two major political parties is equivalent to polarization between the two parties. As the Republican Party consolidates so too does the Democratic Party, slowly eliminating the once highly prevalent swing vote that traditionally characterized American presidential elections. The series of box-plots of Republican Party vote shares on the following page help to depict this trend over the 1968 to 2016 period. As can be observed from the box-plots, the medians of the Republican Party box-plots for the five year average vote share for Republicans seem to remain constant from 1994 to 2016 hovering slightly above the fiftieth percentile. This political consolidation also appears to carry through to the presidential vote shares in elections between 1994 to 2016, specifically in elections where Republican candidates won. This is in stark contrast to the volatility of the Republican Party vote shares between 1968 to 1992, when political polarization was not

Figure 2.2: Political Polarization from 1972 to 2016



as prevalent. However, even though we have established that political polarization is occurring we have yet to understand how this may have impacted the 2016 election. Since we have observed from 1994 onward political polarization has been prevalent in presidential elections it may be best to narrow the field of analysis momentarily and ask how the election of 2016 compare to or differ from this particular set of cases? Certainly the results that President Trump won the electoral vote while Hillary Clinton won the popular vote bring immediate comparison to the 2000 election of President George W. Bush in which the same scenario occurred albeit to a lesser extent.⁴ However, face-value comparisons are just that, face-value, and to get to the truth it will take a little more statistical digging.

3 BACK TO THE FUTURE – PLACING PRESIDENT TRUMP IN A POLARIZED ELECTORATE

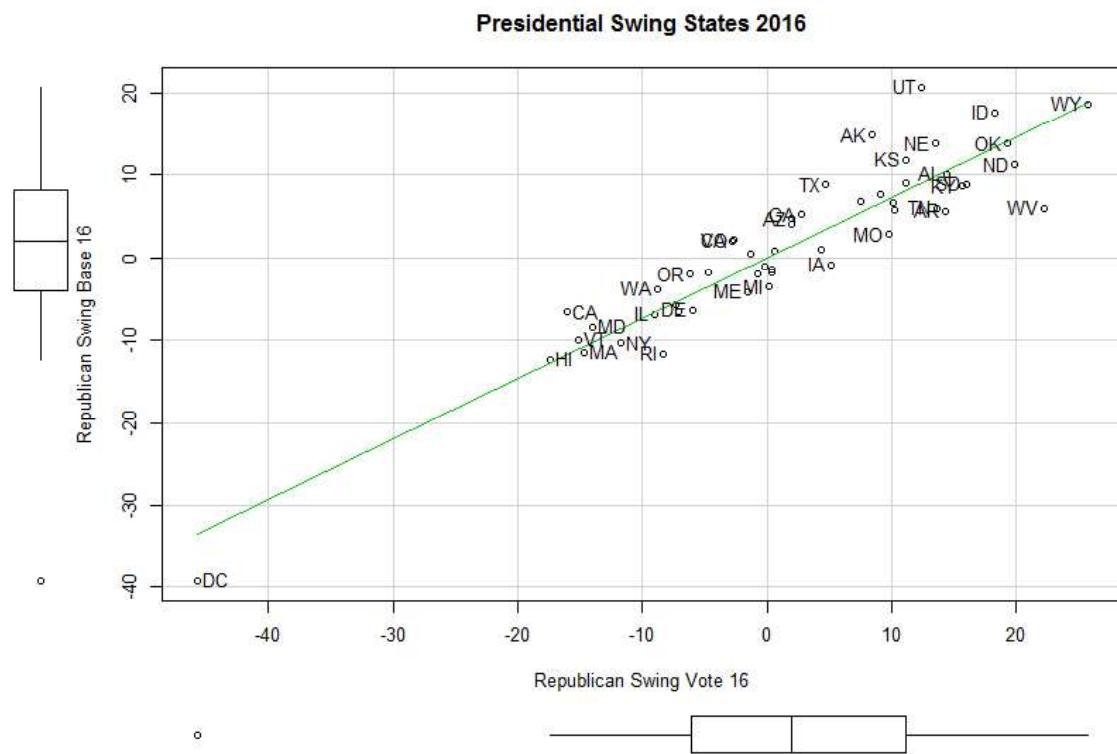
3.1 BUSH v. GORE AND TRUMP VS. CLINTON

Bush v. Gore captivated not only the nation but the entire world. From November 8, 2000 to December 9, 2000 the world watched as an intense legal battle unfolded in Florida between George W. Bush and Al Gore for the presidency of the United States of America. The case, and thus the election, was ultimately decided in a 5-4 decision in the United States Supreme Court in favor of now former President

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George W. Bush. Why was it that the election of 2000 came so close to the wire in the state of Florida? How could it be that the electoral college vote was so close that the election had to be decided by this singular state? Answering these questions may help to better understand President Trump's victory in 2016. Certainly the closeness of the 2000 election could potentially be explained by the political polarization of the country. Such polarization may have dramatically narrowed down the states which one party's candidate or the other could win. Further analyzing this concept of crucial "swing states" in American presidential elections is one that can help us better place the election of 2016 in context. In figure three we can observe the swing states in the 2016 election by seeing which cases do or do not lie close to 0.

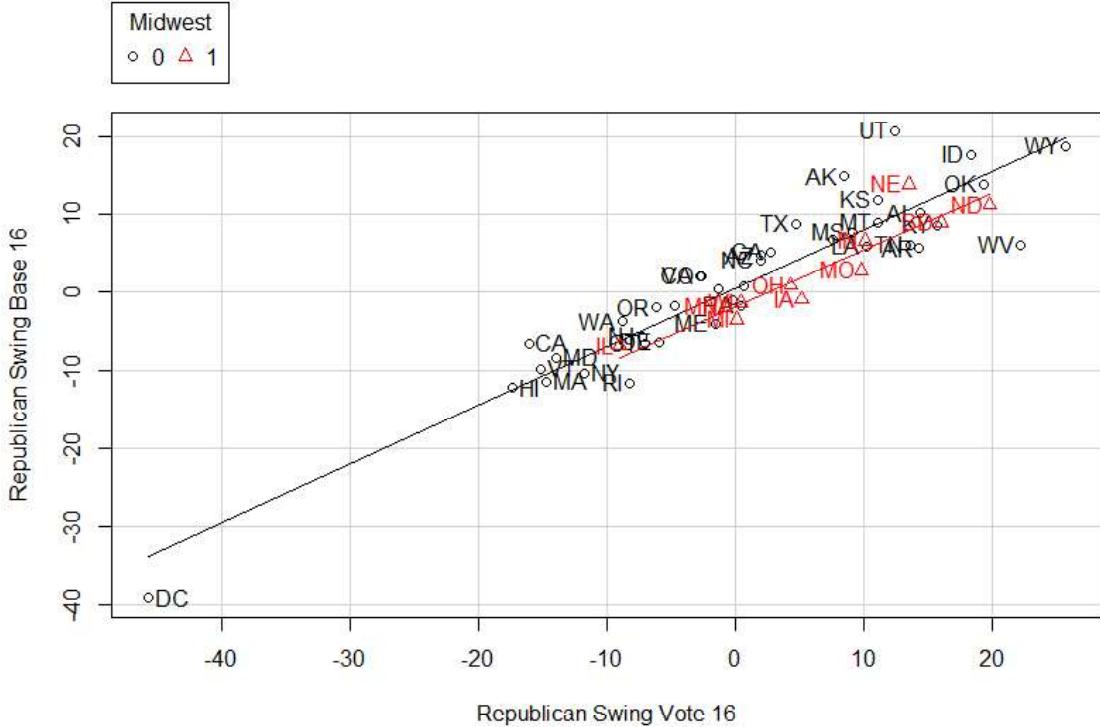
Figure 3.1: "Swing States" from 2016



States like Michigan, Ohio, Pennsylvania, and others in the Midwest were clearly competitive in 2016. This is also more clearly depicted in figure four after creating a dummy-variable known referred to as "Midwest" in which the twelve states identified as "Midwestern" by the United States Census Bureau are found in red.⁵

In stark contrast however, the Northeast and South remained very electorally noncompetitive. In pursuit of placing the 2016 election in historical context, this result begs the question as to whether or not these

Figure 3.2: "Midwest Swing States" from 2016

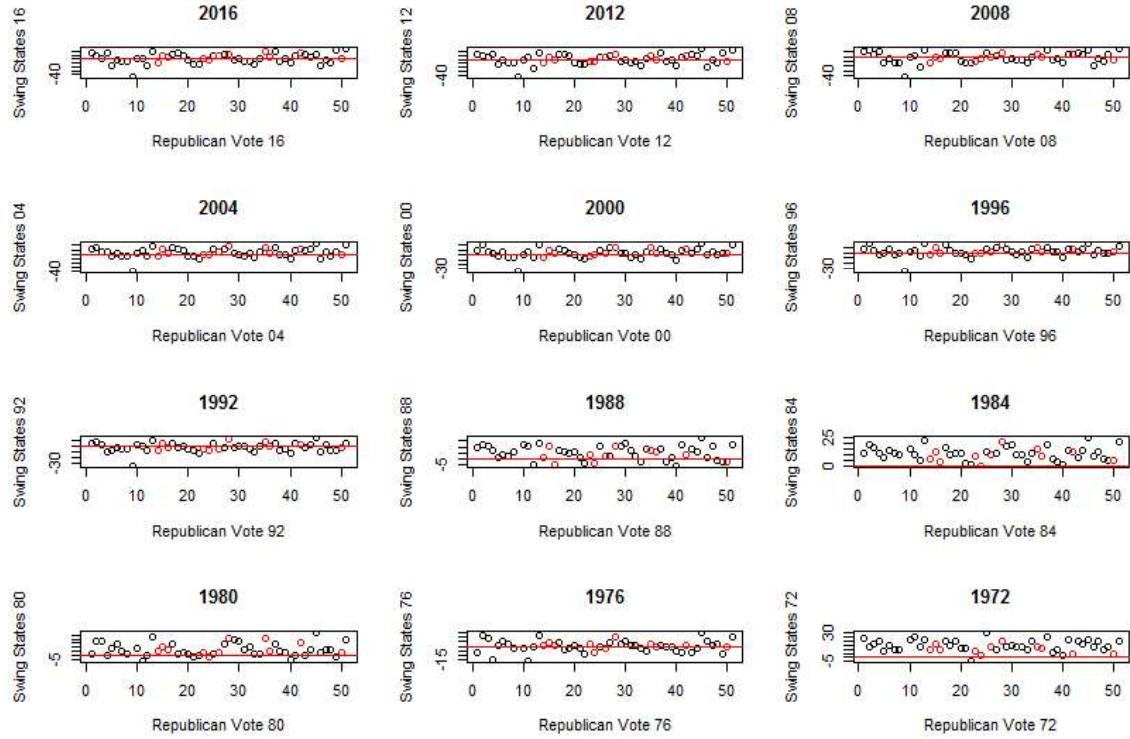


regions have always been non-competitive. As can be observed from figure five on the following page, we see that in general as time goes on there are fewer and fewer states that are competitive. In these plots electoral competitiveness of states are shown where the split between Republican and Democratic vote shares is close or equal to zero and the Midwestern states are shown as red.

It is clear that Midwestern states have not always been key swing states that have decided the election, however we again observe a trend of Midwestern states being very competitive electorally from 1996 to present as compared to other regions of the country like the South or Northeast. So if the the South and Northeast have been relatively noncompetitive from almost half a century, then it is not so uncommon that the winner of the 2016 election, President Trump, would had to have carried some of these Midwestern states. Yet unlike the 2000 election, in 2016 no such wire-thin margin for victory in the Electoral College existed. President Trump won 306 Electoral College votes as opposed to Hillary Clinton who won 232 Electoral College votes.⁶ Yet President Trump was decisively beat in the popular vote, but before we move on to this interesting development let us continue on with analyzing the ultimate decider of the presidency

⁶Technically speaking President Trump only received 304 Electoral College votes due to 2 Electoral College voters choosing not to honor their state's popular vote results.

Figure 3.3: Evolution of "Swing States" from 1972 to 2016

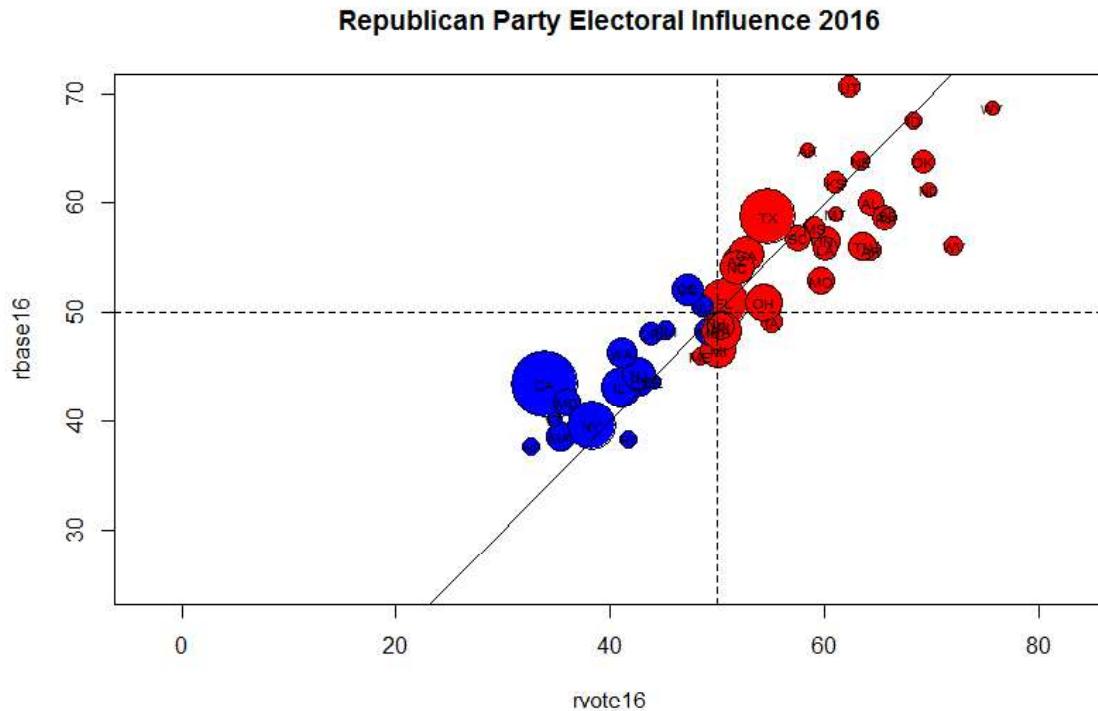


in the United States, the Electoral College.

3.2 ELECTORAL INFLUENCE

The 538 votes in the Electoral College allocated across the United States based on population data acquired in the U.S. Census. States with large population bases receive more Electoral College votes and vice-versa. This facet of American presidential elections makes party shares of a majority of Electoral College votes rather than total popular vote the key strategic factor in deciding elections. So how did the Republicans win the majority of the Electoral College votes in a highly polarized nation with few competitive states and simultaneously lose the popular vote in an unprecedented margin? Figure six helps give a preliminary picture as to how the events in 2016 unfolded. As can be seen in the chart, The Republican Party, pictured in red here, carried a majority of the electoral votes in competitive states, particularly as we discussed previously, the Midwest. However it is also important to note the radius of each state on the graph in figure six. The larger the radius, the larger the electoral influence in the election. Republicans as discovered earlier, carried the south – Texas is of particular influence here – while the Democrats carried

Figure 3.4: Republican Party Electoral Influence 2016

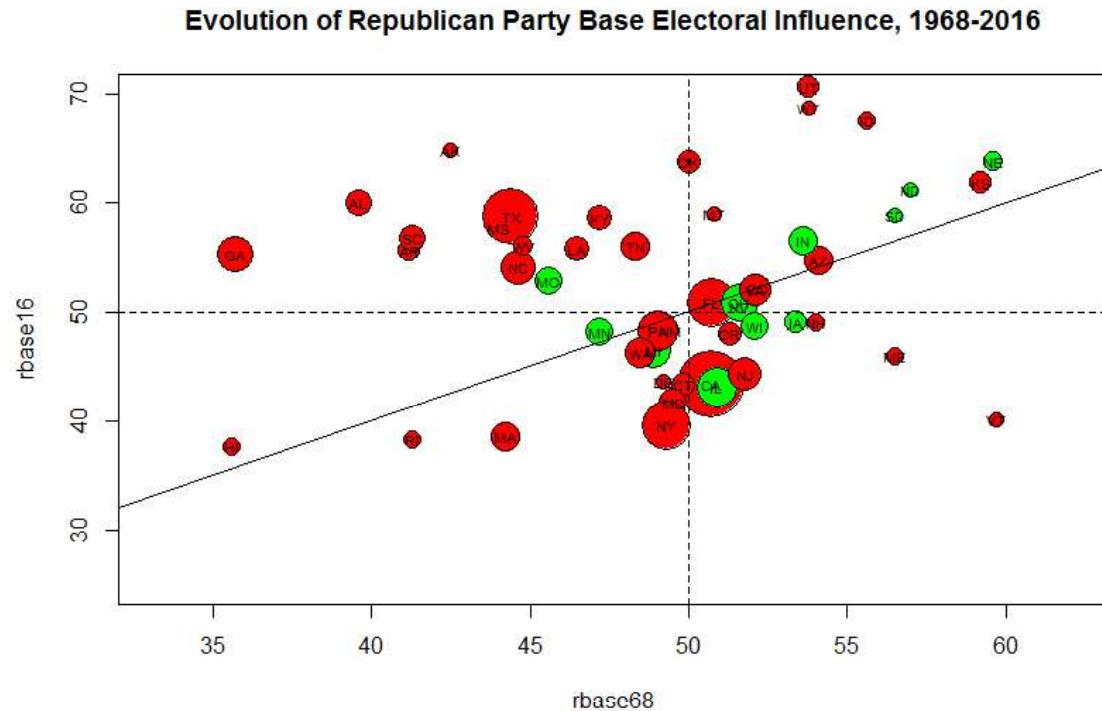


the Northeast.⁷ However, sticking to our main objective of placing the 2016 election in historical context, has the electoral map always looked like it did in 2016? Figure seven displays the evolution of Republican Party Electoral College influence from 1968 to 2016 with the Midwestern states marked in green. What is made clear from the graph is that the Southern states since 1968 have become resoundingly Republican. It appears Richard Nixon's "Southern Strategy" has indeed placed Republicans in an electoral monopoly over the region with around sixty percent base support that once did not exist.⁸. The Northeast, as expected, was not a stronghold for Republicans in recent electoral history but was certainly more competitive in 1968. The Midwest, the critical region in the 2016 election, seems to be a little more complex in its evolution since 1968. States like Wisconsin, Iowa, Michigan and Ohio have grown slightly as a republican base since 1968. Missouri and Minnesota appear to be somewhat deviant in the sense that they swung towards the Republican base since 1968. It appears the remaining Midwestern states remained unchanged in their places as Republican strongholds, although their relatively weak electoral influence

⁷California is also of particular importance in the electoral map but has not always been a bastion for Democratic Party victory, as was the case for Nixon, Ford, Reagan, and George H.W. Bush.

⁸Although President Jimmy Carter and President Bill Clinton would disagree based on their electoral roads to the White House

Figure 3.5: Republican Party Electoral Influence 2016



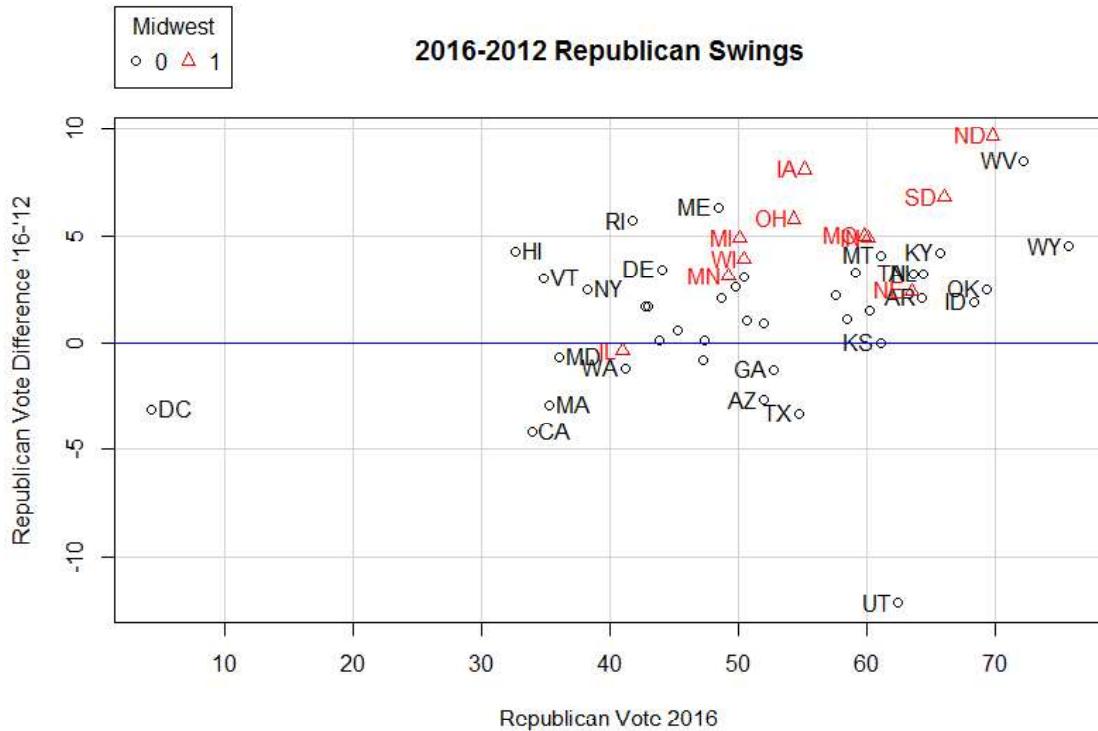
makes them somewhat inconsequential. Two other key states due to their electoral influence deserve mention as well: Florida and California. Florida, as was the case in 2000, has been a pivotal swing-state for a majority of time between 1968 to 2016. It does appear however, that it has remain mostly unchanged in its majority share base of support for Republicans during that same time period. California on the other hand, a massive electoral prize, has indeed declined massively in Republican base support since 1968. A state that was once carried by President Nixon, President Ford, President Reagan, and President George H.W. Bush has now become virtually out of play for Republicans in 2016. Although in some form of another all of these former Presidents that won California had some connection to it either as a political representative of vice-president of a former California political representative, it is clear base shifts have been significant in the area. However, as is expected, President Trump did not win California however he still won the election despite a seemingly complex smattering of Republican Party base support in the Midwest that did not necessarily –historically speaking – favor him. How is this possible? In order to answer this question it is now necessary to address the here and now rather than the historical context of President Trump’s victory.

4 FROM BOWIE TO THE CUBS – 2016 IN DEPTH

4.1 2016 ELECTION BREAKDOWN

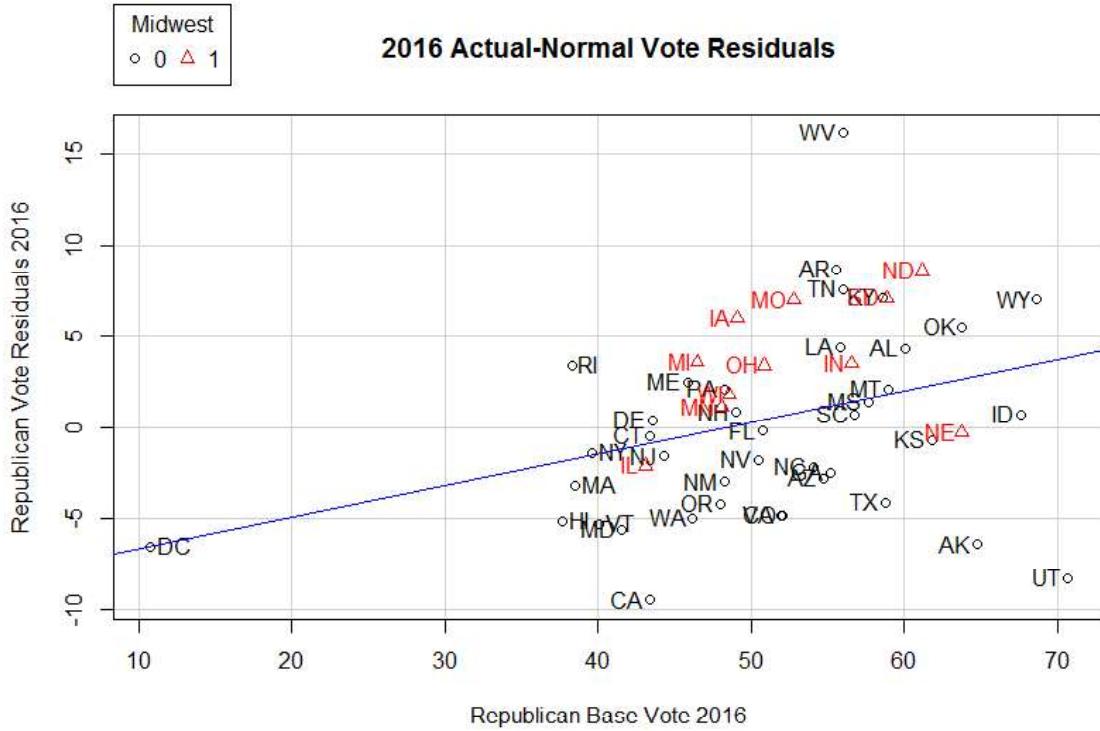
Beginning with the passing of David Bowie on January 10th to the ending of a century long World Series Championship drought for the Chicago Cubs on November 2nd 2016 was certainly a year to remember. Some would argue that the most unlikely of all events in this most chaotic of years was the election of Donald J. Trump. As we have shown previously in long term historical contexts his victory was not so out of the normal in terms of carrying the Midwest on a razor thin margin. So if historical context cannot fully explain Trump's election what was it about 2016 – aside from its supremely stochastic nature – that delivered the presidency to Donald Trump? Was the condition of the electorate in the United States that much different in 2012 than in 2016? Based on the vote splits between 2012 and 2016, things certainly

Figure 4.1: Republican Electoral Vote Changes from 2012-2016



seemed to have changed in the Midwest for the Republican Party. However, since we have already spent extensive time on past elections, lets take a deeper look into what happened in 2016 specifically for the Republican Party. Below is break down of the 2016 election in terms of base voters and new voters for the Republican Party and by extension Donald Trump.

Figure 4.2: Republican Vote Residuals from 2016



As we can see from the chart with the Midwestern states again depicted in Red, in 2016 new voters were heavily prominent for Republicans. As we know from previous analysis this region was indeed historically key for either candidate to win if they wanted to sit in the White House in January of 2017. To ensure that residuals can be analyzed further we can use a Q-Q plot to assess normality.

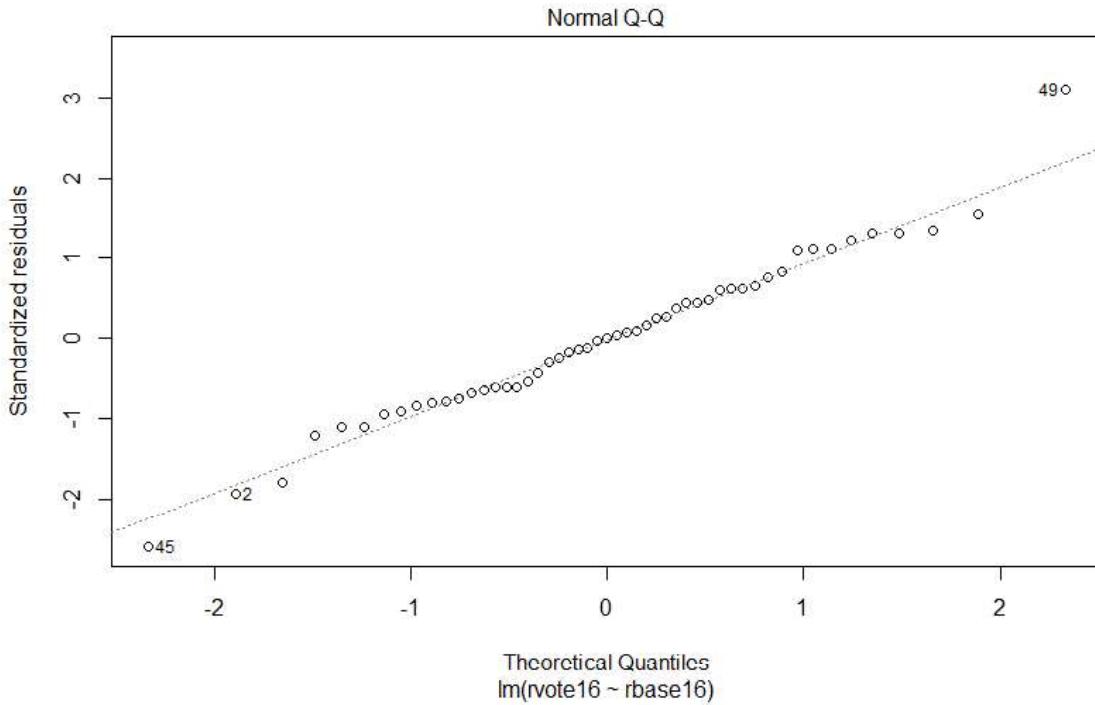
Due to the linearity of the Q-Q Plot we can indeed assume the vote residuals are normally distributed. This allows us to set up a linear regression model to test the hypothesis of whether or not the Republican Vote Share is any different from that of the Republican Base share in 2016. Below is a regression table displaying our results for the basic linear model of 2016 Republican Party Votes regressed upon 2016 Republican Party Base Votes.

Table 1: The impact of Republican Base Vote on Republican Voting in 2016

Coefficients	Basic Model	Standard Error	t-value	p-value
intercept	-8.38455*	3.57629	-2.344	0.232
rbase16	1.17228***	0.06813	17.206	0.0000002

Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Two-tailed test.

Figure 4.3: Q-Q Plot of Republican Vote Residuals from 2016



With 99.9 percent confidence we can assert that the 2016 Republican Party were indeed different than the 2016 Republican Party Base Votes and that for every one percent increase in base voting there was a 1.17 percentage increase in total Republican Party votes. A 95 percent confidence interval also corroborates this claim with a statistically significant positive effect resulting in a non-zero interval between 1.035362 and 1.309194.

4.2 POTENTIAL EXPLANATIONS

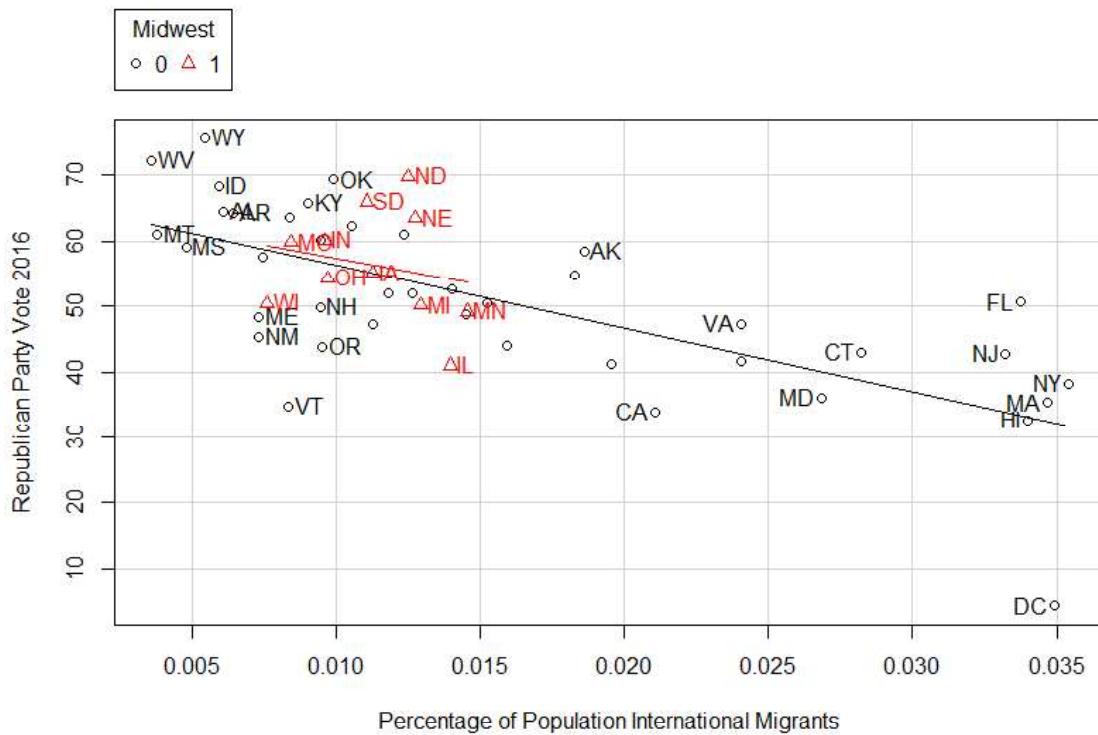
Now that we know what exactly happened in 2016 for Donald Trump we can now begin to try to explain why it happened. Why was it that Trump and the Republicans were able to carry the Midwest, and ultimately the election this time around?

4.2.1 IMMIGRATION

From the first day of the Trump campaign one of the issues that came to dominate the election, immigration, was introduced in less than traditional manner. Thousands of hours of punditry and journalistic interpretation played out on national television during the 2016 election cycle attempting to assess the

popularity – as well as feasibility – of President Trump’s proposed plans to curb immigration. Although we do not have the data to answer that question, we do have data on the net flow of international migration in to all 50 states from 2010-2016 Using this as a proxy for immigration’s impact on states in 2016, we can run a linear regression model to see how the Republican Party vote in 2016 was impacted by the net flow of international migration over the past six years. Using 2016 U.S. Census Bureau Population data we were able to calculate the percentage of each state’s total population that were international migrants.

Figure 4.4: Percentage of International Migrants Impact on Republican Party Vote 2016



The scatter-plot above with a fitted regression line shows the trend was virtually the same for the Midwest as well as the rest of the country. As the percentage of international migrants increased, there was a negative impact on the Republican Party Vote in 2016. This preliminary evidence, although possibly confounded with numerous omitted variables could give one a positive message to explore the explanatory power of the contact hypothesis in which people that are more exposed to out-group individuals tend to look more favorably upon them than those who are not. However, is this effect even statistically significant?

As shown by regression table two the answer is yes, the percentage of a population with international migrants reduced the Republican Party Vote in 2016 in highly statistically significant manner. However,

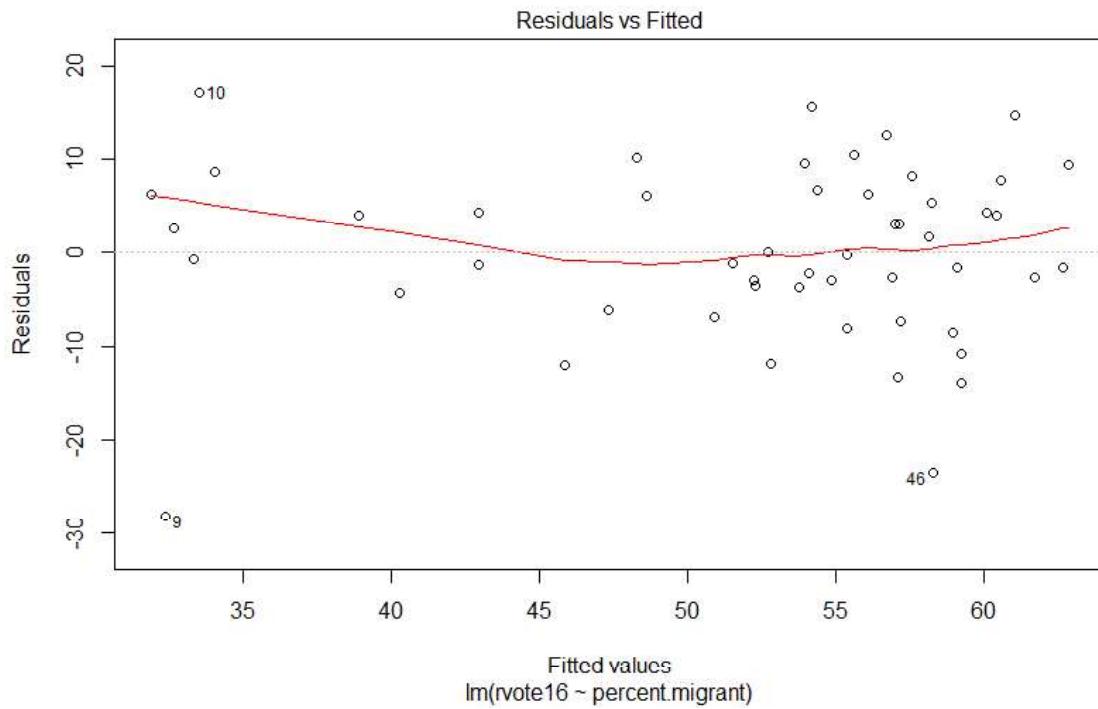
Table 2: The impact of Percentage International Immigration on Republican Voting in 2016

Coefficients	International Immigration Model	Standard Error	t-value	p-value
intercept	66.339***	2.497	26.567	0.00000002
percent.migrant	-972.208***	144.480	-6.729	0.000000174

Significance levels: * p<0.1, ** p<0.05, *** p<0.01. Two-tailed test.

it may be the case that the linear regression model is not the best statistical measure to assess this relationship. After further analytic digging we find that the residuals may have some heteroscedasticity, a violation of basic OLS assumptions.

Figure 4.5: Test of Heteroscedasticity



As can be observed in both diagnostic assessments in figures 4.5 and 4.6, the wedge shape of the residuals does imply a degree of heteroscedasticity in the model, undermining the accuracy of the influence net international migration has on the Republican Party Vote in 2016. In essence it is possible that the statistical significance we observed in our basic OLS regression model was not actually present. So if immigration is not a sufficient metric we can use to explain why Donald Trump won the election of 2016 then what is?