DO SOCIAL VALUES TRUMP ECONOMICS FOR WEALTHY VOTERS: AN EMPIRICAL ANALYSIS OF "TRADING AND VOTING"

By

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ABSTRACT

Yilmaz and Musto (2003) theorized that with access to equity markets and theoretical election-contingent securities, voters could financially hedge against the outcome of an election so that social values and ideology were the only factors determining their vote. Mattozzi (2008) found that creating a portfolio of such election-contingent securities was realistic. This paper examines if this may be happening in practice by creating an index of economic and social variables within congressional districts compared to the district's vote for Trump in the election. Looking at wealthier districts where voters are more likely to have investments, I find that only variables relating to the social values of a district are significant relative to economic variables, in line with the theory. Poorer districts vote based upon both economic and social factors. The analysis yields a similar result with Mitt Romney as the nominee, showing that the effect is not limited to Trump.

I. Introduction[1]

The rise of right-wing populism across the Western world has resulted in election outcomes that went against expert predictions. In the United States, this was best observed in the 2016 Presidential election with the unexpected ascendance of Donald J. Trump to the presidency. This trend begs the question of why these figures have become popular. To this point, in the 1992 United States Presidential election, Bill Clinton's campaign manager James Carville famously proclaimed how their campaign would win the election: "It's the economy, stupid!" While some may theorize that it was Trump's populist economic message that resonated with the voters in states that gave him an Electoral College majority, scholars have suggested in the past that that may not be the case.

In 2003, Bilge Yilmaz and David Musto put forward a theory that in a frictionless market, voters could make investments to completely hedge against political uncertainty risk in elections.[2] The economic impact of a candidate's redistributive policy would not impact the results of the election because the redistribution would happen in pre-election trading reflecting probabilities of a particular candidate winning. Put simply, the election becomes solely based on ideology, not economics. As Yilmaz and Musto used a hypothetical, perfectly election-correlated security in their theory, the question was raised as to whether it would be possible to hedge uncertainty risk with real stock market securities. Mattozi (2008) looked at Yilmaz and Musto's

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[2] A frictionless market assumes that all voters have access to trading with no transaction costs, changes in aggregate wealth, and perfectly election-contingent securities. In reality, this is not possible, but for the purposes of this study the overarching conclusions of Yilmaz and Musto are being tested, not their assumptions *per se*.

theory and found that in the United States, it is possible to hedge against political uncertainty and it could be done in a relatively straightforward manner.

The remaining question is if this hedging actually happens. One would expect that wealthier individuals with access to markets would be able to trade whereas poorer voters would not—therefore under the theory, the wealthy vote based on ideology while the poor vote based on economics. Unfortunately, tracking individual voters' investments is not possible; however examining voters in the aggregate based on Congressional district characteristics can act as a proxy to see the factors that lead voters to choose a particular candidate.

In this study, I find that for wealthy districts, only economic variables had a statistically significant impact on the percentage of people who voted for Donald Trump. In less wealthy areas, both economic and social variables were significant. To determine the social values of a district, I found the percent of people in each district that were Evangelical Christians as a proxy for social conservatism. This data was originally county-level data that was overlaid on congressional districts. Furthermore, I used Census Bureau data to find the percentage of women who were not in the labor force to determine social values as more conservative areas should tend to have women at home rather than working. For economic factors, I used Census Bureau data on the breakdown of industries like mining and manufacturing as well as unemployment data to determine the economic profile of each area.[3]

According to the theory, people with access to financial markets can trade away the redistribution (political) risk of the election so that only their social values determine their vote. Without access to trading, the vote should be based on economic and social values. My results do

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[3] Please refer to the appendix for maps of districts based on the relevant factors and scatterplots for each regressed variable.

not conclusively prove that this theory happens in reality, but it yields results one would expect if the theory did hold true. It is still possible that these results are a coincidence and wealthy people are able to withstand post-election redistribution rather than hedging *ex ante*. For robustness, Mitt Romney's 2012 district-level showing had similar results in terms of the study, showing the phenomenon was not limited to Trump.

II. Literature Review

Can and do people really trade away the risk from a candidate's policy during an election campaign? Bilge Yilmaz and David Musto theorize that investors can make trades that will mitigate potentially negative consequences of a candidate's economic policies. The implication of their theory is that "ideological" and not "pocketbook" issues drive the result of an election, assuming that a candidate's economic policies will redistribute, not increase or decrease, the aggregate wealth.[4] John Roemer advocates for a similar theory in that he argues that in elections, tax policies lose salience and will approach 0% as social issues become more prominent in the election.[5] Therefore, redistributionist tax policies would not mean as much in an election as social policies.

Part of the redistributionist's policies being ineffective is the assumption that measures can be taken by an individual to mitigate a reduction in their wealth. Mattozzi found that an investor can quite simply trade securities on the market to hedge against political uncertainty,

[4] Musto, David K., and Bilge Yılmaz. "Trading and voting." *Journal of Political Economy* 111, no. 5 (2003): 990-1003.
[5] Roemer, John E. "Why the poor do not expropriate the rich: an old argument in new garb." *Journal of Public Economics* 70, no. 3 (1998): 399-424.

using the United States' 2000 Presidential election as his sample case.[6] Knight also found that election-contingent security markets do seem to exist, using data from 2000 to show that policy platforms were capitalized into equity prices. Importantly, Knight found that in 2000, the policies were capitalized *before* the actual election (and implementation of the policies) in proportion to Bush/Gore's Iowa Electronic Market probabilities.[7] This was a key part of the theory put forward by Yilmaz and Musto.

Knight's findings are not the only opinion held among scholars. Beyer et al. found that political considerations do not affect stock prices with any statistical significance. Those researchers determined that monetary policy decisions from the Federal Reserve have a much more significant impact. Election outcomes "are a minor distraction."[8] Any gains from changes in administrations are inconsistent when examined across election cycles, but expansive monetary policy always has a positive correlation with an increase in equity prices. Jens presented an alternate view in that political uncertainty in gubernatorial elections affected investment by and in companies located in states where the election was occurring. Therefore, it appears as though even at a non-Presidential level, elections can affect investment, dissenting from the Beyer team's findings.[9] Perhaps even indirectly an election can change equity prices as it can cause a firm to make different investments depending on if a state's redistribution policies may change.

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[6] Mattozzi, Andrea. "Can we insure against political uncertainty? Evidence from the US stock market." *Public Choice* 137, no. 1-2 (2008): 43-55.

[7] Knight, Brian. "Are policy platforms capitalized into equity prices? Evidence from the Bush/Gore 2000 presidential election." *Journal of Public Economics* 90, no. 4 (2006): 751-773.

[8] Beyer, Scott B., Gerald R. Jensen, and Robert R. Johnson. "Don't worry about the election." *The Journal of Portfolio Management* 30, no. 4 (2004): 101-109.

[9] Jens, Candace E. "Political uncertainty and investment: Causal evidence from US gubernatorial elections." *Journal of Financial Economics* 124, no. 3 (2017): 563-579.

How individuals and investors receive their news is also worth examining, as they can only act upon policy announcements if they know they were made. Ge et al. looked at then-candidate Donald Trump's tweets from the 2016 Presidential election and found that when tweets mentioned a specific company in a negative way, there was a statistically significant decrease in the company's share price controlling for negative events outside of the tweet.[10] This shows that in real time, investors make decisions based on news related to candidates' policies.

Yilmaz and Musto's paper suggesting that redistributionist policies should not affect a candidate's likelihood of winning has been partially tested over the past 15 years.[11] Scholars have validated the idea that it is possible, and relatively simple to make trades to hedge against a certain candidate's redistributive policy, a central tenet of the theory.[12] The year most analysis of the theory has been performed was in 2000, but there is still work to be done on subsequent elections, particularly 2016 which seems to be the most intriguing with its unexpected result. Therefore, the Yilmaz-Musto theory can be further tested by looking to see if it holds for the election of 2016 in terms of seeing if economic factors had a role in shaping the outcome of the election.

III. Yilmaz-Musto Theory

In this section, I briefly summarize the theory that led Yilmaz and Musto to their conclusion that, with some assumptions, voters with access to trading should solely vote based on ideology.

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[10] Ge, Qi, Alexander Kurov, and Marketa Halova Wolfe. "Stock Market Reactions to Presidential Social Media Usage: Evidence from Company-Specific Tweets." (2017).
[11] Yilmaz and Musto, "Trading and Voting."
[12] Mattozzi, "Can we insure against political uncertainty?"

$$u_c(w_c^1) + v_c(\mathcal{I}),$$

Consumers will vote based on the utility, u_c they get from their wealth under a candidate's tax policy, ω_c, and the candidate's ideology, I.

$$w_c^0 - x_c p^* + x_c + \delta_c + \tau(\bar{w} - (w_c^0 - x_c p^* + x_c + \delta_c)) = \begin{array}{ll} \tau\bar{w} + (1 - \tau)[(1 - p^*)x_c + w_c^0 + \delta_c] & \text{in } \{L \text{ wins}\}, \\ w_c^0 - x_c p^* & \text{in } \{R \text{ wins}\}. \end{array}$$

If a consumer starts with wealth w^0 and purchases x_c contracts that pay if L wins at price p*, he receives x_c if L wins and 0 if R wins. The above shows that if R wins, he receives his initial wealth, ω^0 minus the amount spent buying L-victory-contingent contracts $x_c p^*$. But if L does win, he gets:

τ*ω = his share of the redistribution of aggregate wealth, plus

(1- τ), the after tax value, multiplied by

(1-p*)xc, his profit from the purchase of the contract, plus

ω⁰, his initial wealth, plus

δc, his share of any gain in aggregate wealth, which is assumed to be 0 with pure redistribution

$$\Pi_c[u_c(\tau\bar{w} + (1 - \tau)((1 - p^*)x_c + w_c^0 + \delta_c)) + v_c(L)] + (1 - \Pi_c)[u_c(w_c^0 - x_c p^*) + v_c(R)].$$

Πc = the probability that L wins

So the consumer wants to maximize this expression based on the original utility function

$$u_c(w_c^1) \; + \; v_c(\mathcal{I}),$$

Where ω_c is equal to the value above based on his share of aggregate wealth and after tax gains from purchasing the contract in addition to gains to the aggregate economy δ_c and his initial wealth. He will also maximize x_c based on ideology $v_c(L)$. The second part of the expression is the utility if R wins which is 1 minus the probability of L winning times his utility from R winning plus his utility from R's ideology.

The first order condition of this expression can be written as:

$$\frac{u_c'(w_c^L)}{u_c'(w_c^R)} \; = \; \frac{(1 - \Pi_c)p^*}{\Pi_c(1 - \tau)(1 - p^*)}.$$

Note that Π_c is the same for everyone—the probability of L winning is the same no matter who you are since everyone has the same information on the outcome probability (through Iowa Electronic Market data). That means that the right side of the above equation is the same for everyone in the market. This value must equal 1 because if it was greater or less than 1, then it would be better to buy one candidate over the other, and we assume that aggregate wealth is the same in both states.[13]

$$u_c(w_c^1) \; + \; v_c(\mathcal{I}),$$

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[13] The validity of this assumption is debatable as voters may interpret candidate statements to mean one will increase the overall "pie" of the economy more than the opponent. Still, it is unlikely that a candidate will claim to not want to boost the economy as much as the opponent, so this paper assumes $\delta_{\text{TRUMP}} = \delta_{\text{CLINTON}}$.

Going back to the original utility function, since utility from wealth, $u_c(\omega_c^1)$, is the same across outcomes, a voter only prefers L winning if $v_c(L)$ gives the voter more utility than $v_c(R)$—they only vote based on preferences in ideology.

IV. Significance of the Study/Audience

This paper is important for the scholarly community in finance departments engaged in the topic of uncertainty risk as it will see if empirically, and if the congressional district-level proxy is accepted, voters hedge against redistribution risk. Furthermore, from a political economy perspective this paper should prove useful because it will see if certain voters weigh ideology more than economics when choosing a candidate. Beyond the academic realm, politicians and campaign managers should take interest in the latter point because that means that appeals to voters based on promises to redistribute wealth (without creating new wealth) may not improve their chances of winning due to the ability to trade election-contingent securities. Investors should also be interested in this study as it would be interesting to see if investors tend to re-allocate their portfolio based on each candidate's likelihood of winning. That means that investors can make a profit (or at least avoid losses) by taking uncertainty risk into account. Finally, from a behavioral finance standpoint, this will be a worthwhile examination of how investors behave given their voting preferences for a particular candidate.

V. Data Sources

US Census Bureau County Business Patterns (CBP): The 2016 CBP data can be broken down into Congressional districts to see estimates for what share of jobs belong to a certain industry like mining/oil extraction, healthcare, and education. This data will paint a picture of the

economic situation for the people in each district. This determines if economic or social issues ideology determines who we would expect the area to vote for in the district. The Census Bureau also has data on wages, education, and demographics that will be used to determine economic factors in my regression.

Religion and Congressional district: This dataset used in Setzler's 2016 paper contains information about religious beliefs in Congressional districts. This data will go into determining the ideology of a district.

2016 and 2012 Presidential Election Returns: I use Congressional district-level election results to see the percentage of people within each district who voted for Donald Trump and Mitt Romney in 2016 and 2012 respectively.

VI. Methodology

Using the aforementioned data, this study compiled a list of all the Congressional districts in the United States and sees:

i. Industry Mix

    a. The industry mix for a district will show the percentage of people employed in the Agriculture/Mining Sector and the Manufacturing Sector. During the campaign, candidate Trump made many pronouncements promising economic help for these areas where jobs have been lost due to foreign competition and regulation.

ii. Unemployment Levels

    a. The level of unemployment within the district which shows the economic health for the area.

   iii. Healthcare

     a. The amount of people receiving public health insurance (Medicare or

      "Obamacare") combined with the uninsured.

   iv. Gender Roles

     a. Knowing the number of women outside of the labor force can be used as a

      proxy for social conservatism as more conservative areas would be expected

      to have traditional gender roles with women staying in the home while the

      men work.

   v. Religious Prevalence

     a. Using Setzler's data, the percentage of people within each district identifying

      as Evangelical Christians can be determined as a proxy for conservative social

      views.

These factors will let me get a sense of the economic and ideological identity of each

district.

I run multiple OLS regressions using different sets of variables. The first regression is for

the entire sample of districts (n = 435) to see if economics alone is statistically significant. The

regression is in the form of:

$$Vote\ _{TRUMP} = Constant + \beta_1 Unemployment + \beta_2 Mining + \beta_3 Manufacturing$$
$$+\ \beta_4 Obamacare +\ \varepsilon_0$$

The next regression tests if the significance of these variables change when social factors

(representing gender roles and religion) are added to the full-sample mix:

$$Vote\ _{TRUMP} = Constant + \beta_1 Unemployment + \beta_2 Mining + \beta_3 Manufacturing$$
$$+ \beta_4 Obamacare + \beta_5 GenderRole + \beta_4 Evangelical + \ \varepsilon_0$$

I will then repeat the previous two regressions for wealthy and less-wealthy districts. This is because in order to trade away risk from a candidate's redistribution policies, voters need access to financial markets. Logically, a wealthier district would have more people with active investments in the stock market. To categorize these districts, a cutoff of 10% of the district earning a household income of over $200,000 is used. This cutoff separates the sample into the top 93 wealthiest (top 21.4%) and bottom 339 (bottom 77.93%) districts so that the wealthy districts form roughly the top quintile. Two districts that had exactly 10% of households with an income over $200,000 according to the Census Bureau data were omitted to avoid arbitrarily classifying them as wealthy or not wealthy areas.

Three regressions test for the robustness of this study. The first regresses the percentage of voters choosing Trump relative to those who voted for Mitt Romney in 2012. This looks to see if Trump had any particular sway, likely due to his more populist policies, relative to Mitt Romney's more orthodox conservative positions. The OLS regression follows the simple form:

$$Vote\ \%_{TRUMP} = Constant + \beta_1 Romney + \ \varepsilon_0$$

where if the Romney coefficient is insignificant or not close to 1 the result would show that Trump had a different impact as a candidate than Romney did.

More directly, the regressions for only economic factors and then for both economic and social factors are repeated using the 2012 Romney results to see if these variables changed based on Trump's populist policies. The two regressions are:

$$Vote_{ROMNEY} = Constant + \beta_1 Unemployment + \beta_2 Mining + \beta_3 Manufacturing$$

$$+ \beta_4 Obamacare + \varepsilon_0$$

$$Vote_{ROMNEY} = Constant + \beta_1 Unemployment + \beta_2 Mining + \beta_3 Manufacturing$$

$$+ \beta_4 Obamacare + \beta_5 GenderRole + \beta_4 Evangelical + \varepsilon_0$$

Broadly, the percent of the vote trump receives is a function of a district's economics and social ideology. For Yilmaz and Musto's theory to possibly be occurring in real life, for the wealthier districts, only the ideology part of the function should be statistically significant.

$$\% Vote = f(Economics, Social\ Values)$$

TABLE 1: ECONOMIC AND SOCIAL VARIABLES BY CONGRESSIONAL DISTRICT

Economic Factors	*Social Factors*
Unemployment Rate	Gender Roles within the home
Mining and Agriculture Jobs	Evangelical Christians
Manufacturing Jobs	
Percent with Public Health Insurance	

VII. Results

TABLE 2: AGGREGATED FACTORS DETERMINING VOTER PREFERENCE

	Full Sample (n=435)	% Wealthy <10 (n=339)	% Wealthy > 10 (n=94)	Full Sample (n=435)	% Wealthy <10 (n=339)	% Wealthy >10 (n=94)

Average Trump Vote = 45.863 (SD = 16.792)	Trump Vote (1)	Trump Vote (2)	Trump Vote (3)	Trump Vote (4)	Trump Vote (5)	Trump Vote (6)	Trump Vote (7)	Romney Vote (1)	Romney Vote (2)
Constant	41.246** (3.759)	-17.603** (4.653)	58.721** (5.173)	-4.061 (4.800)	47.797** (9.950)	-3.740 (15.082)	-1.889** (.769)	8.315* (4.572)	7.799 (14.433)
Unemployment	-3.274** (.451)	-2.876** (.353)	-3.096** (.465)	-2.552** (.319)	-2.470* (1.465)	-2.335 (1.448)	-	-2.494** (.304)	-2.686* (1.386)
Agriculture	2.098** (.266)	1.430** (.210)	1.910** (.268)	1.279** (.186)	3.204** (1.133)	1.604 (1.135)	-	1.231** (.177)	.106 (.349)
Manufacturing	1.172** (.139)	.785** (.110)	.966** (.156)	.523** (.108)	.547 (.379)	.087 (.365)	-	.254** (.103)	.106 (.349)
Obamacare	.284** (.110)	-.570** (.099)	-.027 (.127)	-1.067** (.102)	-.061 (.363)	-.402 (.345)	-	-1.115** (.097)	-.412 (.330)
Women at home	-	229.660** (14.464)	-	258.771** (13.851)	-	168.100** (40.600)	-	241.424** (13.194)	152.838** (38.855)
Evangelical	-	.241** (.047)	-	.195** (.044)	-	.300* (.167)	-	.219** (.042)	.416** (.159)
Romney	-	-	-	-	-	-	1.018** (.016)	-	
R^2 (Adj)	.3664	.6197	.4009	.7220	.1805	.3091	.9080	.7242	.3907

* indicates significance at α = .10
** indicates significance at α= .05
Note: Standard errors are in parenthesis under the coefficients for each dependent variable. Districts where the percentage of people with incomes greater than $200,000 is exactly equal to 10% are omitted from the limited samples but included in the full sample.

VIII. Discussion

These results show that for the full sample, all factors are significant in both regression 1 and regression 2 with just economic factors and then both economic and social factors. This shows that the Yilmaz-Musto effect is not evident across the entire population. In order to see any Yilmaz-Musto effect, the statistical significance for the wealthy and non-wealthy districts needs to be tested.

For less wealthy areas, all variables (economic and social values) are statistically significant, showing that voters in these areas appear to vote based upon their economic conditions and social values. They do not seem to hedge against redistribution risk as the economic variables are statistically significant. According to Yilmaz and Musto's theory, this is either because they do not have access to financial markets or because they believe that aggregate gains to the economy will be different between the two candidates, and one candidate's policies will give them greater wealth after the election.

For wealthier areas, the only statistically significant variables in the full regression are the social variables, though the percentage of Evangelical Christians in the district is only significant at a 90% confidence interval. Economic factors do not have statistical significance in the Trump regression. This is the result one would expect to see if Yilmaz and Musto's theory happens in actuality. If these wealthy voters have access to financial markets and hedge against redistribution risk, the economic variables in the area should be statistically insignificant in who they tend to vote for—only their social values should dictate their preference. However, just because the result is promising for the theory does not mean that it proves it. This result merely shows evidence that this *might* be what causes these variables to be insignificant.

There are other reasons besides hedging against redistribution risk through trading election-contingent securities that may explain these results. One such reason could be that the economic conditions in wealthier areas are so great that these individuals are secure enough to withstand the results of the election no matter how much redistribution results. These people would not worry about their finances and merely vote because they care about social issues more.

Another interesting result from this regression is the robustness check comparing Trump's 2016 performance to Mitt Romney's performance in 2012. First, we see that the coefficient on the Romney term relative to Trump in 2016 is 1.018, which shows that Trump tended to increase the Republican vote percentage over Romney, but put up generally similar results. Approximately 91% of the variation in Trump's vote percentage across districts can be explained from Romney's result. This alone shows that Trump's populism did not have a tremendous effect on changing the portfolio of Republican voters.[14] Furthermore, applying the Yilmaz-Musto framework to Romney's result yields similar results as when applied to Trump. The less wealthy areas vote based on both economics and social values whereas the wealthy districts only had significant social variables. To be fair, under Romney, unemployment was also statistically significant at the 90% confidence level for wealthy areas, but the other economic variables were insignificant, similar to Trump.

The similarities between the results for Trump and Romney show that if Yilmaz and Musto's theory actually occurred, Trump's populism did not appear to make an impact. It seems that the reasons people voted for a candidate within each district was rather constant between populist Trump and the more typically conservative Romney. This either means that in both cases, the wealthy voters were able to hedge against redistribution risk effectively, or that voters did not believe that the gains from redistribution under Trump would be different than Romney.

Finally, outside the scope of the test of Yilmaz and Musto's theory, the regression shows the effect each variable had on Trump's vote percentage within each district. The tables below

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[14] A more compelling picture of this effect is found in Appendix Figure 9, where Trump and Romney's results appear highly correlated in a scatterplot. The outlier areas in the far right part of the graph are districts in Utah where Trump performed significantly worse than Romney.

show the correlations between each variable upon each other and Trump's vote percentage for
the full sample, less wealthy areas, and wealthy areas.

TABLE 3: CORRELATIONS FOR THE FULL SAMPLE

	Trump	Unemploym ent	Manufacturi ng	Agriculture	Obamacare	Gender Roles	Evangelicals
Trump	1.0000						
Unemploym ent	-.3622	1.0000					
Manufacturi ng	.3657	-.1535	1.0000				
Agriculture	.3651	-.0166	-.0139	1.0000			
Obamacare	-.1072	.7154	-.1300	.2470	1.0000		
Gender Roles	.3908	.4162	.0486	.2950	.6482	1.0000	
Evangelicals	.3126	-.0421	.1489	.1745	.1252	.1668	1.0000

TABLE 4: CORRELATIONS FOR THE LESS WEALTHY DISTRICTS (RICH<10%)

	Trump	Unemployment	Manufacturing	Agriculture	Obamacare	Gender Roles	Evangelicals
Trump	1.0000						
Unemployment	-.5078	1.0000					
Manufacturing	.3540	-.2537	1.0000				
Agriculture	.3284	-.0934	-.0826	1.0000			
Obamacare	-.3188	.6822	-.2931	.1502	1.0000		
Gender Roles	.3332	.3446	-.0589	.2319	.6101	1.0000	
Evangelicals	.2682	-.0781	.1061	.1064	.0383	.1306	1.0000

TABLE 5: CORRELATIONS FOR THE WEALTHIER DISTRICTS (RICH>10%)

	Trump	Unemployment	Manufacturing	Agriculture	Obamacare	Gender Roles	Evangelicals
Trump	1.0000						
Unemployment	-.3161	1.0000					
Manufacturing	.2109	-.0795	1.0000				
Agriculture	.3477	-.1490	.1259	1.0000			
Obamacare	-.1891	.6940	-.2731	.1512	1.0000		
Gender Roles	.3130	.3078	.1822	.2523	.3398	1.0000	
Evangelicals	.3336	-.3900	.1565	.4340	.1046	-.0782	1.0000

As these correlations show, Trump's vote percentage was positively correlated across the full sample with the percentage of jobs in manufacturing, the percentage of jobs in agriculture and mining, areas where women tend to stay at home rather than work, and areas with a high proportion of Evangelical Christians. Trump's vote percentage was inversely correlated across all samples with the unemployment rate and the amount of people with public health insurance or no insurance. Given Trump's platform, these correlations are as expected.

TABLE 6: FACTORS RELATIONSHIP WITH TRUMP VOTE FOR FULL SAMPLE

Factor	*Relationship*
Romney	Positive
Unemployment	Negative
Manufacturing	Positive
Agriculture and Mining	Positive
Obamacare	Negative

Traditional Gender Roles	Positive
Evangelical	Positive

IX. Conclusions

These results do not conclusively prove that Yilmaz and Musto's theory happens in real life, but they do show the signs one would expect to see if it did. While their theory offers only one explanation for why only the social variables were statistically significant in wealthier areas, given Mattozzi's study into the feasibility of the theory, this shows that it could be an explanation for what goes on during election cycles. Other explanations cannot be ruled out through this study.

Although using Congressional districts as a proxy for individual voters' portfolios and values is useful, the most direct way to see if Yilmaz and Musto's theory occurs is looking at individual voters' trades given each candidate's likelihood of victory. This may be done in a future study if a large sample of individual trades is compiled in conjunction with the demographics behind each investor.

Looking ahead within the United States' 2018 House of Representatives elections, these results are interesting as they show that wealthy areas vote based on social issues. This suggests that wealthy districts will judge President Trump's job performance (and the Republican-controlled Congress) based on their social policies, not economic ones. A study of the results from the Congressional races after this year's elections would be interesting to see if the results from 2012 and 2016 were replicated.

X. APPENDICES

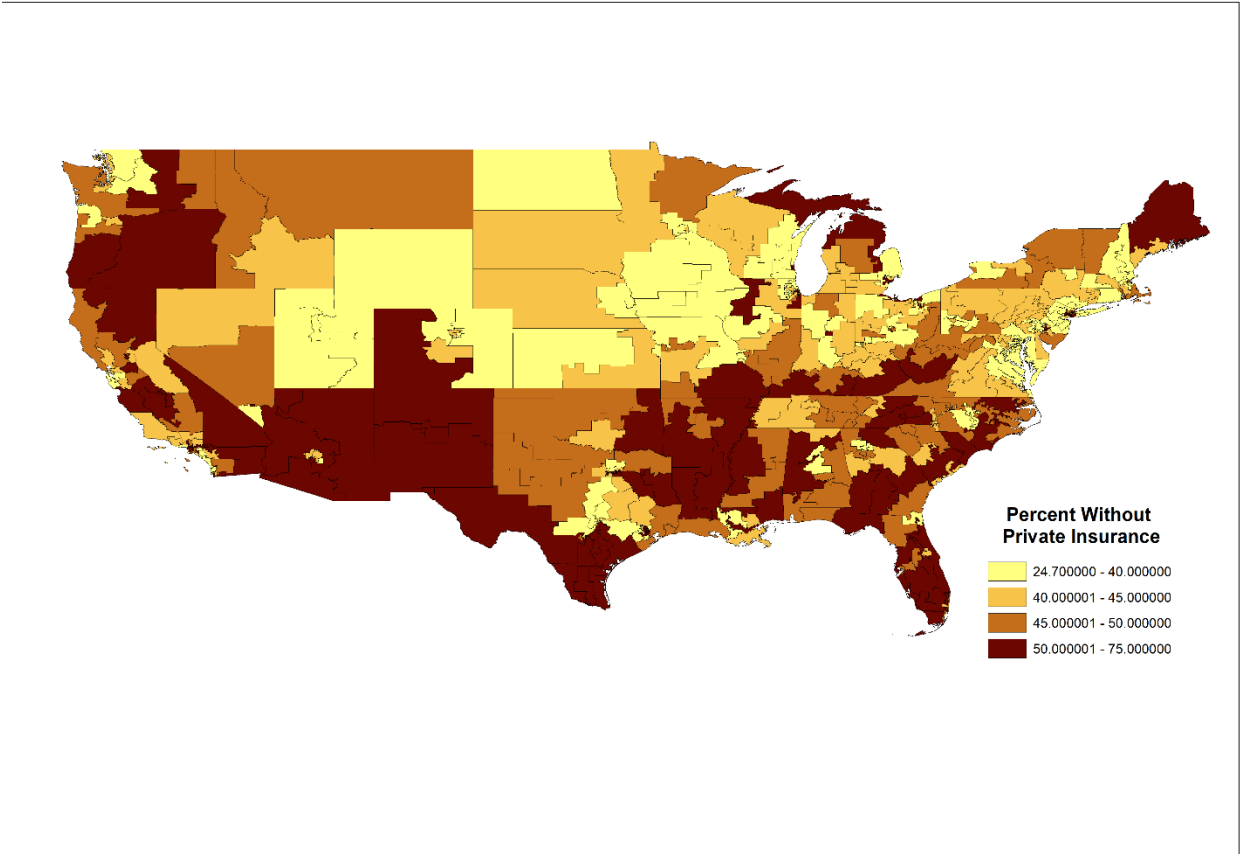## FIGURE 1: DISTRICTS BY HOUSEHOLD INCOME RELATIVE TO BENCHMARK
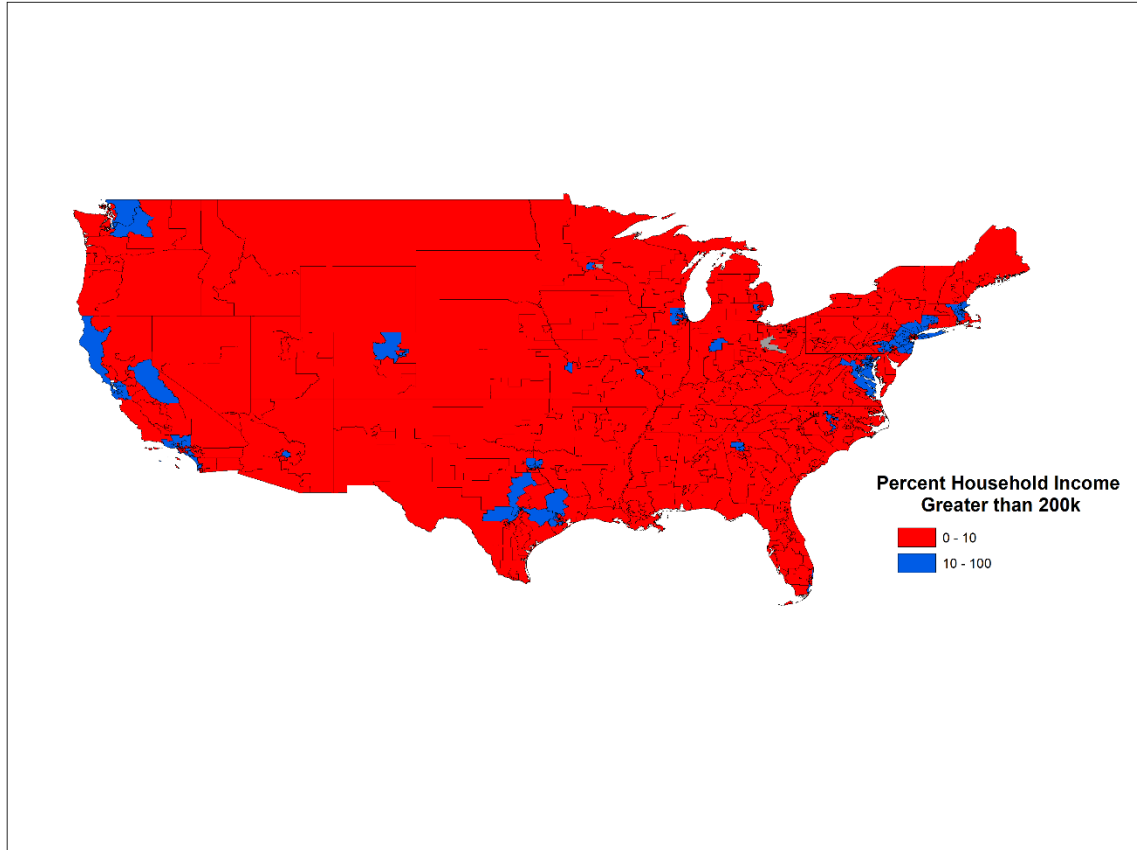
FIGURE 2: DISTRICTS BY PERCENT IN AGRICULTURE/MINING

Percent Employed -
Agriculture/Mining

0.000000 - 0.500000
0.500001 - 1.300000
1.300001 - 2.800000
2.800001 - 28.400000
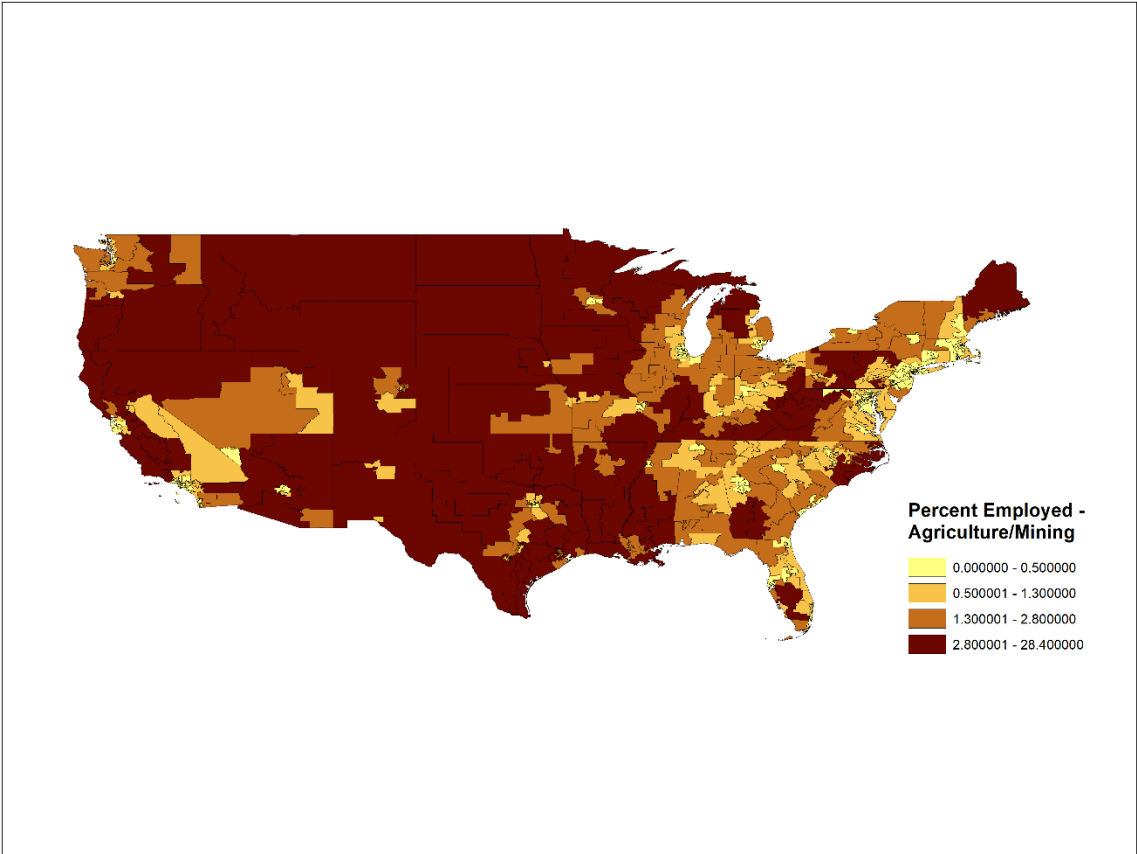
FIGURE 3: DISTRICTS BY PERCENT OF EVANGELICAL CHRISTIANS
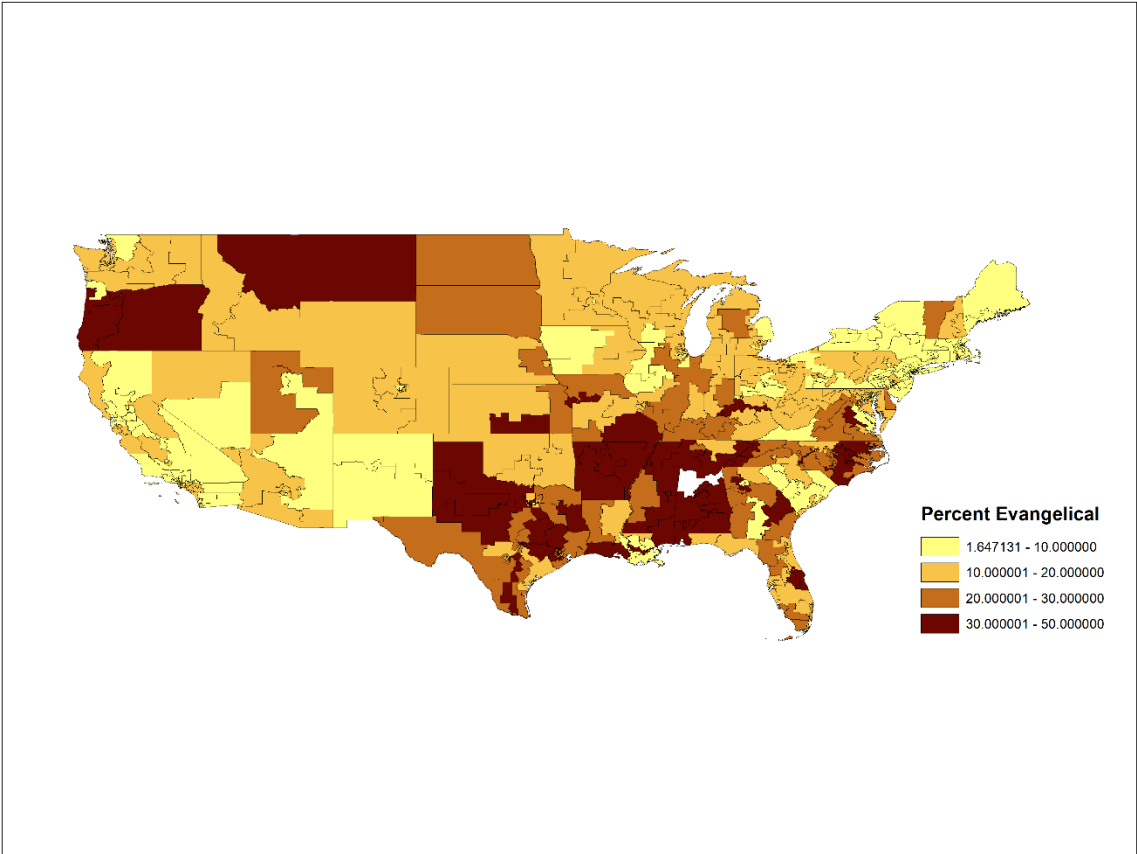
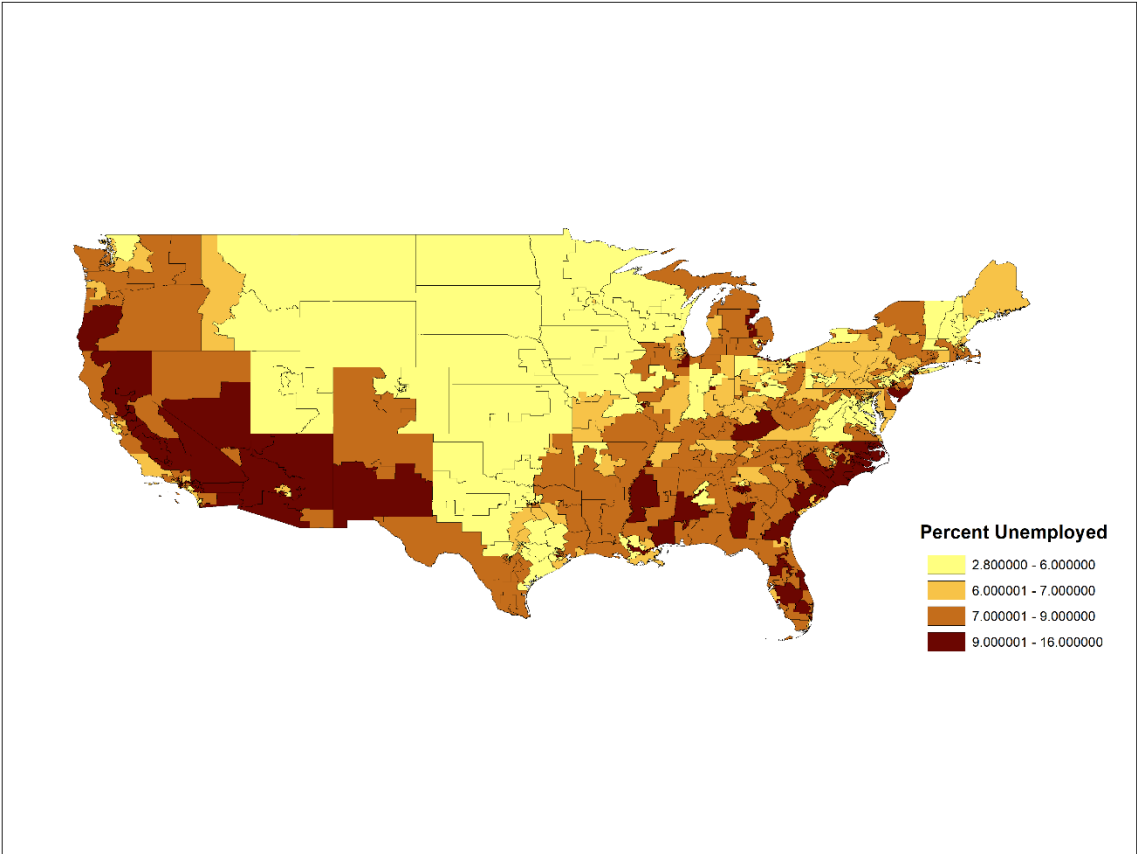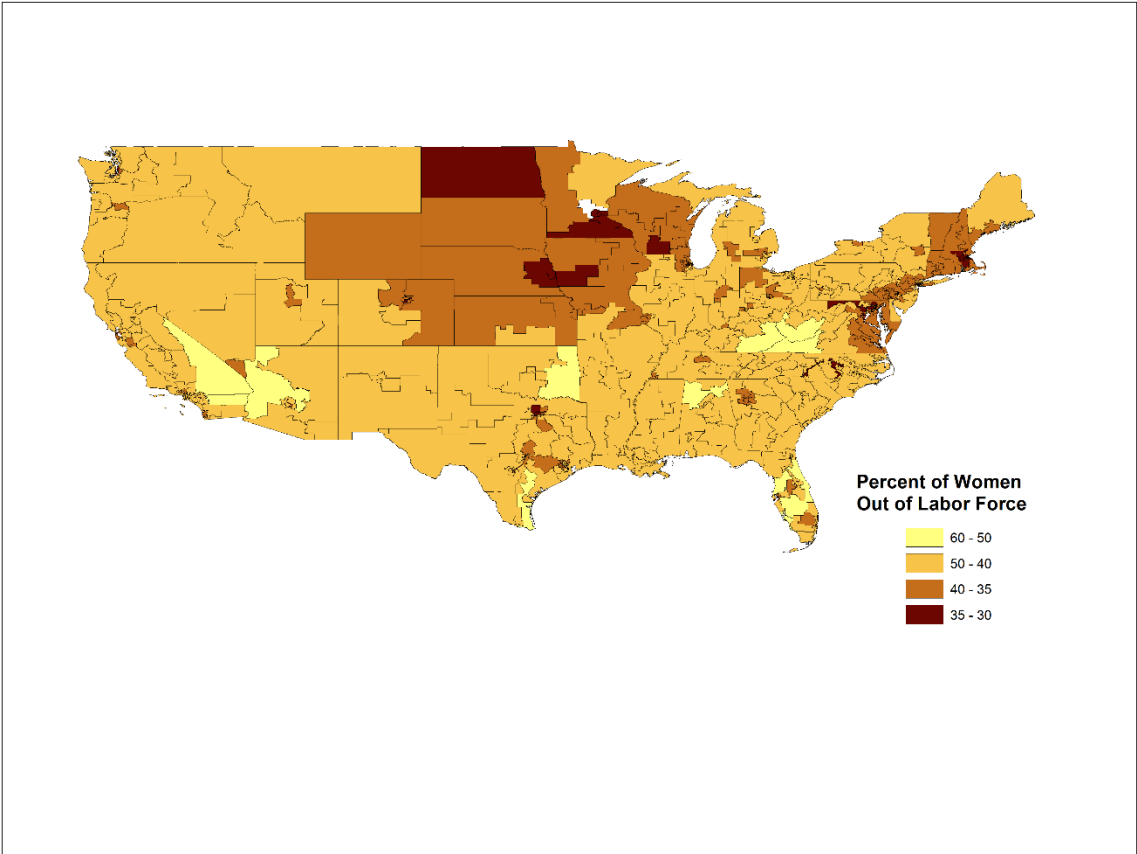**FIGURE 4: DISTRICTS BY PERCENT WITH NO PRIVATE INSURANCE**

Percent Without Private Insurance

24.700000 - 40.000000
40.000001 - 45.000000
45.000001 - 50.000000
50.000001 - 75.000000

FIGURE 5: DISTRICTS BY PERCENT IN MANUFACTURING

Percent Employed-
Manufacturing

2 - 8
9 - 12
13 - 17
18 - 27
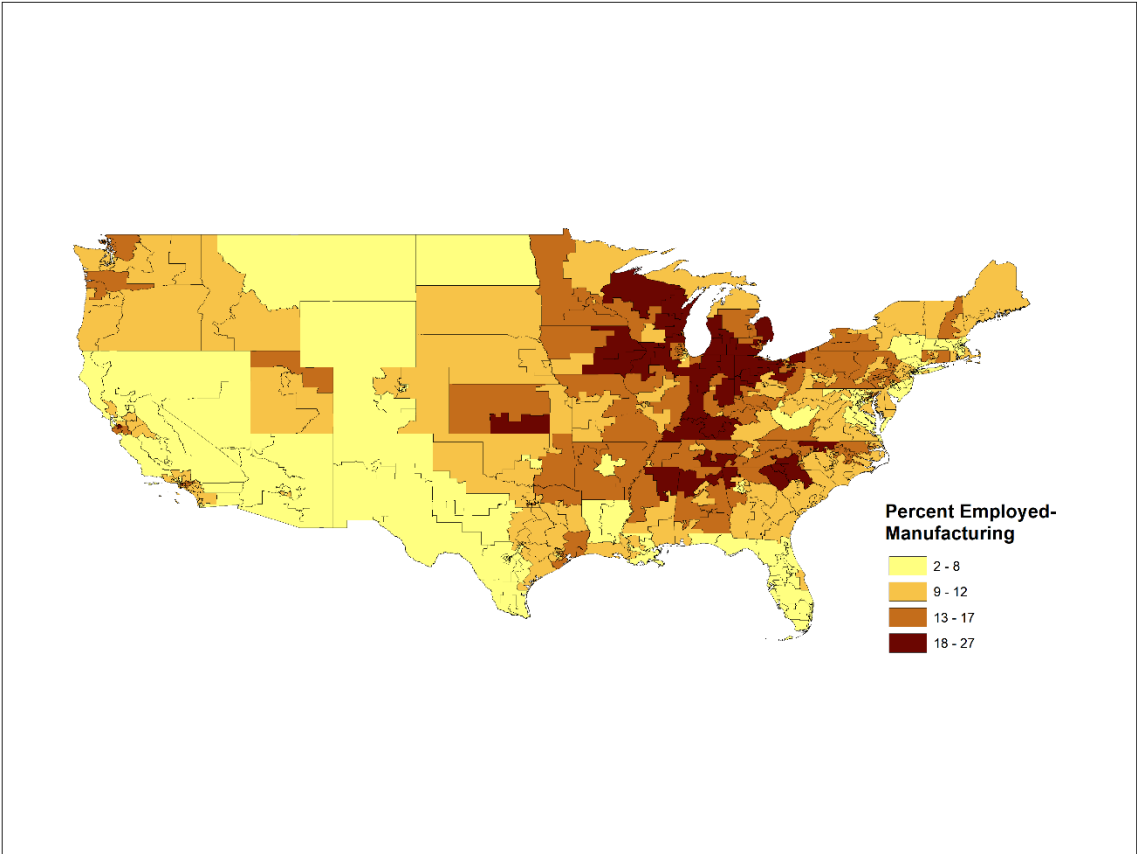
FIGURE 6: DISTRICTS BY UNEMPLOYMENT RATE

Percent Unemployed

2.800000 - 6.000000
6.000001 - 7.000000
7.000001 - 9.000000
9.000001 - 16.000000

FIGURE 7: DISTRICTS BY PERCENT OF WOMEN OUT OF LABOR FORCE

Percent of Women
Out of Labor Force

60 - 50
50 - 40
40 - 35
35 - 30

FIGURE 8: SCATTERPLOT OF TRUMP VOTE AND EVANGELICALS
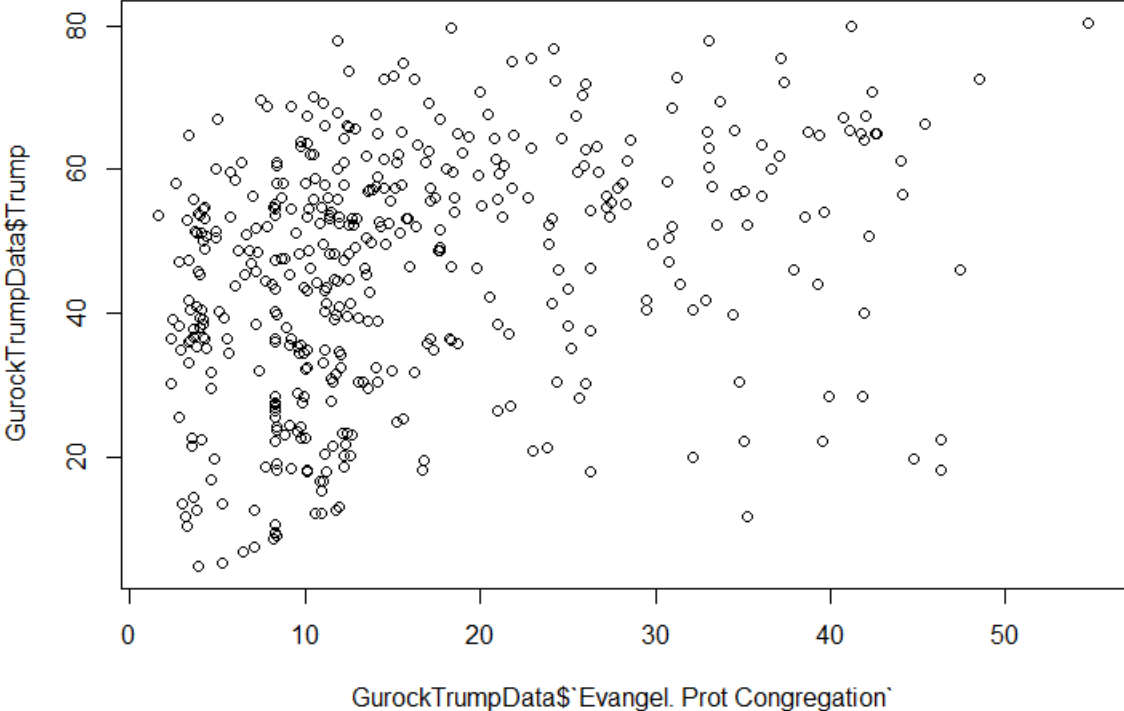
FIGURE 9: SCATTERPLOT OF TRUMP VOTE AND ROMNEY VOTE
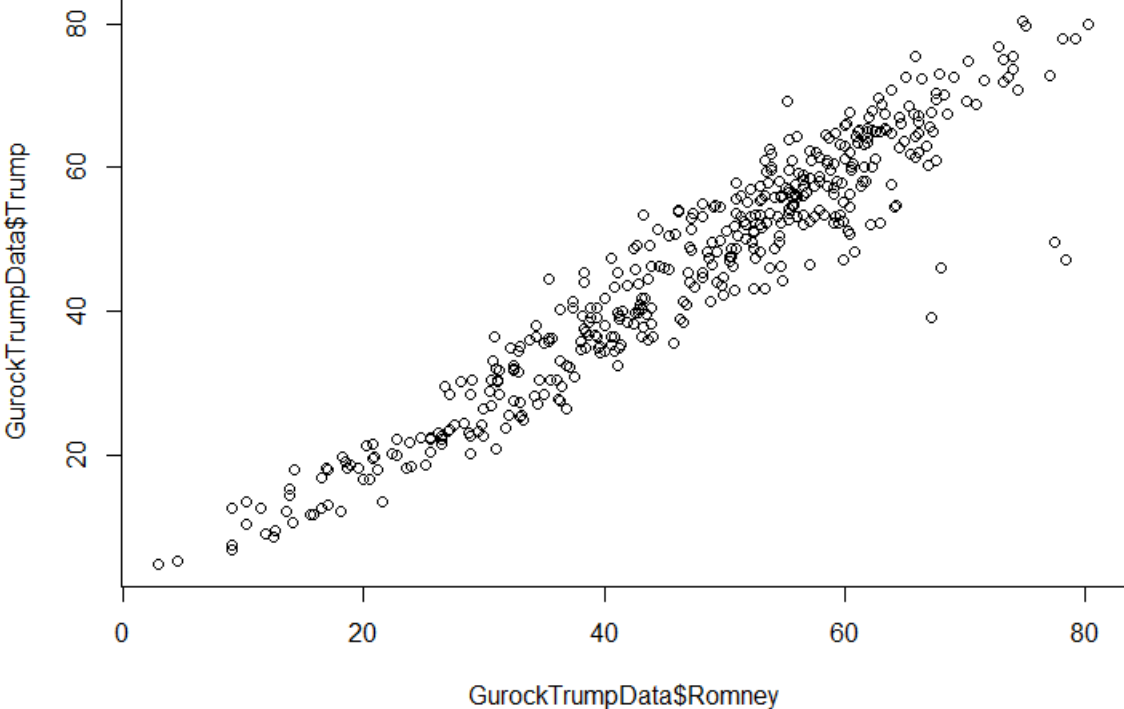
FIGURE 10: SCATTERPLOT OF TRUMP VOTE AND WOMEN IN LABOR FORCE
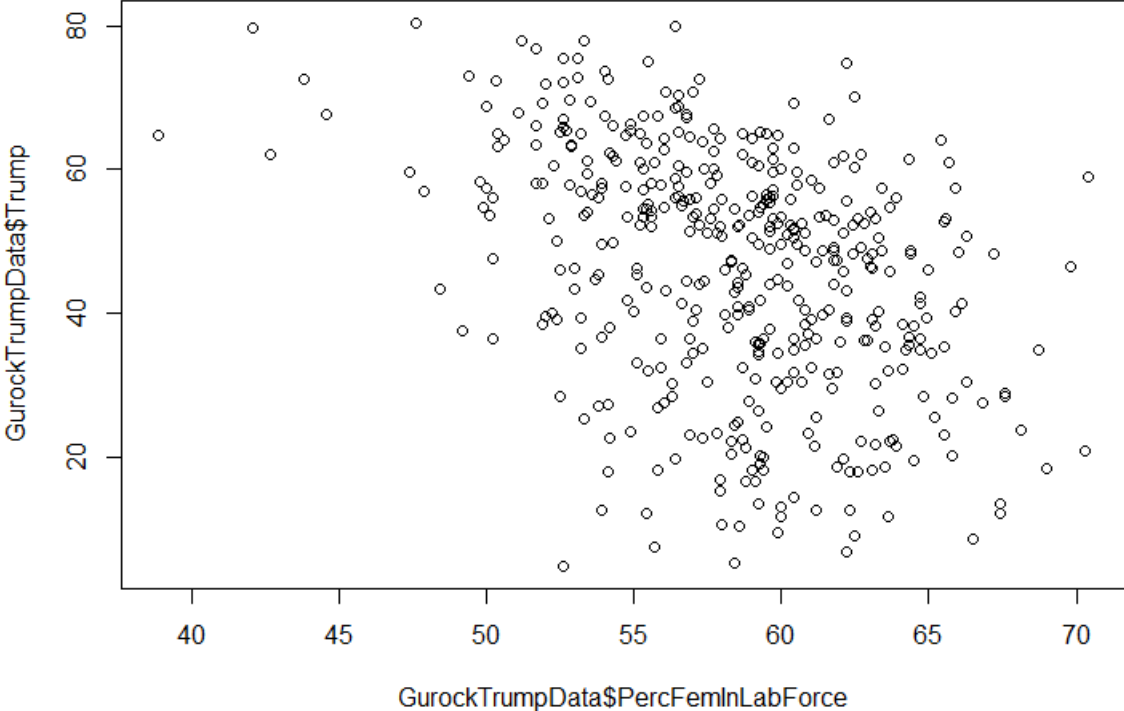
FIGURE 11: SCATTERPLOT OF TRUMP VOTE AND PERCENT IN MINING/AGR
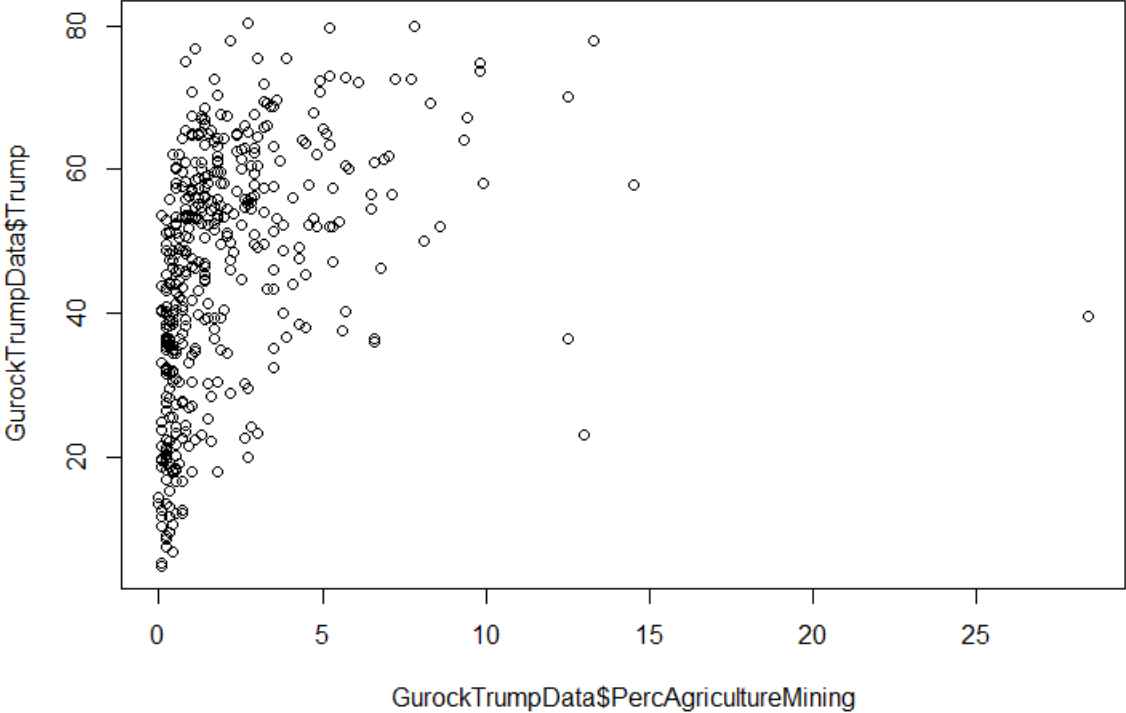
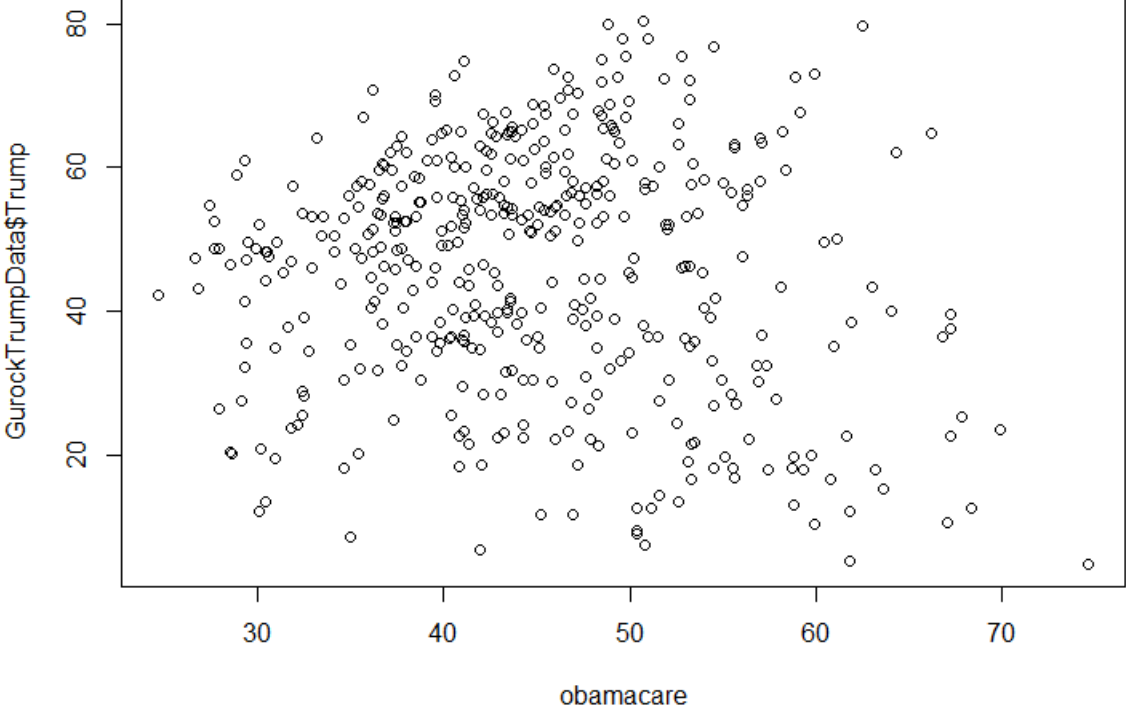**FIGURE 12: SCATTERPLOT OF TRUMP VOTE AND PERCENT IN MANUFACTURING**
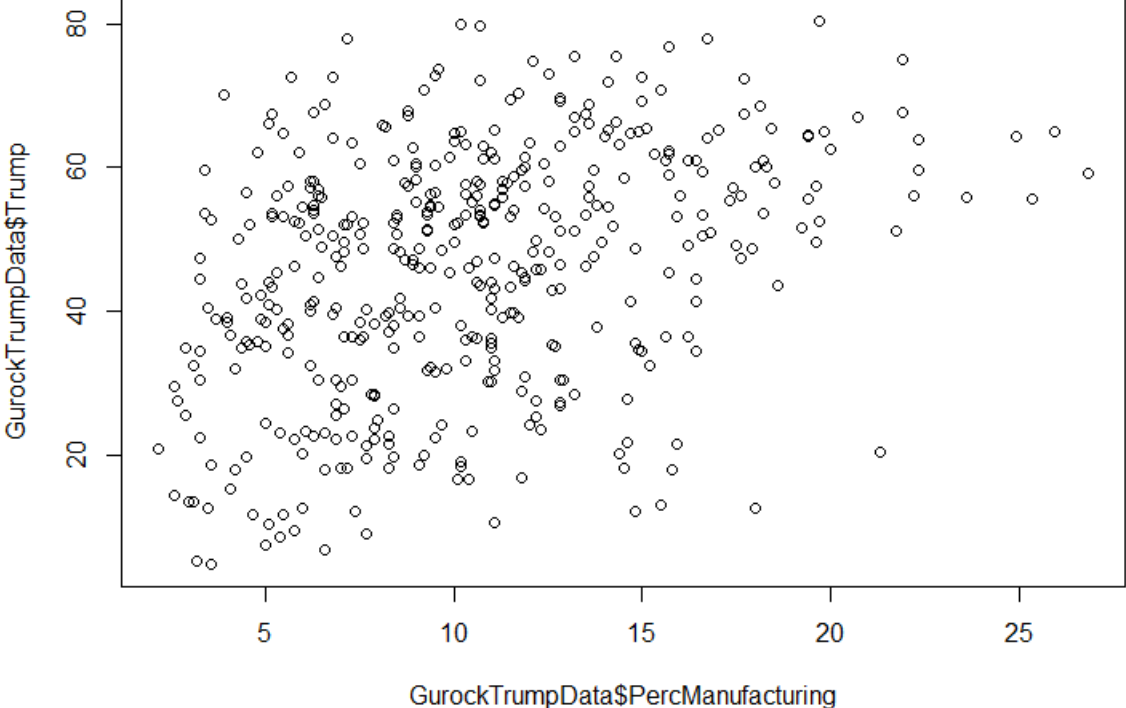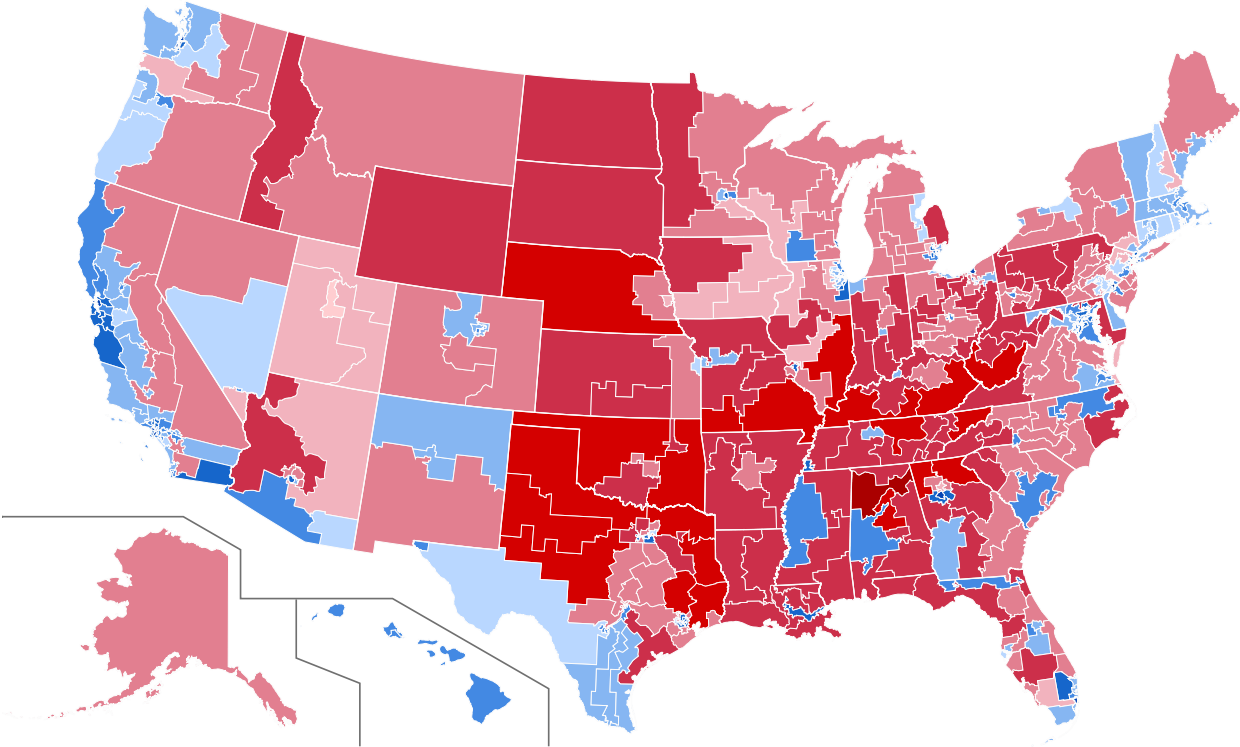
FIGURE 13: SCATTERPLOT OF TRUMP VOTE AND PERCENT WEALTHY
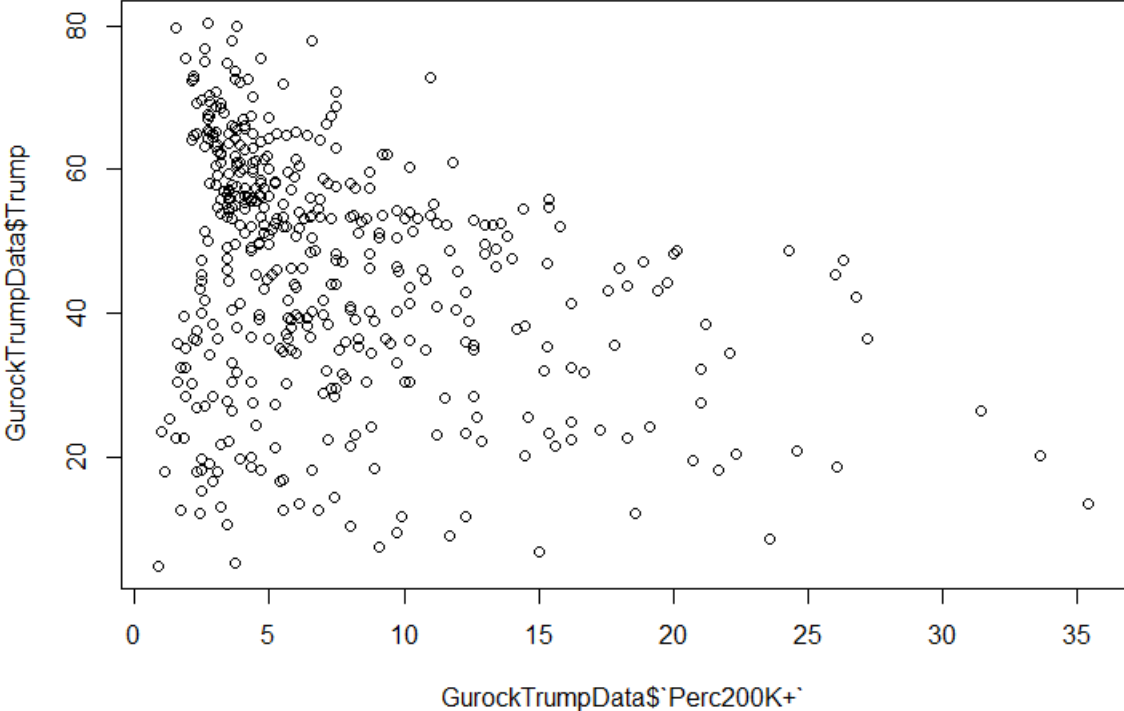
**FIGURE 14: SCATTERPLOT OF TRUMP VOTE AND PERCENT WITHOUT
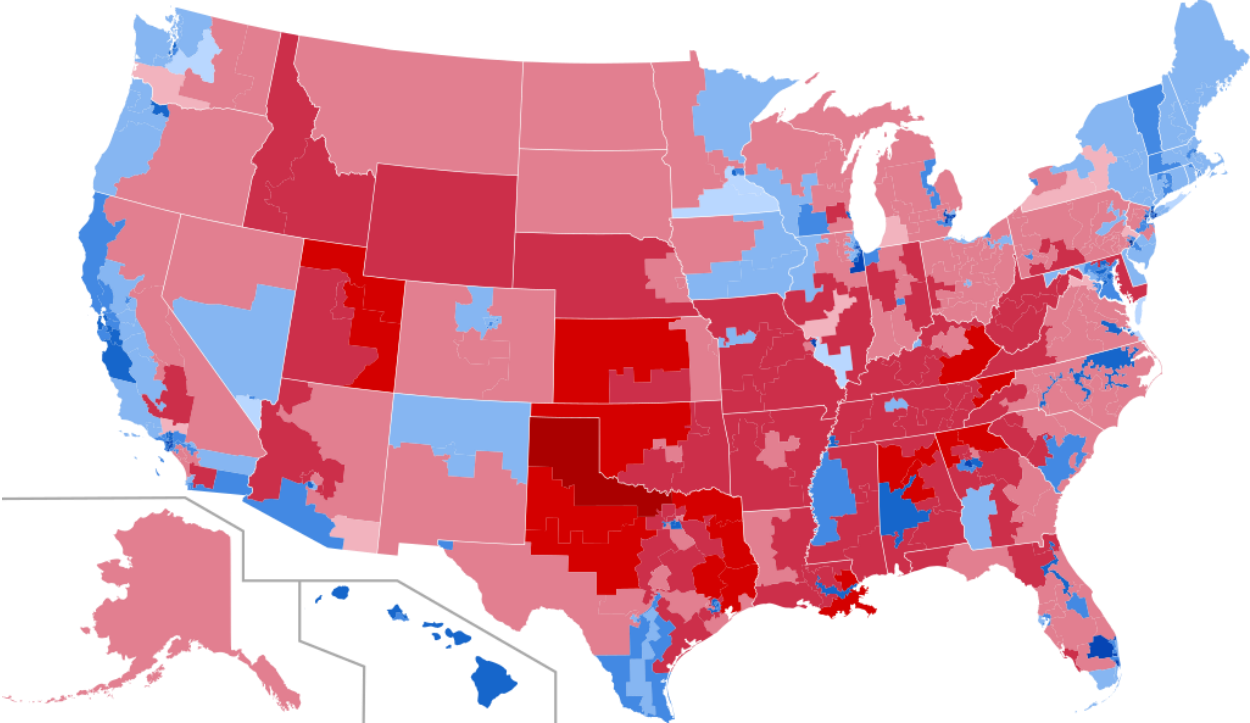PRIVATE HEALTH INSURANCE**

FIGURE 15: DISTRICT BY 2016 WINNER

Source: Wikimedia Commons

FIGURE 16: DISTRICT BY 2012 WINNER

Source: Wikimedia Commons

XI. BIBLIOGRAPHY

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