Who Put Trump in the White House? Explaining the Contribution of Voting Blocs to Trump's Victory*

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Abstract

A surprising fact about the 2016 election is that Trump received fewer votes from whites with the highest levels of racial resentment than Romney did in 2012. This fact is surprising given studies that emphasize "activation" of racial conservatism in 2016—the increased relationship between vote choice and racial attitudes among voters. But this relationship provides almost no information about how many votes candidates receive from individuals with particular attitudes. To understand how many votes a voting bloc contributes to a candidate's total, we must also consider a bloc's size and its turnout rate. Taking these into account, we find that Trump's most significant gains came from whites with moderate attitudes about race and immigration. Trump's vote totals improved the most among swing voters: low-socioeconomic status whites who are political moderates. Our analysis demonstrates that focusing only on vote choice is insufficient to explain sources of candidate support in the electorate.

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1 Introduction

A surprising fact about the 2016 election is that Donald Trump received fewer votes from whites with high levels of racial resentment than Mitt Romney did in 2012. We estimate that, nationwide, Romney received 18.3 million votes from whites in the highest quintile of racial resentment (defined using the 2012 distribution of racial resentment), 8.2 percent of the 2012 voting eligible population, while Trump received 12.4 million votes from individuals in the highest quintile, 5.4 percent of the 2016 voting eligible population.[1] This translated into fewer net votes for Trump: his advantage over Clinton among individuals with the highest levels of racial resentment was smaller than Romney's advantage over Obama by 3.4 million votes.

Trump saw this decrease in support even though whites who turned out to vote and had high levels of racial resentment voted for Trump at higher rates than they chose Romney. But there was also a shift in attitudes: fewer whites had high levels of racial resentment in 2016 than in 2012 (Engelhardt, 2019; Hopkins and Washington, 2019; DeSante and Smith, 2019) and there was an overall decline in turnout. As a result, there were fewer racial-conservative whites to cast their vote for Trump in the voting booth. So, even though these voters selected Trump at a higher rate once they turned out to vote, the higher rate of support for Trump was not enough to overcome the change in the distribution of attitudes and the change in turnout rates across elections.

This fact might seem particularly surprising in light of a social science literature that has focused on vote choice, conclusively showing that attitudes about race and ethnicity were the most "activated" in 2016 relative to 2012 (Sides, Tesler and Vavreck, 2019; Mutz, 2018; Reny, Collingwood and Valenzuela, 2019).[2] The goal when studying attitude "activation" is

[1] Throughout we use estimates of the voting-eligible population from McDonald (2018). For 2016 the VEP is 230,931,921 and for 2012 it is 222,474,111.

[2] As we explain below, some scholars have pointed to differential rates of turnout—particularly lower turnout among Black voters—as a potential reason for Trump's victory (Fraga et al., 2017; Green and McElwee, 2019; Sides, Tesler and Vavreck, 2019).

to identify attitudes with a stronger relationship with vote choice in 2016 than in 2012, from which we can infer differences in the vote choice preferences of individuals who turned out to vote and have a particular characteristic.[3] For example, in the authoritative account of the 2016 election, Sides, Tesler and Vavreck (2019) examine the relationship between support for Trump and Clinton and attitudes about immigration and racial resentment among individuals who turned out to vote. They examine whether attitudes are more strongly related to vote choice in 2016 than in 2012. After finding that, "In multiple surveys, attitudes about race and ethnicity were more strongly related to vote choice in 2016 than they were in 2008 and 2012," Sides, Tesler and Vavreck (2019) conclude that "the overall pattern is clear: whites' attitudes about race, ethnicity, and religion came to play a larger role in 2016 than other recent elections." Further, most studies have largely dismissed the idea that economic conditions were activated, with many agreeing with the finding that "economic anxiety's influence in 2016 is thus much weaker than the evidence for the influence of attitudes related to race and ethnicity" (Sides, Tesler and Vavreck, 2019).[4]

Activation is useful for assessing the vote choice behavior of individuals who turn out to vote and who hold a particular attitude, but it provides almost no information about the number of votes a candidate receives from a group. To understand where a candidate gains or loses votes in the electorate we must also take into account changing attitudes and differential turnout rates (Axelrod, 1972; Hill, 2017). Measuring the contribution of a voting bloc to a candidate's vote total—or her share of the overall electorate to enable across-election comparisons—requires multiplying three components together, *composition*,

[3]The focus on activation occurred in response to the "minimal effects" literature (Klapper, 1960; Bennett and Iyengar, 2008). The focus on attitude activation was used to demonstrate differences in attitudes based on campaign tactics, closely related to the estimation of "priming" in experimental studies. The differences that we highlight in this paper are similar to the distinction of effect estimates that have long been described in regression effect calculation (Achen, 1982) and the idea of an attributable effect from public health.

[4]We provide further discussion of the literature in Appendix A.1.

turnout, and *vote choice*:

1. **Composition**: the proportion of the electorate in a voting bloc.
2. **Turnout**: the turnout rate for the voting bloc.
3. **Vote Choice**: the rate members of a voting bloc who turn out to vote support a particular candidate.

When studying the number of votes a candidate receives vote choice alone can only indicate that a candidate won or lost votes within a voting bloc, but provides no information about how many votes were won or lost in a bloc. And as a result, learning that some attitudes have a stronger relationship with vote choice in 2016 than in 2012 is useful for understanding how particular groups behaved in the voting booth, but ultimately uninformative for understanding the groups of voters that contributed more votes to Trump than to Romney.

The focus on the activation of attitudes, and not on candidates' vote counts, is pervasive. In a systematic review of 83 pieces of academic scholarship about Trump's victory, we find that the literature focuses on vote choice almost exclusively, while paying relatively little attention to the role of composition and turnout on determining where Trump received support (see Appendix A for details). All studies from psychology, public health, and economics focus exclusively on the vote choice of individuals who have turned out to vote. Of the 54 political science articles, books, or blog posts about the 2016 election we analyze only 3 consider the distribution of attitudes in the electorate, the turnout rate of voting blocs defined by those attitudes, and the vote choice of individuals who turn out to vote (Fraga et al., 2017; Carmines, Ensley and Wagner, 2016; Zingher, 2019) and two articles from sociology do (Manza and Crowley, 2017; Morgan and Lee, 2019).[5] Overall, the literature has contributed

[5]Fraga et al. (2017) count the number of votes from declining turnout of black citizens, Carmines, Ensley and Wagner (2016) describe the distribution of views among Trump voters in the primary, Manza and Crowley (2017) undertake a similar analysis, Morgan and Lee (2019) consider the distribution of views among Obama-Trump voters, and Zingher (2019) applies the method in Axelrod (1972) to study voting blocs from 1972 to 2016 using a set of

an impressive number of potential attitudes and demographic characteristics that were activated during the 2016 election. But as it stands, the literature provides little evidence about how Trump's electoral support differs from Romney's.

To estimate where candidates receive votes, we derive intuitive statistics that enable us to compare the contribution of voting blocs to the vote totals of candidates in the same election and to compare the number of votes the bloc contributes to candidates across elections. Within the same election, we examine the net number of votes from a bloc: the number of votes a candidate gets from a particular group, minus the number her opponent gets from that group. Then, to examine how this net vote total compares to prior candidates, we examine the difference in net votes: the difference in net vote total across elections, scaled by the voting eligible population within each election to ensure the vote totals are directly comparable. We focus on the difference in net vote total because, from the perspective of a candidate trying to improve upon the result of their party's prior candidate, winning by more votes within a voting bloc improves the vote total by the same amount as losing the voting bloc by less.

Using the Cooperative Congressional Election Study (CCES) and the American National Election Study (ANES) and following the vast majority of the literature in comparing voting blocs in the 2012 and 2016 elections, we formally demonstrate that Trump's net vote total *declines* among whites with high levels of racial resentment, Trump's net vote total increases more among whites with moderate views of immigration than conservative immigration views, and we show that Trump received approximately the same number of votes from whites who report voting for Obama in 2012 that Romney received from whites who reported voting for Obama in 2008.

Rather than voting blocs defined by racial attitudes or prior votes shifting the most support to Trump, we show that Trump increased his net vote total the most among independent, ideologically moderate, and lower socioeconomic status whites, both nationwide and in states decided by five percentage points or less.[6] This is not to say that non-white

demographic characteristics.

[6]Those states are Michigan, New Hampshire, Wisconsin, Pennsylvania, Minnesota,

voting blocs did not have important shifts across elections. We replicate the findings in Fraga et al. (2017), Green and McElwee (2019), and Fraga (2018) that Trump benefited from lower turnout among blacks—but this shift in turnout explains only a small share of Trump's increased relative support over Romney. Further, we find that the largest gains in relative support Trump for occurred among whites who are either on disability, retired, or live in zip codes with a high utilization of the Earned Income Tax Credit (EITC). We, however, also find that Trump's support increased the most among voters who reside in zip codes with low unemployment utilization and whose household incomes remained unchanged compared to the year before the election. These patterns occurred because of a different compositional change in the electorate: improving economic conditions resulted in many fewer potential voters residing in the worse off locations or in households with declining incomes in 2016 compared to 2012.

The pattern of voting bloc shifts that enabled Trump's victory, then, is not one based on high levels of racial resentment, the mobilization of the Republican base, differentially securing former Obama voters, or the exclusive mobilization of whites with restrictive immigration preferences. Rather, Trump improved over Romney's electoral performance because he was able to make substantial improvements among low socioeconomic whites who are political independents, particularly in competitive states. We are not dismissing that Trump's rhetoric mobilized some whites who are racial conservatives or have conservative immigration preference. Our results show, however, that Trump's margin of victory was smaller among these groups than Romney's and therefore they contributed less to his advantage over Clinton than they contributed to Romney's advantage over Obama. As we explain the conclusion, this also casts doubt on analyses that have argued that racial and immigration attitudes explain voters who switched from Obama to Trump (Sides, Tesler and Vavreck, 2019). In fact, we find that among former Obama voters Trump's net vote total improved the most among whites with moderate immigration preferences. Instead, our analysis provides evidence that independents and moderates remain a voting bloc whose votes swing to

Nevada, Maine, North Carolina, Arizona, Colorado, and Florida.

the winning candidate, despite substantial polarization, partisan sorting, and independents' generally low turnout rates (Hill, 2017). And our simple statistics also provide key insights into how to explain a candidate's victory: correlating attitudes with vote choice can be useful for testing social science theories, but is largely uninformative for explaining election results.

2 Understanding Voting Blocs

Our goal is to count how many votes Trump receives from a particular voting bloc, how many votes Trump wins or loses from a bloc, and how the number of votes won or lost in a bloc compares to the number of votes won (or lost) by Romney within the same voting bloc. To facilitate comparison across elections we will examine the share of the voting eligible population in a voting bloc who cast a vote for a particular candidate. This quantity is equivalent to counting the total number of votes for a candidate in an election and then scaling the vote count by the size of the voting eligible population. We will use $p(\cdot)_{2016}$ to describe the share of the electorate with some characteristic in 2016. So, for example, $p(\text{Trump})_{2016}$ describes the share of the electorate who voted for Trump. Of course, multiplying $p(\text{Trump})_{2016}$ by the number of voters in the electorate will provide the total number of votes Trump received.[7]

We define a set of voting blocs $\mathcal{X}$ as a set of attributes that partition the electorate: each member of the voting eligible population is assigned to one $x \in \mathcal{X}$.[8] We define $p(\text{Trump}, \text{Turnout} = 1, x)_{2016}$ as the share of the electorate who is in voting bloc x, turned

[7]Our derivation is focused on 2016 and 2012 but it can be extended to directly to compare any set of candidates in a first-past-the-post election. Extensions to other systems are possible, but we do not consider them here.

[8]We assume $\mathcal{X}$ partitions the electorate to ensure that summing across the vote total from all voting blocs yields the total number of votes a candidate wins. To simplify our discussion we will suppose that $\mathcal{X}$ is discrete, but all of our observations hold when $\mathcal{X}$ is continuous—we will only need to replace probabilities with densities and any summations with integrals. We derive the continuous version of our statistics in Appendix C. $\mathcal{X}$ can be potentially vector-valued, reflecting several characteristics.

out to vote, and then voted for Trump. Equivalently, this is the number of votes Trump receives from a voting bloc.

In order to highlight the role of composition, turnout, and vote choice we will rewrite $p(\text{Trump}, \text{Turnout} = 1, x)_{2016}$ as a product of three distributions: (1) a composition distribution, $p(x)_{2016}$, which is the share of the electorate in voting bloc x, (2) a conditional turnout distribution, $p(\text{turnout} = 1|x)_{2016}$, which is the turnout rate among individuals in voting bloc x, and (3) a conditional vote choice distribution, $p(\text{Trump}|\text{turnout} = 1, x)_{2016}$, which is the proportion of individuals with attribute x, who turn out to vote, and then cast a ballot for Trump (Axelrod, 1972). Combining the terms we rewrite the number of votes Trump receives from voting bloc x as

$$p(\text{Trump}, \text{Turnout} = 1, x)_{2016} = \underbrace{p(\text{Trump} \mid \text{turnout} = 1, x)_{2016}}_{\text{vote choice}} \overbrace{p(\text{turnout} = 1 \mid x)_{2016}}^{\text{turnout}} \underbrace{p(x)_{2016}}_{\text{composition}} \tag{1}$$

Using Equation 1 we can compare Trump and Clinton's vote total in a block to obtain the number of votes Trump wins (or loses) among voting bloc x: Trump's net vote total in voting bloc x, which we denote as Net Trump(x). To calculate Trump's net vote total, we first define $p(\text{Clinton}, \text{Turnout} = 1, x)_{2016}$ as the share of the electorate in voting bloc x, who turn out to vote, and vote for Clinton. We can then write Net Trump(x) as the product of three terms that are closely related to the components of Equation 1. The first term is a vote difference term, $p(\text{Trump} \mid \text{turnout} = 1, x)_{2016} - p(\text{Clinton} \mid \text{turnout} = 1, x)_{2016}$, which is the rate individuals in voting bloc x who turn out to vote choose Trump over Clinton. If the vote choice difference is positive then Trump wins votes among the voting bloc and if it is negative then Trump loses votes among this bloc. This difference is then scaled by the turnout term $p(\text{turnout} = 1|x)_{2016}$ and the composition term $p(x)_{2016}$. Formally,

$$\begin{aligned}\text{Net Trump}(x) &= p(\text{Trump}, \text{Turnout} = 1, x)_{2016} - p(\text{Clinton}, \text{Turnout} = 1, x)_{2016} \\ &= \underbrace{(p(\text{Trump} \mid \text{turnout} = 1, x)_{2016} - p(\text{Clinton} \mid \text{turnout} = 1, x)_{2016})}_{\text{Vote Choice Difference}} \overbrace{p(\text{turnout} = 1|x)_{2016}}^{\text{turnout}} \underbrace{p(x)_{2016}}_{\text{composition}}\end{aligned} \tag{2}$$

Equation 2 makes clear why the prevailing focus on vote choice alone obscures the number of votes candidates receive from different voting blocs. If we only estimate the vote choice difference then we are only able to determine if Trump won or lost votes within a voting bloc (determined by the sign of the difference), but we are unable to determine how many votes Trump won or lost in the bloc. This is because voting blocs with a smaller vote choice differences can provide more votes if there are more individuals in the voting bloc. For a particularly extreme example of why bigger vote choice differences do not imply more votes for Trump, suppose that there is only one person in a voting bloc, constituted of an ardent Trump supporter. Then the vote choice difference will be as large as possible, $p(\text{Trump} \mid \text{turnout} = 1, x)_{2016} - p(\text{Clinton} \mid \text{turnout} = 1, x)_{2016} = 1 - 0 = 1$, and turnout will also be at its maximum $p(\text{turnout} = 1|x)_{2016} = 1$. But because this bloc is constituted of only one person, it constitutes a very small share of the electorate and can only contribute one vote. Other, more populated voting blocs with a smaller but still positive vote choice difference will obviously contribute more net votes to Trump.[9]

While it is interesting to know if Trump won or lost votes within a bloc, a broad goal of this literature is to understand how support for Trump differed from patterns of support for Romney. To make this comparison, we compute the difference in net votes for Trump and net votes for Romney. We define the net votes for Romney in voting bloc x analogously to our definition for Trump, $\text{Net Romney}(x) = p(\text{Romney}, \text{Turnout} = 1, x)_{2012} - p(\text{Obama}, \text{Turnout} = 1, x)_{2012}$. This is the total number of votes Romney won (or lost) among individuals in voting bloc x. We can then define the difference in Trump's net

[9]More generally, to see why this is important, suppose we have two voting blocs x and x'. We might find that individuals in voting bloc x who turn out to vote choose Trump at a higher rate than individuals in voting bloc x' who turn out to vote choose Trump, or $p(\text{Trump} \mid \text{turnout} = 1, x)_{2016} - p(\text{Clinton} \mid \text{turnout} = 1, x)_{2016} > p(\text{Trump} \mid \text{turnout} = 1, x')_{2016} - p(\text{Clinton} \mid \text{turnout} = 1, x')_{2016}$. And yet, Trump can win more votes from x' than from x if the proportion of the electorate in x' and their turnout rate is sufficient larger than the proportion of the electorate in x and their turnout rate.

votes, Diff Net(x) = Net Trump(x) − Net Romney(x), as

$$\begin{aligned}\text{Diff Net}(x) &= \text{Net Trump}(x) - \text{Net Romney}(x) \\ &= (p(\text{Trump} \mid \text{turnout} = 1, x)_{2016} - p(\text{Clinton} \mid \text{turnout} = 1, x)_{2016})\, p(\text{turnout} = 1|x)_{2016} p(x)_{2016} - \\ &\quad (p(\text{Romney} \mid \text{turnout} = 1, x)_{2012} - p(\text{Obama} \mid \text{turnout} = 1, x)_{2012})\, p(\text{turnout} = 1|x)_{2012} p(x)_{2012} \end{aligned} \tag{3}$$

We will also call Diff Net(x) the change in relative support for Trump. If Equation 3 is zero then Trump won the same number of scaled votes from voting bloc x as Romney did. If Equation 3 is positive, then Trump's net vote total was larger than Romney's net vote total among individuals with attribute x. This implies that Trump improved upon Romney's performance with this group either by winning the group by more or losing by fewer votes. And if Equation 3 is negative, then Trump's net vote total was smaller than Romney's net vote total among individuals with attribute x, indicating that Trump either lost the group by more or won by fewer votes.

Equation 3 shows that focusing exclusively on vote choice can only provide information about whether Trump and Romney won or lost votes within the bloc. It provides no information about the magnitude of this change. And as a result, we can see a stronger relationship between a voting bloc x and vote choice among those who turn out in 2016 than in 2012, but still find that Trump's net vote total is smaller than Romney's in a bloc. We give further intuition about these calculations and why we must consider vote choice, turnout, and composition, in Appendix D.

3 Explaining Voting-Bloc Shifts from 2012 to 2016

With these simple statistics, we examine how support for Republican and Democratic candidates in 2012 and 2016 shifted across voting blocs at the national level among all voters, at the national level among white voters, and among white voters in close states—those decided by five percentage points or fewer. We use two primary data sources: the Cooperative Congressional Election Survey (CCES) from 2012 and 2016 and the American National Election Study from 2012 and 2016. We rely on validated turnout in our analyses, coding people as having voted only if their survey response was matched to the voter file and the voter file

indicated that they voted. We supplement our analyses where possible with turnout rates from Fraga (2018), ensuring our conclusion is not based on estimates from only one survey.

Because we consider discrete characteristics, estimation is straight-forward: we estimate the weighted conditional means. For all quantities estimated from all surveys we will use the survey provided weights to make our inferences representative of the national population. We apply the weights when estimating population proportions $p(x)$, turnout $p(\text{turnout} = 1 \mid x)$, and vote choice conditional on turnout $p(\text{vote} \mid \text{turnout} = 1, x)$. We use a bootstrap that conditions on these weights to make statistical inferences about the shifts in relative support. Further, we test the sensitivity of our conclusions by showing how the difference in relative support changes as we vary turnout or composition, ensuring our conclusions are not dependent on the particular measures from the surveys we use for inferences.[10]

3.1 Trump Underperformed Romney Among Racial Conservatives and Gained More Net Votes Among Immigration Moderates

We first show that Trump received fewer votes than Mitt Romney from whites with the highest levels of racial resentment and that Trump's relative support improved more among whites with moderate immigration views than among whites with conservative immigration views. Figure 1 shows how the relative support for Trump changed across levels of racial resentment. To estimate this, we use data from the 2012 and 2016 ANES surveys, which included a standard battery of four racial resentment questions (Kinder and Sears, 1981). Each question was measured on a 5-point agree-disagree Likert scale. We coded the questions so that higher values indicate more racial resentment, then generate a scale by averaging together the z-scores for each respondent.[11] While we explain in Appendix C how to perform

[10] Our approach can be easily extended to continuous outcomes using parametric or non-parametric estimation of composition, turnout, and vote choice. We demonstrate how in Appendix C.

[11] z-scores were calculated using both the 2012 and 2016 data. The Chronbach's alpha of the scale is $\alpha = 0.76$.

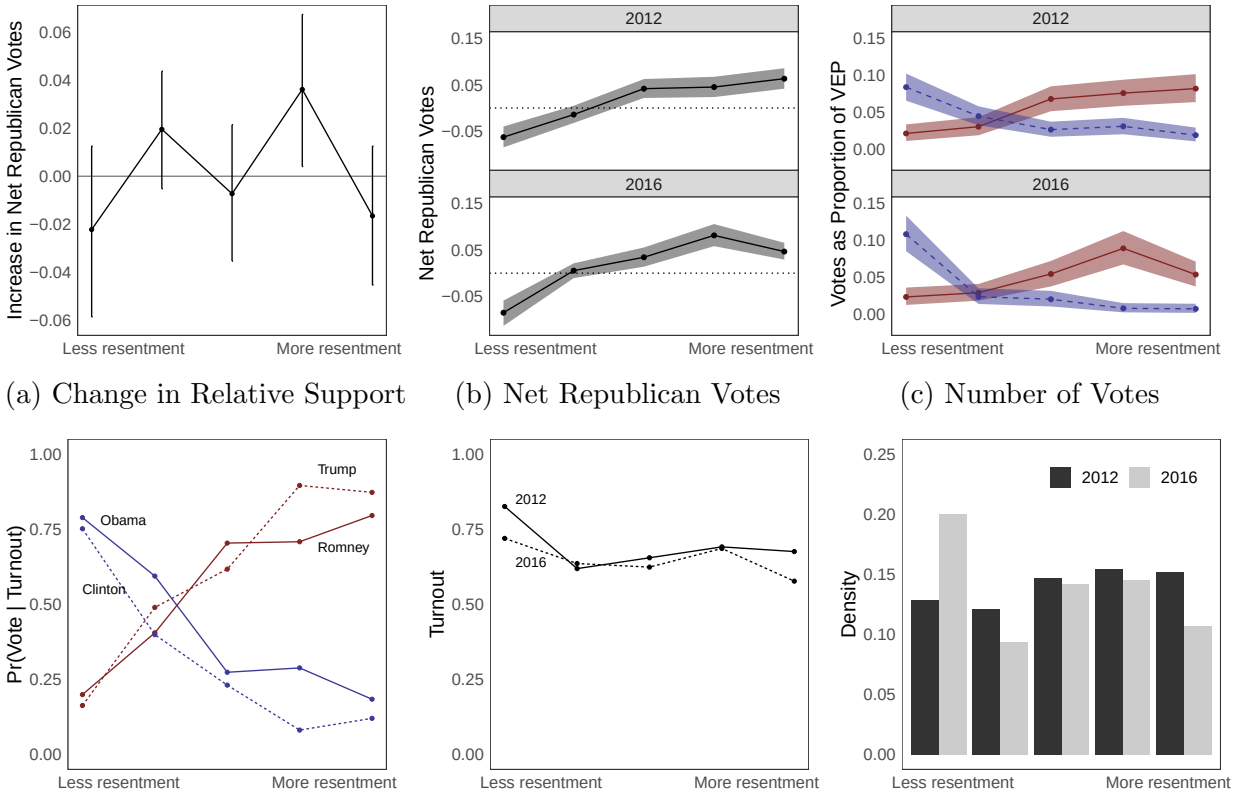
our analysis with continuous voting blocs (and we provide an analysis of racial resentment using continuous blocs there), for simplicity we divide the data into quintiles according to the 2012 distribution of racial resentment.

Across all our figures we use the same graphical conventions to present how the size of candidates' voting blocs changed from 2012 to 2016. The bottom row of each figure shows the composition across levels of racial resentment (Panel (f)), the turnout rate for each bloc (Panel (e)), and vote choice conditional on turning out (Panel (d)). Panel (c) then counts the number of votes for the Democratic and Republican candidates in 2012 and 2016. Panel (b) calculates the net votes for the Republican candidate in 2012 and 2016—negative votes indicate the Democratic candidate wins votes from the voting bloc, while positive votes indicate that the Republican won votes. And finally Panel (a) shows the difference in relative support—indicating whether Trump gains or loses net votes within a voting bloc.

Panel (a) in Figure 1 shows the difference in relative support for racial resentment defined voting blocs across the range of racial resentment scale. Trump's relative support declined among whites with the highest levels of racial resentment: we estimate a 1.7 percentage point decrease in the relative support for Trump among whites with the highest levels of racial resentment, indicative of Clinton losing this voting bloc by less than Obama. This is similar to the point estimate that we obtain for whites at the lowest end of the resentment scale, a 2.2 percentage decrease in relative vote share for Trump. In contrast, we estimate Trump's relative support increased 3.6 percentage points among whites with second-to-highest levels of racial resentment and 2.0 percentage points among whites with the second-to-lowest levels of racial resentment. Because of the sample size of the ANES we are unable to reject the null of zero for our point estimates of shifts in relative support. But, we can reject the null that the size of the shift in the most resentful quintile is equal to the shift among the second-lowest quintile ($p = 0.02$) and the null that shift in the most resentful quintile is equal to the second-most resentful quintile ($p = 0.01$). As we mention in the introduction, these differences in vote share translate into Trump's net vote total being 3.4 million votes smaller than Romney's among whites with the highest levels of racial resentment.

This decrease in net votes occurs even though we replicate the finding that racial conser-

Figure 1: **Racial Resentment Voting Blocs Among Whites**



(a) Change in Relative Support (b) Net Republican Votes (c) Number of Votes

(d) Vote choice (e) Turnout (f) Composition

Notes: Racial resentment cut into bins based on 2012 quintiles. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Bars show bootstrapped 95% confidence intervals.

vatism was "activated" in the 2016 election: we find a stronger relationship between racial resentment and vote choice among whites with a level of racial resentment and who have turned out to vote (Sides, Tesler and Vavreck, 2019). In Panel (d) we show that, conditional on turning out to vote, whites with the highest levels of racial resentment were more likely to choose Trump than they were to choose Romney and less likely to choose Clinton than they were Obama. And yet, this increase in the rate of supporting Trump is not sufficient to compensate for the large shift in the composition of racial resentment in the electorate. In 2016 there was a 4.5 percentage point decrease in the proportion of the electorate that was white and expressed the highest levels of racial resentment. In contrast, there was a 7.2 percentage point increase in the share of the electorate who was white with the least

resentful attitude. The result of this shift towards lower levels of resentment, Panel (b) and (c) show, is that Trump's vote choice advantage over Clinton is reduced, resulting in Trump winning whites with the highest levels of racial resentment by fewer votes than Romney.[12]

We also find that Trump's largest gains in relative support occurred among immigration moderates, not among immigration conservatives. Figure 2 shows Trump's change in relative support for immigration attitudes using the CCES. We utilize a continuous immigration scale, using common questions from 2012 and 2016, then bridged using a standard IRT procedure. Our common immigration questions from 2012 and 2016 come from an immigration battery. The survey asks respondents, "What do you think the U.S. government should do about immigration?" It then instructs respondents to check off policies that they would support. The three policies that are common to the 2012 and 2016 CCES are:

1) Increase the number of border patrols on the U.S.-Mexican border.

2) Grant legal status to all illegal immigrants who have held jobs and paid taxes for at least 3 years, and not been convicted of any felony crimes.

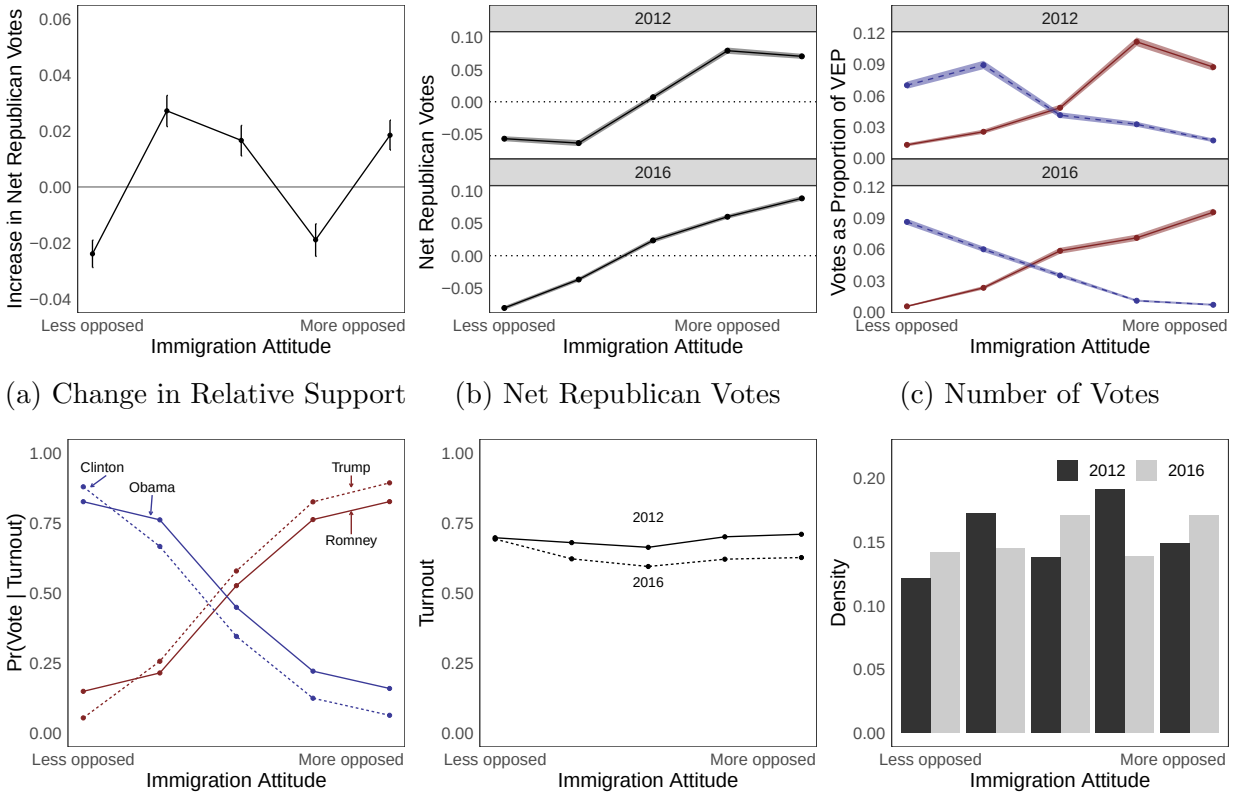
3) Fining businesses for employing illegal immigrants.

Using these bridging questions, we then generate a scale using the full immigration battery asked in 2012 and 2016. Consistent with our other analyses we break the scale into quintiles based on the 2012 distribution of attitudes. Our results are robust to this division. In Appendix E.1 we show that we obtain the same results if we use continuous voting blocs, if we define the divisions of the scale differently, or if we focus on just the questions asked of the full sample in both 2012 and 2016.[13]

[12]In Appendix F we show we obtain similar results from the ANES analyzing voting blocs based on whites' feeling thermometer evaluations of "Muslims", "blacks", and "whites".

[13]In Appendix E.1 we show we obtain similar results analyzing voting blocs defined by feeling thermometer assessments of "illegal immigrants" and "hispanics" derived from the ANES. Further, we obtain similar results from an ANES question asking respondents about the likelihood immigrants will affect job availability. We do find a different pattern from an

Figure 2: **Immigration Attitude Voting Blocs Among Whites**



(a) Change in Relative Support (b) Net Republican Votes (c) Number of Votes

(d) Vote choice (e) Turnout (f) Composition

Notes: Immigration attitude is a scale generated from an IRT model. Bridging questions that appear in both 2012 and 2016 are about increasing border patrol, granting amnesty to unauthorized immigrants, and fining businesses for employing unauthorized immigrants. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. The scale is cut into bins based on the 2012 quintiles.

Panel (a) shows that Trump increased his net vote total over Romney the most among voters in the middle of the immigration scale. We find a 2.7 percentage point shift in net

ANES question that asked about whether they would like to increase or decrease current levels of immigration. We show in Appendix E.1 that Trump's relative support increases among individuals who want to decrease immigration, while Clinton's relative support increases among individuals who want to increase immigration or keep it the same. This pattern is found only in this question, however. Overall, our evidence points to Trump's net vote total growing more among immigration moderates.

votes towards Trump among the second-most liberal quintile of immigration preferences and a 1.7 percentage point in the middle quintile of immigration preferences. Both shifts are comparable to the gains Trump makes among the most-conservative quintile of immigration preferences, where Trump's net votes increase 1.8 percentage points. But taken together, we find that Trump's relative vote total improves a full 2.5 percentage points more among immigration moderates than among whites with the most conservative immigration attitudes. Panel (b) and Panel (c) show that Trump both improved his net vote total and obtained a similar number of votes among immigration moderates and conservatives. Among whites in the middle of the immigration scale Trump gained approximate 2.8 million votes, an increase of about 1 percentage point of the voting eligible population over Romney's support from immigration moderates in 2012. And among whites with the most conservative preferences, Trump obtained a 2.7 million more votes than Romney, an increase of 0.8 percentage points over Romney's share. In contrast, Clinton won fewer votes than Obama in every quintile of immigration attitudes but the most liberal quintile, where she won an additional 4.4 million votes, an increase of 1.7 percentage points of the voting eligible populations. As we show in Appendix E.1, we find the same pattern in close states: Trump net vote total grows more among immigration moderates than conservatives.

These findings about racial resentment and immigration attitudes are robust. In addition to demonstrating that the findings are found in conceptually similar questions, in Appendix F we show that the results are robust to different measures of composition of attitudes and turnout among racial resentment and immigration attitude voting blocs. Trump's largest increases in relative support, then, occurred among whites with moderate racial resentment scores and more moderate views on immigration.

3.2 Prior Vote-Choice Based Voting Blocs

A second explanation for Trump's victory was that he was particularly successful at securing the votes of whites who self-report voting for Obama in 2012. Figure 3 shows that Trump's relative support did increase more among whites who self report voting for a Democrat in a prior election than Clinton's relative support increased among whites who self report voting

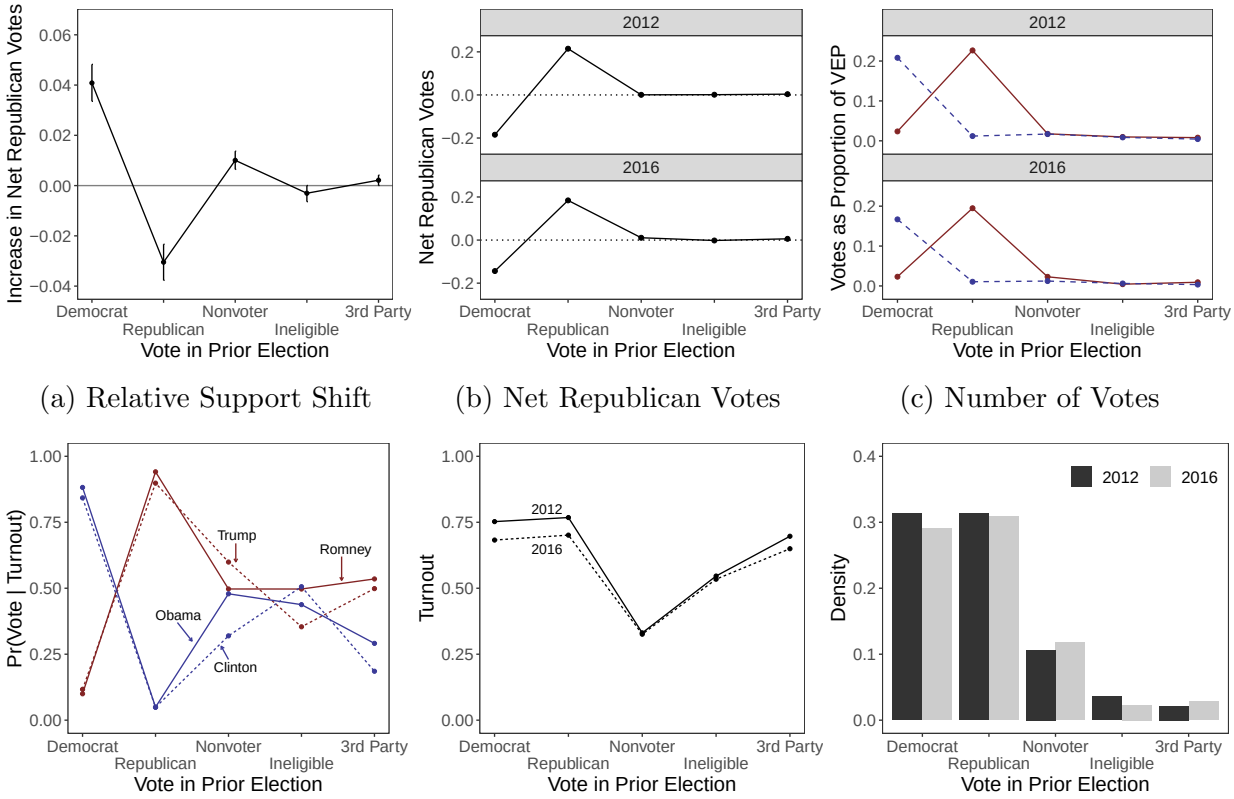
for a Republican in a prior election. But this is not because Trump was particularly adept at securing former Obama voters. In fact, Figure 3 shows that Trump obtained almost an identical number of votes from whites who self reported voting for Obama in 2012 as Romney obained from whites who self reported voting for Obama in 2008. Rather, Trump's increased relative support among prior Democratic voters occurs because Clinton received a much smaller share of whites who self-report voting for Obama in 2012 than Obama received in 2012 from whites who self-report voting for Obama in 2008.

To assess these changes we use self-reported vote in the prior election within the CCES for 2012 and 2016. We define voting blocs based on the party of the candidate voters self-report supporting in the prior election and identify voters who were ineligible in the prior election as "ineligible".[14]

Panel (a) of Figure 3 shows that both Trump and Clinton's relative support increases among whites who self-report voting for the other party's candidate in the prior election.

[14]While this question is commonly used to identify who voters in the current election supported in the prior election, we note that there is substantial and clear evidence of bias resulting in over reporting Obama voting, slight over reporting of support for the Republican candidates, and underreporting of non-voting. For example in the 2016 CCES 29.0% of the electorate is white and reports voting for Obama in 2012. Yet, in the 2012 CCES, using the validated vote, we estimate that only 25.0% of the electorate was white and voted for Obama. Obviously, the number of Obama voters cannot increase from 2012 to 2016, so there must be individuals misreporting their turnout behavior in 2012. We find similar over reporting of voting for Romney, though the increase is smaller in magnitude (30.9% of the electorate in 2016 was white and reported voting for Romney in 2012, yet we estimate in the 2012 CCES that 28.5% of the electorate in 2012 was White and voted for Romney). And we estimate a much higher turnout rate when voters self-report their vote from 2012 than is found when the vote is validated. Nonetheless, we use this self-reported measure to assess how the candidates perform with supporters of prior candidates in the prior election, recognizing that there is systematic measurement error.

Figure 3: **Prior Presidential Vote Voting Blocs**



(a) Relative Support Shift (b) Net Republican Votes (c) Number of Votes

(d) Vote Given Turnout (e) Turnout Given Race (f) Prior Vote Choice Density

Notes: Horizontal axis shows self-reported vote choice in the prior presidential election. Respondents younger than 22 years old are categorized as ineligible to vote in the prior election. Bars show bootstrapped 95% confidence intervals.

Trump's relative support increased 4.1 percentage points among individuals who self-report voting for a Democrat in a prior election, while there was a shift of 3.0 percentage points towards Clinton among whites who self-report voting for a Republican in prior elections. Trump also obtained a 1.0 percentage point increase in relative support among whites who previously report not voting. We see a nearly identical pattern among whites in close states: Trump's relative support increased among individuals who report supporting the Democrat in the prior election, Clinton's relative support increased among individuals who report support the Republican in the prior election, and Trump was able to secure additional support from individuals who previously did not turn out to vote.

While Trump had a shift in relative support among whites who report supporting Democrats,

Trump received an almost identical number of votes from Obama 2012 voters as Romney received from Obama 2008 voters. We estimate 2.3% of the electorate was white, reported voting for Obama in 2012, and then voted for Trump in 2016 and 2.3% of the electorate was white, reported voting for Obama in 2008, and then voted for Romney in 2012. This same pattern is found among whites in close states: 2.8% of the electorate in close states were whites, reported voting for Obama in 2012, and then voted for Trump, while 2.3% of the electorate in close states were whites, reported voting for Obama in 2008, and then voted for Romney. Trump's gain in net votes occurred because Clinton received many fewer votes from whites who reported voting for the Democratic candidate in the prior election than Obama received in 2012 from whites who reported voting for Obama in 2008. In 2016 16.7% of the electorate was white, reported voting for Obama in 2012, and then voted for Clinton in 2016. In contrast, 20.8% of the electorate was white, reported voting for Obama in 2008, and then voted for Obama in 2012.

These patterns are the result of changes in composition, turnout, and vote choice in the voting bloc. First, there was fewer Obama 2012 voters than Obama 2008 voters as a share of the electorate (even given the bias towards reporting voting for the winner in prior elections). Second, there was lower turnout among former Obama voters in 2016 than in 2012 resulting in a voting bloc that contributed a large number of Democratic votes in the prior election contributing fewer votes to Clinton. And third, there was a lower rate of self-reported Obama 2012 voters who turned out to vote supporting Clinton than the self-reported Obama 2008 voters support Obama in 2012. Trump also received a smaller share of votes from Romney 2012 voters than Romney received from McCain 2008 voters, but this decrease is smaller in magnitude than the decrease for Clinton. Trump's advantage among self-reported non-voters occurred despite a decrease in turnout among this group, because Trump had a much larger vote choice advantage. Whites who report not voting in 2012, but who did turn out to vote in 2016 were more likely to support Trump than Clinton: 59.9% choose Trump, while 32% report supporting Clinton. But whites who report not voting in 2008 who turn out in 2012 were more evenly split between Romney and Obama: 49.7% choose Romney, while 47.9% choose Obama. The result, is that Trump won non-voters by much more than Romney.

A second surprising fact about the 2016 election, then, was that Trump was not particularly able to swing former Obama voters. Rather, Trump's advantage emerged because fewer Obama 2012 voters supported Clinton in 2016 and because he was able to secure support from individuals who previously report not voting.

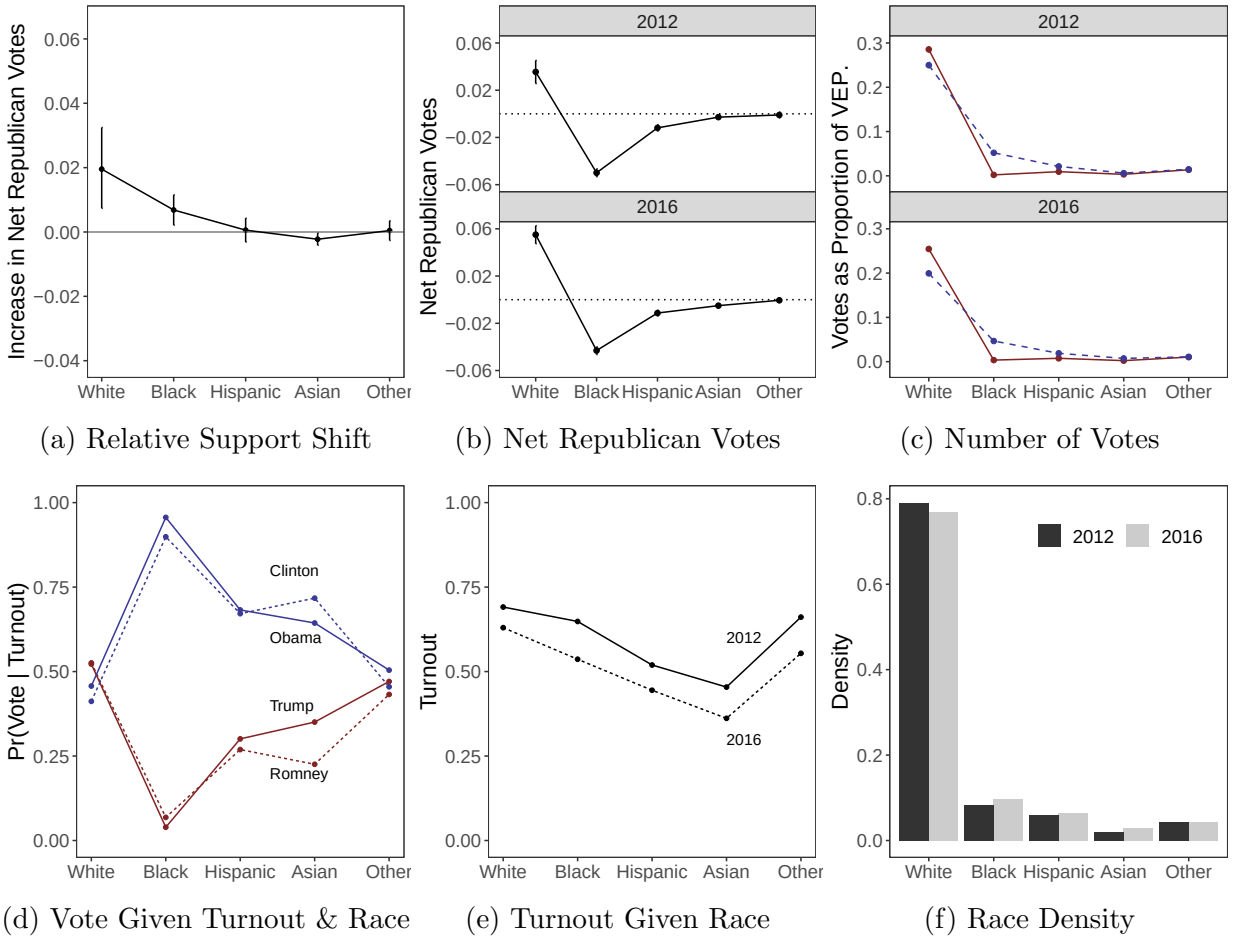
3.3 Trump Outperforms Romney in White and Black Voting Blocs

If Trump's support did not increase among whites with high levels of racial resentment, restrictive immigration preferences, and he was not distinctively appealing to former Obama voters where did his support increase? We will now show that Trump's largest gains in relative support came from low-status whites who are independents and ideological moderates. To begin making this case, we first analyze how support for Trump shifted across race-based voting blocs. We present the results of this analysis in Figure 4. Panel (a) of Figure 4 shows that the largest differences in relative support occurred among white and black voting blocs—with a shift in net votes among both groups towards Trump relative to 2012. There was a 1.95 percentage point shift in difference in net votes towards Trump among whites. There was a smaller shift towards Trump among African Americans, with a 0.68 percentage point shift in difference in net vote total towards Trump. Asian-Americans, in contrast, shifted in their net vote total towards Clinton with a shift in net vote total of -0.23 percentage points. Overall, we find only small differences in net vote total for Hispanics or individuals who self-identify with "other" race.

If we focus on the close states—those decided by five-percentage points or less—we find an even larger relative shift in relative support among whites towards Trump. We present the composition, turnout, vote choice, and difference in net vote total in Figure I15 in Appendix I for racial voting blocs in close states. In close states, there was a 3.7 percentage point shift in relative support towards Trump among whites. There were smaller shifts among non-whites in close states, with a shift of 0.55 percentage points for blacks and 0.39 percentage point shift among Hispanics.

The change in relative support among whites occurs largely because of changes in who whites vote for once they arrived at the polls. For whites, both their composition of the

Figure 4: **Race Voting Blocs**



(a) Relative Support Shift (b) Net Republican Votes (c) Number of Votes

(d) Vote Given Turnout & Race (e) Turnout Given Race (f) Race Density

Notes: Bars show bootstrapped 95% confidence intervals.

electorate and turnout rates were lower in 2016 than in 2012 and, as a result, the white Trump and Clinton voting bloc sizes were smaller than the white Romney and Obama voting bloc sizes. Nationwide, in 2016 white voters who turned out to vote supported Trump at nearly an identical rate as white voters supported Romney in 2012. In 2016, 52.6% of white voters who turned out voted for Trump, while 52.2% voted for Romney. In contrast, white voters were less likely to support Clinton in 2016 than Obama in 2012. In 2016, 41.2% of whites who turned out to vote self-report voting for Clinton, while 45.7% of whites who turned out to vote report voting for Obama.

Compared to the country as a whole, whites constitute a larger share of the electorate in the states that were close in 2016. As a result, nearly identical patterns in vote choice

translated into a bigger shift in relative support for Trump. Consider first vote choice in close states. There, 47.5% of whites who turned out to vote supported Obama in 2012, while 41.6% of whites who voted in 2016 supported Clinton—an approximately 6 percentage point decrease that is qualitatively similar to the 4.5 percentage point decline among whites in the full sample. Yet, the shift in net votes is bigger in close states, because there white voting blocs compose a larger share of the population. In close states, whites comprised 81.1% of the voting-eligible population in 2016, while the CCES estimates that whites comprise 76.9% of the electorate nationwide. Given similar turnout rates, this implies that there were more white voters to supply Trump with an advantage in close states and, as a result, his relative support grew more.

African Americans' shift in net vote total towards Trump is due almost entirely to large declines in turnout from 2012 to 2016, though there were small shifts in vote choice as well. As Fraga et al. (2017); Green and McElwee (2019); Fraga (2018) have noted, black turnout dropped considerably in 2016. Using the CCES on the nationwide sample, we find that 64.8% of black respondents turned out to vote in 2012, while in 2016 that number was 53.6%—a decrease of 11.2 percentage points. The decrease in white turnout was slightly more than half this size (6.1 percentage points) and the decrease in black turnout was larger than the decrease among Hispanics (7.5 percentage point decrease). In close states we see an even steeper decline in black turnout. In 2012, 68.1% of black respondents turned out to vote, while that number declined to 53.2% in 2016—a 14.9 percentage point decrease.

To a lesser extent, there was a small change the party African Americans who turned out to vote supported. Nationwide, African Americans who turned out to vote were slightly less likely to support Hillary Clinton than Barack Obama. In 2012, 95.6% of black voters supported Barack Obama, while 89.9% supported Hillary Clinton. Black respondents were nearly twice as likely to support Trump (6.9%) than Romney (3.9%), though these low levels of support explain only a small share of the shift, and we do not see the same patterns in the close states.

We want to emphasize that Trump's relative support among black citizens increased, despite the fact the vast majority of black individuals who turned out to vote choose Hillary

Clinton. But Trump lost fewer votes among African Americans because there were many fewer votes cast by African Americans in the 2016 election than in 2012. In Appendix F we show that these results are robust to different measures of turnout and composition of the electorate, including using administrative estimates from Fraga (2018) and using a formal sensitivity analysis that varies the composition and turnout estimates.

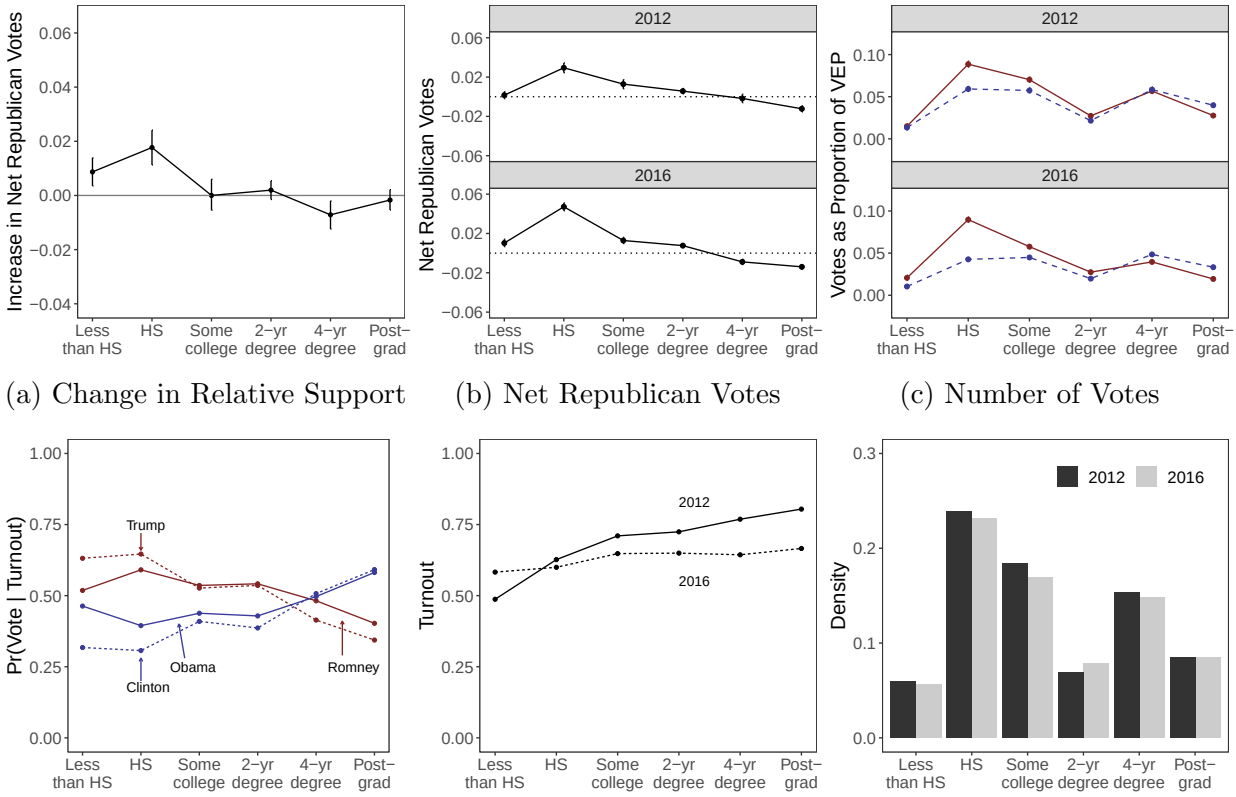
Taken together, we find that the largest shift in support for Trump occurs among whites. This does not mean that the decrease in black turnout was inconsequential, but it does suggest that, to understand where Trump secured more support than Romney, it is essential that we understand where Trump secured support among white individuals. Among the white electorate, we might be particularly interested in two additional demographic based voting blocs of the individual: gender and age. In Appendix I we show that Trump had an increase in relative support from both white men and women, in both the full sample and in close states. Further, we find that Trump experienced an increase in relative support among whites from across the age spectrum, but saw a particularly large increase among white voters aged between 50-59.

3.4 Trump Outperformed Romney Among Low-Socioeconomic Status Whites

When examining the outcome of the election, numerous accounts have identified that education and income had become increasingly predictive of vote choice and that Trump performed particularly well among those with low education and low income (Cohn, 2017; Sides, Tesler and Vavreck, 2019). Perhaps the clearest statement of this pattern comes from a New York Times blog post by Cohn (2017) that argues: "The story of the 2016 presidential election is simple. Donald J. Trump made huge gains among white voters without a college degree." Similarly, scholarly accounts observed that low-education and low-income voters were more likely to vote for Trump once they turned out to vote (Sides, Tesler and Vavreck, 2019; Reny, Collingwood and Valenzuela, 2019; Morgan and Lee, 2018*a*; Morgan, 2018). In this section we show that Trump saw his largest gains in relative support among whites with low levels of education and in Appendix G we show that Trump saw similar gains with whites at median

or below household income.

Figure 5: **Education Voting Blocs Among Whites**



(a) Change in Relative Support (b) Net Republican Votes (c) Number of Votes

(d) Vote choice (e) Turnout (f) Composition

Notes: Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Bars show bootstrapped 95% confidence intervals.

Figure 5 shows the difference in net votes for Trump by education level, demonstrating that Trump had the largest increase in net votes among low-education whites: white individuals who report having a high school degree or lower level of education. The biggest increase occurred among whites who have a high school education, with a shift in relative support of 1.8 percentage points towards Trump. Among whites with less than a high school education there was difference in relative support of 0.9 percentage points. In contrast, there is a shift in relative support towards Clinton among higher education whites. There was a difference in relative support of -0.7 percentage points among whites with a 4-year college degree and a -0.2 percentage point shift among whites with a post-graduate education. Figure 5 uses the full sample, but we show in Appendix I that we obtain similar patterns if we focus on

the close states only.

Trump's increase in relative support among low education whites is primarily because Trump had a massive vote choice advantage among low education whites who had turned out to vote, while Clinton received a much smaller vote choice advantage among whites with higher levels of education. In 2016, whites without a high school degree and who turned out to vote were 31.3 percentage points more likely to vote for Trump than Clinton, whereas in 2012 they were only 5 percentage points more likely to vote for Romney than Obama. Similarly, Trump was much more likely to be chosen by whites with just a high school degree. While college-educated whites who turned out to vote were less likely to vote for Trump than Romney, their support for Clinton did not increase as much as the low-education whites support for Trump increased. For example, white voters with a college degree were 1.5 percentage points more likely to vote for Obama over Romney, and then 9.3 percentage points to support Clinton over Trump—not even 1/3 of the of the advantage Trump enjoyed over Clinton among low-education voters. Further, there are more lower educated individuals in the population and the turnout advantage of high-education whites over low-education whites was much smaller in 2016 than in the 2012. Taken together, the result is an overall increase in relative support for Trump, concentrated among low-education voters.

3.5 Trump Outperforms Romney Among Independent and Ideological Moderate Whites

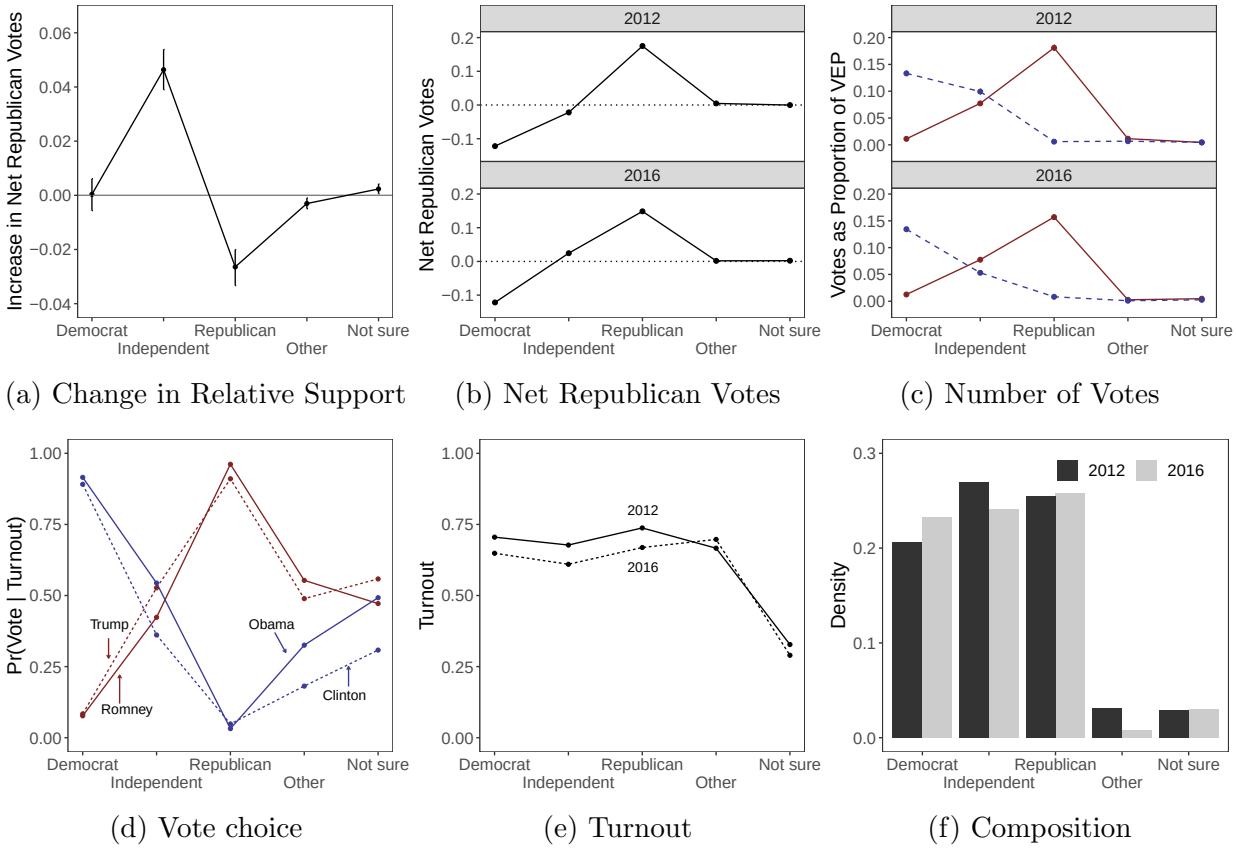
Not only did Trump see an increase in relative support among low-socioeconomic status whites, we also find that Trump's largest relative support increases among whites who are independents and ideological moderates. This finding contributes to a debate about whether Trump's victory was largely about increasing support among the Republican base—conservative Republicans—or about winning support from blocs of voters with a tendency to "swing" between the parties, such an independents and ideological moderates. We not only show that Trump's increases in relative support came from independents, we show that Trump's net vote total among conservatives and Republicans was smaller than Romney's. Of course, the evidence in this section does not address the broader causal inference ques-

tion about whether parties are more competitive when they nominate extremists or centrists (Hall, 2015). But it does provide descriptive information about where, along the political spectrum, the additional support for Trump over Romney emerged.

Figure 6 shows the differences in relative support across partisan voting blocs, demonstrating that Trump's relative support grew the most among independents and *decreased* among Republicans. To measure this relative shift, we use the nationwide sample of the CCES, but we show in Appendix I that there is the same pattern partisan support among whites in close states. Among white independents there was a 4.6 percentage point increase in relative support for Trump, but there was a 2.6 percentage point decrease among white Republicans—indicating that Clinton lost fewer votes among Republicans than Obama. There is essentially no change among the other partisan voting blocs, including no change in the Democratic voting bloc. Across other partisan voting blocs there is a negligible shift in relative support.

Trump received an increase in relative support among white independents largely because independents who turned out in 2016 voted for Trump at a much higher rate than they supported Romney in 2012. Obama was selected 12 percentage points more often than Romney by white independents who turned out to vote, but Trump was selected 16.6 percentage points more often than Clinton among white independents who turned out to vote. The decrease in the prevalence of white independents in 2016 and the decrease in overall turnout is not enough to offset this shift in vote choice. In fact, the same share of the electorate was a white independent who turned out to vote and supported Trump in 2016 and Romney in 2012: 7.7% of the electorate. But a considerably smaller share of the electorate were white independents who supported Clinton than were white independents who supported Obama: 5.3% of the electorate was a white independent who supported Clinton, while 9.9% of the electorate was a white independent who supported Obama. In contrast, Clinton gained relative support among white Republicans compared to Obama because she lost fewer Republican votes. Clinton is able to narrow the net-vote total among Republicans because Republicans in 2016 who turned out to vote were 5.1 percentage points less likely to vote for Trump than Republicans who turned out to vote in 2012 were to vote for Romney.

Figure 6: **Partisan Voting Blocs Among Whites**



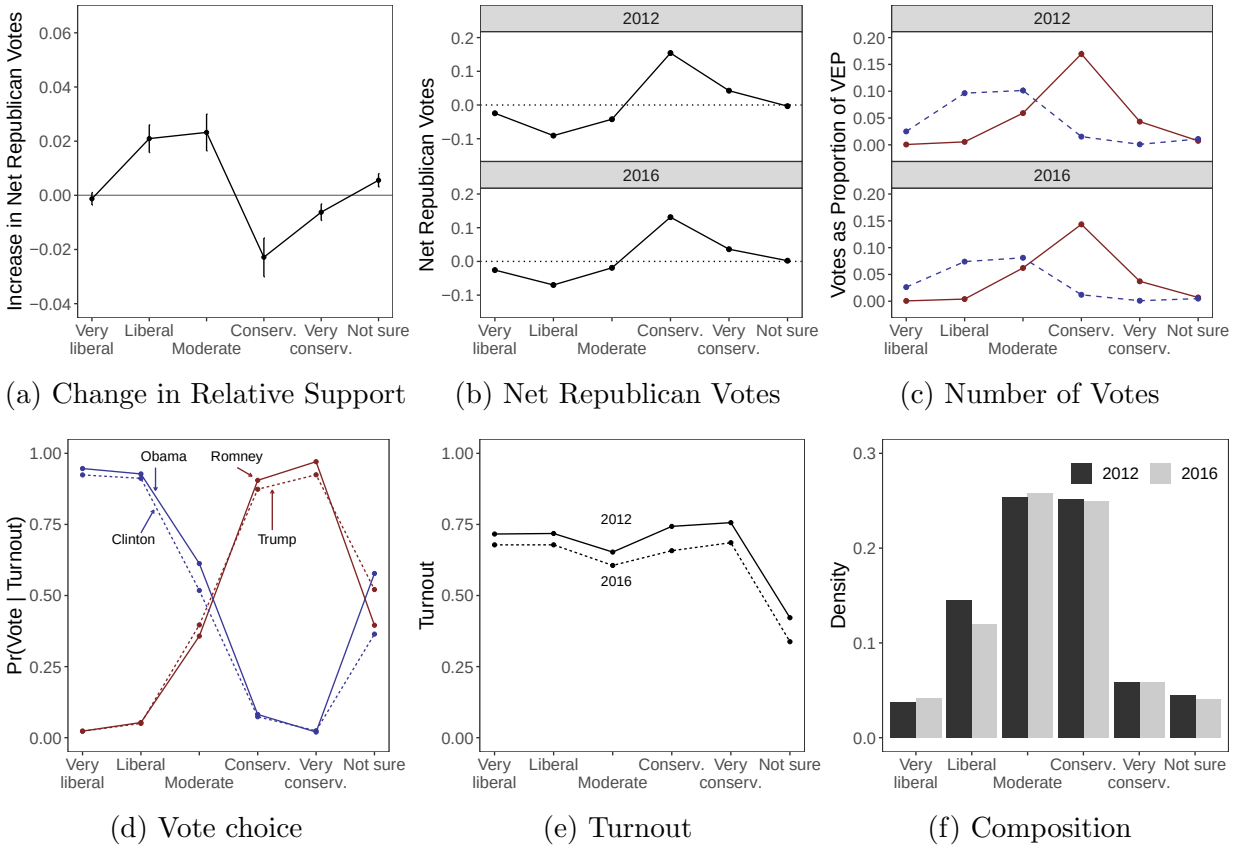
(a) Change in Relative Support (b) Net Republican Votes (c) Number of Votes

(d) Vote choice (e) Turnout (f) Composition

Notes: Party includes Democratic and Republican "leaners." Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Bars show bootstrapped 95% confidence intervals.

There was a shift in relative support among white independents and this led to an overall increase in support for Trump, in spite of the decline in relative support among the Republican voting bloc. We see a similar pattern with ideology: Trump's largest increase in relative support occurred among white moderates and white liberals and Trump lost relative support compared to Romney among whites who identify as conservative or very conservative. Figure 7 shows that there was a 2.3 percentage point increase in relative support for Trump among white moderates. We find countervailing shifts for the two candidates among white liberals and conservatives. Trump's relative support improved among liberals by 2.1 percentage points, because Trump lost liberals by less than Romney. And there was a 2.3 percentage point shift in relative support towards Clinton among conservatives, meaning

Figure 7: **Ideological Voting Blocs Among Whites**



(a) Change in Relative Support (b) Net Republican Votes (c) Number of Votes

(d) Vote choice (e) Turnout (f) Composition

Notes: Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Bars in top row show bootstrapped 95% confidence intervals (some bars are obscured by the points).

Clinton lost fewer net votes from conservatives than Obama.

These shifts in relative support occurred because of changes in composition, turnout, and vote choice. The shift in relative support among liberals reflected the decrease in the share of liberals in the white population in 2016. The result is that there are fewer liberals in the electorate, which was further exacerbated by a decrease in turnout in 2016 relative to 2012. So even though liberals who turned out voted for Obama and Clinton at similar rates, the share of the electorate who is white, liberal and voted for Clinton is smaller than the share of the electorate who is white, liberal, and voted for the Democratic candidate: 7.4% of the electorate in 2016 compared to 9.6% of the electorate in 2012. We see a similar shrinking of Trump's share of the electorate among white conservatives in 2016 relative to Romney's

in 2012, reflecting the lower levels of conservative turnout and that conservatives who turn out were less likely to vote for Trump than they were to vote for Romney. In 2016, 14.3% of the electorate was white, conservative and voted for Trump; in 2012, 17.0% of the electorate was white, conservative, and voted for Romney.

Trump won in 2016 *despite* declines in relative support for Republicans and conservatives, largely the result of his base turning out at lower rates and then supporting him at lower rates at the polls once they turned out than they supported Romney. Trump's support increased the most among moderates and independents. This occurred primarily because once at the polls, independents choose Trump at rates similar to the rates they choose Obama and ideological moderates supported Clinton at substantially lower rate than they supported Obama.

As further evidence of Trump's relative gains among moderates, we show in Appendix I that Trump's biggest increases in net vote total relative to Romney occurred among individuals who support gay marriage (Figure I32) and more moderate on a self-placed scale about preferences over government taxing and spending (Figure I31).

3.6 The Uneven Changes in Trump Support Defined by Economic Factors, Because of Shifting Economic Conditions

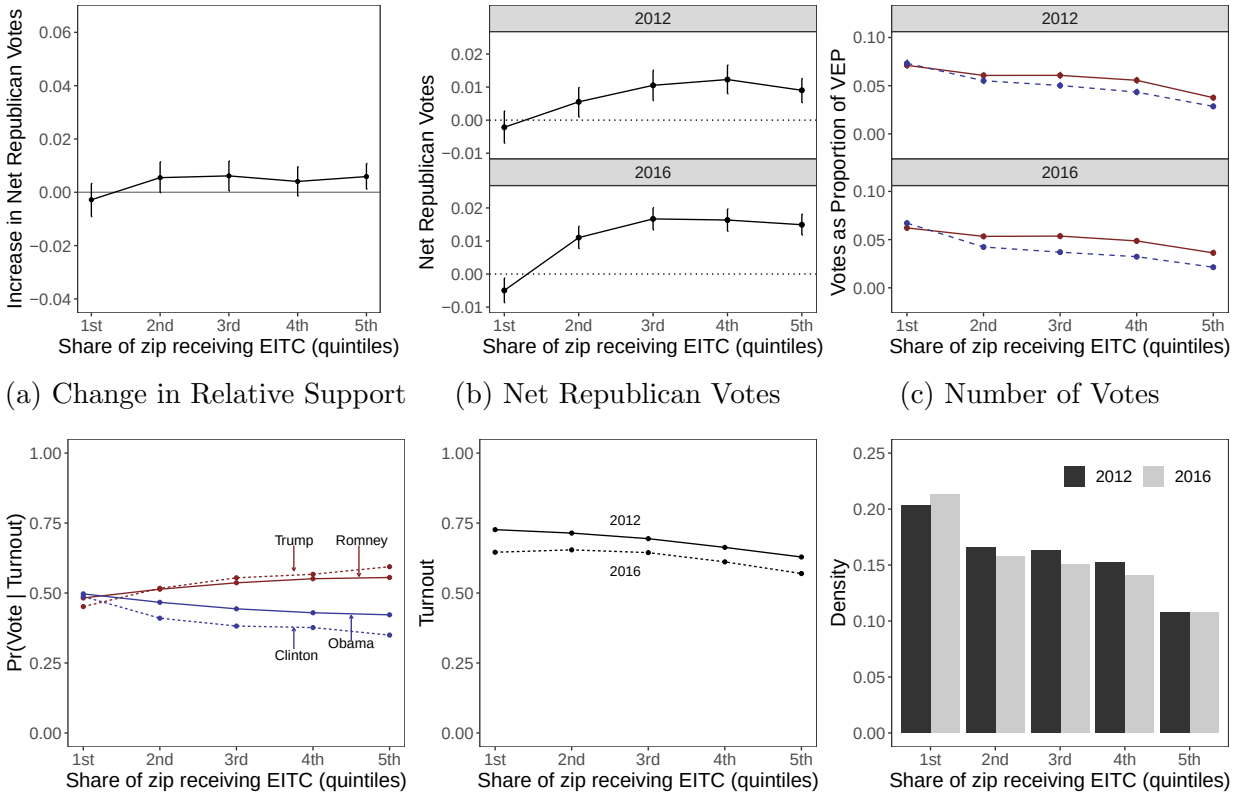
A final set of voting blocs that could explain changes in Trump support are those defined by economic factors. A number of scholarly and journalistic accounts have assessed if Trump was distinctively appealing to whites who feel "left behind" or are otherwise economically distressed (Mutz, 2018; Morgan and Lee, 2018*b*; Sides, Tesler and Vavreck, 2019; Cohn, 2017; Porter, 2016). We have already seen evidence that Trump improved over Romney's vote totals among individuals who are low-SES. In Appendix H we provide further evidence, demonstrating that Trump's net vote total increased among disabled and unemployed whites. But, we also show in Appendix H that Trump's net vote total declined among voting blocs defined by large decreases in household income, largely because of the improved economic conditions mean there are many fewer individuals living in households with large declines in income.

While we have largely focused on voting blocs defined by individual attributes, in this section we examine contextually defined voting blocs—namely the share of tax filers in a zip code claiming unemployment insurance or the earned income tax credit (Green and McElwee, 2019). We find mixed evidence on how Trump's support compares to Romney's across the context of where voters live, even though we see activation of voters' economic context: voters who reside in poorer zip codes support Trump at higher rates than they supported Romney. But the substantially improved economic conditions from 2012 to 2016 imply that many fewer voters reside in economically depressed zip codes. And as a result, we find that Trump's support increased the most among voters who reside in the lowest quintile of unemployment insurance utilization. But, for measures that are less responsive to cyclical changes in economic conditions—like the share of the zip code who uses the earned income tax credit—we find that Trump's support increased more in poorer zip codes. Any account of how context mattered for Trump support, then, will depend on how responsive measures of context are to the current economic conditions.

We first examine the difference in net vote total across voting blocs defined by earned income tax credit (EITC) utilization. Figure 8 shows the shift in Trump support for individuals residing in quintiles of EITC utilization, with quintiles defined using the 2012 IRS data. Trump's support increased for individuals residing in the second-lowest to the highest quintile of EITC utilization. All four of these quintiles saw differences of relative support of quite similar size: a shift of 0.5 percentage points towards Trump. This increase in support occurs even though there is a compositional shift away from higher rates of EITC utilization, reflecting the improved economy.

Yet, when we examine white voting blocs defined by the utilization of unemployment utilization in an individual's zip code, we find that Trump's relative support increased the most in zip codes with the lowest level of unemployment insurance utilization–even though individuals who reside in the highest utilization zip codes choose Trump at a much higher rate than they choose Romney. We define the voting blocs using the 2012 quintiles of unemployment insurance utilization. Figure 9 shows Trump receiving more support among individual who reside in zip codes with lower unemployment insurance utilization. Panel (a)

Figure 8: **Voting Blocs by Proportion of Zip Code Claiming EITC Among Whites**



(a) Change in Relative Support (b) Net Republican Votes (c) Number of Votes

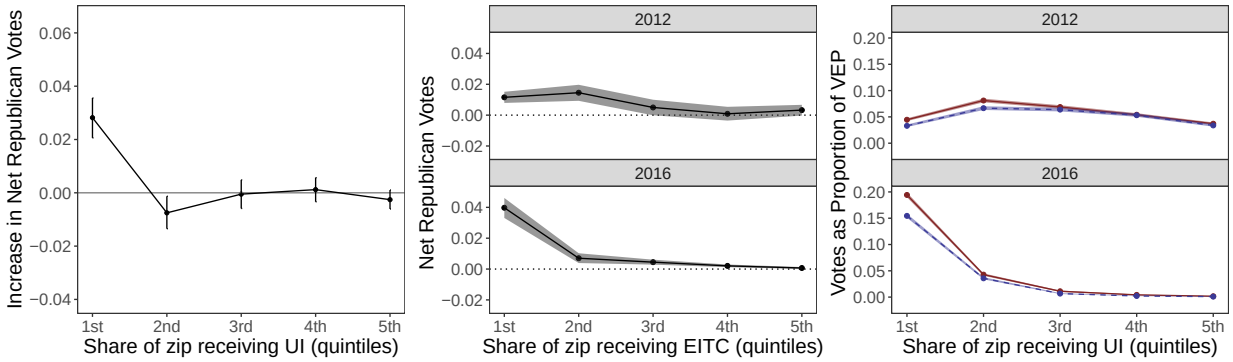
(d) Vote choice (e) Turnout (f) Composition

Notes: Quintiles refer to the distribution across zip codes in 2012, according to IRS data. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Bars show bootstrapped 95% confidence intervals.

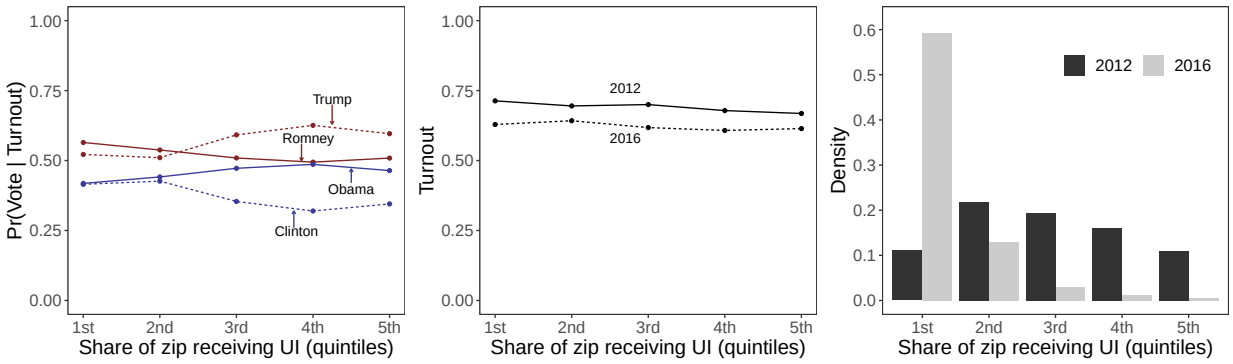
shows a large shift in relative support towards Trump from individuals who reside in the zip codes with the lowest unemployment rates. There is a 2.8 percentage point shift in support towards Trump among respondents who reside in zip codes with the lowest utilization of unemployment insurance, while there is a 0.3 percentage point decline in relative support for Trump among those who live in zip codes with the highest utilization of unemployment insurance. This occurs even though whites who reside in zip codes with high unemployment insurance utilization choose Trump at higher rates than Romney. But the continued economic recovery from 2012 to 2016 resulted in a large compositional shift in whites residing in zip codes with low unemployment insurance utilization.

In Appendix I we show that the patterns we observe the in full sample are magnified in

Figure 9: **Voting Blocs by Proportion of Zip Code Claiming Unemployment Among Whites**



(a) Change in Relative Support (b) Net Republican Votes (c) Number of Votes



(d) Vote choice (e) Turnout (f) Composition

Notes: Quintiles refer to the distribution across zip codes in 2012, according to IRS data. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Bars show bootstrapped 95% confidence intervals.

close states. Trump support grew among the disabled, retired, and individuals who reside in zip codes with relatively high EITC utilization. But as the economy improved Trump saw the biggest surges in support among those with stable household incomes and residing in zip codes with lower rates of unemployment insurance utilization.

4 Conclusion

In this paper we demonstrate that the common practice of regressing vote choice on individual characteristics is largely uninformative about where a candidate support lies in the electorate. This is because vote choice is only one component of the contribution of voting blocs to a

candidate's vote total. We must also know how prevalent a group is in the electorate and the turnout rate of the group to know how much a group contributes to a candidate's vote total.

Taking these three components into account, we first show that even though racial and ethnic attitudes were activated in 2016, they did not contribute a distinctive number of votes to Trump. We show that Trump's net vote total among whites with the highest levels of racial resentment was smaller than Romney's. Further, we find that Trump's relative support grew more among white moderates on immigration than among white conservatives on immigration, and that Trump received an almost identical share of votes from former Obama voters as Romney. Rather than these explanations, we show that Trump received an increase in relative support among low-SES whites who are independents and political moderates. We find Trump gained support among whites who are disabled and retired, but we see only limited evidence that Trump gained support among whites who reside in depressed economic contexts.

Our analyses cannot answer causal questions about the optimal campaign strategy for a candidate, nor does it provide conclusive evidence about who campaigns should target to win elections. Yet, our results do show that Trump improved over Romney among voters who are regularly identified as "swing" voters (Hill, 2017). These voters casted more votes for Trump in 2016 than they did Romney in 2012, and this group of voters supported Clinton at much lower rates than they supported Obama. Despite concerns about ideological polarization, increased partisan acrimony, and low engagement among independents, these findings imply that white swing voters comprise an important voting bloc for presidential campaigns and are likely to remain so in future elections. Of course, as the electorate becomes less white, other racial groups are likely to comprise this crucial group of swing voters (Barreto and Segura, 2014; Fraga, 2018).

Our results also show that analyses that focus on activation of attitudes overstate the importance of racial and immigration conservatives to Trump's victory. For example, Sides, Tesler and Vavreck (2019) argue white racial and immigration conservatives who switched from Obama to Trump were pivotal to Trump's victory in close states. Their evidence, how-

ever, is based on regressions of vote switching on racial and ethnic attitudes among white voters in close states and not an explicit calculation of votes. To do the vote calculation, we replicate our analysis on immigration attitudes subsetting to respondents who voted for Obama in the prior election.[15] We find that among former Obama voters, Trump improved his relative support most among moderates on the immigration scale, despite clear evidence from the vote choice term that immigration was activated in 2016 among former Obama voters. However, there are very few people who reported voting for Obama in the previous election with very conservative immigration attitudes. Thus, our main findings about immigration—the Trump benefited from gains among moderate—are replicated even among former Obama voters. Of course, in close elections small groups of voters can swing the outcome. However, there are many such groups of potentially pivotal voters. Our results show that explanations that focus on activation alone miss the largest changes in the electorate.

Methodologically, our paper demonstrates that if the goal is to explain election results, studying only the correlation between attitudes and vote choice among those who turn out to vote is insufficient to know where a candidate receives votes. And worse, focusing only on vote choice can produce misleading or outright incorrect estimates of where a candidate receives support. The implications of this are far reaching for how social scientists explain the results of elections and how they use experiments to make recommendations for campaign strategy. If the goal of the activation literature is understanding why a candidate won an election, then much of the current practice of how elections are analyzed needs to be expanded to also include measures of turnout and composition. Further, the activation literature's focus on vote choice and attitudes does not eliminate the need to consider turnout rates or changes in composition. In fact, regressions of vote choice on attitudes could still be deeply biased by differential turnout across attitude levels or changes in composition of attitudes in the electorate. For example, by focusing only on vote choice of those who turnout, there is a clear selection issue: only those individuals who vote can report a vote choice. As a result, even in studies focused on activation, differential turnout could create an impression of attitude

[15]These results are shown in Figure I14 in the Appendix.

activation when actually the differences across elections are due solely to differential changes in turnout (Nyhan, Skovron and Titiunik, 2017; Knox, Lowe and Mummolo, 2019).

Our results also have implications for experimental analyses of campaign strategies. For example, experimentalists regularly run interventions focused on vote choice and use the results to assess the efficacy of particular campaign strategies. But our analysis shows that it is also essential to consider the share of the electorate who could receive the treatment, how the treatment affects turnout, and the vote choice among those treated. Without including this information, experimental analyses could provide misleading estimates on how a strategy could affect a candidate's vote total. Our simple statistics and quantities of interest provide the relevant quantities for understanding where a candidate's support increases in the electorate.

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Online Appendix for "Who Put Trump in the White House? Explaining the Contribution of Voting Blocs to Trump's Victory"

Contents

Table A1: **Literature on Trump's Victory Focuses on Vote Choice**

Field	Count	% Composition	% Turnout	% Vote Choice	% All Components	% Only Vote Choice
Political Science	54	11.1	18.5	96.3	5.6	75.9
Sociology	14	14.3	35.7	92.9	14.3	64.3
Psychology	10	0	0	100	0	100
Economics	4	0	0	100	0	100
Public Health	1	0	0	100	0	100

A Tables of Trump Literature

The literature explaining Trump's victory has largely focused on understanding which candidate members of a voting bloc support once they arrive at the polls, while usually failing to consider their turnout rates or prevalence in the electorate. To reach this conclusion about the literature, we gathered 79 pieces of scholarship (articles, books, and blog posts) that explain Trump's victory and were written by academics. To identify the articles we examined several special editions of journals dedicated to Trump's victory. We also executed searches on Google Scholar related to the 2016 election (specifically `Trump, 2016`), and followed citations in the articles we found, particularly following the citations to some of the most cited works including Mutz (2018) and Sides, Tesler and Vavreck (2019), among others.[1] After gathering the sources we read and then coded whether they discussed the role of changing composition of voting blocs, turnout, and vote choice in the article.

We provide a summary of the focus of papers in Table A1, grouped by field of the primary author.[2] Table A2 in Appendix A provides our coding decisions for all 79 articles. The first column provides a count of sources, while the next three columns describe the percentage of articles that discuss the role of composition, turnout, and vote choice. And finally, the last column reports the percentage of articles that cover all three components.

[1]We focused on articles that sought to explain characteristics of voters in the 2016 election, rather than events (such as the Access Hollywood video or the Comey Letter).

[2]We used the primary author's academic home department to code field. In instances where that was insufficient, we examined field of Ph.D. for the primary author.

Table A2: Studies Assessing Trump Victory

Study	Field	Composition	Turnout	Vote Choice
Autor et al. (2017)	Economics			✓
Monnat (N.d.)	Economics			✓
Weinhold (2018)	Economics			✓
Goetz et al. (2018)	Economics			✓
Sides, Tesler and Vavreck (2017)	Political Science			✓
Green and McElwee (2019)	Political Science		✓	✓
Grossmann and Thaler (2018)	Political Science			✓
Schaffner, MacWilliams and Nteta (2017)	Political Science			✓
Lewis-Beck and Quinlan (2019)	Political Science			✓
Sances (2019)	Political Science			✓
Reny, Collingwood and Valenzuela (2019)	Political Science			✓
Bunyasi (2019)	Political Science			✓
Mutz (2018)	Political Science			✓
Enns, Lagodny and Schuldt (2017)	Political Science			✓
Setzler and Yanus (2018)	Political Science			✓
MacWilliams (2016*b*)	Political Science			✓
Jacobson (2017)	Political Science			✓
Hooghe and Dassonneville (2018)	Political Science			✓
Knuckey and Hassan (2019)	Political Science			✓
Algara and Hale (2019)	Political Science			✓
Tucker et al. (2019)	Political Science			✓
Mejdrich and Burge (N.d.)	Political Science			✓
Green (2020)	Political Science			✓
Engelhardt (2019)	Political Science	✓		✓
Hopkins (2019)	Political Science			✓
Sides, Tesler and Vavreck (2019)	Political Science		✓	✓
Fraga et al. (2017)	Political Science	✓	✓	✓
Carnes and Lupu (2017)	Political Science			✓
Bracic, Israel-Trummel and Shortle (2019)	Political Science			✓
Drutman (2019)	Political Science			✓
Carmines, Ensley and Wagner (2016)	Political Science	✓	✓	✓
Cassese and Holman (2019)	Political Science			✓
Federico and de Zavala (2018)	Political Science			✓
Frasure-Yokley (2018)	Political Science			✓
MacWilliams (2016*a*)	Political Science			✓
Newman, Shah and Collingwood (2018)	Political Science			✓
Oliver and Rahn (2016)	Political Science			✓
Valentino, Wayne and Oceno (2018)	Political Science		✓	✓
Phillips (2018)	Political Science			✓
Medenica (2018)	Political Science		✓	✓
Lajevardi and Oskooii (2018)	Political Science			✓
Ramírez, Solano and Wilcox-Archuleta (2018)	Political Science		✓	
Masuoka et al. (2018)	Political Science		✓	✓
Towler and Parker (2018)	Political Science		✓	
Sides, Tesler and Vavreck (2018)	Political Science	✓		✓
Guth (2019)	Political Science			✓
Margolis (2019)	Political Science			✓
Redlawsk et al. (2018)	Political Science			✓
Donovan and Redlawsk (2018)	Political Science			✓
Tolbert, Redlawsk and Gracey (2018)	Political Science			✓
Abramowitz and McCoy (2019)	Political Science			✓
Enders and Uscinski (N.d.)	Political Science			✓
Jacobson (2016)	Political Science			✓
Fortunato, Hibbing and Mondak (2018)	Political Science			✓
Carnes and Lupu (2019)	Political Science	✓		✓
Vidal and Hunt (N.d.)	Political Science			✓
Zingher (2019)	Political Science	✓	✓	✓
Ogorzalek, Piston and Puig (2019)	Political Science			✓
Gabriel et al. (2018)	Psychology			✓
Pettigrew (2017)	Psychology			✓
Sherman (2018)	Psychology			✓
Ganzach, Hanoch and Choma (2019)	Psychology			✓
Knowles and Tropp (2018)	Psychology			✓
Crowson and Brandes (2017)	Psychology			✓
Ludeke, Klitgaard and Vitriol (2018)	Psychology			✓
Womick et al. (2018)	Psychology			✓
Ratliff et al. (2019)	Psychology			✓
Williams et al. (2018)	Psychology			✓
Bor (2017)	Public Health			✓
McQuarrie (2017)	Sociology			✓
Morgan and Lee (2018*b*)	Sociology		✓	✓
Morgan (2018)	Sociology			✓
Mutz (2018*a*)	Sociology			✓
Smith and Hanley (2018)	Sociology			✓
Manza and Crowley (2017)	Sociology	✓	✓	✓
Whitehead, Perry and Baker (2018)	Sociology			✓
Smith (2019*a*)	Sociology			✓
Gorski (2019)	Sociology			✓
Bobo (2017)	Sociology		✓	✓
Smith (2019*b*)	Sociology			✓
Bonikowski, Feinstein and Bock (2019)	Sociology			✓
Morgan and Lee (2019)	Sociology	✓	✓	✓
Morgan and Lee (2017)	Sociology		✓	

A.1 Additional Discussion of Prior Work

Most studies follow an analytic strategy of studying "activation" of attitudes to explain vote choice (Sides, Tesler and Vavreck, 2019; Mutz, 2018; Reny, Collingwood and Valenzuela, 2019). These studies regress vote choice on attitudes, demographics, or political views for individuals who turned out to vote. They then conclude that an attribute is "activated" in an election if the relationship between vote choice and the attribute is stronger in one election compared to other elections. For example, Sides, Tesler and Vavreck (2019) contrast this strategy with designs that study the influence of economic factors using county-level vote share. They argue that:

> [C]ounties do not vote. People do. A rigorous test of the "economic anxiety" theory would need to show that white voters' economic anxieties became "activated" in 2016 compared to earlier elections—just as attitudes about race, immigration, or Islam did. For example, whether white voters were concerned about their finances, about losing their job, about not making their rent or mortgage payment, or about not being able to pay for health care should have more strongly influenced their choice between Trump and Clinton, compared to the choice between, say, Obama and Romney. If so, then economic anxiety would clearly be an important factor, alongside attitudes related to race and ethnicity. (Sides, Tesler and Vavreck, 2019)

It is interesting and important to know the relationship between individual attributes and vote choice among those who turn out to vote. Activation, alone, is neither necessary nor sufficient for Trump to have received higher relative support from a voting bloc than previous Republican candidates. This is because a focus on vote choice alone obscures the importance of particular voting blocs to a candidate's total vote count—and thus their overall electoral success. When determining the number of votes for a candidate, the rate that voters within a voting bloc choose a candidate is scaled by the prevalence of the voting bloc in the population and the voting bloc's turnout rate. When accounting for all three components, it is possible for an attitude to be "activated" but, at the same time, for those who hold that attitude to contribute fewer votes to a candidate. That is, those with a particular view might vote for a party's candidate at a higher rate—conditional on turning out—than in prior election. But if the proportion of people holding that view shrinks in the population between the elections or if the turnout rate of those holding that view declines sufficiently, the voting bloc may contribute fewer overall votes (Engelhardt, 2019).

We can avoid these issues if, instead, we simultaneously consider composition, turnout, and vote choice. We are not alone encouraging a focus on the votes a candidate received to explain election results, although we provide original statistics and a comprehensive assessment across characteristics. Most notably, Fraga et al. (2017), Green and McElwee (2019), and Fraga (2018) show that African-American voter turnout decreased in 2016 and examine the implications of this decrease for support for Clinton. Similarly, Ramírez, Solano and Wilcox-Archuleta (2018) characterize the under-mobilization of minority groups to explain these differential turnout rates. Further, there have been journalists who have offered important analyses that combine all three components, including Cohn (2017) and Trende (2016).

Our paper builds on this important work to combine all three components to analyze how the contribution of voting blocs changes across elections and differs between candidates.

Finally, the closest paper to ours is Axelrod (1972), which describes the proportion of votes for a political party each voting bloc contributes. This enables Axelrod (1972) to achieve a different analytical goal of describing the number of votes a party gets from each voting bloc. But this statistic is less useful for understanding how the relative contribution of voting blocs changes across elections, because Axelrod (1972) conditions on the overall turnout rate and the two-party vote share.

B Panel Data and the Problem of Shifting Composition

Some prior studies of activation have used panel data to address a separate potential issue of compositional change: the concern that voters will align their preferences with their preferred candidate (Sides, Tesler and Vavreck, 2019; Mutz, 2018; Hopkins, 2019). While potentially useful to address problems of voters strategically changing views, panel data is insufficient to enable an analysis solely focused on vote choice to provide a valid estimate of a voting bloc's contributions. First, most of these analyses suppose that the composition of voters in 2012 is the same as the composition of voters in 2016. But the composition of the electorate changes between elections: new voters enter the electorate and old voters leave, and this shifts the composition. Second, there are likely to be differential turnout rates across elections and attitudes. As a result, the vote choice relationships will need to be scaled by the rates individuals with particular attitudes turn out to vote. Third, it is unclear how to compare individuals who voted in only one election when inferring the activation of an attitude. Even more vexing, subsetting to those who vote in both elections will provide a biased estimate of the relationship between vote choice and the attitude of interest in both elections.

Tables A1 and A2 show that the literature has focused on vote choice to explain Trump's victory, while neglecting turnout and composition. The focus on activation is exacerbated by the standard practice for calculating effect sizes in empirical work. Many papers follow the recommendations of King, Tomz and Wittenberg (2000) by shifting an independent variable and calculating a first-difference, holding other variables at their mean or observed values. However, this procedure obscures the number of votes a candidate obtains from individuals across the distribution and can lead to contradictory findings within the same analysis. For example, Reny, Collingwood and Valenzuela (2019) focus on vote choice only, seeking to explain whether anti-immigration attitudes, personal economic circumstance, or racism were more predictive of an individual voting for Obama in 2012 and then Trump in 2016. Shifting the variables from their minimum to maximum (0-1), the authors report that "we find a much stronger association between symbolic racial and immigration attitudes and switching for Trump and Clinton than between economic marginality or local economic dislocation and vote switching" (Reny, Collingwood and Valenzuela, 2019, 109). Yet, we show in Figure B1 that, depending on the size of the shift employed, we reach different conclusions about the relative effect of economic, immigration, and symbolic racial attitudes on vote choice. If we shift from the 5th to the 95th percentile, then we reorder the effect size, with anti-immigration attitudes having the largeset effect. And if we employ a more standard shift across the interquartile range, we find that anti-immigration attitudes, personal economic circumstances, and racial resentment had nearly identical effect sizes. These differences in estimates arise from the different shapes of the distributions.

Further, all of these effect size calculations have no correspondence with the vote effect calculation that is essential to understand if a voting bloc contributed to Trump's victory.

Figure B1: Replicating Reny, Collingwood and Valenzuela (2019), Other Variables at Means

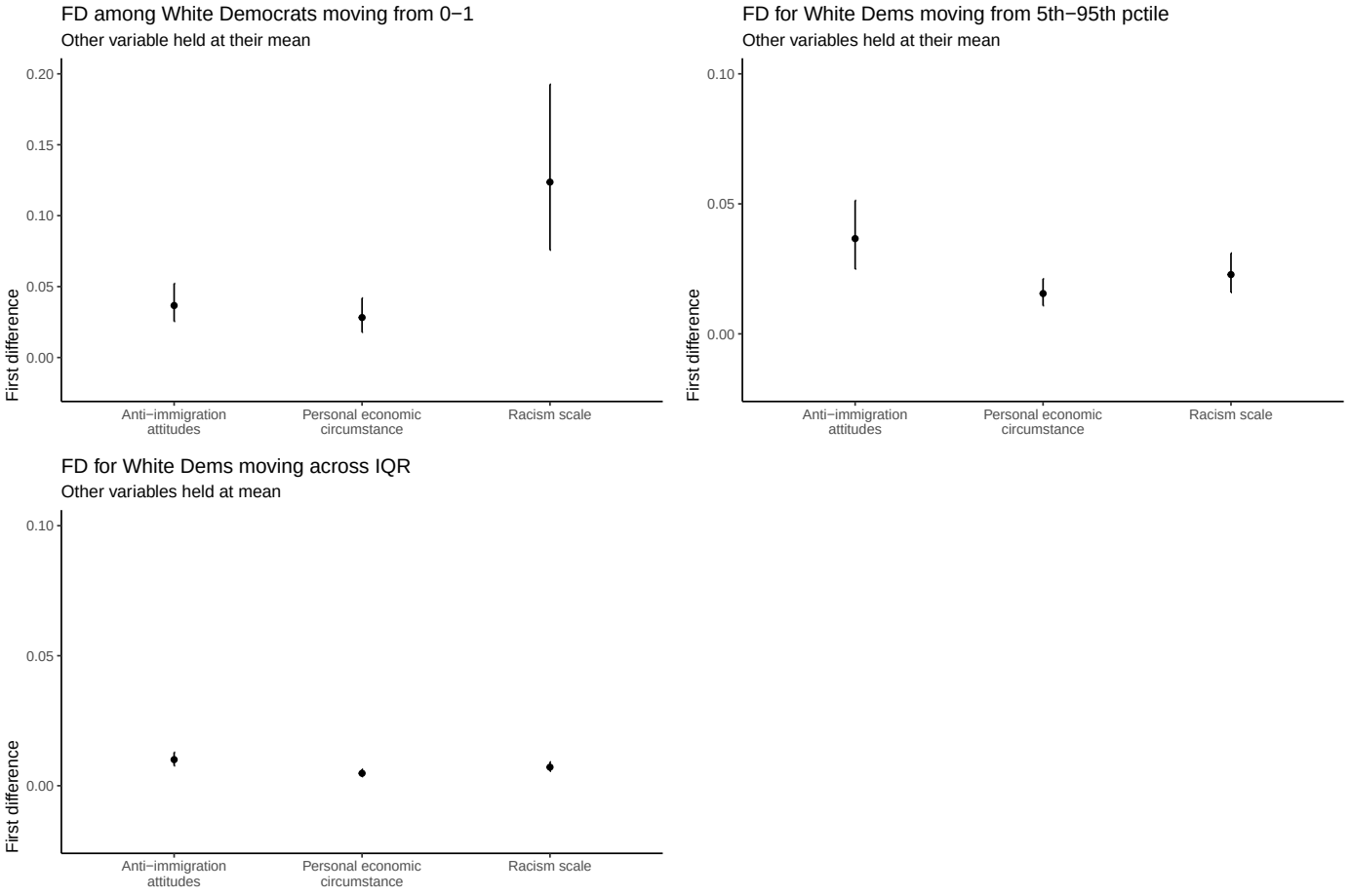
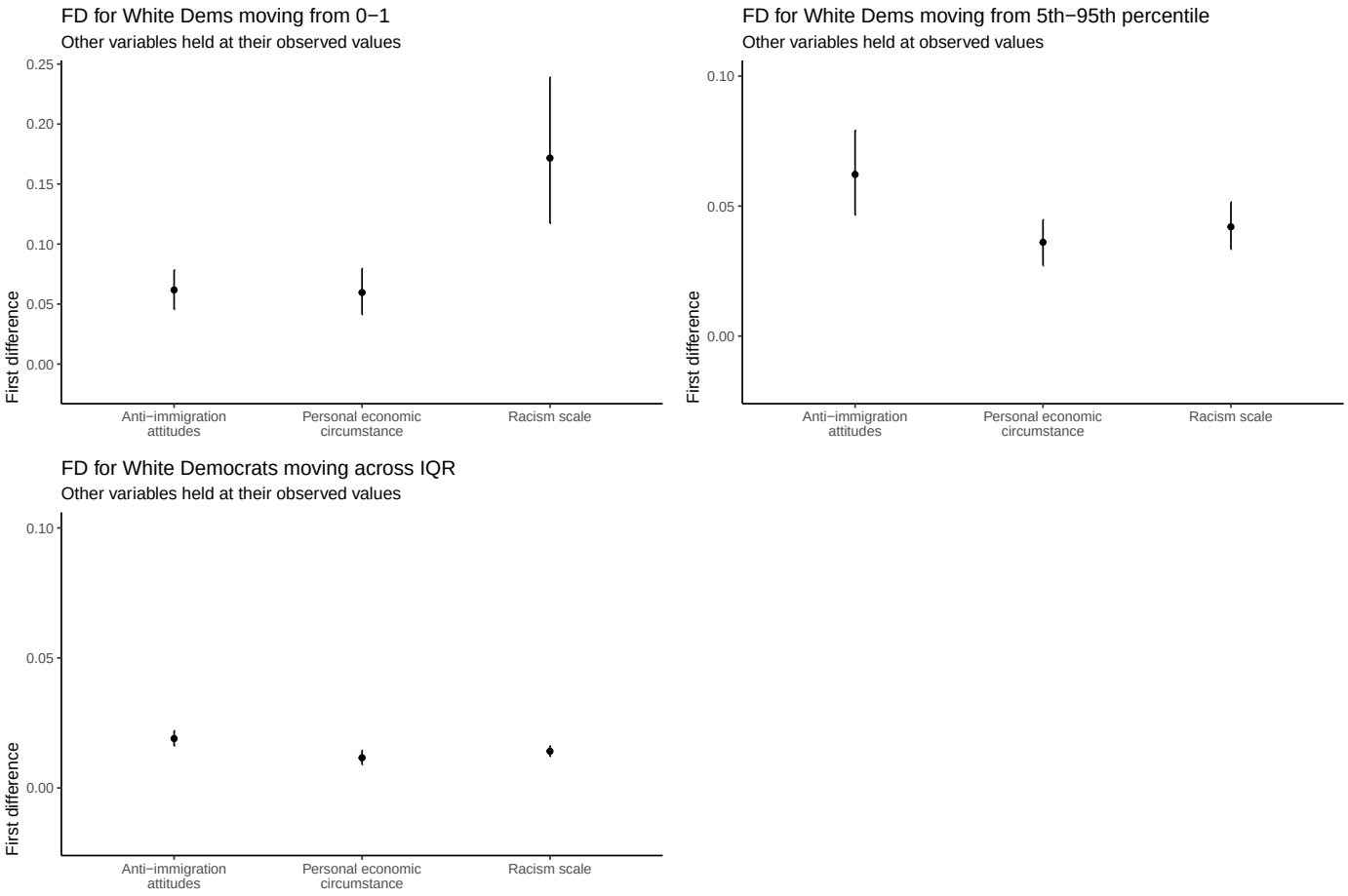


Figure B2: Replicating Reny, Collingwood and Valenzuela (2019), Other Variables at Observed values



C Continuous Voting Blocs

To derive the continuous version of our statistics, we will suppose that $\mathcal{X} \subset R^K$. We can then describe the height of the density for the share of the electorate at $x \in \mathcal{X}$ who votes for Trump as:

$$f(\text{Trump}, 1, x) \quad = \quad f(x) f(\text{turnout} = 1|x) f(\text{Trump}|1, x)$$

The difference in densities describes the relative support function at x:

$$\begin{aligned} \text{Diff}(\text{T}, \text{C}, x) &= f(\text{Trump}, 1, x) - f(\text{Clinton}, 1, x) \\ &= f(x) f(\text{turnout} = 1|x)[f(\text{Trump}|1, x) - f(\text{Clinton}|1, x)] \end{aligned}$$

The expression

$$\begin{aligned} \int_{x \in \mathcal{X}} \text{Diff}(\text{T}, \text{C}, x) dx &= \int_{x \in \mathcal{X}} f(x) f(\text{turnout} = 1|x)[f(\text{Trump}|1, x) - f(\text{Clinton}|1, x)] \\ &\equiv \text{Diff}(\text{T}, \text{C}) \end{aligned}$$

describes the net vote margin in terms of the share of the electorate across the two candidates.

The function that describes the difference in relative support at x is $\text{Diff}(\text{T}, \text{C}, x) - \text{Diff}(\text{R}, \text{O}, x)$.

D Example Calculations

To provide intuition about how the calculations capture the difference in relative support for voting blocs, in this section we walk through three example thought-experiments to understand how our statistics worked. To give intuition, our example calculations (found in Table D3) are made for a covariate that divides the electorate into two voting blocs—black and non-black—and then consider how changes in vote choice, turnout, and group composition affect the share of the electorate who supports a particular candidate—the total number of votes a candidate receives.

First consider Example 1 in Table D3. In our thought experiments we will consider the size of the black and non-black individuals in the electorate across two elections ("Composition" columns), the turnout of each group in the election ("Turnout" columns), and then the vote choice of those who turn out ("Vote Choice" columns). For simplicity, we will suppose there are only two candidates on the ballot and we report the vote choice for the Democratic candidate. This first scenario supposes the electorate is evenly split between black and non-black individuals, both groups have equal turnout, and both groups vote for the candidates at equal rates. But, both groups support the Democratic candidate at a higher rate in the second election. Carrying out the calculations, we find that both voting blocs have a positive difference in relative support and therefore comprise a larger voting bloc for the Democratic candidate in the second election, with a difference in relative support across elections of -0.09.

Table D3: Example Voting Bloc Calculations

	Composition		Turnout		Vote Choice		Diff in Net
Election	1	2	1	2	1	2	
Example 1							
Non-Black	1/2	1/2	1	1	0.51	0.6	-0.09
Black	1/2	1/2	1	1	0.51	0.6	-0.09
Example 2							
Non-Black	7/8	7/8	0.8	0.9	0.48	0.48	0.0035
Black	1/8	1/8	0.9	0.5	0.9	0.9	0.04
Example 3							
Non-Black	7/8	6/8	0.8	0.8	0.48	0.48	-0.004
Black	1/8	2/8	0.8	0.8	0.9	0.9	-0.08

Example 2 shows that the share of a voting bloc's contribution can change even if the vote choice of those who turn out remains unchanged. In this example the non-black individuals are a larger group (87.5% of the voting eligible population) with an 80% turnout rate and 48% of those who vote support the Democratic candidate. Black individuals comprise the other 12.5% of the voting eligible population and members of this group who turn out to vote cast a ballot for the Democratic candidate 90% of the time. But in our example, the black turnout rate decreases from 90% in election 1 to 50% in election 2. And as a

result, black individuals provide fewer votes for the Democratic candidate in the second election relative to the first Election—leading to a difference in relative support of 0.04—the Republican candidate loses fewer votes among this voting bloc, leading to the positive shift. And Example 3 shows that if a group's share of the population decreases, its contribution to the size of the voting blocs will also change. In Example 3 the non-black voting bloc's size decreases and the black voting bloc increases, shifting the size of the voting bloc towards the Republican candidate. This results in two negative differences in relative support, because both group's have a relative shift towards Democrats: the Democratic candidates wins a larger share of the electorate because of the increased size of the black-voting bloc. And the Democratic candidate loses a smaller share of the electorate from the non-black voting block because it is smaller.

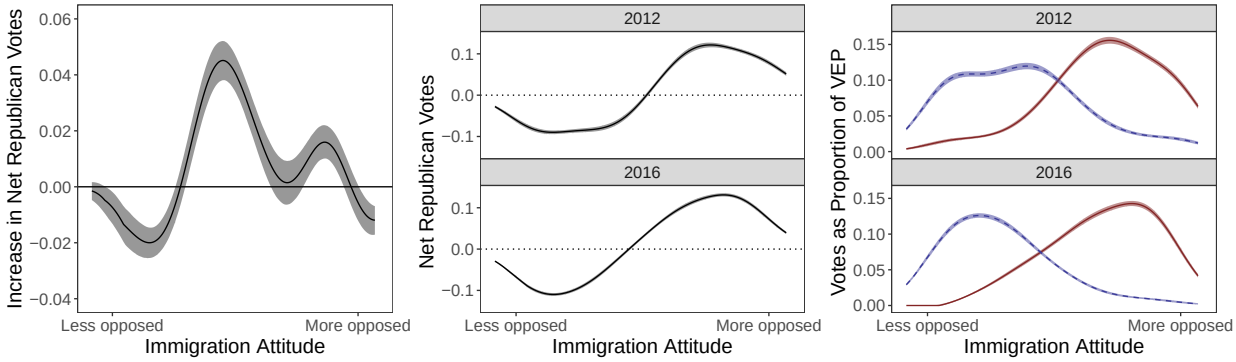
E Additional Immigration Policy and Racial Resentment Plots and Sensitivity Analysis

E.1 Immigration Plots

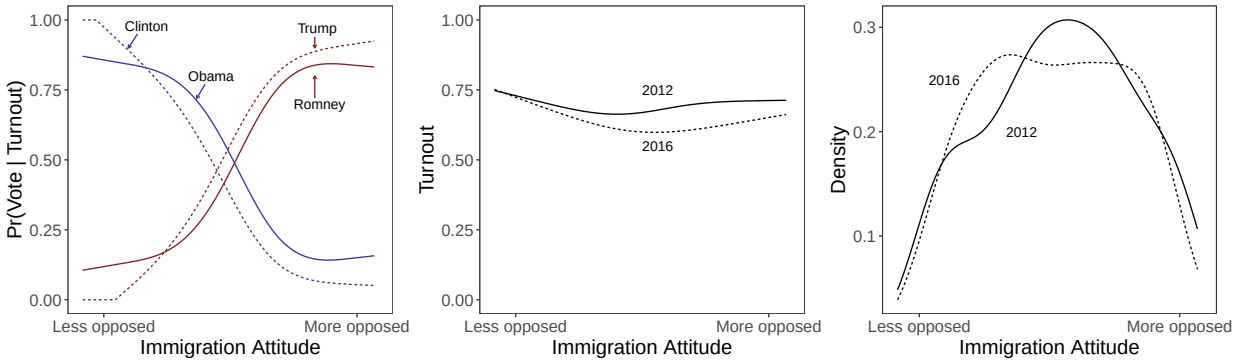
In the paper we examine the quintiles of the continuous scale of immigration policies using the questions from the CCES. In this section we show that we obtain similar results if we analyze the immigration scale using different operationalizations of the scale.

Figure E3 analyzes continuous voting blocs using the continuous measure of immigration attitudes from the paper. This reveals extremely similar results, with the smoothing showing that the bulk of increase in Trump support occurs in the middle of the immigration scale.

Figure E3: **Immigration Attitude Voting Blocs Among Whites**



(a) Change in Relative Support (b) Net Republican Votes (c) Number of Votes



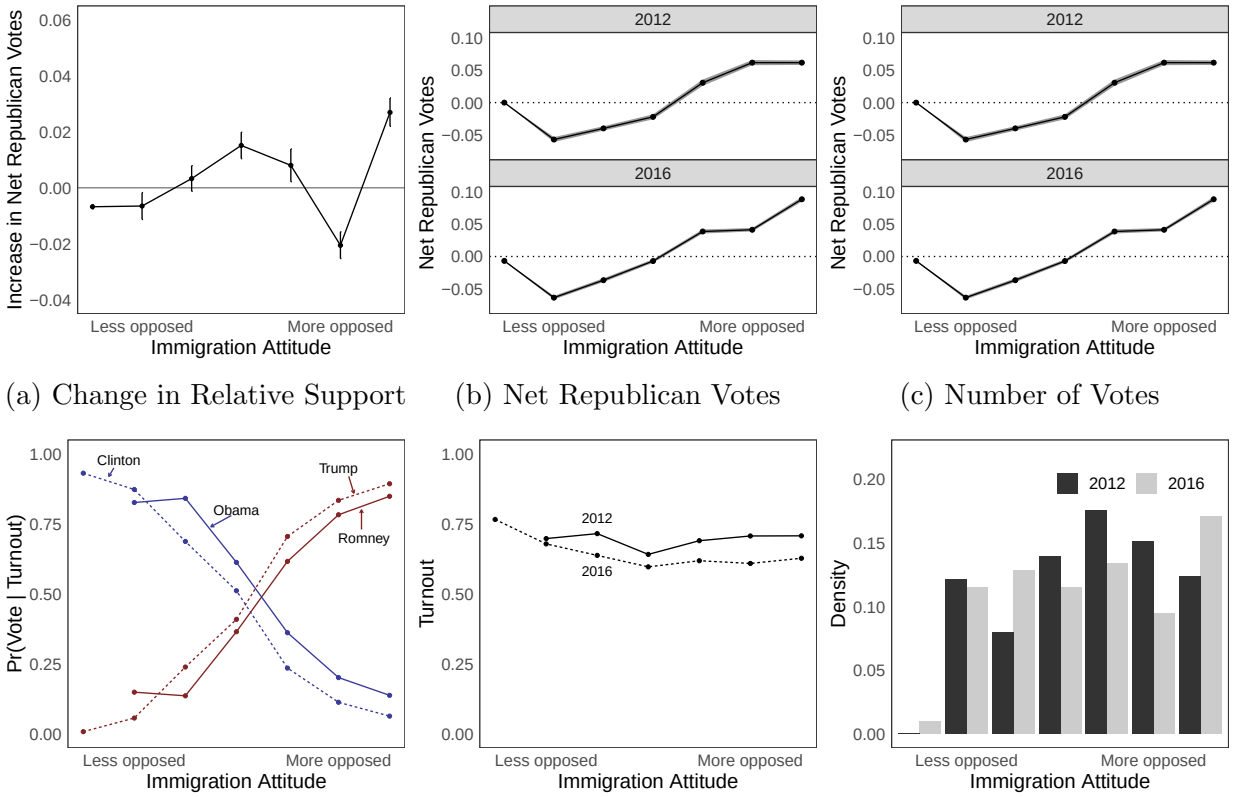
(d) Vote choice (e) Turnout (f) Composition

Notes: Immigration attitude is a scale generated from an IRT model. Bridging questions that appear in both 2012 and 2016 are about increasing border patrol, granting amnesty to unauthorized immigrants, and fining businesses for employing unauthorized immigrants. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Density is estimated using a kernel density estimator; turnout and vote choice are estimated using flexible semiparametric generalized additive models.

With this continuous analysis we have maximal transparency about how voting blocs

shift their support. Of course, calculating the total shift can be challenging because it requires integrating the margin shift density. Given this challenge, we opt for discretized versions of the scale. Figure E4 shows that if we don't divide using quintiles but rather using pre-determined cutoff points we make the same inference:

Figure E4: **Immigration Attitude Voting Blocs Among Whites**



(a) Change in Relative Support (b) Net Republican Votes (c) Number of Votes

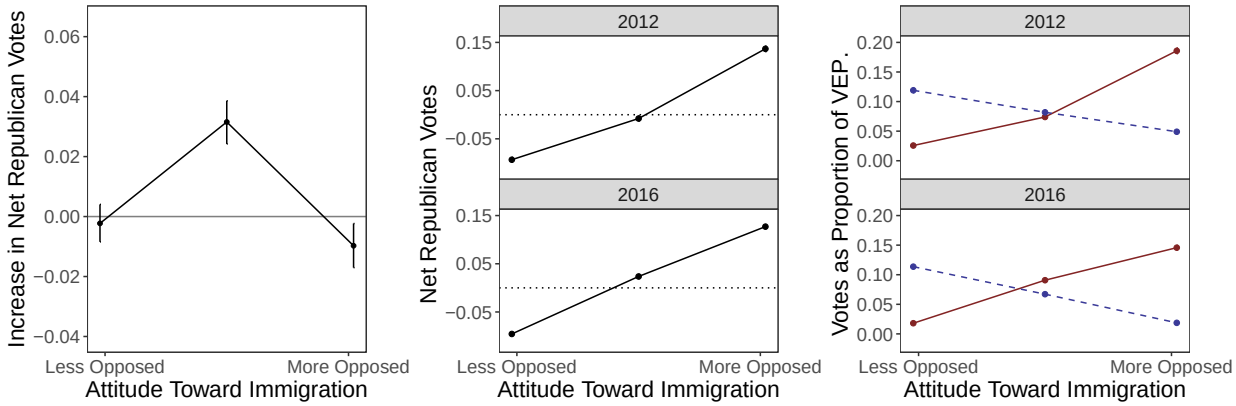
(d) Vote choice (e) Turnout (f) Composition

Notes: Immigration attitude is a scale generated from an IRT model. Bridging questions that appear in both 2012 and 2016 are about increasing border patrol, granting amnesty to unauthorized immigrants, and fining businesses for employing unauthorized immigrants. The underlying continuous scale is cut using the following breaks: $-2, -1.5, \ldots, 1.5, 2$. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Bars show bootstrapped 95% confidence intervals.

We base our continuous measure of immigration preferences on jointly asked immigration questions. Figure E5 shows that we obtain similar results if we analyze just the questions in common that are asked of the full sample in both 2012 and 2016.

Given the surprising nature of this finding, we wanted to confirm if we found similar patterns using other questions in other surveys. In Figure E6 we see a very similar pattern analyzing continuous voting blocs based on a feeling thermometer rating of illegal immigrants among whites. Trump sees increases among those who are cool towards illegal immigrants (now the far-left of the scale) and in the middle of illegal immigrant feeling.

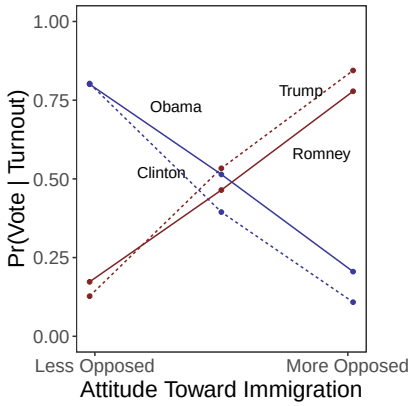
Figure E5: **Immigration Attitude Voting Blocs Among Whites**



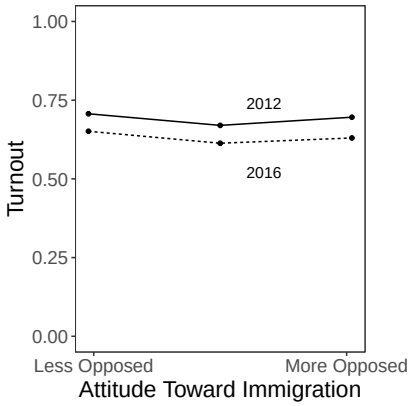
(a) Change in Relative Support

(b) Net Republican Votes

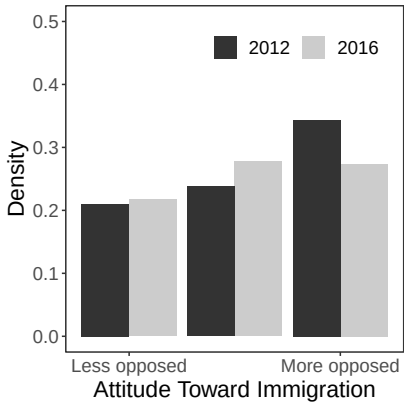
(c) Number of Votes



(d) Vote choice



(e) Turnout



(f) Composition

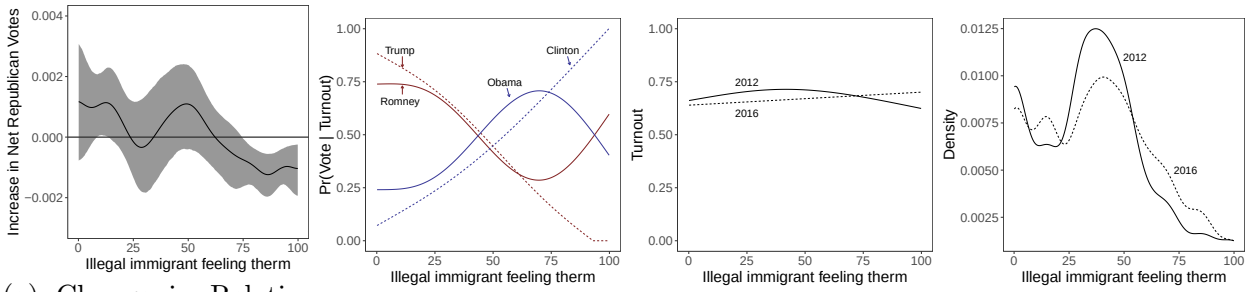
Notes: Immigration attitudes are measured by responses to questions about increasing border patrol and about granting amnesty to unauthorized immigrants. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Bars show bootstrapped 95% confidence intervals.

We obtain very similar results when we examine the close election states.
We obtain very similar patterns across a range of other feeling thermometer attitudes.

E.2 Sensitivity Analysis for Immigration and Racial Resentment

The surveys we use provide only one estimate of the composition of the electorate and the turnout rate among individuals with different attitudes, demographic characteristics, or other attributes. To assess the sensitivity of our findings to estimates of composition and turnout, we engage in a sensitivity analysis. To do this, we consider how our estimates of the difference in relative support would change if we had different estimates of a group's composition and turnout rate in 2016, holding fixed the vote choice differences and the composition estimates from 2012. The intuition for this sensitivity analysis is straightforward: we merely substitute

Figure E6: **Feeling Thermometer Attitudes Towards Illegal Immigrants, Whites**



(a) Change in Relative Support

(b) Vote choice

(c) Turnout

(d) Composition

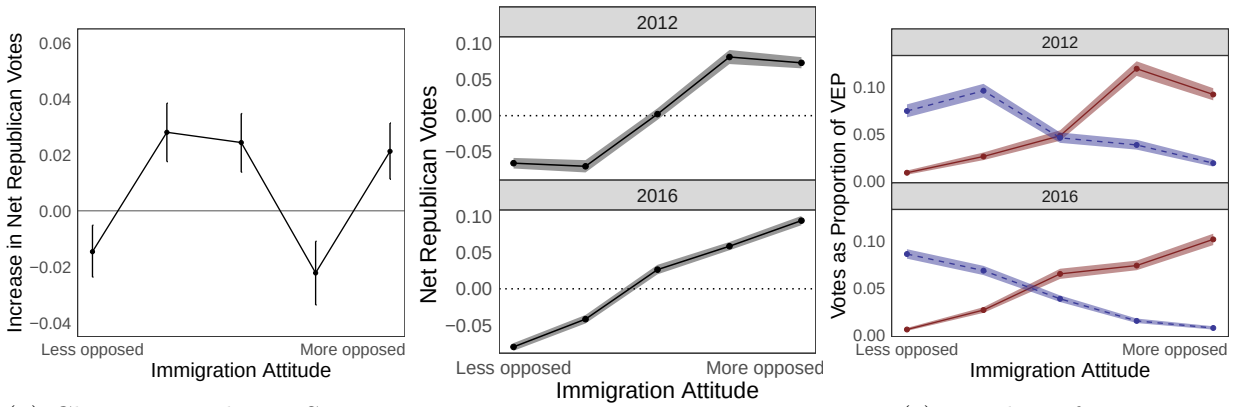
Notes: Feeling thermometer ratings of white respondents towards "illegal immigrants" from the American National Election Study. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Density is estimated using a kernel density estimator; turnout and vote choice are estimated using flexible semiparametric generalized additive models.

different values from 2016 for turnout $p(1|x)_{2016}$ and composition $p(x)_{2016}$. We then present iso-contours that identify pairs of composition and turnout that provide the same shift in relative support. If we find relatively small shifts in composition or turnout result in drastically different findings, then we may reason to be concerned about the robustness of our findings. Additionally, this method provides us with a sense of how much we would have to change estimates of a group's turnout rate or its composition in 2016 to overturn our results.

The left-hand panel in Figure E9 show the sensitivity analysis for the relative shift among individuals with the most restrictive immigration attitudes and the right-hand panel performs the sensitivity analysis for individuals with the highest levels of resentment. Both plots show that for wide ranges of turnout and composition, we would obtain similar estimates. For example, we would have to see an extremely large increase in turnout rate among those with the most restrictive immigration attitudes to make it equal to the shift at the center of the scale. And for the shift in relative support among the most resentful whites to equal the observed shift in either the second-most resentful or second-least resentful we would have to see similar large increases in turnout or composition.

Taken together, our evidence shows that Trump *underperformed* Romney among anti-immigrant and high resentment whites and that the largest increases in relative support came from individuals with less restrictive immigration preferences and lower levels of racial resentment. Our results, of course, do not dismiss that some whites who hold anti-immigrant and racist views found Trump particularly appealing and voted for him on the basis of those attitudes. But our results do suggest that a focus on immigration attitudes and racial resentment will fail to provide inisghts into Trump's victory.

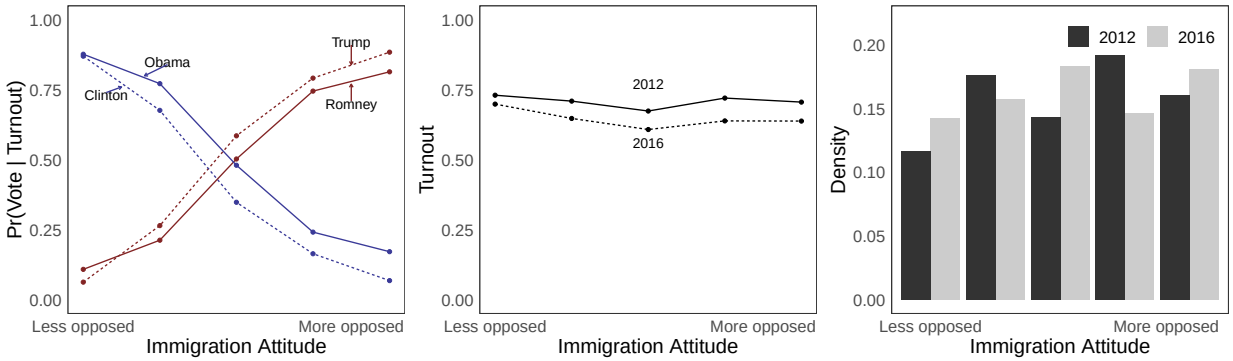
Figure E7: **Immigration Attitude Voting Blocs Among Whites in Close States**



(a) Change in Relative Support

(b) Net Republican Votes

(c) Number of Votes



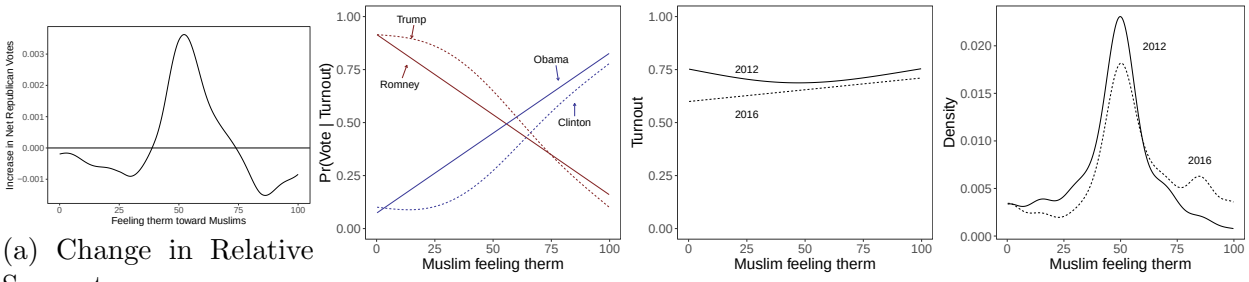
(d) Vote choice

(e) Turnout

(f) Composition

Notes: Immigration attitude is a scale generated from an IRT model. Bridging questions that appear in both 2012 and 2016 are about increasing border patrol, granting amnesty to unauthorized immigrants, and fining businesses for employing unauthorized immigrants. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Bins are quintiles from the 2012 overall sample.

Figure E8: **Feeling Thermometer Attitudes Towards Muslims, Whites**



(a) Change in Relative Support

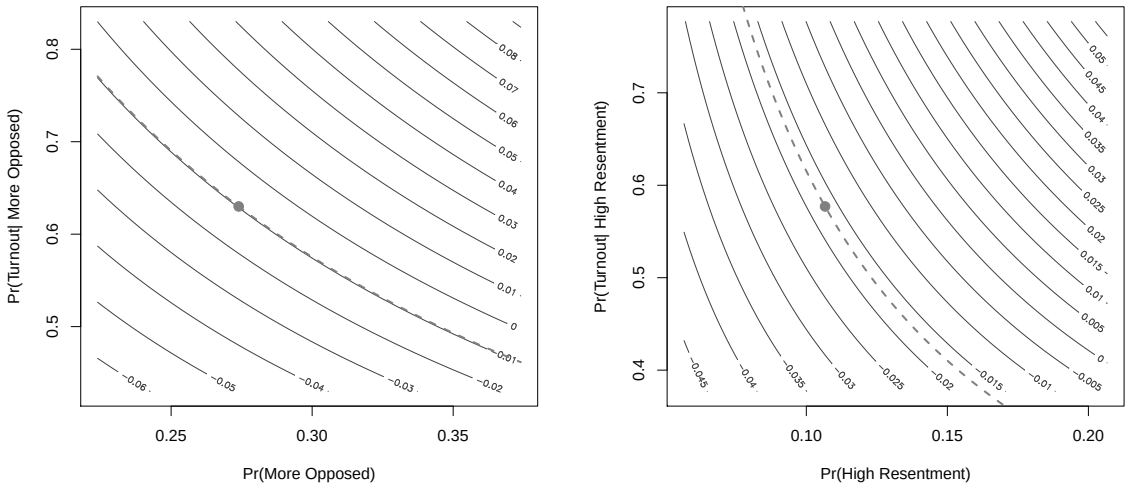
(b) Vote choice

(c) Turnout

(d) Composition

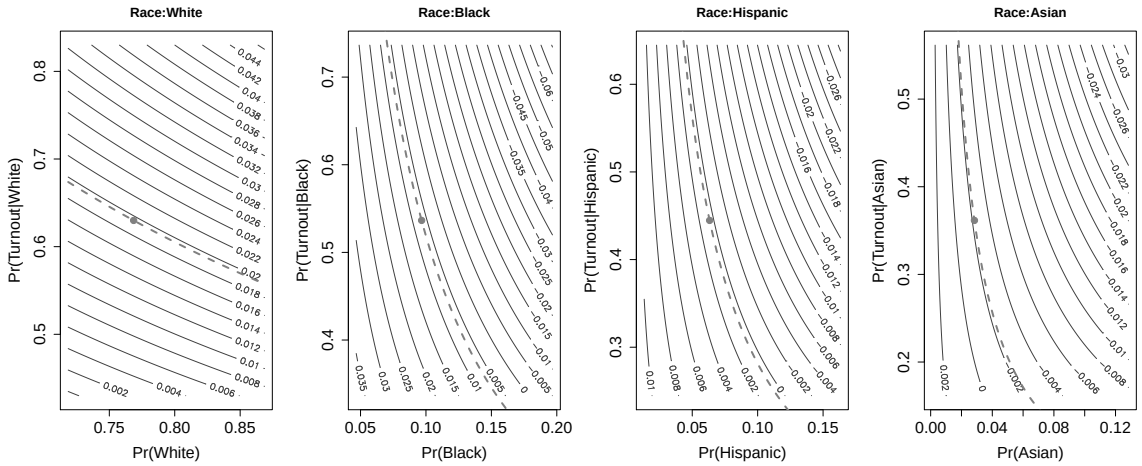
Notes: Feeling thermometer ratings of white respondents towards muslims from the American National Election Study. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Density is estimated using a kernel density estimator; turnout and vote choice are estimated using flexible semiparametric generalized additive models.

Figure E9: **Sensitivity Analysis for Immigration Attitudes and Racial Resentment**



Notes: The sensitivity analysis shows that turnout or composition would have to increase dramatically for Trump to have gotten increased relative support from those with the most restrictive immigration attitudes (left) or the most racial resentment (right). Iso-contours show combinations of composition (horizontal axis) and turnout (vertical axis) that generate the same shift in relative support, holding fixed vote choice. The gray dot shows our observed estimates.

Figure F10: **Sensitivity Analysis of Race Voting Bloc Findings**



Notes: The iso-contours reveal that for wide ranges of turnout and composition of the electorate, we obtain similar estimates of the difference in relative support. Iso-contours show combinations of composition (horizontal axis) and turnout (vertical axis) that generate the same shift in relative support, holding fixed vote choice. The gray dot shows our observed estimates.

F Sensitivity to Different Estimates of Composition and Turnout

Next, we present a sensitivity analysis for the race-based voting bloc analysis. Figure F10 presents how the size of the estimated difference in relative support for white (left-hand panel), black (second from left panel), Hispanic (second from right panel), and Asian-American (right-hand panel) respondents using the nationwide sample from the CCES. The gray point in each plot is the estimate from Figure 4 and the dotted-gray line is the contour line for the estimated effect. Note, that in each plot we obtain similar estimates of the difference in relative shift for other plausible estimates of turnout and racial composition. In fact, we would have to see relatively large differences in turnout or group proportion to see changes in the estimate.

Another way to demonstrate the robustness of the estimated differences in relative support is to use estimates of racial-group turnout from Fraga (2018) based on turnout rates calculated from the voter file, recalculating the quantities using the full sample from the CCES to estimate the racial group composition and the vote choice terms. In Table F4 we present the estimates using Catalist turnout numbers (first row) and compare that to the estimates from CCES (second row). Using both turnout estimates, we still find that the larges shift in relative support occurred among white voters. In fact, with Catalist turnout data we find an even larger shift towards Trump among white voters, due to the higher turnout estimates in Catalist. Because the voter-file based estimates of turnout are higher than the CCES, we find that using Catalist turnout rates that there is a smaller shift in relative support for Trump among black respondents. We find slight differences for Hispanics

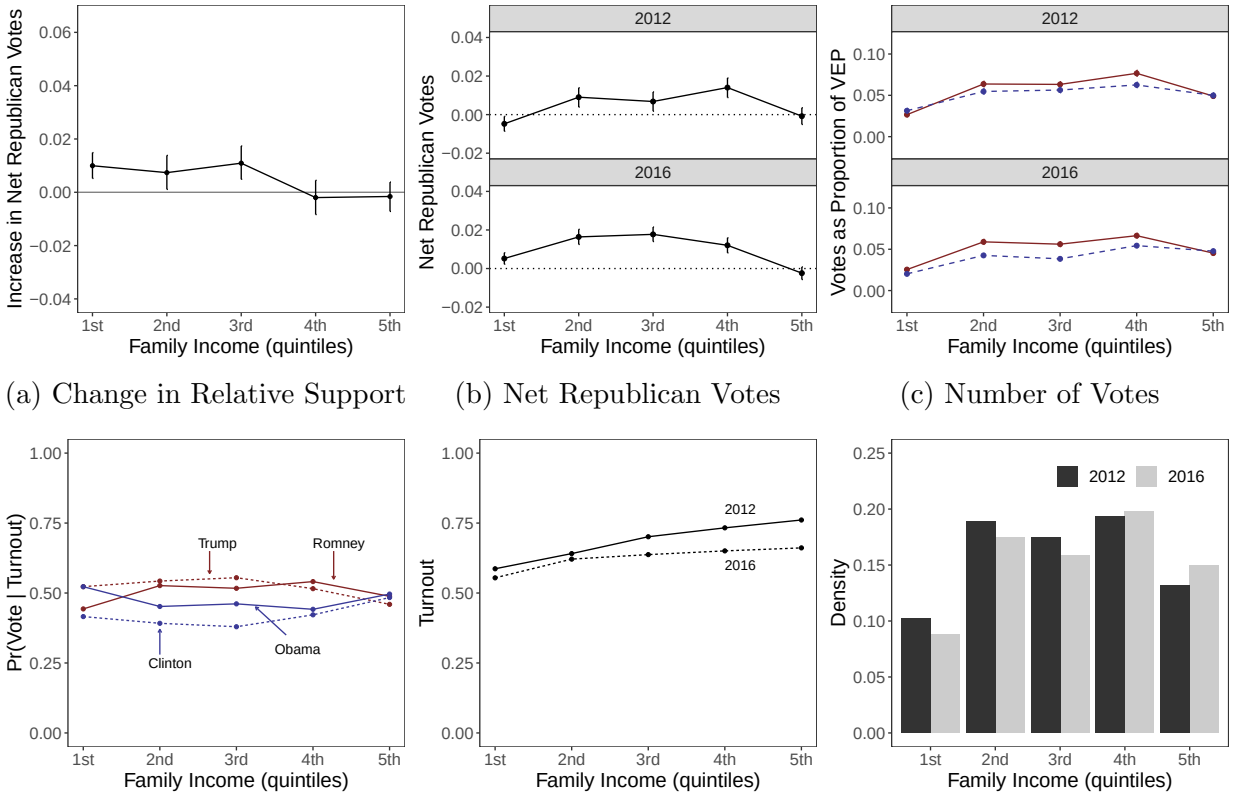
Table F4: **Racial Voting Bloc Results Using Catalist and CCES Turnout**

	White	Black	Hispanic	Asian
Catalist Estimate	0.026	0.002	−0.002	−0.003
CCES Estimate	0.020	0.007	0.001	−0.002

Notes: Entries show shift in relative support under turnout estimates from Catalist (reported in Fraga 2018) and from the CCES.

and Asian Americans, in line with the sensitivity analysis in Figure F10.

Figure G11: **Income Voting Blocs Among Whites**



(a) Change in Relative Support (b) Net Republican Votes (c) Number of Votes

(d) Vote choice (e) Turnout (f) Composition

Notes: Income is broken into 2012 quintiles, based on Census data. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole.

G Whites With Lower Incomes Shifted Towards Trump

Similar to Trump's increased relative support among low-education whites, Figure G11 shows that Trump saw an increase in relative support among low-income whites. In Figure G11 we take the self-reported income in the CCES and divide the responses into income quintiles using cutoffs from the 2012 Census.[3] Using this definition of income voting blocs, we find that Trump increased his relative support 1 percentage point in the lowest income quintile, 0.7 percentage points in the second quintile, and 1.1 percentage points in the third quintile. There was a shift in relative support towards Clinton among the top two income quintiles, with relative shifts of -0.2 percentage points in both the second-highest and highest income quintiles.

The increase in Trump's relative support among low income whites occurs, like with education, because of shifts in who whites supported once they arrived at the polls. In

[3]Before categorizing 2016 respondents into income quintiles, we adjust self-reported nominal income to be expressed in 2012 dollars.

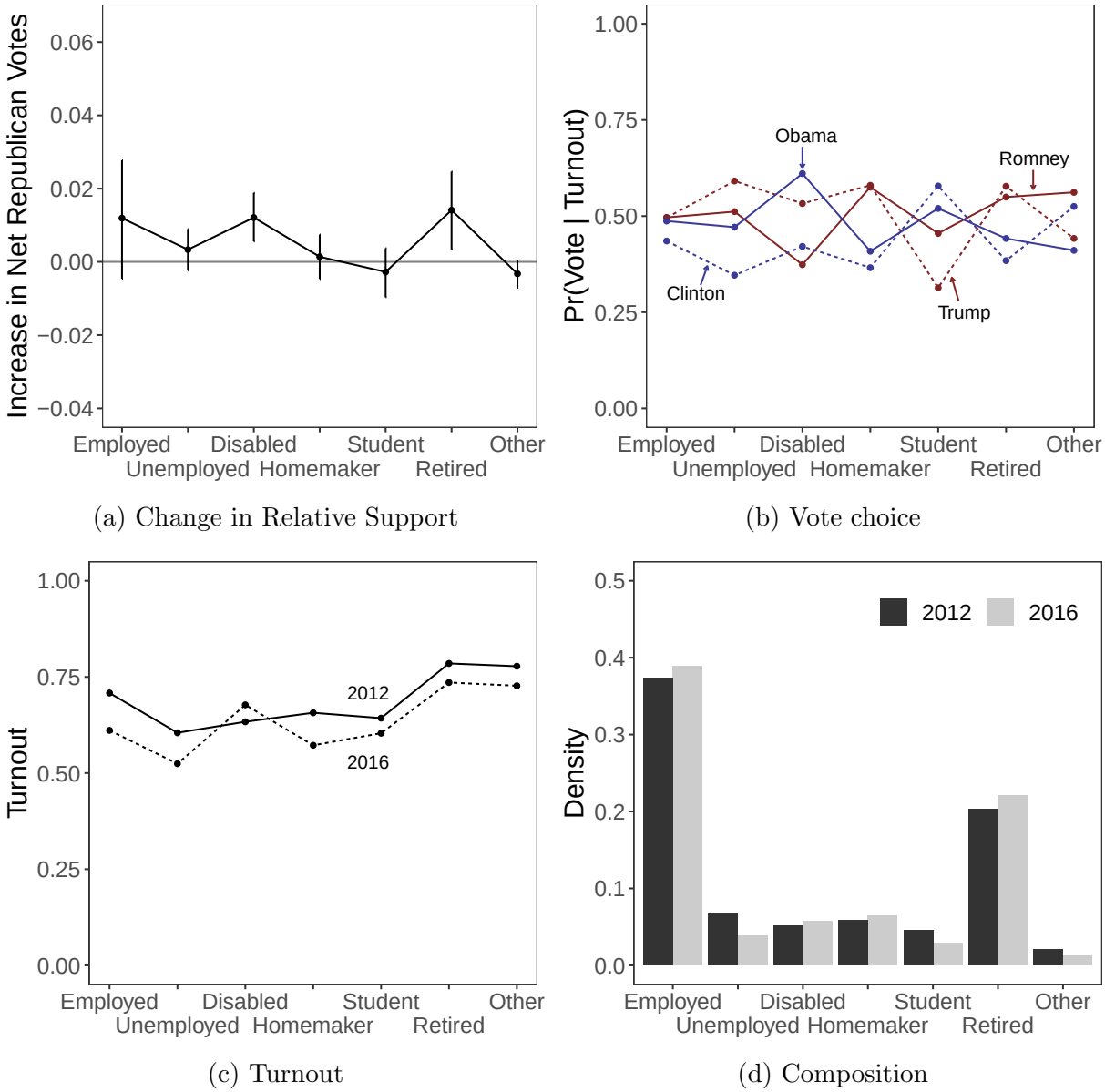
2016 there is a shift in income composition towards the higher income quintiles, reflecting the continued economic recovery after the Great Recession. Yet, this increased support translates into a limited increase in votes for Clinton because there is a decrease in the turnout advantage for higher-income whites. And lower-income whites were much more likely to support Trump and less likely to vote for Clinton. For example, whites in the lowest income quintile were 8 percentage points more likely to support Obama than Romney, but in 2016, they were 10.7 percentage points more likely to vote for Trump than Clinton. Similarly, whites in the second quintile were 7.5 percentage points more likely to support Romney over Obama, but 15.1 percentage points more likely to vote for Trump over Clinton. So even though white individuals in the lower income quintiles are a smaller share of the overall electorate, the shift in vote choice towards Trump is more than enough to result in lower income brackets increasing their relative support for Trump compared to Romney.

H Trump Outperformmed Among Disabled and Retired, But Also Among Households that Saw Smaller Decreases in Household Income

Figure H12 shows how support for Trump varied according to white individuals' self-reported employment status. It demonstrates that Trump's relative support increased the most among whites who are permanently disabled or retired. Trump saw a slightly smaller increase in relative support among individuals who are employed (either full- or part-time). Nationwide, Trump saw a relative increase in support of 0.7 percentage points from whites who report their employment status as disabled and a 1.0 percentage point increase from retired whites. We find relatively smaller shifts for other employment groups, except for employed individuals who increased their relative support by 0.5 percentage points. Trump wins more votes among retired and disabled whites than Romney because of shifts in composition, turnout, and vote choice. Panel (d) shows that in 2016 there was an increase in the proportion of the electorate who were white and disabled (0.4 percentage point increase) or white and retired (1.4 percentage increase). Panel (c) shows that the turnout rate of disabled whites remain largely unchanged from 2012 to 2016, while there was only a small decrease among retired whites. In contrast, there larger declines in turnout among other groups, meaning that the share of voters who were white and disabled was higher in 2016 than in 2016. And Panel (b) shows that disabled whites who voted choose Trump over Clinton at a much higher rather than they choose Romney over Obama. Disabled whites who turned out to vote were 14.5 percentage points more likely to select Trump than Clinton, while disabled whites were 7.5 percentage points more likely to choose Obama over Romney. And Trump won retired whites who turned out to vote by 6 percentage points more than Romney did. Taken together, the result is that Trump won more votes from disabled and retired whites than Romney.

On economic measures more responsive to economic conditions, however, we find that Trump's support increased among more well off individuals. For example, Figure H13 considers the difference in relative support with voting blocs defined by white individuals' self-reported change in household income. Panel (a) of Figure H13 shows that Trump's relative vote decreases among individuals who report that their incomes have "decreased a lot" over the last four years: we find a -1.3 percentage change in relative support among this group. At the same time, Trump's relative vote share increases 2.0 percentage point among individual's who report their household income stayed the same over the previous four years and increased 1.1 percentage point among individuals who decreased a little. This pattern—a decrease among individuals with the largest reported declines in house hold income, occurs despite individuals with the largest decline in income and who turn out to vote supporting Trump at a much higher rate than Romney. But, the bottom-right panel shows that there are many fewer individuals who report a large decline in house household income, reflecting the improved economic conditions of 2016. And as a result, Romney received 14.1 million votes from individuals with large decreases in household income, or 6.4 percent of the electorate, while Trump received only 7.6 million votes, or 3.3 percent of the electorate.

Figure H12: **Voting Blocs by Employment Status Among Whites**



(a) Change in Relative Support

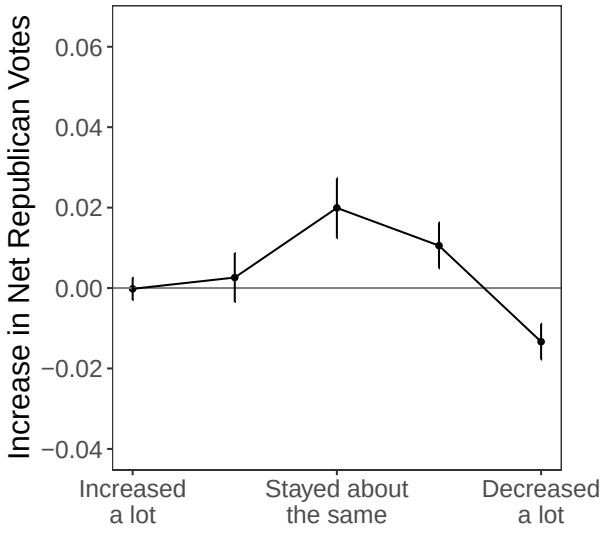
(b) Vote choice

(c) Turnout

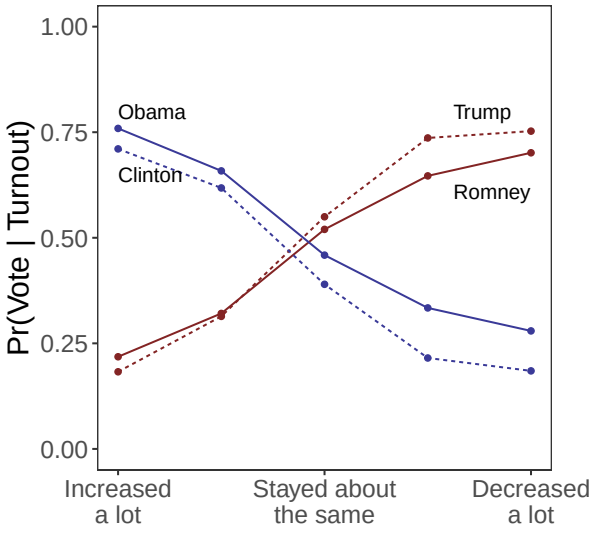
(d) Composition

Notes: "Employed" includes those employed both full- and part-time, and "unemployed" includes both people who report being unemployed and who report being temporarily laid off. "Disabled" refers to people who report being permanently disabled. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole.

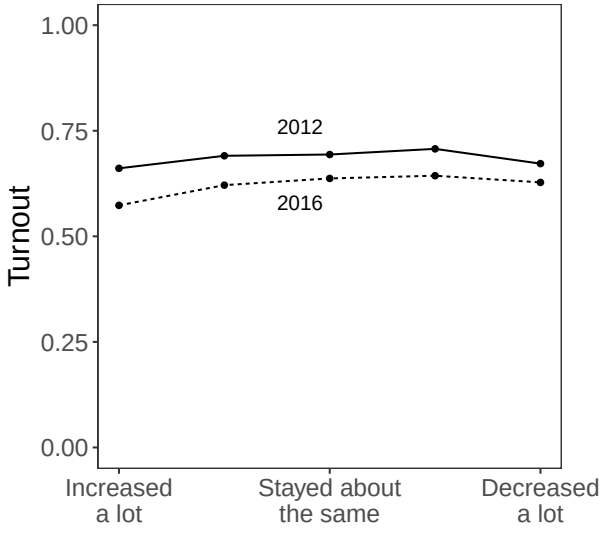
Figure H13: **Voting Blocs by Income Change Among Whites**



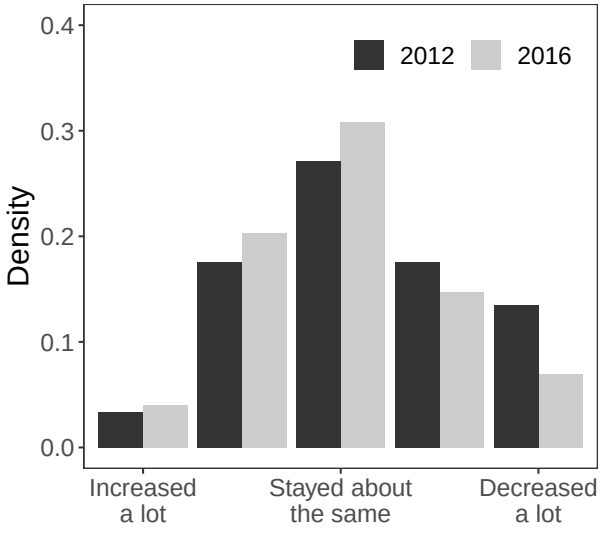
(a) Change in Relative Support



(b) Vote choice



(c) Turnout

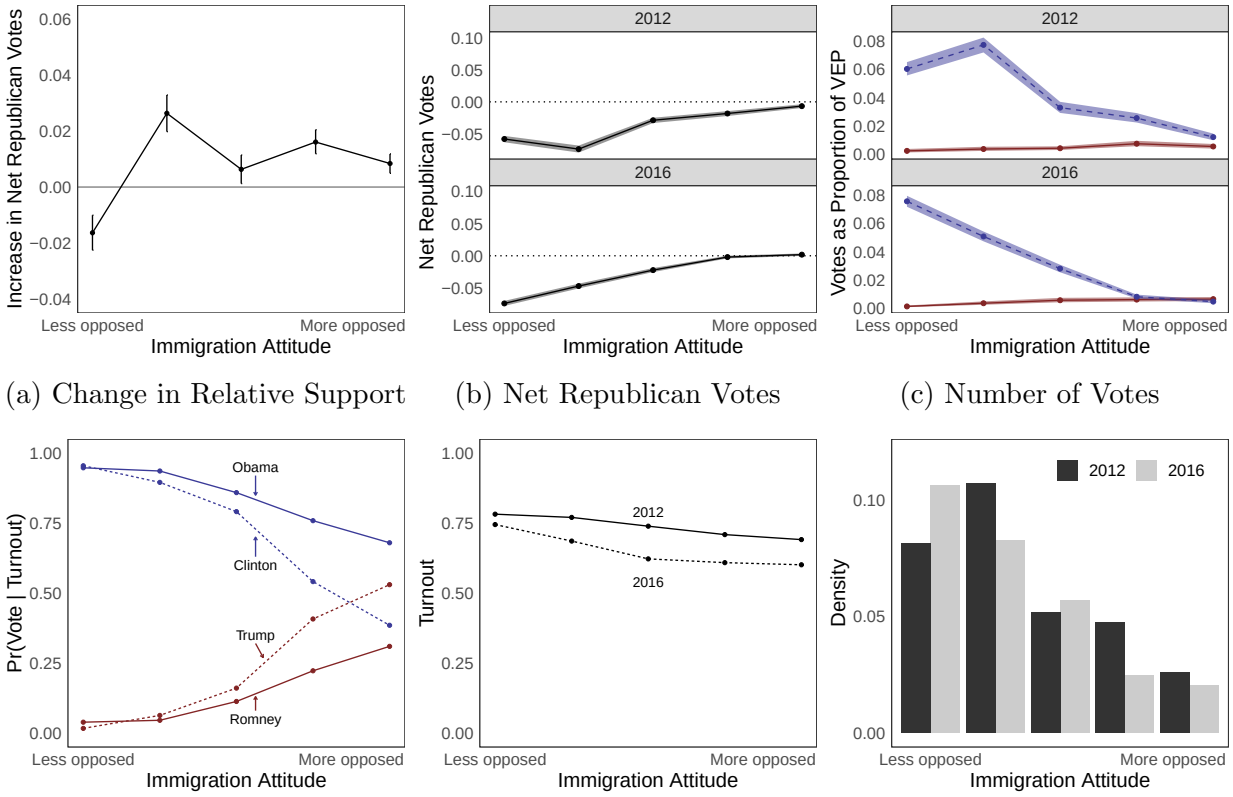


(d) Composition

Notes: Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole.

I Additional Figures

Figure I14: **Immigration Attitude Voting Blocs Among Whites Who Voted For Obama Last Election**

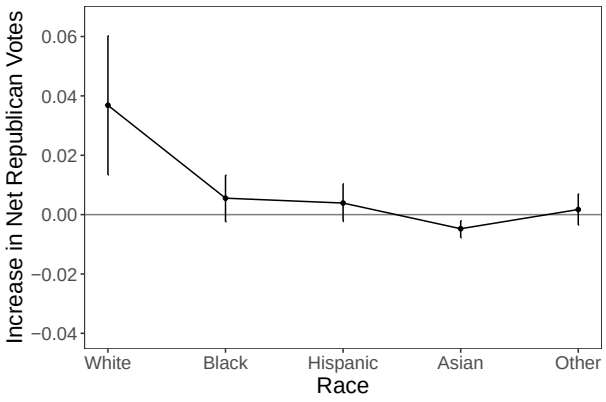


(a) Change in Relative Support (b) Net Republican Votes (c) Number of Votes

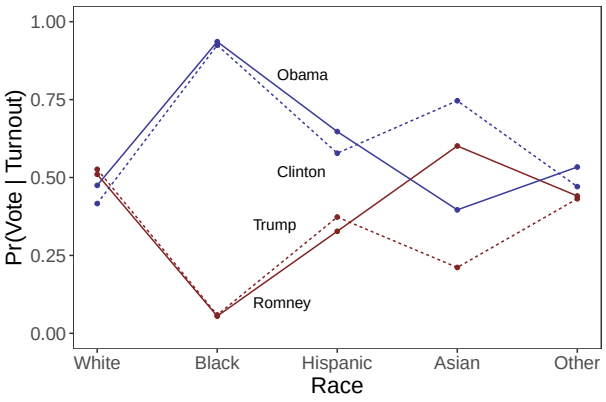
(d) Vote choice (e) Turnout (f) Composition

Notes: Immigration attitude is a scale generated from an IRT model. Bridging questions that appear in both 2012 and 2016 are about increasing border patrol, granting amnesty to unauthorized immigrants, and fining businesses for employing unauthorized immigrants. Only white voters who voted for Obama in the previous election are shown and density is adjusted by the proportion of white former Obama voters in the electorate as a whole. The scale is cut into bins based on the 2012 quintiles from all respondents. Bars and shaded regions show bootstrapped 95% confidence intervals.

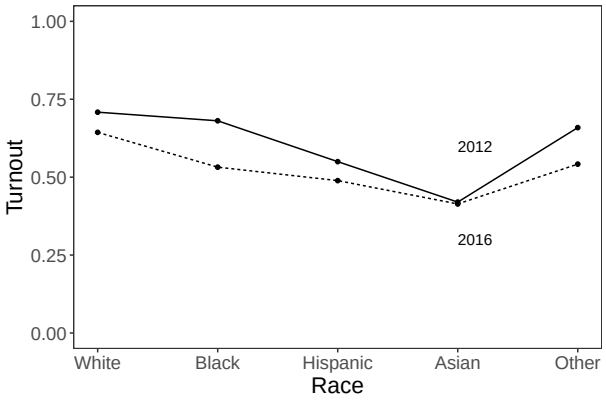
Figure I15: **Racial Voting Blocs in Close States**



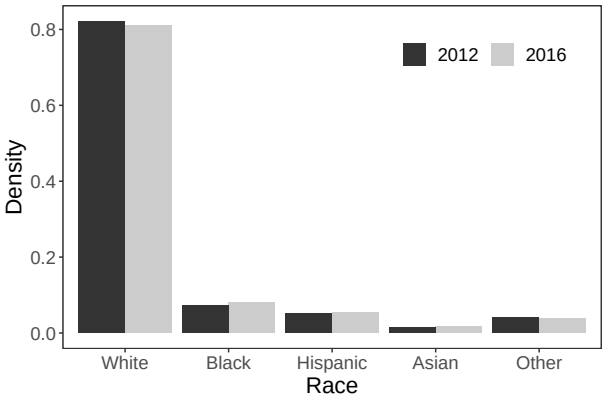
(a) Change in Relative Support



(b) Vote choice



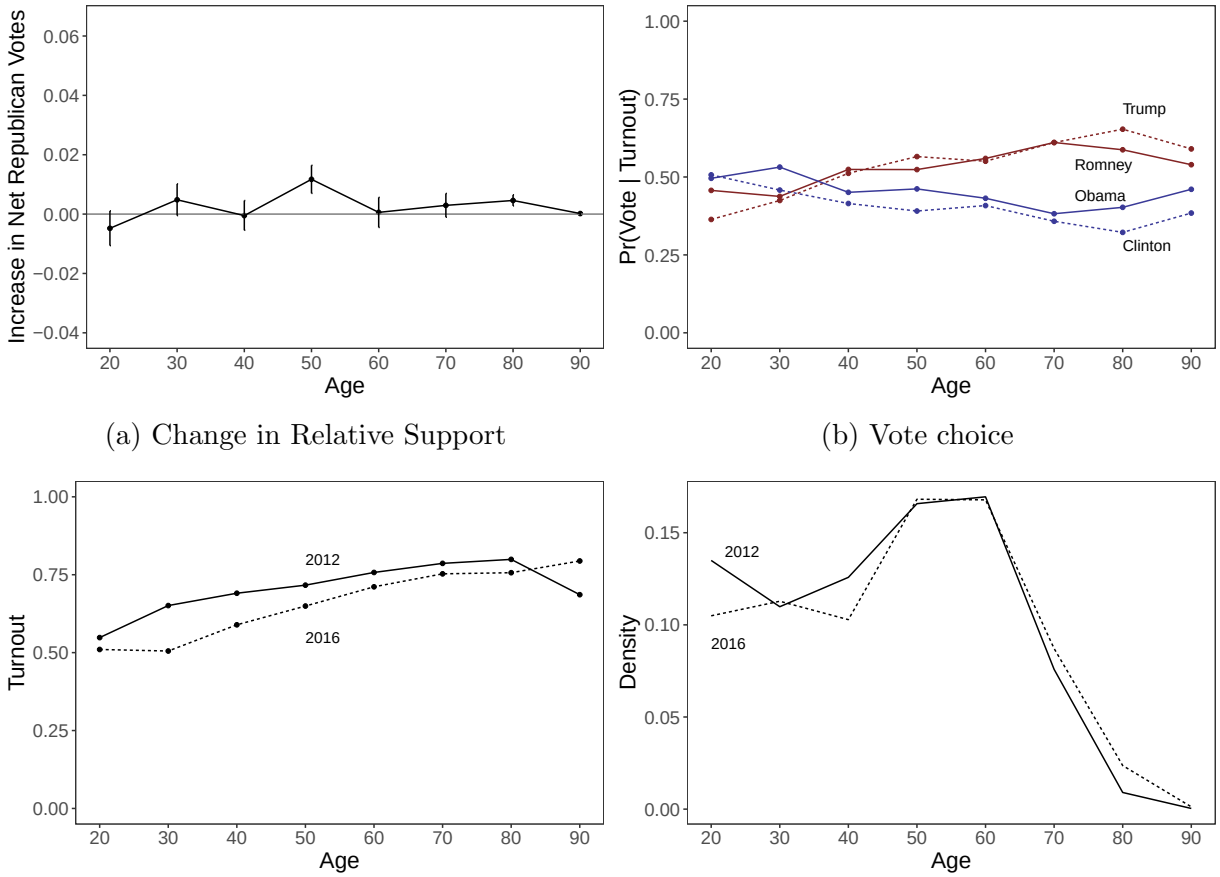
(c) Turnout



(d) Composition

Notes: Data are subset to respondents in states with a margin less than 5 percentage points.

Figure I16: **Age Voting Blocs Among Whites**



(a) Change in Relative Support

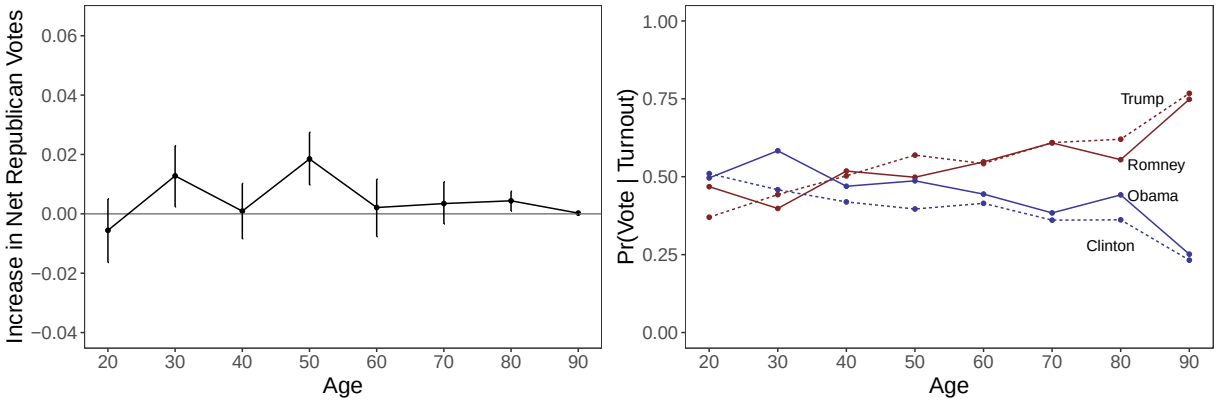
(b) Vote choice

(c) Turnout

(d) Composition

Notes: Age is broken into 10-year bins (30-39, 40-49, etc.), with the exception that those under 20 are grouped with 20- to 29-year-olds. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole.

Figure I17: **Age Voting Blocs Among Whites in Close States**



(a) Change in Relative Support

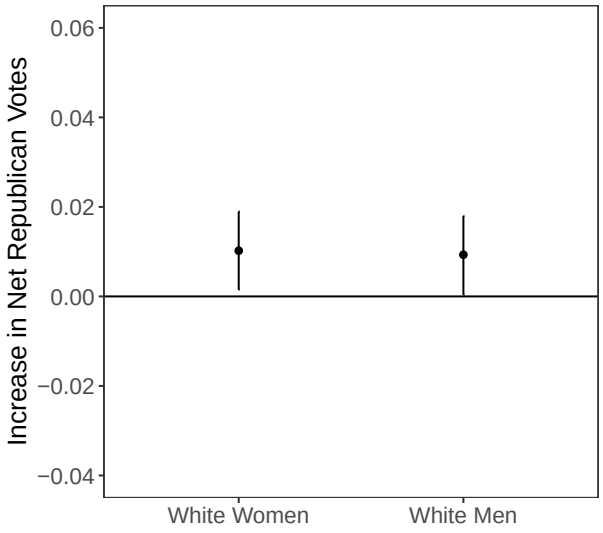
(b) Vote choice

(c) Turnout

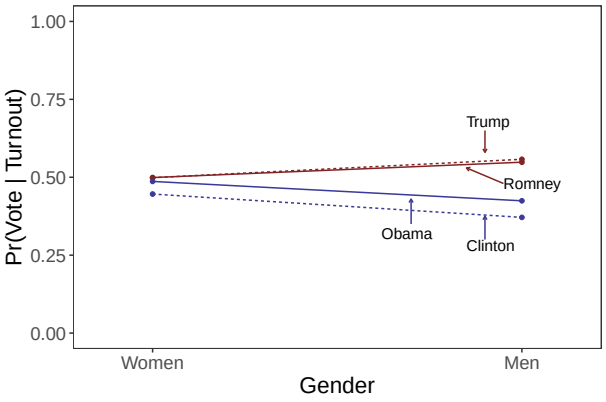
(d) Composition

Notes: Age is broken into 10-year bins (30-39, 40-49, etc.), with the exception that those under 20 are grouped with 20- to 29-year-olds. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Data are subset to respondents in states with a margin less than 5 percentage points.

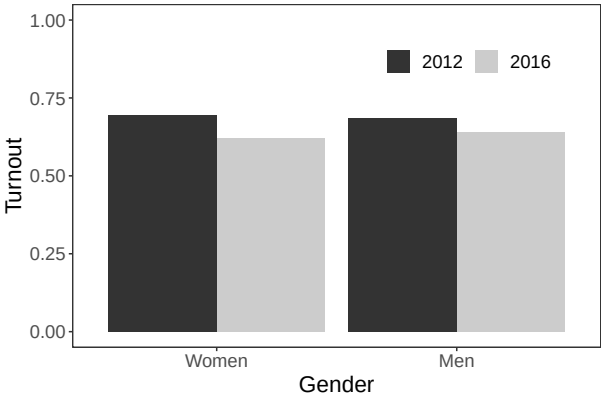
Figure I18: **Gender Voting Blocs Among Whites**



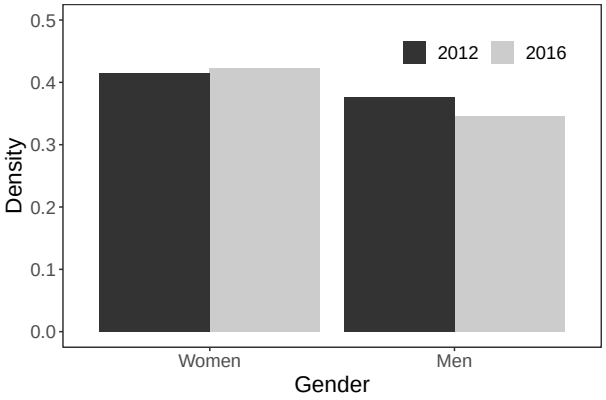
(a) Change in Relative Support



(b) Vote choice



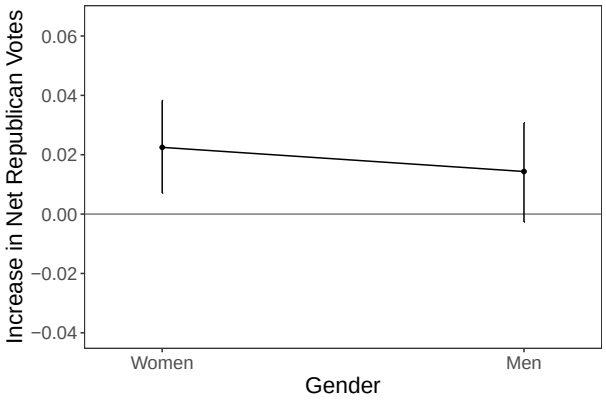
(c) Turnout



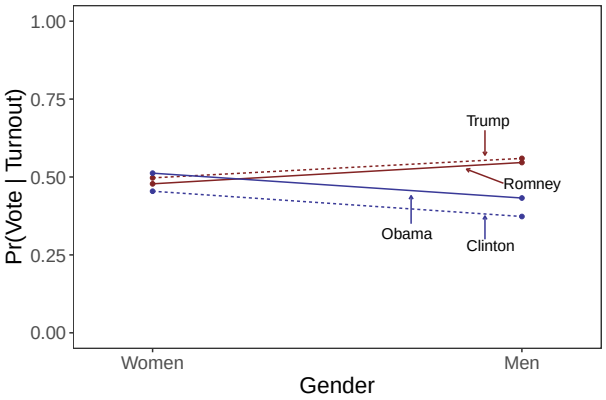
(d) Composition

Notes: Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole.

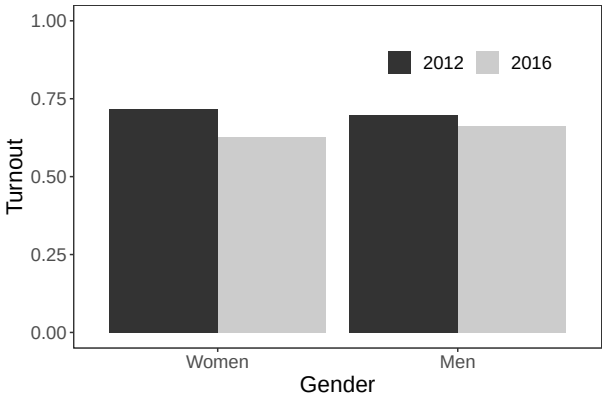
Figure I19: **Gender Voting Blocs Among Whites in Close States**



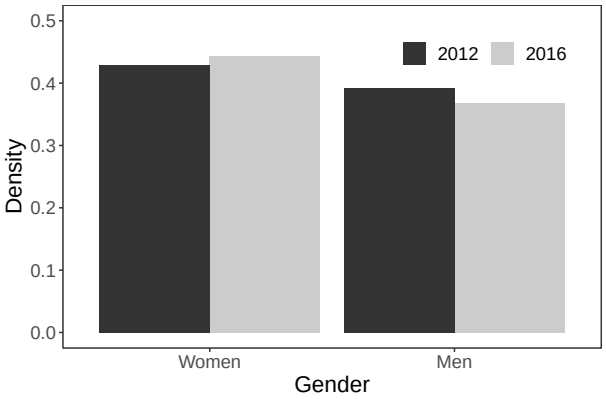
(a) Change in Relative Support



(b) Vote choice



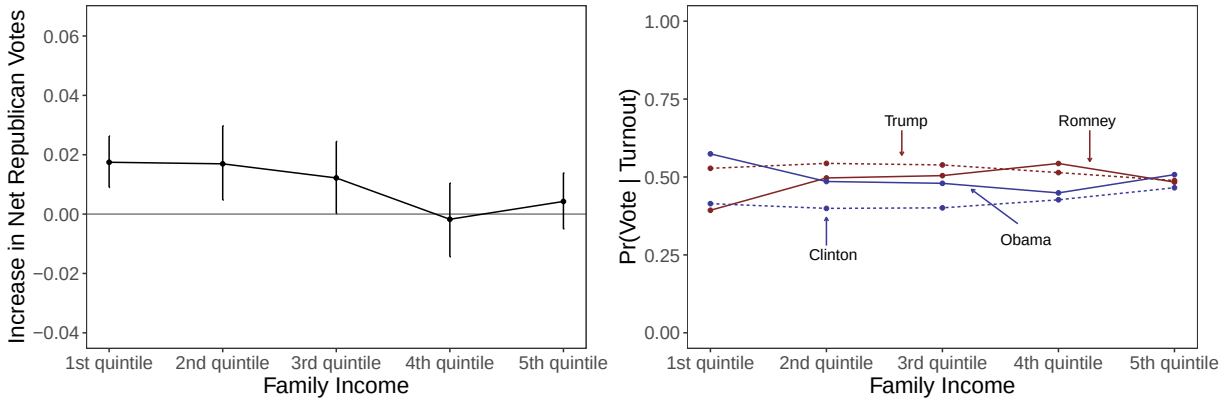
(c) Turnout



(d) Composition

Notes: Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Data are subset to respondents in states with a margin less than 5 percentage points.

Figure I20: **Income Voting Blocs Among Whites in Close States**



(a) Change in Relative Support

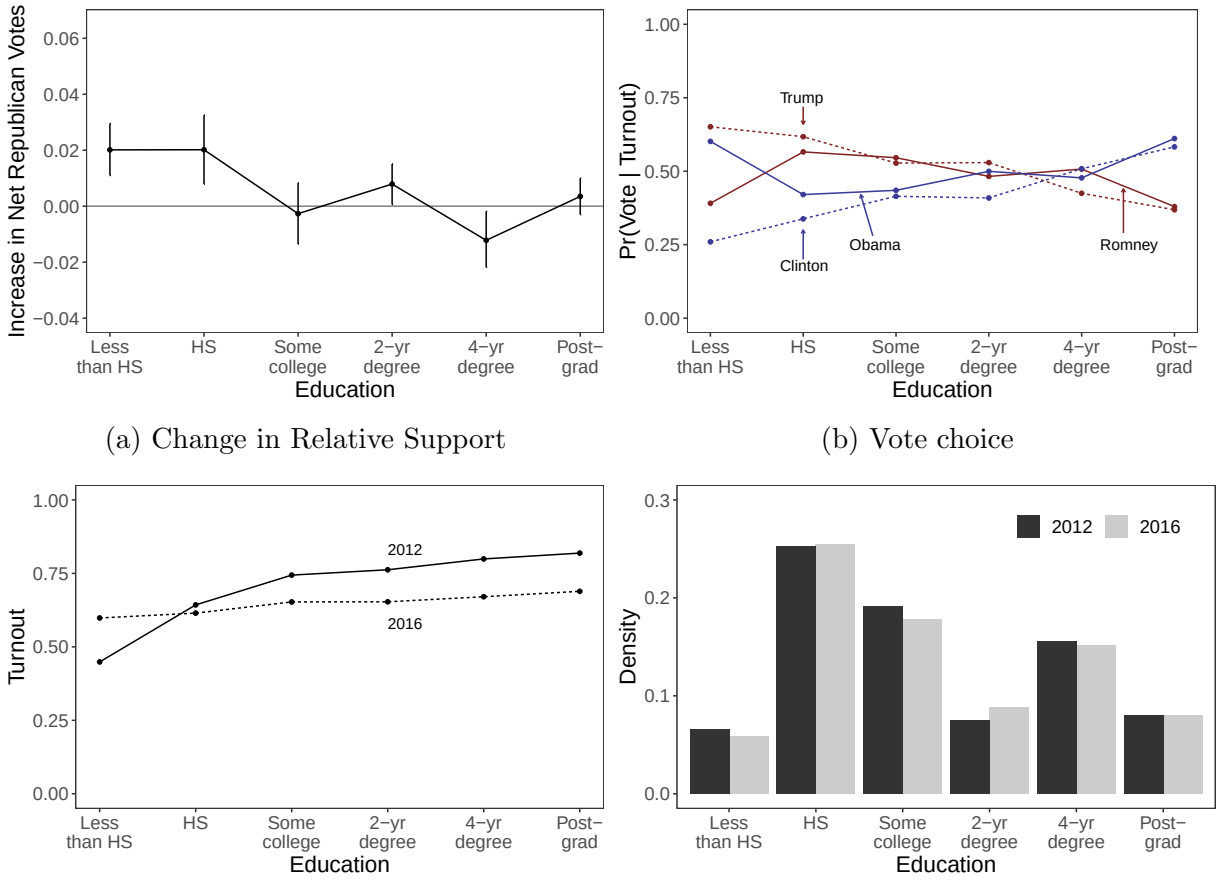
(b) Vote choice

(c) Turnout

(d) Composition

Notes: Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Data are subset to respondents in states with a margin less than 5 percentage points.

Figure I21: **Education Voting Blocs Among Whites in Close States**



(a) Change in Relative Support

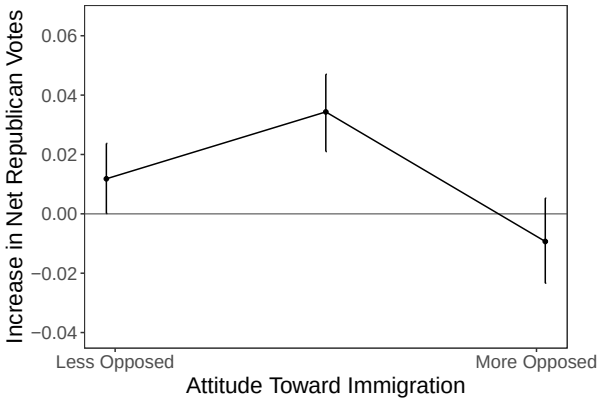
(b) Vote choice

(c) Turnout

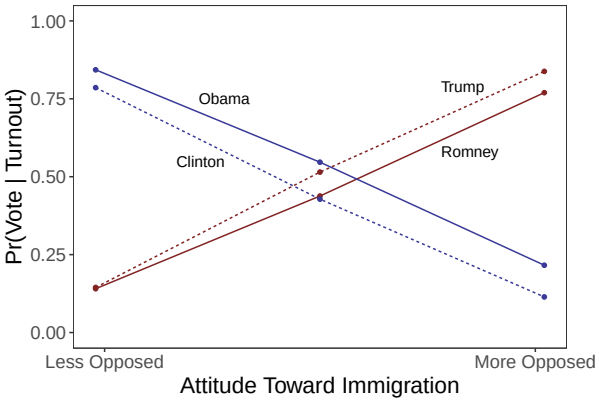
(d) Composition

Notes: Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Data are subset to respondents in states with a margin less than 5 percentage points.

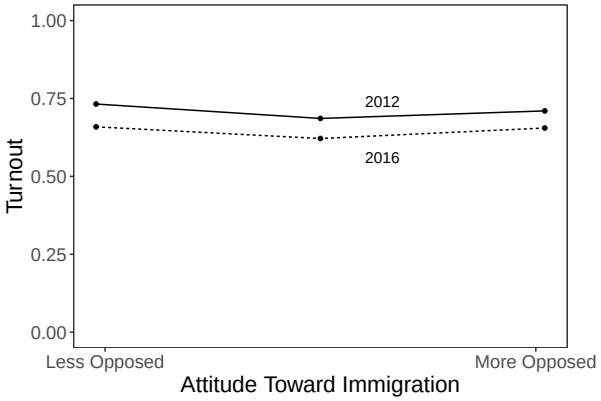
Figure I22: **Immigration Attitude Voting Blocs Among Whites in Close States**



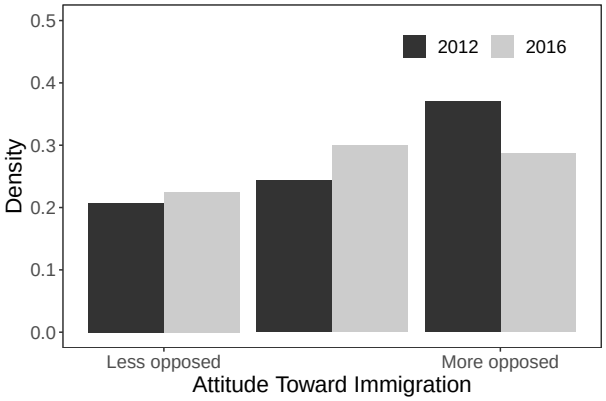
(a) Change in Relative Support



(b) Vote choice



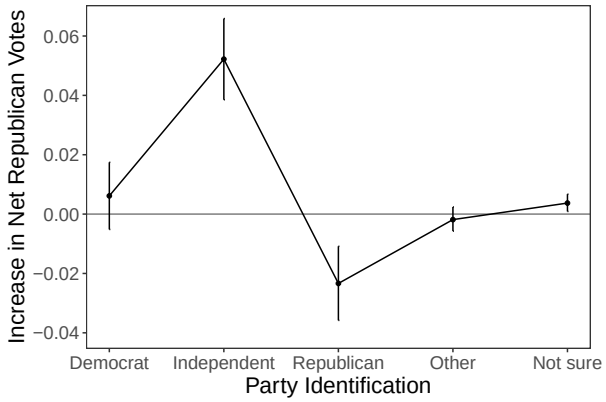
(c) Turnout



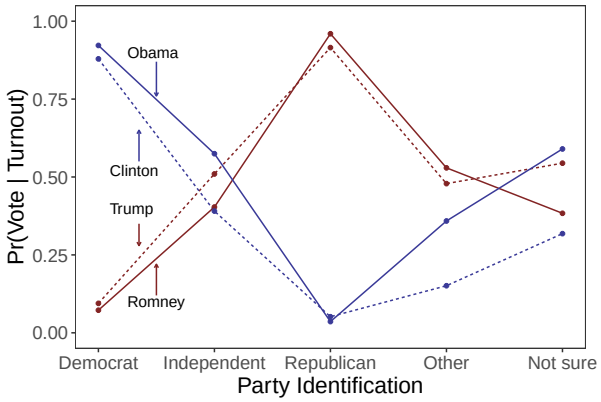
(d) Composition

Notes: Immigration attitudes are measured by responses to questions about increasing border patrol and about granting amnesty to unauthorized immigrants. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Data are subset to respondents in states with a margin less than 5 percentage points.

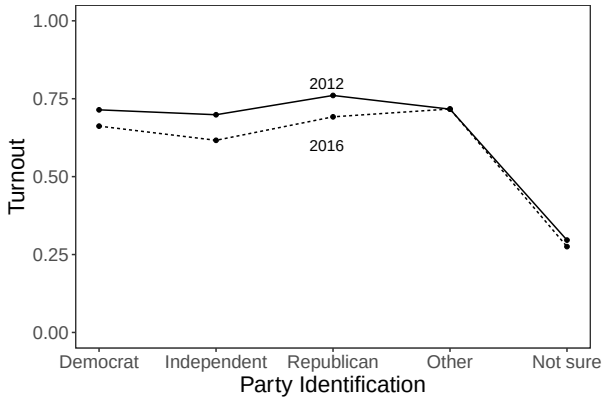
Figure I23: **Partisan Voting Blocs Among Whites in Close States**



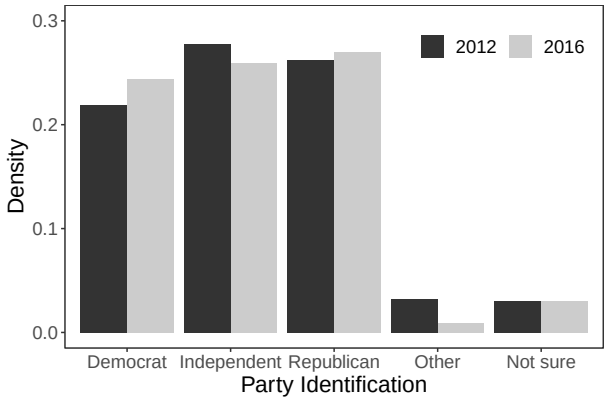
(a) Change in Relative Support



(b) Vote choice



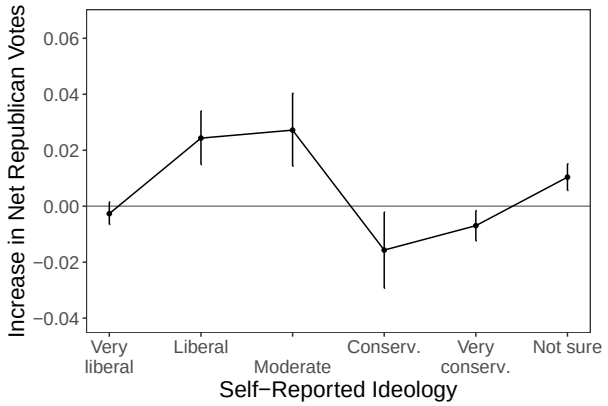
(c) Turnout



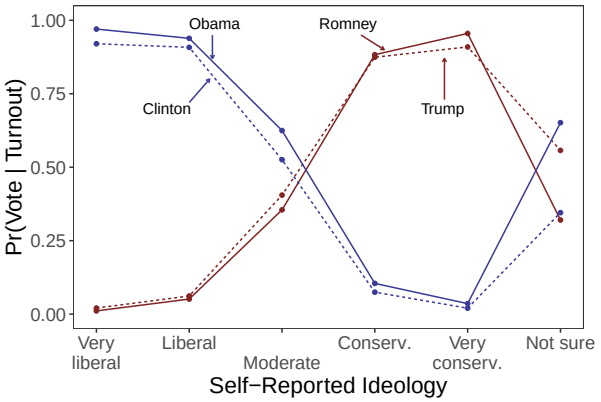
(d) Composition

Notes: Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Data are subset to respondents in states with a margin less than 5 percentage points.

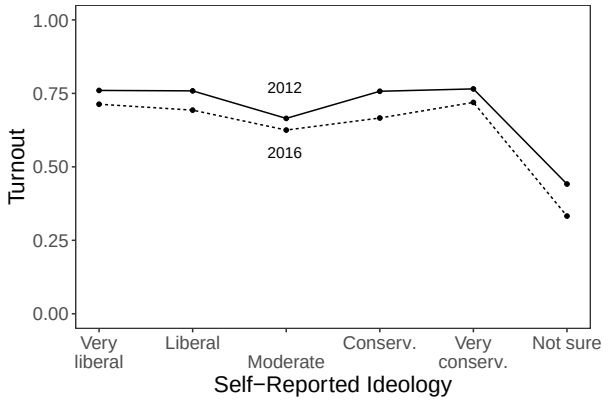
Figure I24: **Ideological Voting Blocs Among Whites in Close States**



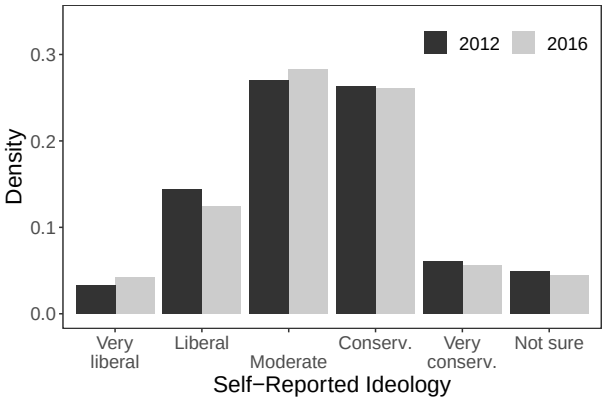
(a) Change in Relative Support



(b) Vote choice



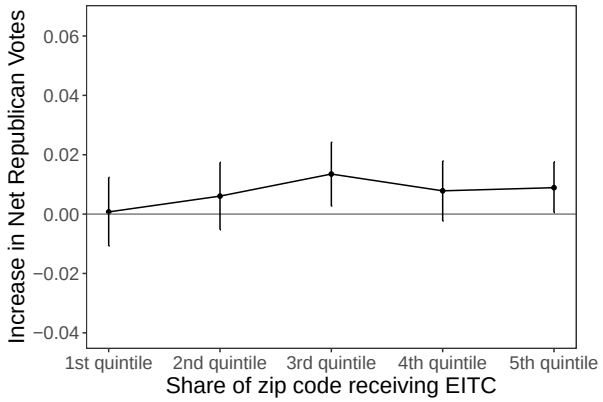
(c) Turnout



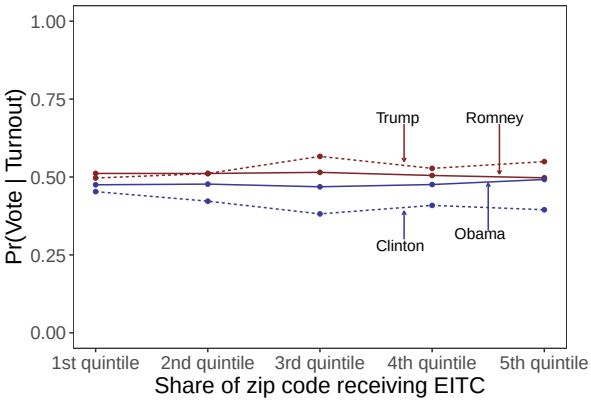
(d) Composition

Notes: Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Data are subset to respondents in states with a margin less than 5 percentage points.

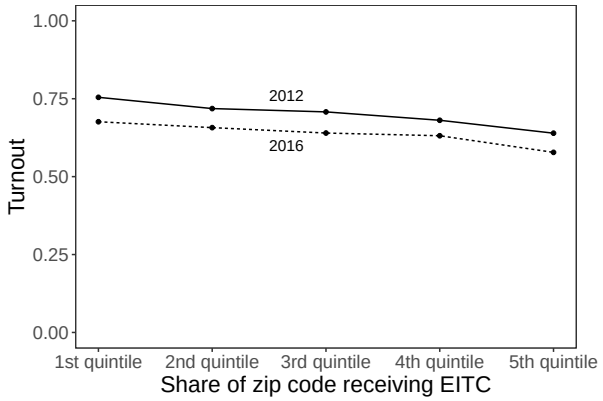
Figure I25: **Voting Blocs by Proportion of Zip Code Claiming EITC Among Whites in Close States**



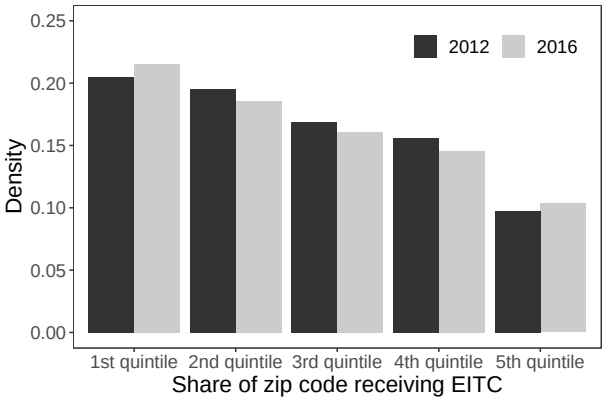
(a) Change in Relative Support



(b) Vote choice



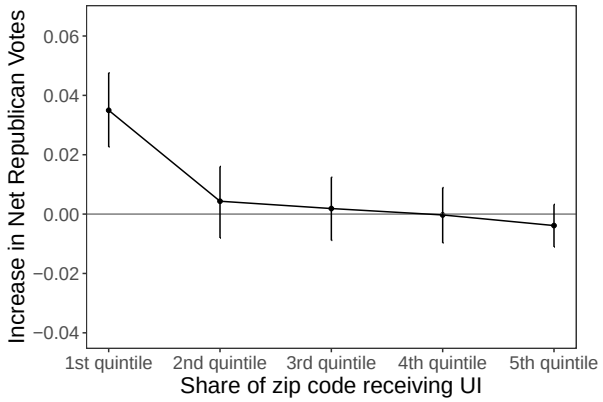
(c) Turnout



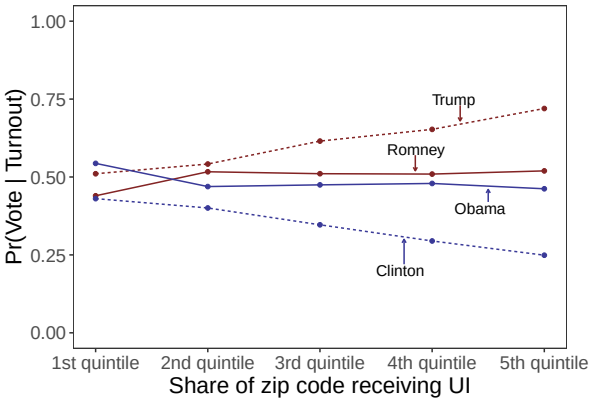
(d) Composition

Notes: Quintiles refer to the distribution across all zip codes in 2012, according to IRS data. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Data are subset to respondents in states with a margin less than 5 percentage points.

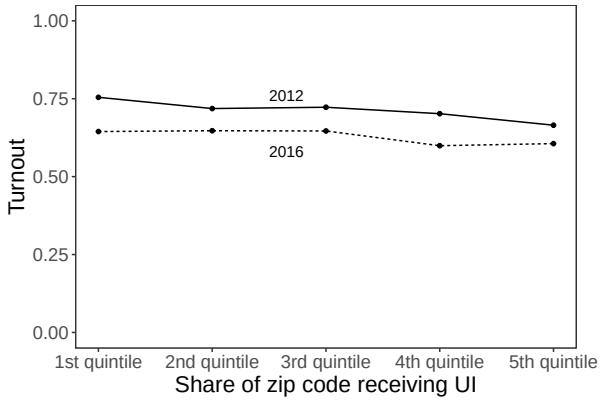
Figure I26: **Voting Blocs by Proportion of Zip Code Claiming UI Among Whites in Close States**



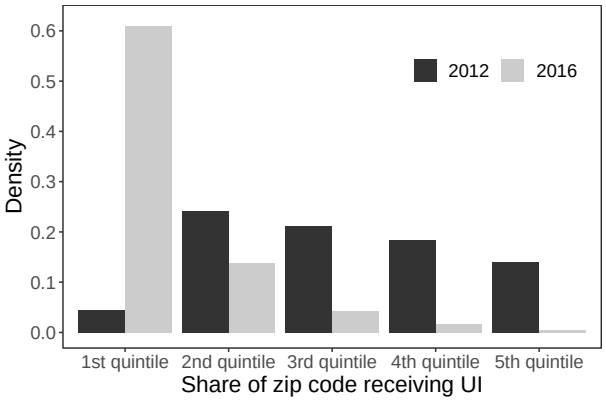
(a) Change in Relative Support



(b) Vote choice



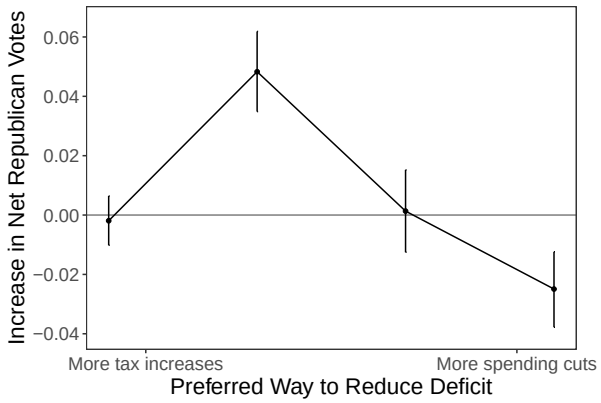
(c) Turnout



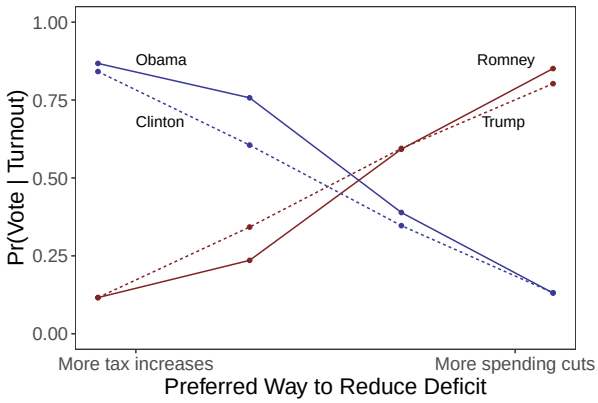
(d) Composition

Notes: Quintiles refer to the distribution across all zip codes in 2012, according to IRS data. Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Data are subset to respondents in states with a margin less than 5 percentage points.

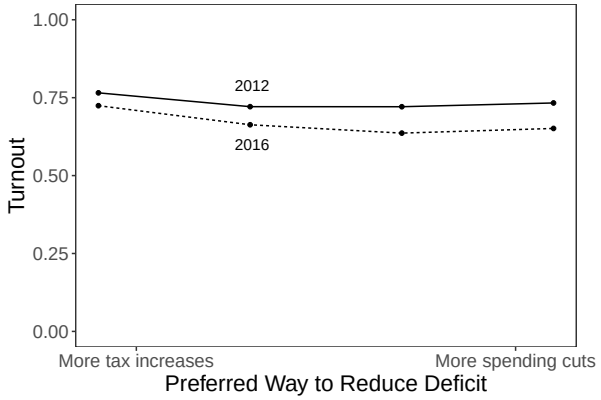
Figure I27: **Voting Blocs by Fiscal Policy Attitudes Among Whites in Close States**



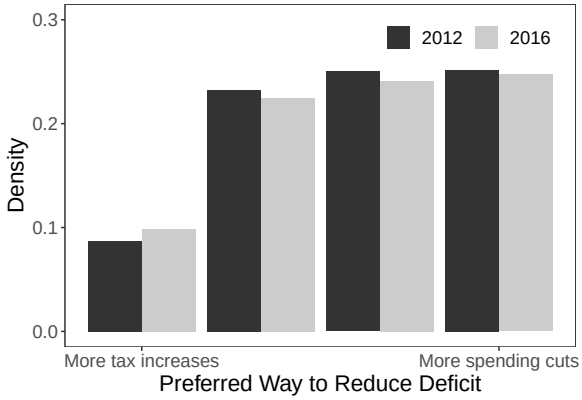
(a) Change in Relative Support



(b) Vote choice



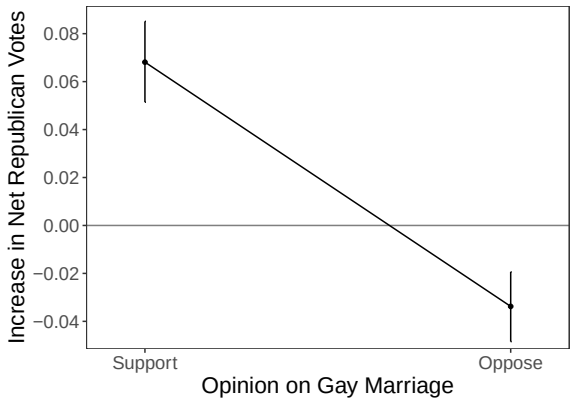
(c) Turnout



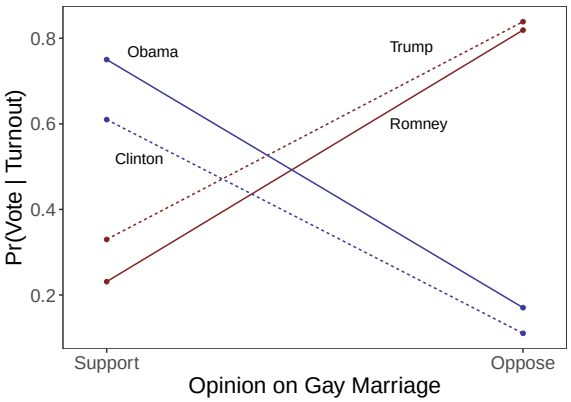
(d) Composition

Notes: Tax/spend preferences are measured by the following CCES question: "If your state were to have a budget deficit this year it would have to raise taxes on income and sales or cut spending, such as on education, health care, welfare, and road construction. What would you prefer more, raising taxes or cutting spending?" Respondents then pick a percentage (0-100) of the deficit that should be made up by cutting spending or raising taxes. Responses are binned into 25-point bins (0-25, 26-50, etc.). Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole.

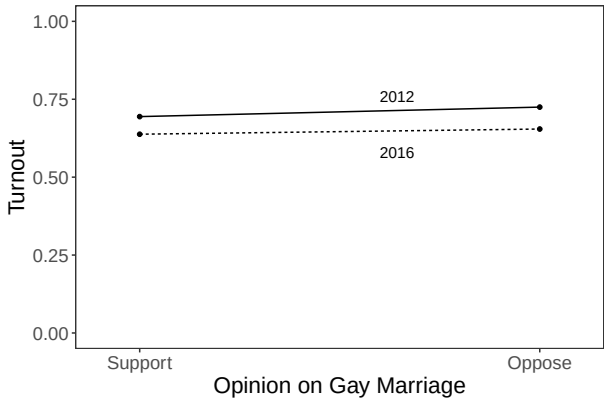
Figure I28: **Voting Blocs by Gay Marriage Attitudes Among Whites in Close States**



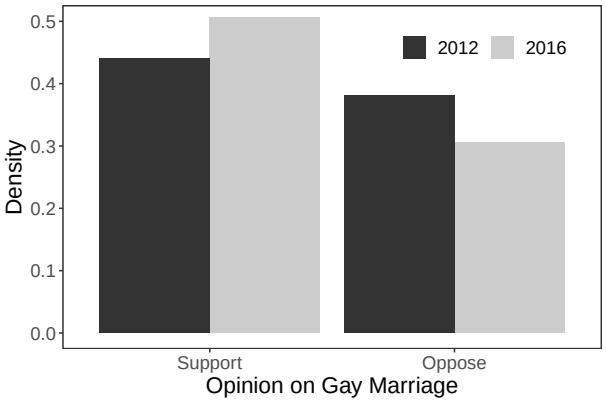
(a) Change in Relative Support



(b) Vote choice



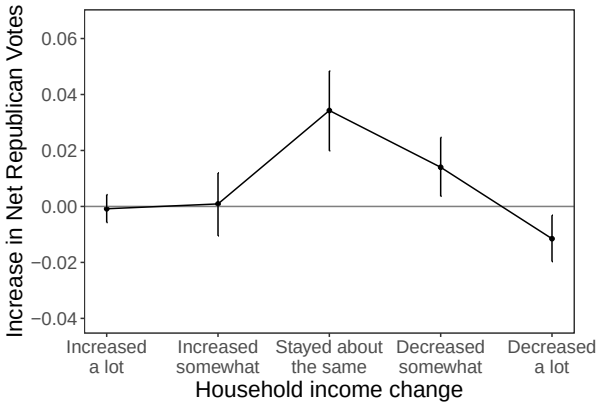
(c) Turnout



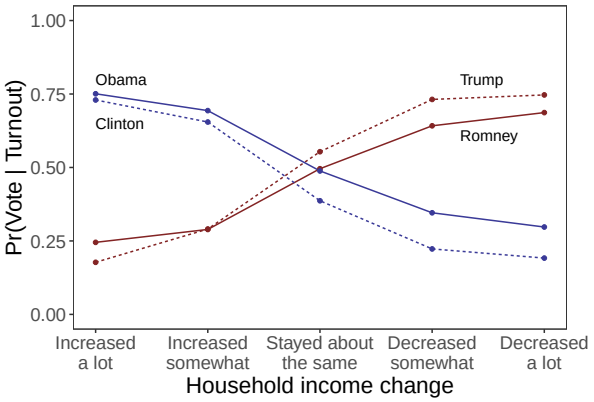
(d) Composition

Notes: Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole.

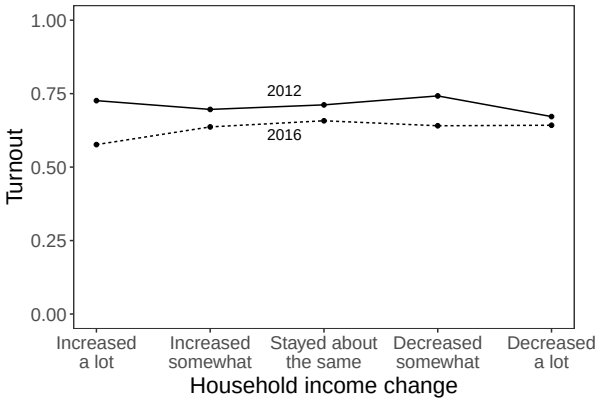
Figure I29: **Voting Blocs by Income Change Among Whites in Close States**



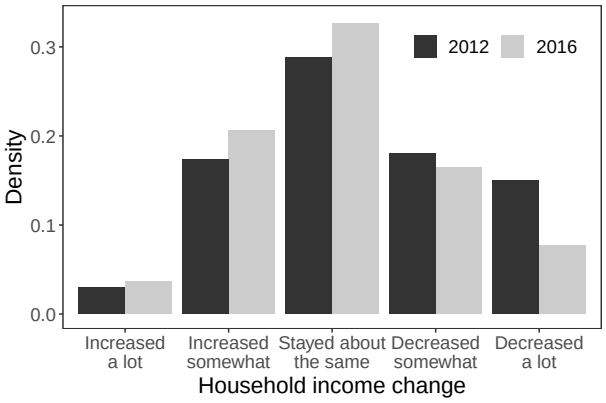
(a) Change in Relative Support



(b) Vote choice



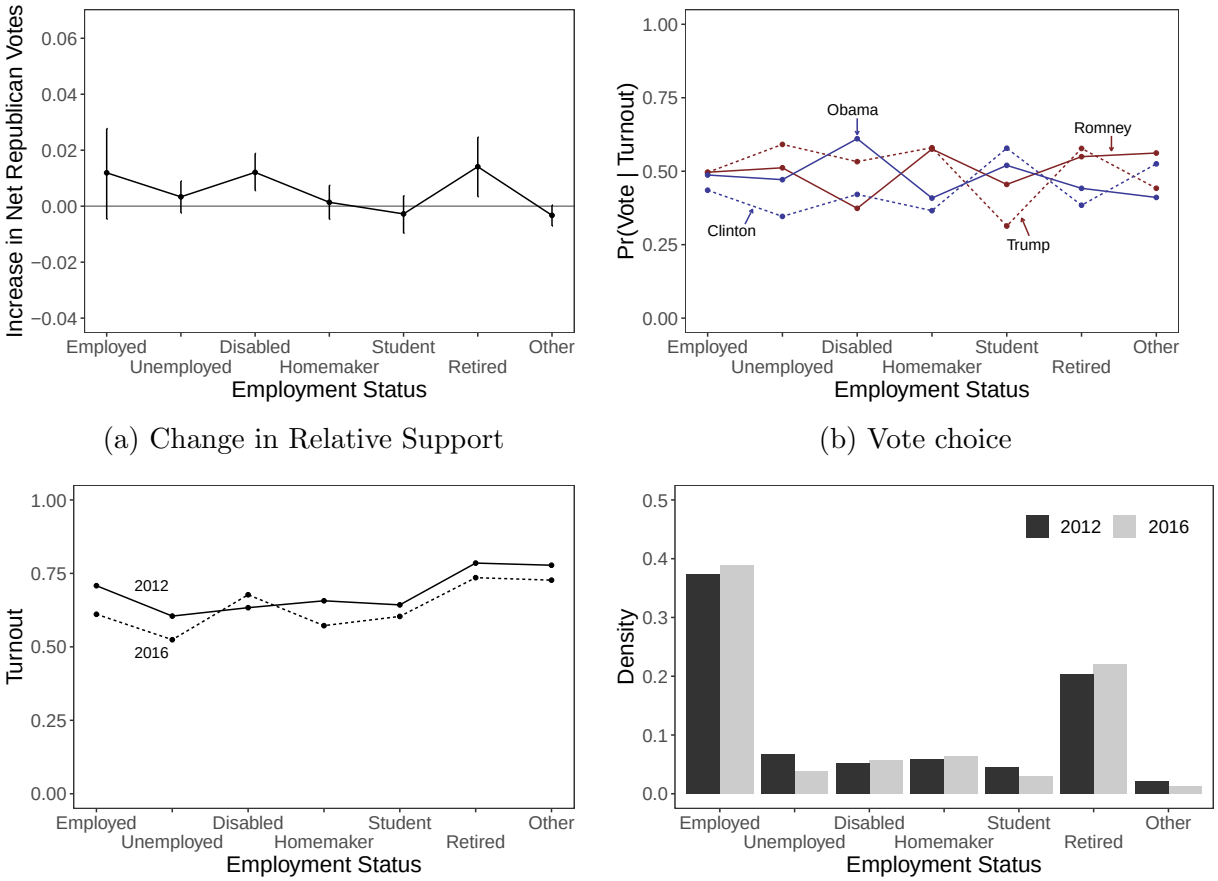
(c) Turnout



(d) Composition

Notes: Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole.

Figure I30: **Voting Blocs by Employment Status Among Whites in Close States**



(a) Change in Relative Support

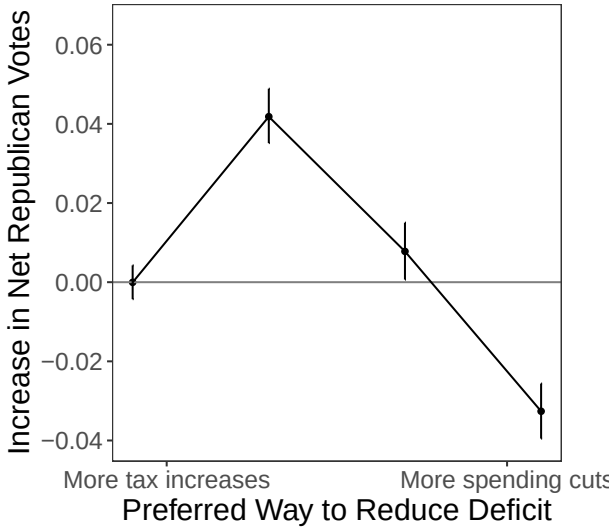
(b) Vote choice

(c) Turnout

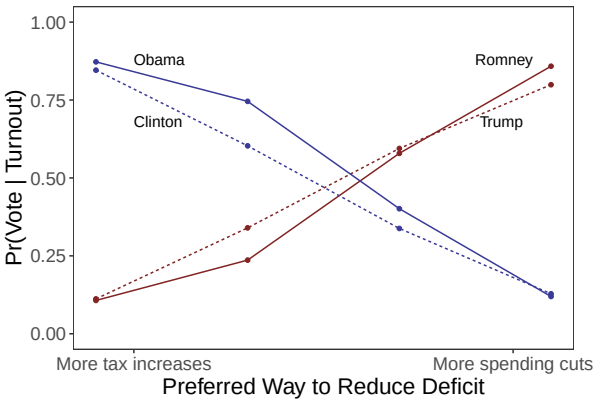
(d) Composition

Notes: Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole. Data are subset to respondents in states with a margin less than 5 percentage points.

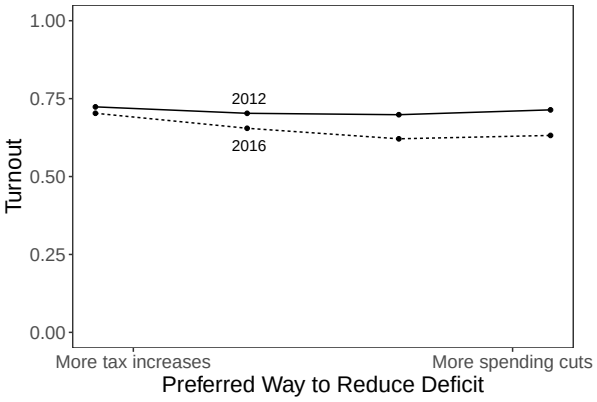
Figure I31: **Voting Blocs by Fiscal Policy Attitudes Among Whites**



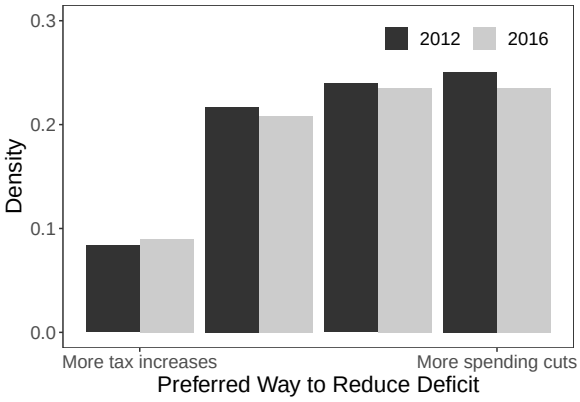
(a) Change in Relative Support



(b) Vote choice



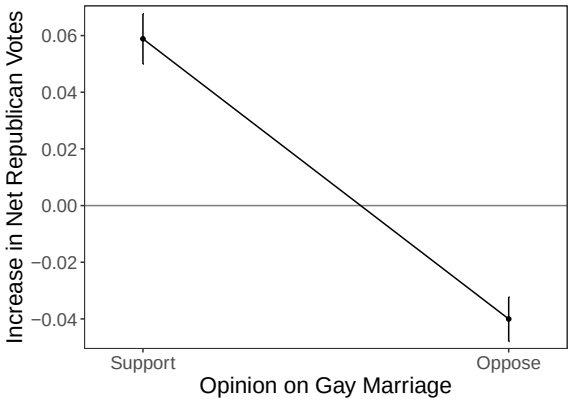
(c) Turnout



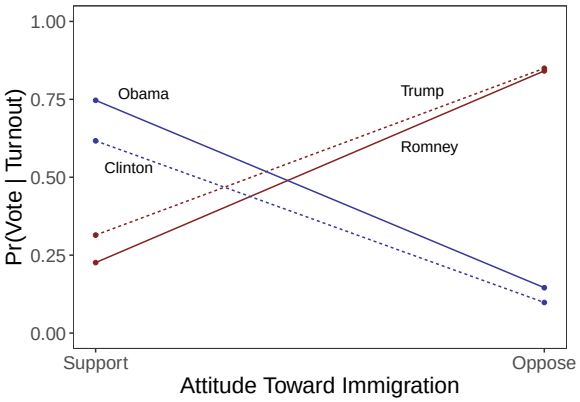
(d) Composition

Notes: Tax/spend preferences are measured by the following CCES question: "If your state were to have a budget deficit this year it would have to raise taxes on income and sales or cut spending, such as on education, health care, welfare, and road construction. What would you prefer more, raising taxes or cutting spending?" Respondents then pick a percentage (0-100) of the deficit that should be made up by cutting spending or raising taxes. Responses are binned into 25-point bins (0-25, 26-50, etc.). Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole.

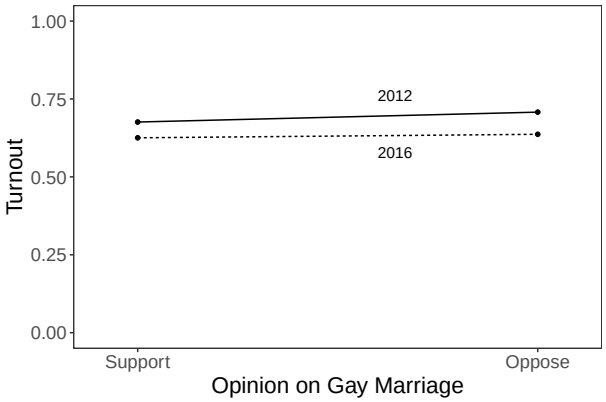
Figure I32: **Voting Blocs by Gay Marriage Attitudes Among Whites**



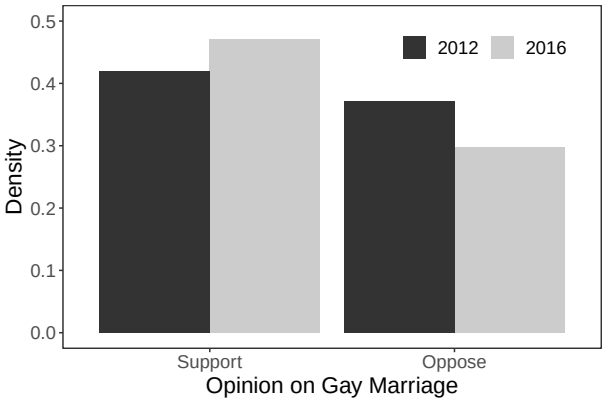
(a) Change in Relative Support



(b) Vote choice



(c) Turnout



(d) Composition

Notes: Only white voters are shown and density is adjusted by the proportion of whites in the electorate as a whole.

Appendix References

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