White Constituents and Legislative Voting

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Abstract

Why do some lawmakers in the U.S. vote more on the extremes of their party than others?[1] I consider the racial composition of districts. Lawmakers representing more homogeneously white districts have greater electoral incentive to moderate their voting records, since the two parties compete more for white support than for the support of other racial groups. I provide evidence using roll-call votes from the U.S. House and Senate, and state legislatures. I find lawmakers representing more homogeneously white districts have more moderate voting records, a finding that holds for Democrats and Republicans. I explore two potential mechanisms: legislator responsiveness and electoral accountability. While legislators do not seem to adjust their voting behavior in response to short-term changes in district racial composition, more homogeneously white districts are found to assess larger penalties on more extreme candidates in general elections. The findings have implications for representation, polarization, and electoral accountability.

Keywords: Race, representation, party polarization, Congress, state legislatures

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What leads some legislators to vote more on the extremes of their parties than others? Electoral considerations at home influence lawmakers' votes (e.g. Fenno 1978; Fiorina 1974; Kingdon 1977), but constituencies often prefer more moderate representation than their partisan representatives provide (Bafumi & Herron 2010, Masket & Noel 2012; though see Ahler & Broockman 2018). Scholars consistently find that voters levy stiffer penalties on lawmakers who vote more on the extremes of their parties (Ansolabehere, Snyder, & Stewart 2001; Canes-Wrone, Brady, & Cogan 2002; Carson et al. 2010; Erikson 1971). This literature, grounded in spatial theories of representation (e.g. Downs 1957), focuses narrowly on voter and lawmaker ideology. However, voters and lawmakers are motivated by more than policy preferences (see Harden 2016). In particular, social group ties inform the actions of both voters (Achen & Bartels 2016; Berelson, Lazarsfeld, & McPhee 1954; Campbell et al. 1960) and lawmakers (Bratton & Haynie 1999; Broockman 2013).

Group attachments to party coalitions can allow lawmakers to engage in more extreme representation of their districts, even if that representation is out of step with constituency preferences (see Glazer, Grofman, & Owen 1998). This dynamic becomes evident examining the role of race in U.S. elections. The two parties' coalitions have increasingly sorted along racial lines (Hajnal & Lee 2011; Mason 2018). When voters are committed to one party on the basis of racial group ties, legislators in both parties have greater latitude to vote on the extremes in office. Voters in such "captured" groups will be unlikely to punish extreme in-party incumbents by supporting out-party challengers (Frymer 1999). Likewise, out-party incumbents have little incentive to moderate their own records to appeal to captured voters, since moderating is unlikely to win their votes. However, to a greater extent than other groups, whites remain split between the two parties' coalitions. As a result, more homogeneously white constituencies should react more strongly against extreme records, all else equal. Legislators representing such districts should be more constrained to moderate their voting behavior. If they do not, they risk white constituents swinging their support to out-party challengers.

I provide evidence using data summarizing individual lawmakers' roll-call votes from the 112^{th} and 113^{th} House and Senate, and from the 49 partisan state legislatures between 2009 and 2016. The evidence consistently suggests that representatives of homogeneously white districts hold more moderate voting records, even when controlling for key variables like district ideology. I also conduct a test at the aggregate level, surveying polarization between party caucuses in state legislatures between 2010 and 2014. I find that states with more homogeneously white populations tend to have legislatures that are less polarized.

What explains this moderation? I explore two mechanisms: incumbent responsiveness and electoral replacement. Using a simple redistricting design, I find that members of the U.S. House who came to represent more white voters after the 2010 round of redistricting did not subsequently moderate their roll-call votes. However, I find that in more homogeneously white constituencies, extremists suffer larger penalties in vote shares than in more racially diverse districts. The results point toward electoral replacement of extremists, rather than incumbent responsiveness, as the mechanism for legislator moderation in white districts.

Though primarily descriptive, the results contribute to our understanding of the relationship between legislative voting and race. It is well-established that issues of race have helped to divide the two parties over the last half century (Carmines & Stimson 1989; Miller & Schofield 2003). While studies often examine how district racial composition affects votes on a small numbers of key issues important to a minority group (e.g. Canon 1999; Casellas & Leal 2013), few connect racial composition to overall voting records. The findings suggest that studies of electoral responsiveness should more thoroughly consider racial coalitions of party support.

Constituent Ideology and Group Identities Inform Legislative Voting

Lawmakers balance many competing pressures in deciding how to cast their votes. A rich literature explains how procedural rules, partisan strategy, legislators' personal goals, and other factors influence legislative voting (e.g. Binder & Smith 1997; Burden 2007; Kingdon 1977; Lee 2009). Nonetheless, scholars generally agree that lawmakers' votes are in some part informed by electoral considerations in their districts.

The exact ramifications of lawmakers' votes for their reelection prospects remain unclear. On one hand, lawmakers may cast votes without fear of electoral reprisal due to voter ignorance or apathy. Voters are notorious for their inattention to politics (Delli Carpini & Keeter 1996). Furthermore, sitting legislators use procedural maneuvers to obscure their actions from voters (Arnold 1990). In lower offices like state legislatures, a dearth of information about officials' actions brings into question whether voters are capable of holding their representatives accountable for their votes (Rogers 2017).

On the other hand, legislators suffer electoral penalties for voting out of line with constituency preferences. The canonical median voter theorem implies that ideological moderation should help to enhance one's electoral prospects (Downs 1957). Empirical studies relying on this Downsian logic show that moderation on roll-call votes brings electoral advantages. Incumbents who vote too often on the extremes face a higher risk of losing reelection (Ansolabehere, Snyder, & Stewart 2001; Canes-Wrone, Brady, & Cogan 2002; Carson et al. 2010; Erikson 1971) or drawing challengers (Birkhead 2015; Hogan 2008). Likewise, moderate candidates tend to win larger vote shares in general elections and win office at a higher rate than their more extreme rivals from primary elections (Hall 2015).

Though moderation bestows electoral benefits on average, legislators will perceive varying levels of risk and reward for moderation depending on the characteristics of their districts. Nearly all relevant studies control for average district ideology, taking into account that the

absolute ideological position of median voters varies across districts. Ideologically heterogeneous districts also create electoral conditions that allow more extreme legislators to hold office (Levendusky & Pope 2010; McCarty et al. 2018) and give legislators leeway to vote with party leaders (Harden & Carsey 2012).

Social Groups in the Electoral Landscape

Constituent ideology is not the only consideration that goes into lawmakers' decisions about roll-call voting. Social groups also factor in (Canon 1999; Miler 2010). By social group, I mean a set of people who share a common identity that has some relevance to politics. Social groups may hold similar policy preferences (Karol 2009), but need not hold uniform ones.

A prominent line of thinking holds that parties function as coalitions of social groups that create potential popular majorities, enabling those groups to be represented within government institutions (Bawn et al. 2012). Voters who identify with party-aligned social groups tend to vote in majorities, though not uniformly, for their party's candidates. Social group attachments shape voter behavior in addition to, but independently of, voter ideology as group identity and consciousness come to bear in vote choice (Berelson, Lazarsfeld, & McPhee 1954; Conover 1988). The group's electoral support may be premised on a small set of issues important to the group (Miller et al. 1981) and/or considerations beyond issues, like group norms (White, Laird, & Allen 2014) or feelings of social exclusion (Kuo, Malhotra, & Mo 2017). Given the inability of many Americans to align their issue positions in an ideologically consistent manner (Converse 1964) and their propensity to arrive at issue positions after forming partisan attachments (Lenz 2013), vote choice for many Americans may be more an expression of group identity or symbolic attachments than of ideological preference (Green, Palmquist, & Schickler 2002, Achen & Bartels 2016, though see Abramowitz & Saunders 2006). Additionally, Americans have increasingly socially sorted into parties, such that a person's group identities are increasingly predictive of that person's party identification (Mason 2018).

The extremity of legislators' voting records should reflect in part the social group composition of their districts. While some support comes from voters with shared ideological preferences, support will also come from social groups aligned with the legislator's party. Voters may also support candidates based on the social groups the candidate is perceived to represent (Boudreau, Elmendorf, & MacKenzie 2019; Fraga & Leal 2004; Glazer, Grofman, & Owen 1998; Kinder & Dale-Riddle 2012). Independent of ideology, a voter may prefer candidates who associate themselves with or appeal to members of a voter's ingroup. Conversely, a voter may reject candidates who represent an outgroup, particularly if the voter feels animus towards the outgroup.

Group-oriented voting could insulate more extreme candidates from electoral replacement. With no group-based considerations, as in Downs' (1957) original theorem, legislators would have electoral incentives to moderate their voting behavior toward a median voter in their district. In doing so, lawmakers would increase their chances of winning over voters who may reasonably choose to support the other party's candidate based on shared ideological preferences.

However when group-based considerations enter into electoral choice, lawmakers could have less to gain from moderation. Group-oriented voters would remain more committed to one party's candidates, regardless of ideology or issue positions. Even if those voters are ideologically moderate (or inconsistently aligned on the issues—see Broockman 2016), and even if the opposing party's candidate moderates her own positions, voters in a social group committed to one party's coalition would be unlikely to support the opposing party's candidate. With less incentive to moderate in districts due to a dearth of winnable swing voters, incumbents could win reelection and maintain a more extreme voting record by relying upon sustained support from social groups committed to their own party.

Then again, swing voters may not factor heavily into candidates' electoral fortunes. Rather, changes in turnout across election cycles may affect candidates' vote share to a greater extent (Hill 2017). For example, in recent U.S. House races, extreme candidates

suffered less from the loss of swing voters than from mobilizing the opposing party's base to turn out (Hall & Thompson 2018). However, the mechanism by which voters replace incumbent extremists need not change the ultimate outcome. If ideological positioning plays little role in group-oriented voters' candidate preferences, those voters should also not be motivated to turn out against more extreme candidates from the opposing party.

To a certain extent, the argument assumes that legislators' incentives are to vote on the extremes and to moderate only under pressure from their constituency. Moderates are increasingly rare in Congress (Thomsen 2017). Given the high personal costs and low rewards to service, intrinsically motivated ideologues may be more willing to bear the costs of running and serving than moderates (Hall 2019). External pressures to cast more extreme votes also come regularly from intense in-party policy demanders (Layman et al. 2010), ideological donors (Barber, Canes-Wrone, & Thrower 2017), and party caucus leaders (Harden & Carsey 2012). Most, but not all, lawmakers are in a position where they have to balance competing demands on them from relatively more moderate constituencies and relatively more extreme parties (Masket & Noel 2012). Therefore, constituency pressures are often the most compelling reason for legislators to moderate.

To summarize, when a social group votes consistently for a given party, lawmakers in the both parties will feel less electoral pressure to moderate their voting records to appeal to that group. Conversely, if either party can win votes from a social group, lawmakers in both parties will have greater incentive to moderate their records to compete for those votes.

Whites as a Competitive Social Group

The case of race provides a good starting point to test the argument. Racial groups are quintessential social groups and feature prominently in U.S. party politics (Kinder & Dale-Riddle 2012). The two parties have frequently divided on issues of race (Abrajano & Hajnal 2015; Carmines & Stimson 1989; Key 1949; Tesler 2016), such that partisan cleavages mirror racial cleavages. The argument implies that legislators should be more likely to vote

on the extremes when representing social groups that are committed to one party's coalition. Conversely, legislators should be more constrained from voting on the extremes when larger shares of their potential voters belong to social groups that are two-party competitive. Applied to the case of race, legislators should be more likely to moderate their votes in constituencies that contain more white voters.

Party elites compete to varying extents for support from different racial groups. Republicans' attempt to attract votes from conservative whites in the South in the 1960s and 1970s led to that party's adoption of a conservative platform on issues of race (Carmines & Stimson 1989). Likewise, African Americans swung to the Democratic Party to the point of "electoral capture" (Frymer 1999). While Democrats have come to rely on the support of Latinos and Asian Americans as well, Republicans maintain some support among these groups (Hajnal & Lee 2011). Symbolic appeals made by Republicans to Latinos in the 2000s, for instance, may have helped to soften the party's image and made Republicans more competitive among Latinos (Fraga & Leal 2004). While Latinos' reactions to Donald Trump have been complex (Corral & Leal 2020), his harsh rhetoric on immigration has jeopardized Republican standing among many Latino voters (Gutierrez et al. 2019). Both parties pay scant attention to Asian Americans during elections (Kim 2007), but many attribute their Democratic partisanship to a sense of social exclusion from the Republican Party (Kuo, Malhotra, & Mo 2017). As a result of these dynamics, whites comprise the vast majority of the Republican coalition and Democrats rely on the support of moderate and liberal whites and people of color (Zingher 2018).

Candidates in both parties actively compete for the support of white voters. Because whites form a majority of the electorate, neither party can compete nationally without substantial electoral support from whites. Two-party competition is reflected in recent polling data and election returns. According to data from Pew Research Center, Donald Trump won the white vote in the 2016 presidential election by a 21-point margin, the largest share

any Republican presidential nominee has won since 1984.[1] The margin was still smaller than Hispanics' 36-point and African Americans' 80-point margin of support for Hillary Clinton. Moreover, whites comprised a majority of self-identified Democrats in 2008 and 2012[2] and gave Hillary Clinton the majority of her votes in the 2016 presidential election.[3] A greater proportion of whites voted for Democratic candidates in the 2018 midterms than voted for Clinton in 2016, an apparent short-term reversal of whites' gradual migration toward the Republican Party.[4] Finally, presidential election polls conducted early in the summer of 2020 showed whites evenly split between President Trump and former Vice President Biden.[5]

Two caveats are in order. First, white support has increasingly shifted towards Republicans over the last two decades (Zingher 2019), perhaps due to attitudes on immigration (Hajnal & Rivera 2014) or increased awareness of party differences on racial issues during the Obama Administration (Sides, Vavreck, & Tesler 2018). The point here is not to contest findings that white support generally has been shifting toward the Republican Party in the long term. Rather, it is to establish that in recent election cycles, white votes have been competitive to both parties.

Second, many whites are group-oriented in their voting behavior. Jardina (2019) demonstrates that white identity and consciousness predicted opposition to Barack Obama's reelection in 2012 and support for Donald Trump in 2016 in both the Republican primary and the general election. If a large proportion of whites demonstrate strong white identity or consciousness and those dispositions lead them to support Republican candidates, then readers should remain skeptical that white voters are more likely to consider both parties' candidates than nonwhite voters. However, Jardina (2019) also shows that strong

[1]Tyson, Alec, and Shiva Maniam. 2016. "Behind Trump's Victory: Divisions by Race, Gender, Education." *Pew Research Center*. Available at `http://pewrsr.ch/2ffF1bU`.

[2]Newport, Frank. 2013. "Democrats Racially Diverse; Republicans Mostly White." *Gallup*. Available at `https://news.gallup.com/poll/160373/democrats-racially-diverse-republicans-mostly-white.aspx`.

[3]Roper Center for Public Opinion Research. 2016. "How Groups Voted in 2016." Available at `https://ropercenter.cornell.edu/how-groups-voted-2016`.

[4]Frey, William H. 2018. "2018 Exit Polls Show Greater White Support for Democrats." *Brookings Institution*. Available at `https://brook.gs/2Dur4Um`.

[5]Burns, Alexander, Jonathan Martin, and Matt Stevens. 2020. "Biden Takes Dominant Lead as Voters Reject Trump on Virus and Race." *New York Times*. Available at `https://nyti.ms/2YticaX`.

white identifiers comprise a minority of whites (roughly 30-40%). A smaller proportion of whites exhibit strong ingroup identity than either Latinos (49-75%) or African Americans (69-85%). Finally, strong white identity is positively but weakly correlated with Republican party identification.

As a result of interparty competition for their votes, whites are more likely to choose candidates from either party. Moreover, to a greater extent than other groups, whites exhibit more alignment between their policy preferences and partisan vote choice (Gay 2014). Seeing both parties' candidates as available options places white voters in a position of being able to reject more ideologically extreme candidates. Consequently, more moderate lawmakers should represent more homogeneously white districts.

In the following empirical analyses, I test the expectation that lawmakers representing more homogeneously white districts should hold more moderate roll-call voting records. The expectation should apply to both Democrats and Republicans. After accounting for district ideology, electorates that are more homogeneously white should be more amenable to appeals from Republican challengers than more diverse electorates, forcing Democrats representing white districts to moderate their records to compete. Likewise, Republican legislators representing racially diverse districts also should have less incentive to moderate, since even moderate nonwhite populations would be less likely to consider supporting a Republican candidate than moderate white populations.

Evidence from Congress

As an initial test of the expectation that representatives of more homogeneously white districts moderate their votes, I turn to the roll-call voting records of members of the 112^{th} and 113^{th} Congress. These terms are chosen for the availability of contemporaneous public opinion data and for comparison to a model of legislative change over a redistricting cycle, presented below. I use members' DW-NOMINATE scores to capture extremity. Scholars frequently use DW-NOMINATE scores to measure the ideological preferences of members

(Poole & Rosenthal 1997), but the scores might better represent partisan divisions, particularly when the parties are polarized (Aldrich, Montgomery, & Sparks 2014; Lee 2009). Whether the scores capture ideology or partisanship, they nonetheless serve as a useful measure of extreme voting behavior in office. To measure the racial composition of members' districts, I use one-year estimates from the American Community Survey (ACS). The principal independent variable is the percentage of the district population self-identifying as non-Hispanic whites.

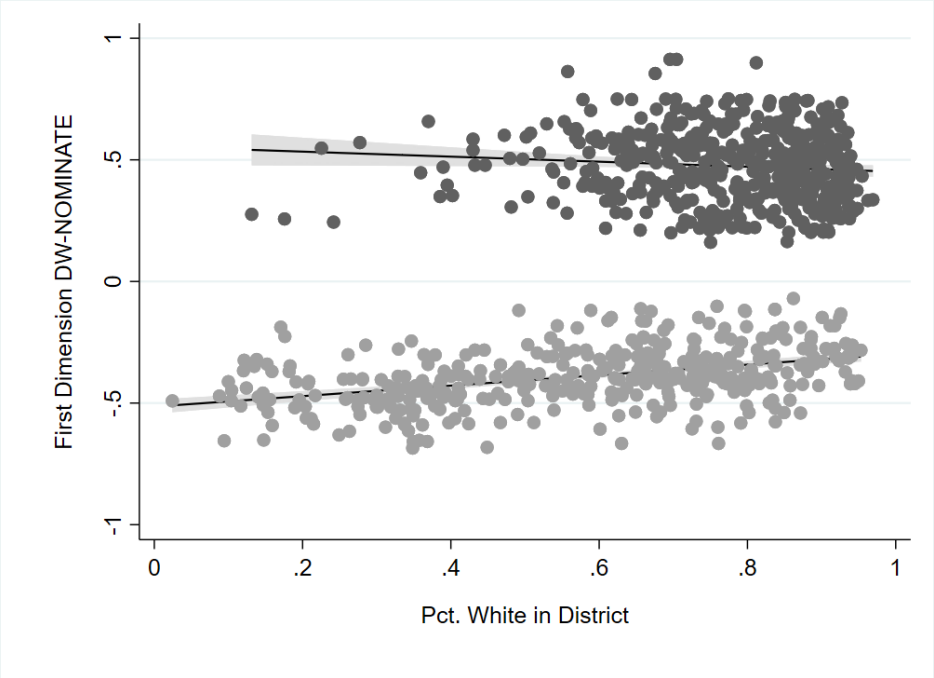
In Figure 1, I plot members' DW-NOMINATE scores against the percent white in their districts by party for the 112^{th}-113^{th} Congresses. Evidence consistent with expectations would show that members' scores converge towards zero as percent white in the district increases. The figure shows that in the House, both Republicans and Democrats in more homogeneously white districts carry more moderate voting records. The association is substantively larger for Democrats ($\beta = 0.22$) than for Republicans ($\beta = -0.10$). Coefficient estimates within both parties are statistically significant at the .05 level of confidence. Turning to the Senate, the white population of a district negatively correlates with member extremity in both parties ($\beta = -0.15$ for Republicans, $\beta = 0.13$ for Democrats), but is statistically significant only for Democrats.

The figures alone do not constitute strong evidence of the expected relationship. The relationship could be confounded by other factors like district ideology or region. To clarify the role of district racial composition, I estimate several multiple regression models. For the purpose of these models, I transform members' DW-NOMINATE scores into a measure of *Extremity* by using the absolute value as the dependent variable. Higher values of this transformed variable (farther from 0 on the original scale) indicate more extreme records. As above, the principal independent variable is *Pct. White*, the percentage of the district population identifying as non-Hispanic whites.

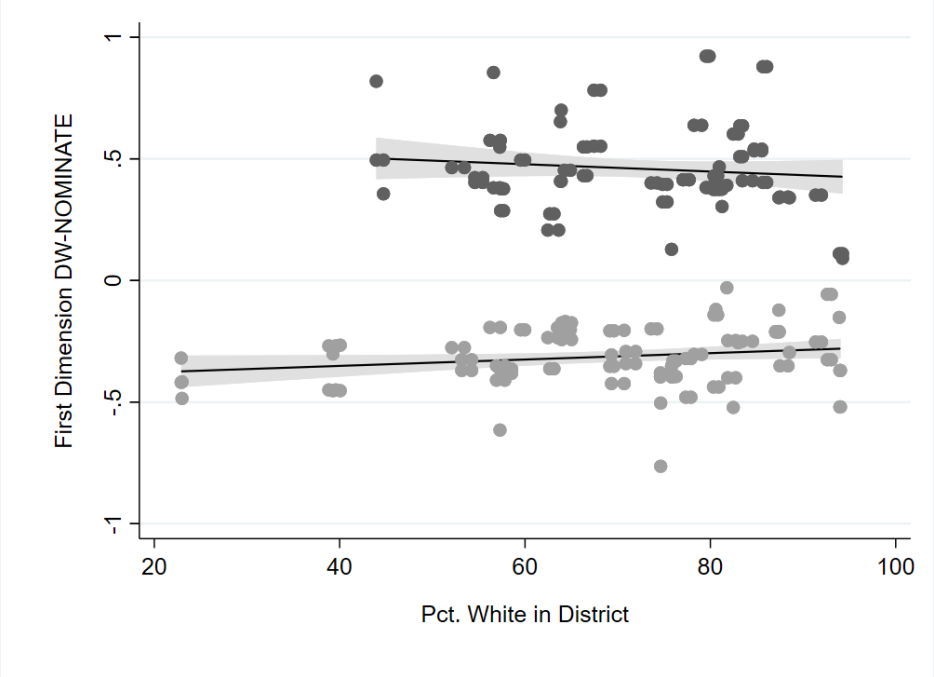
I include several control variables in the model. First, in line with the median voter theorem, more liberal districts on average should elect more liberal members and more

Figure 1: Roll-Call Voting and District Racial Composition in the 112^{th}–113^{th} Congress

House



Senate



Notes: Data from Voteview and the American Community Survey. Light gray markers represent Democrats. Dark gray markers markers represent Republicans.

conservative districts should elect more conservative members. I include a control for *District Extremity*, the absolute value of the district ideology measure developed by Tausanovitch & Warshaw (2013). Higher values indicate more ideologically extreme districts while lower values indicate more moderate districts.[6] I also control for the *Ideological Heterogeneity* of districts, since more heterogeneous districts tend to elect more extreme members (Ensley 2012). I use the standard deviation of the district opinion measure from Tausanovitch & Warshaw (2013).

Through a process of asymmetric polarization, Republican members have taken more ideologically extreme positions than Democratic members in recent congresses (Grossmann & Hopkins 2016). I include an indicator for *Republican* members. Finally, I include an indicator for constituencies located in the *South*, given the greater extent of racial polarization along party lines in that region than in others (Lublin 1997). The South is defined as the 11 states of the former Confederacy. Summary statistics for House data and Senate data are presented in the Supporting Information (SI).

I estimate separate models for House and Senate. If the expectation is correct that representatives of homogeneously white districts vote less on the extremes, then the models should show a negative and significant coefficient estimate for the *Pct. White* variable across specifications. To determine the extent to which the relationship varies by party, I also estimate models interacting *Pct. White* with *Republican*.

Table 1 displays the results of four multilevel regression specifications in which observations are nested within districts and fixed effects for terms are included. Beginning with the House in the first column, the association between *Pct. White* and members' *Extremity* is found to be negative and significant, in line with expectations. Substantively, the relationship is modest. The model projects that, controlling for other variables in the model, moving from a 50% white district to a 100% white district corresponds with a member moderating their record by 0.05 on the extremity scale—roughly a third of a standard deviation. Among

[6]In using the absolute value, I am assuming that extremely liberal districts are not represented by extremely conservative members or vice versa.

Table 1: District Racial Composition and Member Extremity in the 112^{th}-113^{th} Congress

	House		Senate	
Pct. White	-0.10*	-0.11*	-0.23*	-0.17
	(0.03)	(0.03)	(0.09)	(0.09)
Republican	0.12*	0.11*	0.15*	0.33*
	(0.02)	(0.05)	(0.03)	(0.16)
Republican X		0.02		-0.24
Pct. White		(0.06)		(0.21)
District	0.28*	0.28*	0.29*	0.30*
Extremity	(0.03)	(0.03)	(0.14)	(0.15)
Ideological	0.05	0.06	-0.15	-0.14
Heterogeneity	(0.06)	(0.06)	(0.30)	(0.32)
South	0.03*	0.03*	-0.07*	-0.09*
	(0.01)	(0.01)	(0.03)	(0.04)
Term FE	Yes	Yes	Yes	Yes
District RE	Yes	Yes	Yes	Yes
Constant	0.29*	0.29*	0.63	0.57
	(0.08)	(0.08)	(0.45)	(0.48)
N	866	866	200	200
BIC	-1310.86	-1304.27	-201.21	-198.11

Note: Bootstrap standard errors clustered by district in parentheses. *p<0.05. Significance tests are two-tailed.

the controls, representatives of more ideologically extreme districts, Republican members, and Southern members are estimated to have more extreme voting records. However, no significant relationship is observed between district ideological heterogeneity and member extremity.

The second column's model includes all controls plus an interaction between *Pct. White* and *Republican*. The coefficient estimate for the interaction term is signed positively but does not reach statistical significance. This finding suggests that the relationship between the white population of a district and extremity is not significantly different for House Democrats and House Republicans.

Turning to the Senate, a negative and significant relationship between *Pct. White* and *Extremity* is observed in the third column of Table 1. The association is substantively larger

for the Senate than for the House. The model projects that moving from a 50% white district to a 100% white district results in a member moderating their record by 0.12, which falls just short of a full standard deviation of the dependent variable. Results for the control variables suggest that representatives of more extreme districts and Republican members hold more extreme voting records. However, ideological heterogeneity is not significantly associated with extreme voting, and southern Senators are found to have more moderate records, controlling for other variables in the model.

The fourth column displays results of a model interacting *Pct. White* with *Republican*. The coefficient estimate for the interaction term is signed negatively, but fails to reach statistical significance. As in the House, the relationship between district whiteness and extremity does not significantly differ by party in the Senate.

On balance, the results suggest that representatives of districts with more homogeneously white populations are more moderate than their colleagues who represent more racially diverse districts. The associations are modest in both chambers, as large changes in the racial composition of the district are associated with small changes in a member's voting record. Moreover, the results are descriptive; nothing in these results should be taken to suggest that constituencies with larger white populations *cause* their representatives to vote more moderately. However, the relationship appears in both chambers and does not seem to differ by party.

Evidence from State Legislatures

Further evidence can be gathered by turning to the state level of government. State legislators vary in the extremity of their voting records, and the extent of two-party polarization varies across states (Shor & McCarty 2011). The racial composition of state legislative districts may also correlate with legislator extremity in statehouses. Studying other elected officials in the U.S. provides a greater number of observations, more variation in observations, and moves towards generalizing the findings outside of. Congress.

To study the relationship between district racial composition and legislator extremity, I employ data on roll-call voting patterns among state legislators who served in two different two-year terms: 2009-10 and 2015-16.[7] These terms are chosen to observe legislative behavior before the 2010 round of state legislative redistricting commenced and after that round of redistricting was fully implemented.[8] Shor & McCarty (2011) provide estimates of state legislators' ideal points in a left-right common space, using state legislator survey responses to bridge observations of legislators casting different sets of votes in each state. I match estimates of individual legislators to the percent of non-Hispanic whites in their districts, using five-year estimates from the ACS.[9]

Figure 2 displays the bivariate relationship of legislator ideal points and percent white population in the district, with best-fit lines estimated by party. Evidence supporting the expected relationship would be displayed if legislator ideal points converged towards zero as their districts became increasingly white. This is the relationship we observe in Figure 2. Moreover, the association is similar in terms of size (Democrats, $\beta = 0.31$; Republicans, $\beta = -0.34$) and coefficient estimates within each party are statistically different from zero.

I conduct a more rigorous test of the relationship using multiple regression. I transform legislator ideal points into their absolute values to create the variable *Extremity*, such that higher values indicate more extreme records. The principal independent variable *Pct. White* is again based on non-Hispanic whites from the ACS. As in Table 1, I control for *District Extremity* using the absolute value of district opinion estimates from Tausanovitch & Warshaw (2013). I also include dummy variables for *Republican* legislators, for legislators from states in the *South*, and for legislators serving in the *Upper Chamber* in their state.

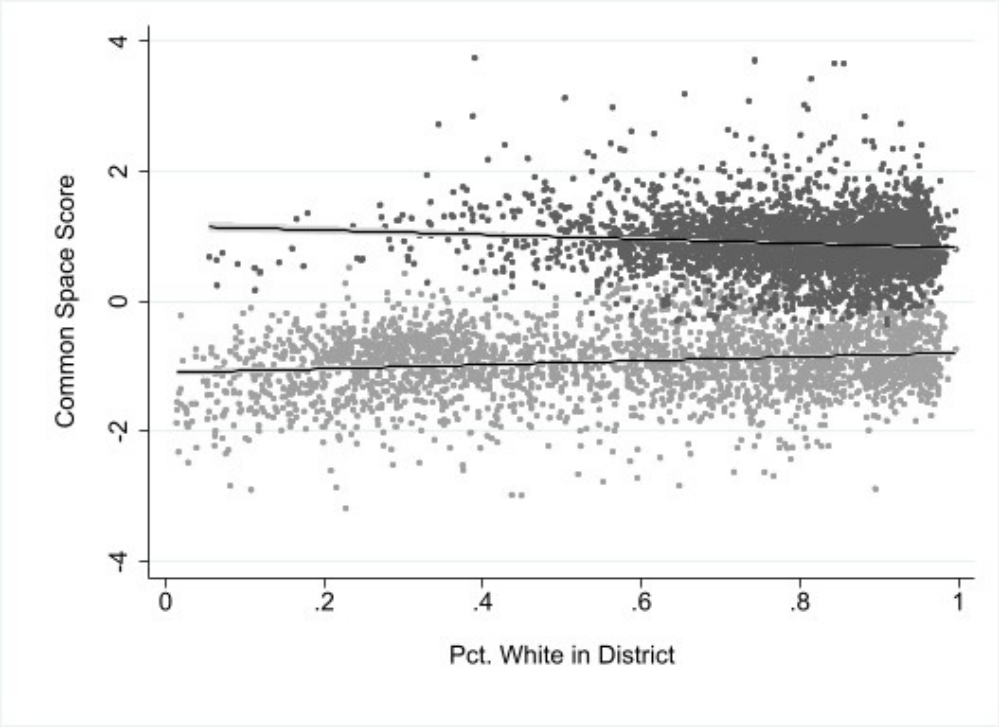
Controlling for *Ideological Heterogeneity* in state legislative districts presents a challenge. McCarty et al. (2018) use the standard deviations of district estimates of opinion from Tau-

[7]For states where terms begin in even years, voting records for legislators serving in the term beginning in the prior year are used.

[8]Because state legislative redistricting is not implemented simultaneously, ACS data do not perfectly capture districts that all sitting legislators represented in a given year between 2011 and 2014.

[9]Though one-year estimates were employed for the Congressional analyses, five-year estimates are more appropriate for state legislative districts given their small populations in many states.

Figure 2: Roll-Call Voting and District Racial Composition in State Legislatures by Party, 2015-16



Notes: Data from Shor & McCarty (2011) and the American Community Survey. Light gray markers represent Democrats. Dark gray markers represent Republicans.

sanovitch & Warshaw (2013). However, they note that these estimates correlate with the widely varying sample sizes from each state legislative district in the underlying national survey data. The authors conduct a supplementary analysis showing that an alternative estimation of ideological heterogeneity within state legislative districts while adjusting for sample size produces similar results as their original measure, which provides stronger justification for its use. Therefore, I follow McCarty et al. (2018) in using the standard deviations from Tausanovitch and Warshaw's (2013) measure.

To account for state legislators voting within different state institutional contexts and political environments, I estimate the models using multilevel regression with random effects for states. I present the estimates with bootstrap standard errors clustered by state. I exclude independents and Nebraska's nonpartisan legislators. Like before, I estimate models

Table 2: District Racial Composition and State Legislator Extremity

	2009-10		2015-16	
Pct. White	-0.16*	-0.14	-0.13	-0.12
	(0.07)	(0.08)	(0.09)	(0.10)
Republican	0.03	0.21	0.05	0.08
	(0.06)	(0.20)	(0.06)	(0.14)
Republican X		-0.22		-0.04
Pct. White		(0.24)		(0.18)
District	0.79*	0.80*	0.58*	0.58*
Extremity	(0.10)	(0.10)	(0.07)	(0.07)
Ideological	0.14	0.16	-0.38	-0.37
Heterogeneity	(0.31)	(0.31)	(0.25)	(0.25)
South	-0.13*	-0.13*	-0.07	-0.07
	(0.06)	(0.06)	(0.06)	(0.06)
Upper Chamber	-0.01	-0.01	-0.03	-0.03
	(0.02)	(0.02)	(0.02)	(0.02)
State RE	Yes	Yes	Yes	Yes
Constant	0.74*	0.71*	0.90*	0.89*
	(0.07)	(0.08)	(0.06)	(0.07)
N	7147	7147	6493	6493
BIC	5299.95	5289.93	6107.69	6115.86

Note: Bootstrap standard errors clustered by state in parentheses. *p<0.05. Significance tests are two-tailed.

in which *Pct. White* is interacted with *Republican* to determine whether the relationship between district composition and extremity varies by party. Summary statistics for all variables are presented in the SI.

The results are presented in Table 2. If legislators representing more homogeneously white districts held more moderate voting records, we should expect to see a negative and statistically significant coefficient estimate for the *Pct. White* variable. Beginning with the 2009-10 term, the association between *Pct. White* and *Legislator Extremity* is negative and statistically significant. The association is substantively modest. The model projects that moving from a 50% white district to a 100% white district would be associated with a roughly 0.08 decrease in the extremity of a legislator's ideal point, controlling for other factors in

the model. For reference, the standard deviation of the dependent variable is 0.42. Turning to the controls, legislator extremity is positively related to district extremity, but southern districts tend to elect more moderate legislators. The results suggest that Republican state legislators are no more extreme than Democrats on average, controlling for other factors in the model. Likewise, I find no significant relationship between ideological heterogeneity and extremity, nor do I find that state senators are more moderate than state representatives.

In the second column, I estimate the same model as in the first column but add the interaction term between *Pct. White* and *Republican*. As before, I find no significant difference between parties in the size of the association between district racial composition and legislator extremity.

The results for the 2015-16 term in the third and fourth columns resemble those for 2009-10, with some key differences. Most importantly, the coefficient estimate for *Pct. White* remains negatively signed but is not statistically significant at the .05 level of confidence. While the direction of the estimate remains consistent with all prior results, it cannot be ruled out that a district's white population had no association with legislator extremity in this term. Among the controls, legislators in the South are not found to have more moderate records than non-Southern legislators. Coefficient estimates for *Ideological Heterogeneity* switched signs from positive to negative, but remain statistically indistinguishable from zero. The remaining controls maintain roughly the same size and significance as they did in the first model. In the fourth column, the coefficient for the interaction term fails to reach statistical significance, continuing to suggest no difference in the relationship between district race and extremity between Democrats and Republicans. Though a large number of observations were excluded in 2015-16 due to missing ideal point estimates from Shor & McCarty (2011), results obtained using multiple imputation (see SI) show similar results.

On the whole, the evidence from state legislators is more mixed than that from Congress. State legislators appear to adopt more moderate voting records when representing more homogeneously white districts, but the evidence is stronger in the 2009-10 term than the

2015-16 term. It is unclear what drives the difference between terms. One possibility is that over-time changes in legislative behavior account for a weaker relationship between district racial composition and extremity. State legislative elections during the Obama Administration were marked by relatively high turnover and a drastic shift towards Republican control of statehouses. However, the evidence from individual state legislative voting records remains largely consistent with the evidence from Congress.

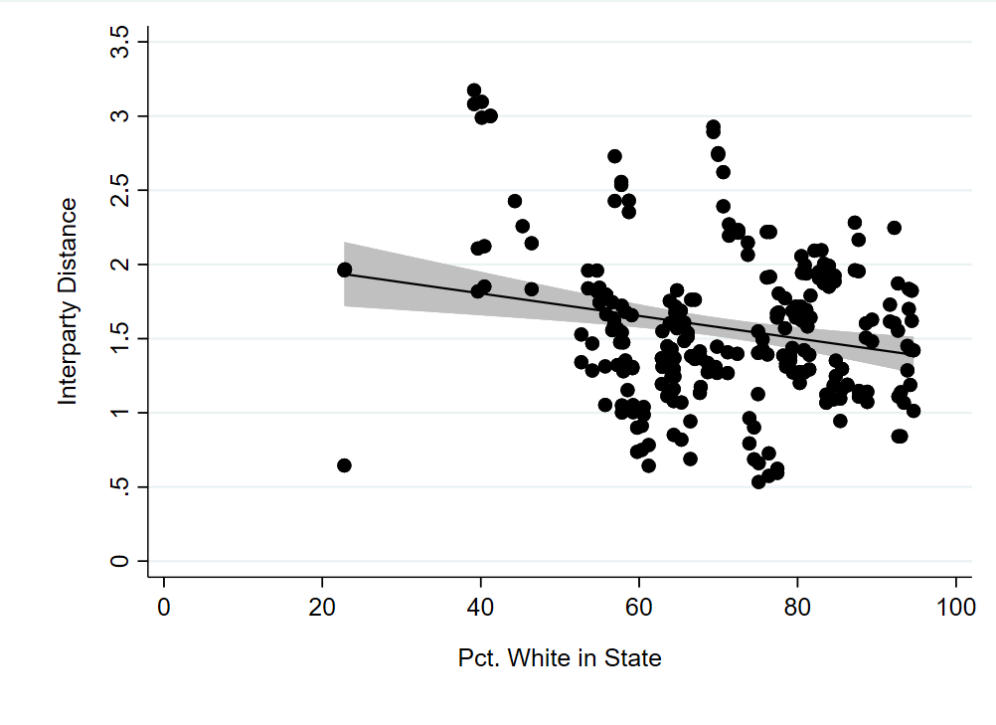
Chamber-Level Analysis

The expectation that legislators adopt more moderate voting records can also be tested by moving from micro-level analysis of individual legislators to macro-level analysis of legislatures. A individual-level theory of legislative voting behavior could imply that the two parties will polarize as districts grow more racially diverse on average. When more legislators must run for election in racially diverse districts, more legislators would be unconstrained from casting extreme votes. Conversely, fewer legislators representing homogeneously white districts will be constrained to moderate their votes. Greater heterogeneity across districts should produce more extreme legislators, which in turn produces more internally homogeneous, polarized parties within legislatures. Parallel to this line of thinking, previous work shows that legislative parties tend to polarize as ideological heterogeneity within states increase (Kirkland 2014).

To test the expectation that legislative parties are more polarized in states with less homogeneously white populations, I gather data for each chamber (except the nonpartisan Nebraska legislature) for the legislative terms ending in 2010, 2012, and 2014, yielding a total of 294 observations.[10] The measure of polarization I use is *Interparty Distance*, a measure of the common space distance between median legislators in each party. Data come from Shor & McCarty (2011). For the independent variable, I use the percentage of the entire state's

[10]In states where legislative terms do not end in even-numbered years, I use data from the most recently concluded term. In the models below, 48 observations are dropped due to missing data on the dependent variable.

Figure 3: Party Polarization in State Legislative Chambers and State Racial Composition, 2010-2014



Notes: Data from Shor & McCarty (2011) and the American Community Survey.

population that identifies as non-Hispanic white from five-year estimates of the American Community Survey.[11]

As an initial illustration, Figure 3 plots the bivariate relationship between *Interparty Distance* and *Pct. White* in the state population. Evidence supporting expectations would come in the form of a negative association between the two variables. In line with expectations, Figure 3 shows that the distance between party medians decreases significantly as the state population grows more homogeneously white. A bivariate regression indicates the relationship is negative ($\beta = -0.76$) and statistically significant ($p = 0.00$).

I present full regression results and a multiple regression model controlling for poten-

[11] An alternative measure would be the mean percent white of all districts forming a chamber, which would better account for possible racial segregation along district lines. However, this alternative measure and the simple percent white in the state population correlate at $r = 0.998$ for the year 2010, and the simpler measure yields virtually the same results.

tial confounding factors like ideological heterogeneity and district-level party competition in the SI. After controlling for these factors, the results continue to indicate a negative relationship between percent white and party polarization. Further analysis also suggest that Democratic caucus moderation in whiter populations contributes more to the reduction in polarization than Republican caucus moderation. Reduced party polarization at the chamber level in more homogeneously white states provides aggregate-level evidence consistent with an individual-level account of legislator behavior in response to white constituencies.

Accounting for Moderation

The analysis to this point has demonstrated a pattern that legislators representing more homogeneously white constituencies hold more moderate voting records. It remains unclear how this occurs. In the following sections, I explore two possible mechanisms: incumbent responsiveness and electoral replacement.

One possibility is that, in response to changes in district composition, incumbents change their voting behavior. Incumbents wanting to remain in office should take actions to satisfy the evolving preferences of constituents and forestall electoral challenges. At least one study finds that lawmakers modify their voting habits in response to changes in district opinion (Stratmann 2000). Moreover, government policy outputs change in response to changes in public mood over time (Erikson, MacKuen, & Stimson 2002; Page & Shapiro 1983).

However, electoral replacement might better account for changes in members' positions. The voting habits of incumbents tend to remain consistent over time. As Poole (2007) memorably wrote, "members of Congress die in their ideological boots." Similarly, Hayes, Hibbing, & Sulkin (2010) show legislators change the issues the pay attention to as district composition changes, but do not change their roll-call voting patterns (especially on partisan issues). Meanwhile, much of literature on responsiveness suggests that voters throw incumbents out of office when they step out of line with constituent opinion (Canes-Wrone, Brady, & Cogan 2002; Carson et al. 2010) and reward more moderate general election candidates

(Hall 2015).

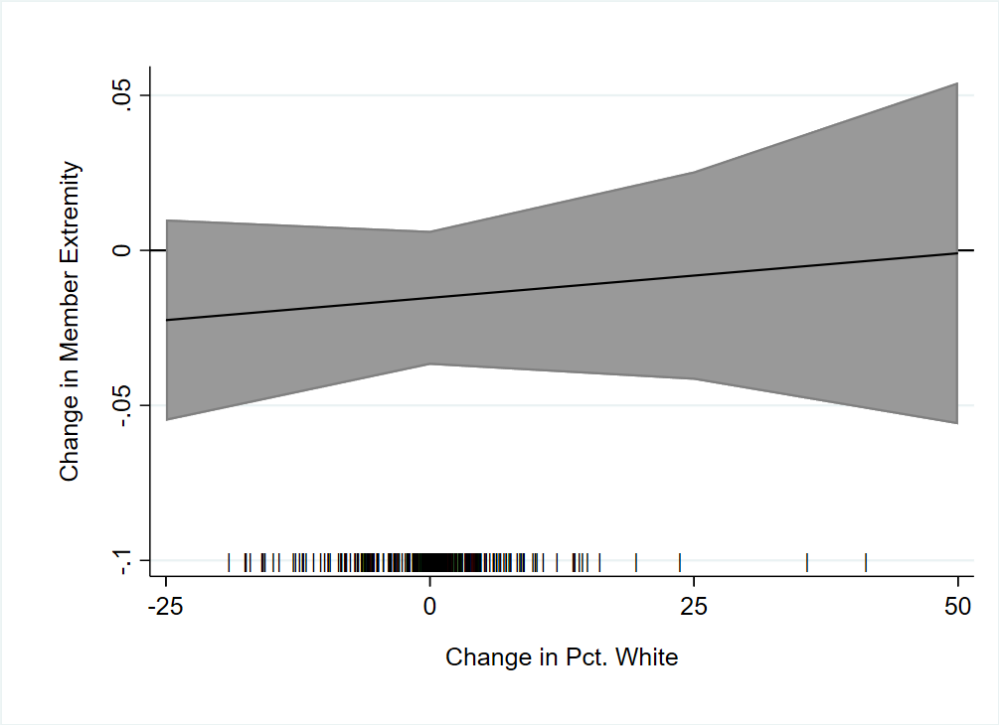
In what follows, I explore each mechanism. First, I use a redistricting design to determine whether short-term changes in the racial composition of districts result in changes to U.S. House members' roll-call votes. Second, I observe the general election outcomes of candidates for the U.S. House between 2008-16 and test whether moderate candidates perform better in more homogeneously white districts.

Incumbent Responsiveness

To assess this explanation, I turn to evidence from House redistricting following the 2010 Census. While much of the work on redistricting has focused on partisan gerrymandering and polarization (e.g. McCarty, Poole, & Rosenthal 2009), demographic changes in the district might also produce changes in representative behavior. Hayes, Hibbing, & Sulkin (2010), for instance, find that small shifts in the demographic composition of constituents result in shifts in members' policy agendas. A hypothesis that representatives of more homogeneously white districts exhibit more moderate roll-call behavior could be tested by observing whether incumbents change their behavior as the racial composition of their districts change. This poses a relatively easy test of the relationship.

For this analysis, I rely again upon data from the 112^{th} and 113^{th} House, the terms that straddled the redistricting implemented during the 2012 Congressional elections. Observations are restricted to 338 House members who served in both terms. Rather than using members' DW-NOMINATE scores, which are static over time, I rely upon modified, term-specific NOMINATE scores produced by Nokken & Poole (2004) for the outcome variable. I expect the change in the extremity of roll-call records will vary as a function of the change in percent of the district that is white, controlling for the same set of variables used in Table 1. If incumbents moderated in response to the addition of more white voters to their constituencies, we should expect to see a negative relationship between Δ *Member Extremity* and Δ *Pct. White*.

Figure 4: Change in District Composition and Roll-Call Voting after 2012 Redistricting



Notes: Data from Voteview and the American Community Survey.

The predicted value of the change in member extremity is plotted in Figure 4, while full regression results appear in the SI. The figure plots the relationship for a non-Southern Democratic member holding all other controls at their means. Supporting evidence would come in the form of a negative slope; members would assume less extreme records in the 113^{th} House if their districts gained white constituents. Instead, the figure shows a null relationship between the variables, controlling for other factors in the model. The slope of the line is positive, but the predicted value of member extremity is not statistically different from zero across the entire range of values.

Though the results here do not provide dispositive evidence of a null relationship, the lack of a relationship in this easy test suggest supporting evidence is unlikely to be found through more stringent analysis. The results here reinforce that it is unlikely for short-term changes in district racial composition to result in otherwise stable voting patterns among

incumbents. Any relationship between district racial composition and member moderation likely occurs through mechanisms other than incumbent responsiveness to changes in district composition.

Electoral Replacement

Next, I test whether electoral replacement of extremists might best account for representatives holding moderate voting records in more homogeneously white districts. Data for the test come from the Database on Ideology, Money in Politics, and Elections (DIME) (Bonica 2014). I observe the electoral outcomes of all incumbents and challengers in general elections for the U.S. House from 2008 to 2016. These cycles are chosen to match the time period of the other statistical analyses in this paper. I use two outcomes in particular: a binary indicator of whether the candidate won their election, and the candidate's vote share.

I expect that the racial composition of the district will moderate the relationship between candidate ideology and election outcomes. To measure candidate ideology, I take the absolute value of candidate's CFscore to create the variable *Extremity*. I merge DIME data to one-year ACS estimates of the racial composition of districts and create the variable *Pct. White*. I control for several factors. A candidate that is an *Incumbent*, measured using a binary indicator, should perform better in general elections than challengers. The *Number of Primary Opponents* should be positively related to winning a general election, since primary challengers tend to run in districts when conditions are favorable for their party in the general. District opinion estimates derived from large-N surveys are not available every election cycle, so I proxy for left-right opinion by controlling for *Same-Party President Vote Share* in the district from the last presidential election. Finally, I include the *Logged Receipts*, or the natural log of the total contributions the candidate received, under the assumption that candidates with higher contributions perform better.

A test of the expectation will come in the form of an interaction between *Extremity* and *Pct. White*. If more moderate candidates perform better in more homogeneously white

Table 3: Extremity, District Racial Composition, and General Election Outcomes

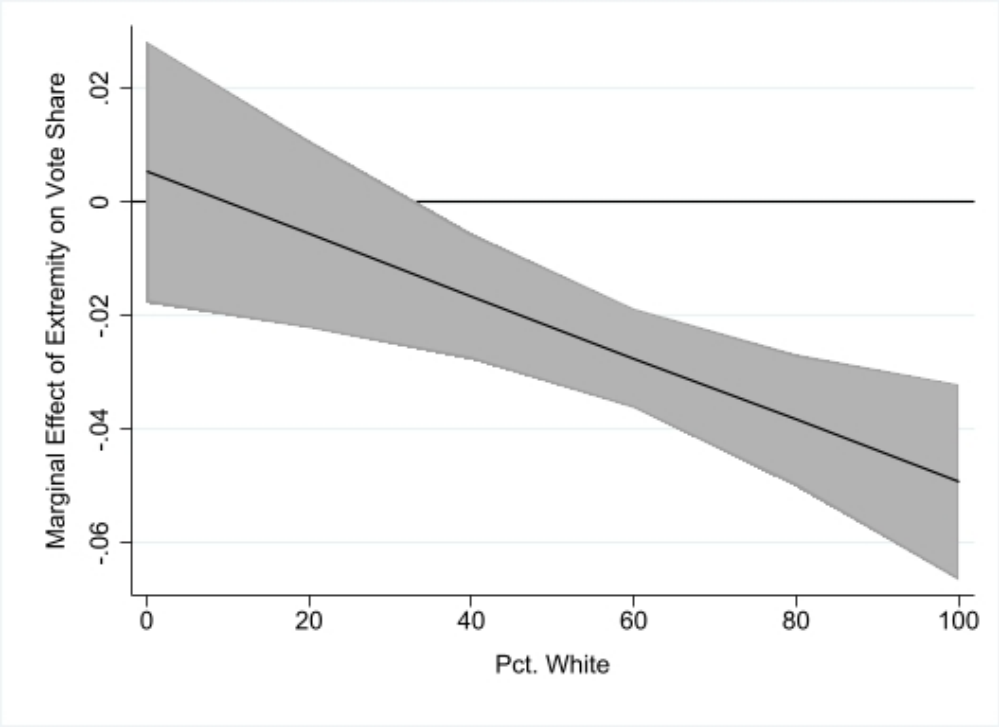
	DV: Win		DV: Vote Share	
Extremity	-1.30*	-1.30	0.00	0.00
	(0.65)	(0.71)	(0.01)	(0.01)
Pct. White	0.50	0.50	0.03	0.03
	(0.91)	(1.00)	(0.02)	(0.03)
Extremity X	0.19	0.19	-0.05*	-0.06*
Pct. White	(0.92)	(0.99)	(0.02)	(0.02)
Incumbent	2.70*	2.70*	0.13*	0.12*
	(0.15)	(0.20)	(0.01)	(0.01)
Number of Primary Opponents	0.13*	0.13*	-0.00	0.00
	(0.03)	(0.04)	(0.00)	(0.00)
Same-Party President	11.66*	11.66*	0.64*	0.62*
Vote Share	(0.77)	(1.20)	(0.02)	(0.02)
Logged Receipts	0.62*	0.62*	0.02*	0.02*
	(0.06)	(0.08)	(0.00)	(0.00)
Cycle FEs	Yes	Yes	Yes	Yes
Districts REs	No	Yes	No	Yes
Constant	-15.03*	-15.03*	-0.09*	-0.12*
	(1.13)	(1.44)	(0.02)	(0.02)
N	3805	3805	3805	3805
BIC	2001.66	2001.66	-6351.99	-6450.54

Note: Results in columns 1-2 estimated with logistic regression. Results in columns 3-4 estimated with OLS regression. Robust clustered standard errors are presented for models including district random effects. *p<0.05. Significance tests are two-tailed.

districts, we should expect to see a negatively signed coefficient estimate for the interaction term.

Table 3 displays the results. Estimates for both outcome variables are displayed with and without random effects for districts. The first two columns show the outcome of logistic regression with a binary measure of candidate victory in the general election. Contrary to expectations, the coefficient estimate for the interaction term *Extremity X Pct. White* is positively signed, but the estimate is not statistically different from zero. Therefore, these models show no evidence that more extreme candidates are more likely to lose in more homogeneously white districts. Among the controls, incumbent status, the number of

Figure 5: Extremity, Electoral Vote Share, and District Racial Composition



Notes: Data from DIME and the American Community Survey.

primary opponents, same-party presidential vote share, and campaign contributions are all positively and significantly related to a general election victory.

The third and fourth columns show the outcome of linear regression models with candidate vote share as the dependent variable. In line with expectations in these models, the coefficient estimate for the interaction term is negatively signed and statistically different from zero. Among the controls, incumbent status, same-party presidential vote share, and campaign contributions are positively and significantly related to an increase in candidate vote share. However, the number of primary opponents appears to have no significant association with general election vote share.

Figure 5 plots the marginal effect of *Extremity* on general election vote share across values of *Pct. White* for an incumbent candidate in the 2012 election cycle with remaining control variables held at their means. The plot shows that a candidate at the mean level

of extremity can expect to see their vote share decrease by roughly five percentage points moving from a district with no white voters to a district with all white voters, controlling for other variables in the model. While losing five percent vote share may not jeopardize victory for candidates in safe districts, such a decrease in vote share is consequential for candidates in more marginal districts.

Given historical economic disparities between whites and other racial/ethnic groups, these tests could confound percent white with socioeconomic status. This could be consequential to the results given findings from Harden (2016) that wealthier constituencies tend to demand greater policy representation from representatives than poorer constituencies. We might expect high-SES constituencies to be more sensitive to extreme voting records and vote out extremists at higher rates based on SES, with percent white being a spurious predictor. However, supplementary tests presented in the SI show that results in Table 3 continue to hold controlling for two indicators of district socioeconomic status, district median household income and the proportion of district residents holding a four-year college degree. In fact, further tests in the SI show that higher socioeconomic status districts tend to *reward* extreme candidates. As a consequence, we can more confidently assume that the results are not confounded by socioeconomic factors.

The results of these tests suggest that extreme candidates receive larger penalties at the ballot box when running in more homogeneously white constituencies. It remains unclear whether these penalties systematically cause extreme candidates to lose, given the null findings in the logistic regression models. However, this null result could be the result of including candidates in both safe and competitive seats in the same analysis. In competitive races, more extreme candidates may be able to cling to victory in diverse districts but fall to more moderate rivals in more homogeneously white districts.

Discussion

The findings above provide evidence that the racial composition of districts are related to the extremity of lawmakers' voting records across U.S. lawmaking bodies. The individual-level findings are fairly consistent for both Democrats and Republicans across all bodies examined. At the aggregate level, state legislatures governing more homogeneously white states are less polarized, though Democratic caucuses seemed to moderate more in these states than Republican caucuses. By marshaling evidence from a number of contexts and data sources, this study provides consistent evidence of the relationship.

Exploratory tests of the mechanism showed it is unlikely that legislators moderate their roll-call votes in anticipation of appealing to more homogeneously white electorates. Rather, it appears that white electorates tend to assess larger electoral penalties on extreme candidates. While it is unclear the penalties are large enough to endanger extreme candidates in uncompetitive districts, the penalties are large enough to cost extreme candidates victory in more competitive contests. It also remains unclear exactly why more homogeneously white constituencies would be more likely to replace extremists. Perhaps conditions of racially polarized voting within districts (consistent with the racial threat hypothesis, e.g. Key 1949) or the electoral capture of minority groups by the Democratic Party (Frymer 1999) can best explain the patterns. Future work might consider how the presence of other captured social groups (e.g. evangelical Christians, LGBTQ+ Americans; see Frymer 1999) impacts the electoral rewards for moderation.

None of the evidence above identifies a causal link between district racial composition and representative behavior. The findings are best interpreted as descriptive. While efforts have been made to control for potential confounding factors, the possibility of a spurious relationship cannot be eliminated. Minimally, reverse causation seems unlikely; it is doubtful white voters sort into certain districts because those districts are represented by more moderate lawmakers.

These findings are likely time-bound. All data analyzed above were recorded between

2009 and 2016. It is possible that long-term changes in the structure of party coalitions could lead to changes in the relationship between district-level racial composition and partisan behavior. Given historical changes in the structure of party coalitions (e.g. Miller & Schofield 2003), it is difficult to predict with any certainty that the relationship observed here will continue to be observed in coming decades.

The findings also call for greater scholarly attention to how the dynamics of representation for minority communities shape electoral responsiveness. Studies finding that more extreme lawmakers perform worse in elections typically neglect the consideration of race in electoral outcomes (e.g. Ansolabehere, Snyder, & Stewart 2001; Canes-Wrone, Brady, & Cogan 2002; Carson et al. 2010). In fact, the findings here suggest that the logic of "out of step, out of office" best describes electoral dynamics in white districts, potentially failing to describe the dynamics in districts with large populations of nonwhite voters. Harden (2016), for one, provides a useful framework for advancing the study of representation beyond policy responsiveness to other forms of representation, such as descriptive representation, resource allocation, and constituency service. However, the evidence provided here does not speak directly to previous assertions that legislators are more responsive to the policy demands of whites than other racial groups (e.g. Griffin & Newman 2008), since none of the analyses test this proposition explicitly.

By focusing on legislator-constituency dyads, this study provides a new look at the connection between race and polarization in the U.S. The findings suggest that district-level demographics, in concert with the composition of national party coalitions, can reinforce the incentives for individual lawmakers to side with the more extreme flanks of their parties. Partisan realignment away from division on issues of race may help to remove these incentives to extreme voting in the future.

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Supporting Information for "White Constituents and Legislative Voting"

Contents

List of Tables

1 Descriptive Statistics and Alternative Specifications

Table 1: Descriptive Statistics for House Data

	Mean	St. Dev.	Min.	Max
Member Extremity	0.44	0.14	0.07	0.913
Pct. White	0.64	0.23	0.02	0.96
District Extremity	0.25	0.19	0.00	1.09
Republican	0.55	–	0	1
Ideological Heterogeneity	1.32	0.10	0.86	1.57
South	0.31	–	0	1

Table 2: Descriptive Statistics for Senate Data

	Mean	St. Dev.	Min.	Max
Member Extremity	0.38	0.16	0.03	0.92
Pct. White	0.71	0.15	0.23	0.95
District Extremity	0.16	0.10	0.01	0.39
Republican	0.46	–	0	1
Ideological Heterogeneity	1.31	0.06	1.21	1.53
South	0.22	–	0	1

Table 3: Descriptive Statistics for 2009-10 State Legislator Data

	Mean	St. Dev.	Min.	Max
Legislator Extremity	0.79	0.42	0	2.72
Pct. White	0.73	0.24	0.006	0.995
District Extremity	0.22	0.17	0.00	1.21
Republican	0.45	–	0	1
Ideological Heterogeneity	0.14	0.04	0.04	0.24
South	0.24	–	0	1
Upper Chamber	0.26	–	0	1

Table 4: Descriptive Statistics for 2015-16 State Legislator Data

	Mean	St. Dev.	Min.	Max
Legislator Extremity	0.91	0.46	0	3.75
Pct. White	0.71	0.24	0.013	0.997
District Extremity	0.28	0.21	0.00	1.27
Republican	0.56	–	0	1
Ideological Heterogeneity	0.16	0.05	0.04	0.38
South	0.24	–	0	1
Upper Chamber	0.26	–	0	1

Table 5: District Racial Composition and State Legislator Data with Missing Data Imputed, 2015-2016

	(1)	(2)
Pct. White	-0.14	-0.13
	(0.08)	(0.09)
Republican	0.05	0.08
	(0.06)	(0.14)
Republican X		-0.04
Pct. White		(0.16)
District	0.58*	0.58*
Extremity	(0.07)	(0.07)
Ideological	-0.45	-0.45
Heterogeneity	(0.26)	(0.25)
South	-0.06	-0.07
	(0.07)	(0.07)
Upper	-0.04*	-0.04*
Chamber	(0.02)	(0.02)
Constant	0.91*	0.91*
	(0.06)	(0.07)
N	7289	7289

Note: Robust clustered standard errors, clustered by state, in parentheses. *p<0.05. Significance tests are two-tailed.

Table 6: OLS Regression Results of Redistricting Analysis

	(1)	(2)
Δ Pct. White	0.06	0.04
	(0.05)	(0.05)
Δ District Opinion		0.05*
		(0.03)
Republican		0.00
		(0.00)
Δ Ideological Heterogeneity		0.09
		(0.05)
South		-0.01
		(0.01)
Constant	0.00	-0.00
	(0.00)	(0.01)
N	348	348
Adj. R^2	0.00	0.02

Note: *p<0.05. Significance tests are two-tailed.

Table 7: Extremity, District Racial Composition, and General Election Outcomes Controlling for District SES

	DV: Win		DV: Vote Share	
Extremity	-1.29	-1.31	0.00	0.00
	(0.72)	(0.72)	(0.01)	(0.01)
Pct. White	0.50	0.49	0.04	0.04
	(1.00)	(1.00)	(0.03)	(0.03)
Extremity X	0.19	0.20	-0.06*	-0.06*
Pct. White	(1.00)	(1.00)	(0.02)	(0.02)
Incumbent	2.70*	2.70*	0.12*	0.12*
	(0.20)	(0.20)	(0.01)	(0.01)
Number of Primary	0.13*	0.13*	0.00	0.00
Opponents	(0.04)	(0.04)	(0.00)	(0.00)
Same-Party President	11.66*	11.67*	0.62*	0.62*
Vote Share	(1.20)	(1.20)	(0.02)	(0.02)
Logged Receipts	0.62*	0.62*	0.02*	0.02*
	(0.08)	(0.08)	(0.00)	(0.00)
Income	-0.04		-0.05*	
	(0.37)		(0.02)	
College		0.13		-0.06*
		(0.57)		(0.02)
Cycle FE	Yes	Yes	Yes	Yes
District RE	No	Yes	No	Yes
Constant	-15.01*	-15.04*	-0.10*	-0.11*
	(1.42)	(1.42)	(0.02)	(0.02)
N	3805	3805	3805	3805
BIC	2009.90	2009.87	-6453.26	-6450.48

Notes: Results in columns 1-2 estimated with multilevel logistic regression. Results in columns 3-4 estimated with multilevel linear regression. Robust clustered standard errors are presented for all models and clustered by district. *p<0.05. Significance tests are two-tailed. *Income* is measured using the inflation-adjusted median household income for the corresponding district-year from the ACS in $100,000s. *College* is the percentage of district residents who hold a four-year college degrees.

Table 8: High SES Districts Reward Extreme Candidates

	(1)	(2)
Extremity	-0.07*	-0.06*
	(0.02)	(0.02)
Income	-0.12*	
	(0.03)	
Extremity X Income	0.08*	
	(0.03)	
College		-0.17*
		(0.05)
Extremity X College		0.11*
		(0.05)
Pct. White	-0.02	-0.02
	(0.01)	(0.01)
Incumbent	0.13*	0.13*
	(0.01)	(0.01)
Number of Primary Opponents	0.00	0.00
	(0.00)	(0.00)
Same-Party President Vote Share	0.60*	0.61*
	(0.02)	(0.02)
Logged Receipts	0.02*	0.02*
	(0.00)	(0.00)
Cycle FE	Yes	Yes
District RE	Yes	Yes
Constant	-0.03	-0.04
	(0.03)	(0.03)
N	3805	3805
BIC	-6452.61	-6449.15

Notes: Results estimated with multilevel linear regression. Robust clustered standard errors are presented for all models and clustered by district. *p<0.05. Significance tests are two-tailed. *Income* is measured using the inflation-adjusted median household income for the corresponding district-year from the ACS in $100,000s. *College* is the percentage of district residents who hold a four-year college degrees.

2 Chamber-Level Polarization in State Legislatures

To provide more robust evidence of the relationship presented in Figure 3 in the main text, I fit several multiple regression models controlling for state-level factors associated with greater polarization. First, I control for the *Ideological Heterogeneity* of state populations (Kirkland 2014). The estimates from (Tausanovitch & Warshaw 2013) used in prior analyses are static for districts between redistricting cycles. In order to use a time-dynamic measure of this control, I employ a measure capturing variance in estimates of state-level policy mood originally derived by Carsey & Harden (2010). I use 2010 data based on this technique calculated by Harden & Carsey (2012) and extend the measure using data from the 2012 and 2014 waves of CCES and matching values to the appropriate state-year.

I further control for two variables meant to capture political competition between the parties within states, which drive roll-call voting patterns, party positioning on the issues, and polarization (Hinchcliffe & Lee 2015). I control for state-level *Party Competition in Government* using a folded Ranney index (see Holbrook & La Raja 2010) and for state-level *Electoral Competition* between the parties using an updated measure originally introduced by Holbrook & Van Dunk (1993).[1] Data for the competition variables come from Klarner (2013).

Finally, I include a set of controls for legislative institutions that structure roll-call voting patterns and, as a consequence, legislative polarization. I include variables for states that term limit their legislators and for the average population of constituencies for the chamber. I also include indicator variables for upper chambers. Summary statistics for all variables are presented in Table 10 below.

I estimate the association using a multilevel model, nesting chambers within states. I include fixed effects for terms and present bootstrap standard errors clustered by state. The results for the specification are presented in the first column of Table 9. The results indicate a negative and statistically significant association between *Pct. White* and *Interparty Distance*, controlling for other factors in the model. The association is substantively large. For purposes of illustration, moving from a 45% non-Hispanic white state population (Texas in 2010) to a 95% non-Hispanic white state population (Maine in 2010) yields a decrease in interparty distance of 0.55, which is slightly larger than a full standard deviation of the dependent variable. This result suggests that state legislatures collectively representing largely white populations are less polarized on average. Among the controls, both ideological heterogeneity and electoral competition are found to be positively and significantly related to a larger distance between party median legislators.

Interparty distance is a useful measure of polarization, but alone it cannot tell us whether both parties are moving toward one another in a common ideological space, or whether one party is moderating more than the other. So far, the results have shown no significant differences in the association by party when legislators are the unit of analysis. To assess whether Democratic or Republican caucuses as a whole behave differently depending on the racial composition of the state, I specify two additional models in Table 9 to track the ideological range of each party across states of differing racial compositions. The two dependent vari-

[1] Though the measures are related, Flavin & Shufeldt (2012) demonstrates that the two variables measure distinct aspects of political competition.

Table 9: Party Polarization in State Legislatures and State Racial Composition, 2010-2014

	(1) Interparty Distance	(2) Dem. Median	(3) Rep. Median
Pct. White	-1.10*	0.73*	-0.37
	(0.52)	(0.36)	(0.31)
Ideological Heterogeneity	0.51*	-0.23	0.31
	(0.19)	(0.13)	(0.17)
Party Competition in Govt.	0.69	-0.56	0.13
	(0.71)	(0.61)	(0.47)
Electoral Competition	0.02*	-0.01	0.01
	(0.01)	(0.01)	(0.00)
Upper Chamber	-0.03	0.05	0.02
	(0.04)	(0.03)	(0.03)
Term Limits	0.18	0.09	0.26*
	(0.14)	(0.11)	(0.09)
Mean District Population	0.01	-0.03	-0.02
	(0.04)	(0.03)	(0.02)
South	-0.01	0.31*	0.30*
	(0.14)	(0.12)	(0.11)
Term FE	Yes	Yes	Yes
State RE	Yes	Yes	Yes
Constant	0.50	-0.37	0.10
	(0.67)	(0.51)	(0.46)
N	246	246	246
BIC	-27.15	-195.65	-171.73

Note: Bootstrap clustered standard errors in parentheses. *p<0.05. Significance tests are two-tailed.

ables I use are *Democratic Median* and *Republican Median*, which are simply the ideal points of the median member of each chamber caucus from Shor & McCarty (2011). Moderation in more homogeneously white states in these models would be indicated by a positive coefficient estimate for Democrats and a negative coefficient estimate for Republicans.

Beginning with Democrats in the second column of Table 9, a positive and significant coefficient estimate for *Pct. White* indicates that Democratic caucuses on average are more moderate in more homogeneously white states. Among the controls, only the variable *South* produces a significant coefficient estimate, indicating that Democratic caucuses in Southern state legislatures are more moderate than Democratic caucuses elsewhere. Turning to Republicans in the third column of Table 9, we see a negative coefficient estimate for the *Pct. White* variable. However, the association is not significant at the conventional .05 level of confidence.

Shor & McCarty (2011) provide an alternative measure of polarization, calculated as the

average distance between all possible dyads of legislators within a chamber. Employing this measure yields weaker evidence of a relationship between homogeneously white populations and party polarization, but the relationship is signed in the same direction. Full results are presented in Table 11 below.

The results point to the conclusion that the decrease in polarization is primarily due to Democratic moderation. However, the results do not imply that Republican caucuses are more conservative in more homogeneously white states. Therefore, it remains possible that more moderate Republican caucuses in whiter states contribute to a reduction in two-party polarization in state legislatures as well.

Table 10: Descriptive Statistics for Chamber Polarization Data

	Mean	St. Dev.	Min.	Max
Interparty Distance	1.57	0.52	0.53	3.17
Dem. Median	-0.82	0.38	-1.66	0.22
Rep. Median	0.76	0.35	-0.10	1.65
Pct. White	0.71	0.15	0.23	0.95
Ideological Heterogeneity	0.99	0.08	0.79	1.25
Party Competition in Govt.	0.88	0.08	0.72	0.999
Electoral Competition	39.04	11.26	16.19	61.57
Upper Chamber	0.5	–	0	1
Term Limits	0.29	–	0	1
Mean District Population (in 100,000s)	1.08	1.42	0.03	9.52
South	0.22	0.42	0	1

Table 11: Party Polarization in State Legislatures and State Racial Composition, 2010-2014

	(1)	(2)
Pct. White	-0.00*	-0.01
	(0.00)	(0.00)
Ideological Heterogeneity		0.27
		(0.34)
Party Competition in Government		0.68
		(0.48)
Electoral Competition		0.01*
		(0.00)
Upper Chamber		-0.05
		(0.03)
Term Limits		0.09
		(0.10)
Mean District Population		0.04
		(0.03)
South		0.02
		(0.11)
State RE	No	Yes
Term FE	No	Yes
Constant	1.41*	0.69
	(0.14)	(0.63)
N	267	267
Adj. R^2	0.01	
BIC		21.61

Note: Model 1 presents the results of an OLS regression with classic standard errors in parentheses. Model 2 presents the results of a multilevel model with bootstrap clustered standard errors, clustered by state, in parentheses. *p<0.05. Significance tests are two-tailed.

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