

**Online Appendix:**  
Voter Response to Hispanic Sounding Names:  
Evidence from Down Ballot Statewide Elections

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# 1 Hispanic Candidates in Local Elections

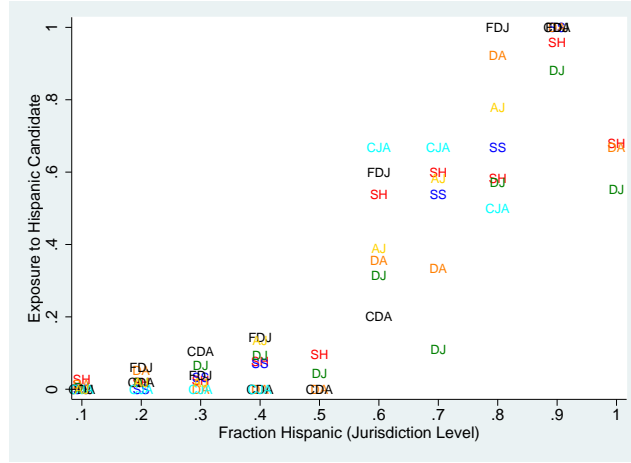
## 1.1 Exposure to Hispanic Candidates

Voter discrimination may also have *indirect* implications to the extent that in equilibrium candidates endogenously respond to voter bias. In studies of labor market discrimination, a prevailing theme is that minorities should sort away from prejudiced firms in order to minimize the negative effects of bias on wages (Becker (1971), Charles and Guryan (2008)). In politics, it is plausible that minority candidates respond to voter bias in similar fashion by seeking office where bias is less likely to operate. In this case, Hispanic candidates should disproportionately seek office in districts with relatively large shares of Hispanic voters where prejudice against Hispanics is arguably less prevalent. We will assess this possibility using data on local election results in Texas including contests for state Senate, state House of Representatives, and district and appellate court judges to name a few.

Figure A1 graphs exposure to Hispanic candidates in “down-ticket” local elections separately for each type of elected office. Voting bloc boundaries differ across different types of elected office. The x-axis partitions fraction Hispanic at the voting bloc level into 10 evenly spaced increments. We focus on Hispanic composition because it is observed and strongly correlates with actual racial prejudice which is not as easily observed by potential candidates. The y-axis plots the voting bloc’s exposure to Hispanic candidates. Exposure is defined as the fraction of elections in which a Hispanic candidate runs for office within a given voting bloc. As an example, if we observe a point “SS” with the (x,y) coordinates of (0.4,0.2), then this implies that in state Senate districts whose fraction Hispanic is between 30 and 40%, then these electorates observe a Hispanic candidate in 20% of all state Senate elections.

The notable feature of this graph is the sharp discontinuity at 0.5. In voting blocs where Hispanics constitute a minority of the population, Hispanics represent only a small fraction of the candidates overall. As soon as we cross the 50% threshold, however, there is a sizable increase in exposure to Hispanic candidates. Voting blocs whose fraction Hispanic is between 0.5 and 0.6 observe a Hispanic candidate in 35% of all elections. This is an increase of 31 percentage points in comparison with voting blocs in the left adjacent partition. From there, the likelihood of observing a Hispanic candidate steadily rises with the fraction Hispanic of the voting bloc. Regression results show that the increase is statistically significant and cannot be explained by bloc-level characteristics including age composition, educational attainment, unemployment rate, median household income, and total population.

Figure A1: Exposure to Hispanic Candidates in Local Elections



Note: This figure shows separately for different offices the fraction of election-by-year cells in which a Hispanic Democratic or Republican candidate is a candidate in the general election by the racial composition of the voting block. "SS", "SH", "DJ", "DA", "CDA", "FDJ", "CJA", and "AJ" stand for State Senate, State House of Representative, District Court Judges, District Attorney, Criminal District Attorney, Family District Judge, Chief Justice of Appellate Court, and Appellate Judge, respectively. State rep and state senate only use data from 2002 onward due to the fact redistricting and crosswalk are available only after then.

A few remarks are in order. First, the increase in exposure to Hispanic candidates may be expected since legislators purposely re-draw district boundaries in order to increase minority representation. However, redistricting cannot fully account for these patterns. While district boundaries for state senate and state house of representative are re-drawn after each decennial census, the "one-person, one-vote" requirement does not extend to other types of office. Bloc boundaries associated with elections for district court judges, appellate court judges, criminal district attorneys, and family district judges are re-drawn less frequently, and when they are, the intent is to even the "judicial burdens" (i.e. caseloads) across courts. Importantly, the increase in exposure to Hispanic candidates is sizable in elections related to the criminal justice system (roughly 25 percentage points). Given that the increase in non-criminal justice elections is roughly 38 percentage points, redistricting can explain at most a third of the increase in exposure to Hispanic candidates across the 50% threshold.

Second, the observed pattern is difficult to reconcile with other reasonable

models of candidate entry. For example, Hispanic candidates could prefer to serve in majority Hispanic blocs because elected officials can satisfy the demands of own-group constituents more efficiently. Yet another explanation could be that voting blocs with more Hispanic persons have larger pools of aspiring Hispanic politicians which naturally yield Hispanic candidates at higher rates. However, neither of these explanations predict an abrupt change in exposure across the 50% threshold. Instead, the significant change in exposure at 50% is strongly suggestive of strategic selection into elections on the basis on racial composition. Because race is a strong predictor of prejudice, it is plausible that the observed patterns reflect indirect effects of voter bias on candidate behavior.<sup>1</sup>

Third, a pervasive finding in political science is that minority candidates are more likely to *win* in majority-minority districts. [Hahn et al. \(1976\)](#) writes, “Yet, the emergence of black mayors can be attributed more to the growth of the black population in cities than to the approval or receptivity of white voters ... White voters did not contribute significantly to the support of any of these black mayors.” [page 508] Indeed, this observation motivates a large literature on whether or not minority candidates require the district’s composition to be at least 50% minority in order to win. This figure highlights the importance of the 50% threshold in whether or not Hispanic candidates decide to *run*. This implies that, in local elections, standard regression models that relate vote share to candidate race are especially susceptible to reverse causality since minority candidates are more likely to run in districts where the expected vote share is relatively high.

## 1.2 The Effect of Racial Cues in Local Elections

The latter point implies that, in local elections, estimates of the race heuristic may be more vulnerable to simultaneity bias. In particular, we would expect the race heuristic to have less of an impact on voter choice since Hispanic candidates intentionally seek office in districts where voter discrimination is expected to have less of an effect.

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<sup>1</sup>It is important to note that voter bias could have implications on the types of minority candidates who seek office. For example, [Anzia and Berry \(2011\)](#) find that female U.S. Congressional representatives outperform males by securing federal funding for their districts and the sponsoring and co-sponsoring more bills, which they interpret as evidence consistent with voters employing a higher standard for women due to gender bias. If similar dynamics extend to race, then we would expect *positive selection* of African-American and Hispanic candidates as well.

Table A1: Low-level Statewide vs. Local Elections

Dep Var: Democratic Candidate Vote Share				
Elections in Presidential Years:				
<i>Candidate Race:</i>	<u>Local</u>		<u>Statewide</u>	
	(1)	(2)	(3)	(4)
Democratic*Hispanic	0.038*** (0.013)	-0.007 (0.009)	-0.051*** (0.011)	-0.051*** (0.011)
Republican*Hispanic	0.052** (0.022)	0.016 (0.015)	0.058** (0.023)	0.058** (0.023)
Democratic*Incumbent	0.071*** (0.017)	0.061*** (0.015)	-0.007 (0.005)	-0.007 (0.005)
Republican*Incumbent	-0.059*** (0.015)	-0.050*** (0.013)	-0.003 (0.015)	-0.003 (0.015)
Controls:				
Elected Office Fixed Effects	Y	Y	Y	Y
Year Fixed Effects	Y	Y	Y	Y
County-Level Characteristics	N	Y	N	Y
Observations	460	460	6,349	6,349
R-squared	0.414	0.543	0.247	0.621

Note: Elections for state house of representatives and state senate positions prior to 2002 and elections for state board of education are excluded due to unavailability of district-level characteristics. All other local elections for district attorney, criminal district attorney, district judge, family district judge, court of appeals judge, and criminal district judge are included. Standard errors are clustered at the elected office-by-year level.

To assess this possibility, we run the baseline regression from the paper and focus on all down ballot local elections held in Texas from 1992 to 2010. Table [A1](#) shows the results. The estimates in column (1) are from a regression model that does not include district level characteristics. The estimates imply that Democratic Hispanic candidates actually gain 3.8 percentage points in vote share in comparison with elections in which both candidates are white. In contrast, Republican Hispanic candidates continue to lose roughly 5 percentage points in vote share in comparison with elections in which both candidates are white. In column (2), we include district level characteristics such as share of Hispanic residents into the regression model. Notice that the effects of the

race heuristic are completely explained away when we include district level characteristics into the regression model. This suggests that the results in column (1) are mainly due to the fact that we are more likely to observe Hispanic candidates in majority Hispanic districts. To facilitate comparison, columns (3) and (4) present our earlier results using statewide down ballot elections. These findings motivate why our primary analysis focuses on statewide down ballot elections rather than local down ballot elections. In local elections, strategic entry is likely to introduce simultaneity bias into our results.

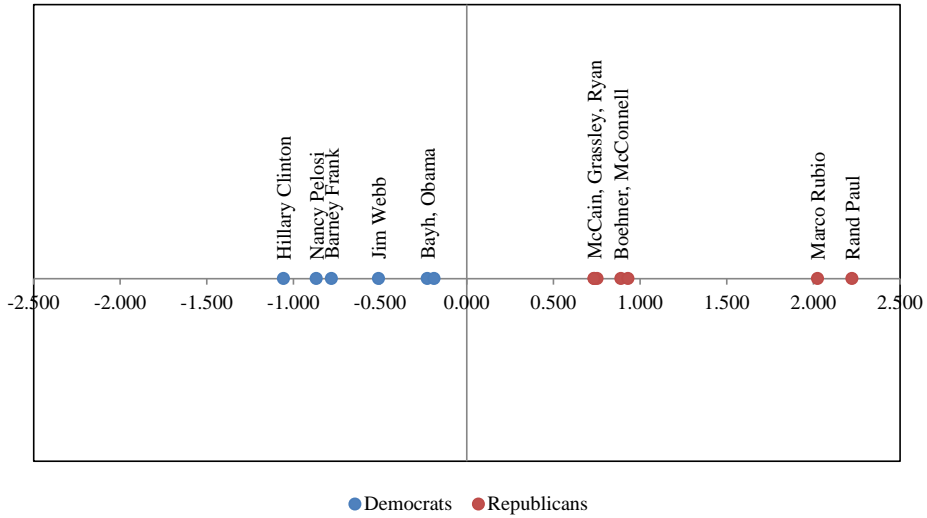
### 1.3 Ideology of Hispanic Candidates

In this section, we examine whether or not Hispanic candidates differ in ideology from non-Hispanic candidates and if so, the extent to which they do. On the one hand, we might expect Hispanic candidates to be more extreme. This would provide an explanation besides racial animus as to why Hispanic candidates lose vote share. On the other hand, our theoretical framework suggests that minority candidates should, in fact, be more moderate than white candidates to the extent that voters hold minority candidates to a higher standard.

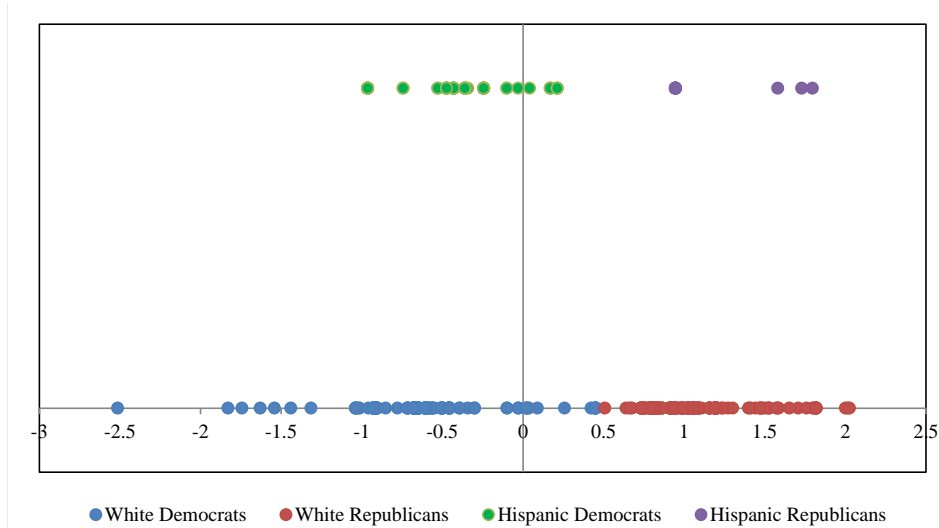
For this analysis, we use measures of candidate ideology provided by [Bonica \(2014\)](#). This measure is available for all candidates who run for U.S. House of Representatives including those who lost election. The measure is based on the campaign contributions that a candidate receives rather than the elected politician's voting record once in office. This is relevant because the theoretical prediction is that minority candidates are more moderate *conditional on entry*.

Figure A2: Ideology of U.S. Congressional Representatives by Race

(a) Ideological Scores for Well-Known Officials



(b) Ideological Scores for U.S. Representatives from Texas by Race



Notes: These data are from [Bonica \(2014\)](#). The publicly available data provides ideal point estimates for candidates in high level elections. Panel (a) plots ideal point estimates associated with well-known politicians. Panel (b) plots ideal points for Texas candidates who run for U.S. House of Representatives. Candidates are categorized as Hispanic using the Census Genealogy records.



To validate the data, Panel (a) of Figure A2 shows the [Bonica \(2014\)](#) ideal point estimates for high profile politicians. It is apparent that Democratic candidates locate towards the left and that Republican candidates locate towards the right of the ideological scale. Within party, we see variation across candidates that comport with individual reputations. To a first approximation, it seems plausible that these scores credibly measure candidate ideology.

Panel (b) plots the ideology scores of all U.S. House of Representative candidates from Texas during our sampling frame separately by ethnicity. Again, our focus on U.S. House of Representatives is not by choice but constrained by public availability of the data. As usual, race is assigned using the U.S. Census Genealogy Records. The plot shows Democratic Hispanic candidates are, on average, more moderate in comparison with white Democratic candidates. It is worth noting that this is at odds with studies in the political science literature that finds voters stereotype minority candidates as having more extreme ideological views. While there are only 4 Republican Hispanics, these candidates appear to be more conservative than the average Republican.

Table A2: Selection Effects of the Candidate’s Race

Dep Var: Estimate of Candidate’s Ideal Point				
	Political Party:			
	Democrats		Republicans	
<i>Indicators for Whether:</i>	(1)	(2)	(3)	(4)
Candidate is Hispanic	0.280 (0.227)		0.245 (0.211)	
<i>District is:</i>				
50 to 75% Hispanic		0.097 (0.210)		0.113 (0.171)
75% or more Hispanic		-0.142 (0.284)		-0.000 (0.171)
Constant	-0.673*** (0.104)	-0.626*** (0.129)	1.173*** (0.052)	1.176*** (0.058)
Observations	43	43	49	49
R-squared	0.036	0.016	0.028	0.010

Note: The dependent variable is the candidate’s ideology score computed by [Bonica \(2014\)](#). We restrict the data to U.S. House of Representative candidates from the state of Texas. Candidates are categorized as Hispanic using the Census Genealogy records.

Table [A2](#) formalizes these observations in a regression framework. The dependent variable is [Bonica \(2014\)](#) measure of the candidate’s ideology. Column (1) regresses this measure on an indicator for whether or not the candidate is Hispanic. The estimates imply that the average Democratic Hispanic candidate locates 0.280 units towards the right in comparison with the average white Democratic candidate whose score is -0.673. While this difference is very imprecisely estimated, the magnitude is sizable given that the distance between the average white Democrat and Republican is 0.5. In column (2), we relate the candidate’s ideal point with the fraction Hispanic of the congressional district. The point estimates are consistent with the notion that Democratic Hispanic candidates are more moderate in less favorable districts.

Columns (3) and (4) show analogous results for Republican candidates. It is interesting to speculate as to why these estimates diverge from those for Democratic candidates. In particular, Republican Hispanic candidates

are more conservative than the average Republican candidate even though our model predicts the opposite. One possible explanation may be linked to primary elections. If the median Republican voter is extremist, then intra-party competition between white and Hispanic Republican candidates could lead to greater policy moderation towards the party median by Republican Hispanic candidates. Thus, a theoretical model that allows the distribution of policy preferences to vary by political party and incorporates primary elections may lead to richer predictions that better align with these data.

Overall, the key point from this exercise is that the data does not wholly support the idea that Hispanic candidates are much more extreme than non-Hispanic candidates. The data is consistent with Democratic Hispanic candidates being more moderate than non-Hispanic Democratic candidates especially in districts with fewer Hispanic voters. These findings cast further doubt on the idea that our main results are driven by voter concerns that Hispanic candidates in down ballot statewide elections have more extreme policy positions. It is possible, though, that voters have inaccurate beliefs regarding the ideology of Hispanic candidates. If so, it would be an interesting area of future research to examine how these beliefs and stereotypes are formulated.

Finally, it is worth noting that the idea that minority candidates may have to be more moderate than the average candidate in order to be elected has been expressed outside of academic research. Consider, for example, the following quote from 2015 MacArthur Grant recipient Ta-Nehisi Coates on Barack Obama's Presidency:<sup>2</sup>

But as our first black president, he has avoided mention of race almost entirely. In having to be “twice as good” and “half as black,” Obama reveals the false promise and double standard of integration.

Both our theoretical model and these empirical results comport with the general sentiment in this statement; it is difficult for minority candidates to achieve electoral success without securing the confidence of the median voter. In equilibrium, voter bias should affect the types of minority candidates that are selected into office.

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<sup>2</sup>From an article in the September 2012 issue of *The Atlantic* entitled “Fear of a Black President”.

## 2 Theoretical Framework

We will now outline a theoretical framework that modestly extends the citizen-candidate model as in [Besley and Coate \(1997\)](#) in order to formalize our intuition as to how racial considerations might impact both voter and candidate behavior. In particular, we choose the citizen-candidate model as our starting point because it provides a simple way to conceptualize endogenous candidate entry. Recent theoretical work has forcefully argued that ignoring the candidate’s response to voter behavior can lead to implications that severely unwind when equilibrium responses are incorporated ([Ashworth and De Mesquita \(2014\)](#), [Prato and Wolton \(2015\)](#)). Our priors are that voter discrimination may also have important *indirect* effects on the selection of minority candidates.

To begin, we consider a baseline model that abstracts from racial considerations. There is a policy space  $\Omega_x = [-1, 1]$ . Each citizen has a most preferred policy denoted as  $x_i^*$  which are distributed uniformly across  $\Omega_x$ . We can think of citizens whose  $x_i^* < 0$ ,  $x_i^* > 0$ , and  $x_i^* = 0$  as Democrats ( $D$ ) and Republicans ( $R$ ), respectively. Any citizen can choose to enter an election but the cost of running is given by  $\delta$ . A candidate cannot credibly commit to any platform that deviates from  $x_i^*$ , and thus, the winner implements his ideal policy which we denote as  $\bar{x}$ . In the event of a tie, the winner of the election is determined by a coin toss. There is no additional benefit to holding elected office apart from the right to set policy which precludes equilibrium in which both candidates share the same ideal point.

In addition, citizens differ in level of informativeness. A random fraction of citizens,  $\eta$ , observe candidate ideal points perfectly, whereas those who are uninformed vote based on statistical expectations. Given that  $x_i^* \sim U[-1, 1]$ , the expected policy positions of the Democratic and Republican candidates are  $\mu_D = -\frac{1}{2}$  and  $\mu_R = \frac{1}{2}$ , respectively. Citizens have preferences over policy; in particular, they prefer policy to be closer to their ideal point. If citizen  $i$  does not run for election, then his utility associated with policy  $\bar{x}$  can be written as:

$$u_i(\bar{x}|x_i^*) = -|\bar{x} - x_i^*|$$

even though the identification strategy hinges critically on voters being ill-informed in “down-ticket” statewide elections. We can think of these citizens as being uninformed in the sense that influential candidate-specific factors, such as character ([Kartik and McAfee \(2007\)](#)) and valence ([Stone and Simas \(2010\)](#)), appear nowhere in the citizen’s utility function.<sup>3</sup> Instead, voters have

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<sup>3</sup>In addition, the comparative static of how informativeness affects voter choices is not

preferences over only policy and the candidate’s race. This is conceivably a close approximation to the true informational environment to the extent that voters lean primarily on party labels and candidate names in statewide “down-ticket” elections.<sup>4</sup>

Citizens have preferences over the race of the winning candidate,  $r$ , as well. The variable  $r$  is a binary variable that equals 1 if the winner of the election is a minority and 0 otherwise. The fraction of citizens with distaste for minority officials is given by  $\alpha$ . The  $\alpha$  parameter is statistically independent of  $x_i^*$  such that “liberal” citizens are no more likely to be prejudiced than “conservatives”. The disutility from minority officials is denoted as  $\gamma > 0$  and, for simplicity, we restrict  $\gamma$  such that it does not vary across persons.<sup>5</sup>

We begin our analysis by graphically illustrating an example of a two-candidate equilibrium in which both candidates are white. Figure A3 depicts the ideal points of the Democratic and Republican candidate as  $\mu_D$  and  $\mu_R$ , respectively. In this configuration, no other citizen has an incentive to enter the election. Citizens with  $x_i^* < -\frac{1}{2}$  will not enter because they would lose with vote share of no more than  $\frac{1}{4}$ , take votes away from  $\mu_D$ , and thus, ensure a win for  $\mu_R$ . In contrast, by not running, these citizens can save  $\delta$  and play a lottery that leads to a more favorable policy outcome with probability  $\frac{1}{2}$ . Similar calculations show that citizens with  $x_i^* \in (-\frac{1}{2}, \frac{1}{2})$  and  $x_i^* \in (\frac{1}{2}, 1)$  do not have incentives to enter the election as well. In addition, it is straightforward to show that neither  $\mu_D$  nor  $\mu_R$  will drop out of the election as long as the cost of running is not too excessive ( $\delta < \frac{1}{2}$ ). Since no actor has incentive to

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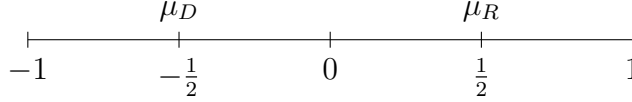
the central focus of this paper. Unlike Snyder Jr and Strömberg (2010) and Ferraz and Finan (2008), our research design does not use exogenous sources of variation in voter information sets for identification. In other words, our main interest is on the effects of race in a low information environment rather than a cross-partial that yields the differential effects of race in low versus high information environments. This lessens the value of parameterizing informativeness in our theoretical model. However, this does raise a question as to whether our estimates generalize to different informational environments. We will be careful to discuss this point in the interpretation of our results.

<sup>4</sup>As it turns out, allowing for heterogeneously informed voters does not yield any additional insights. This is because, in equilibrium, the two candidates must be located on opposite sides and equally distant from the median voter even when voters are heterogeneously informed. Otherwise, the candidate who is further away from median loses the election because informed voters prefer the closer candidate, while the votes of uninformed voters perfectly offset.

<sup>5</sup>We acknowledge that this is a fairly strong assumption on the distribution of prejudice. Existing literature on labor market discrimination has found that different percentile points in the distribution of prejudice have profoundly disparate impact on the black-white wage gap (Becker (1971), Charles and Guryan (2008)). If similar forces operate in this context, then this assumption should push us towards finding null results.

deviate, this constitutes a two-candidate equilibrium.

Figure A3: Two-Candidate Equilibrium



Now consider the comparative static in which the Democratic candidate,  $\mu_D^M$ , is a minority and all else is held constant. The superscript denotes that the candidate is a minority. The presence of a minority candidate changes the decision calculus for citizens who harbor racial animus. Only those voters with  $x_i^* < \frac{-\gamma}{2}$  will vote for  $\mu_D^M$  due to racial animus. In contrast, any citizen with  $x_i^* < 0$  would have voted for  $\mu_D^M$  in the absence of racial prejudice. The immediate implication of this result is that the political party loses vote share when their candidate is a minority.<sup>6</sup> This constitutes the first prediction that we will test empirically.

While racial animus impacts voting behavior, there are additional *indirect* effects on candidate entry. In this example, the minority candidate can clearly be made better off by choosing not to run since he loses with probability 1 and running for office is costly. In other words, minority candidates should avoid seeking office in elections where the electorate is expected to have higher levels of prejudice. This constitutes the second prediction that we will examine empirically.

Finally, racial animus does not necessitate that the set of minority candidates who can ever win election is an empty set. Figure 2 illustrates an example of a two-candidate equilibrium in which a minority candidate runs for office and wins with the probability of  $\frac{1}{2}$ . In this case, the minority candidate can win because his preferred policy is more moderate in comparison with  $\mu_R$ . The median voter is now indifferent between the two candidates because even if he has distaste for minority officials, he is compensated by more

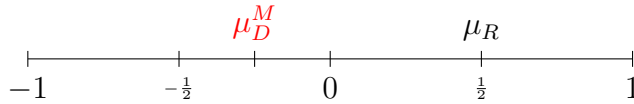
<sup>6</sup>Formally, it is straightforward to show that the minority candidate receives a vote share given by:

$$P(\text{vote for } \mu_D^M) = \frac{1}{2} \left( 1 - \frac{\gamma\alpha}{2} \right) < \frac{1}{2}$$

which indicates that the electoral disadvantage due to racial animus rises in  $\gamma$  and  $\alpha$ . We understand that the political party could gain vote share to the extent that there is a large minority population that prefers minority candidates. However, note that if  $\gamma < 0$  for a large fraction of voters, then this should push us against finding evidence of a minority disadvantage.

favorable policy. Thus, the third prediction of the model is that *conditional on entry*, minority candidates should be more moderate, on average.

Figure A4: Two-Candidate Equilibrium with Minority Candidate



Several aspects of this framework are overly simplistic. A richer model might allow voter discrimination to be driven by uncertainty over the policy preferences of minority candidates. To the extent that minorities hold more extreme preferences, the median would eschew minority candidates not because of racial animus but because minorities are statistically more likely to implement disfavored policies. Our modeling choices should not be interpreted as a dismissal of statistical discrimination as a viable alternative explanation. In fact, our empirical work will take seriously the possibility that voting behavior towards minority candidates might reflect policy considerations rather than racial animus.

The value of this simple theoretical framework is that it focuses on our analysis around three testable implications. These are 1) when the candidate of a political party is a minority, the party is expected to lose vote share in comparison with when both candidates are white, 2) in response, minority candidates should be less likely to run in elections in which the electorate is expected to be more prejudiced, and 3) conditional on entry, minority candidate should be associated with more moderate policy preferences, on average. While these predictions are fairly intuitive, it should be noted that the literature on voter discrimination focuses disproportionately on the effects of candidate race on *voter* behavior (Stephens-Davidowitz (2012), Washington (2006)). This simple theoretical framework highlights that racial animus could have consequential effects on policy via the *selection* of political contestants as well. And as noted earlier, this selection is more likely to be pronounced in local elections.

## 3 Additional Descriptive Statistics

### 3.1 Hispanic candidates and partisanship

Table A2 shows additional descriptive statistics that shows the fraction of Hispanic and female candidates separately by political party. Although this discussion focuses on ethnicity, the latter statistics provide additional context with respect to candidate gender. The table shows that in down ballot statewide elections 4.9% of Republican candidates are Hispanic whereas 14.71% of Democratic candidates are Hispanic. This implies that we are roughly three times more likely to observe a Democratic Hispanic than a Republican Hispanic candidate. This imbalance is observed in “High Information” elections (Presidential, U.S. Senate, U.S. House, Governor) and “Local Down Ballot” elections (e.g. State House of Representatives, District Judge, and etc.) as well. This is consistent with poll results, voting records, and studies that show the Hispanic community tends to, on average, vote strongly Democratic (DeSipio (1996), Uhlaner and Garcia (2005)).

Table A3: Percent Hispanic and Percent Female by Election Type

Election Type:	% Hispanic		% Female	
	Republican	Democrat	Republican	Democrat
High Information Elections	8.04%	20.24%	8.93%	5.65%
Statewide Down Ballot Elections	4.90%	14.71%	28.43%	13.73%
Local Down Ballot Elections	2.78%	12.81%	11.64%	12.39%

Note: High information elections include those for President, U.S. Senate, U.S. House of Representatives, and Governor of Texas. Down ballot statewide elections include Attorney General, Lieutenant Governor, State Treasurer, Railroad Commissioner, Comptroller of Public Accounts, Commissioner of General Land Office, Commissioner of Agriculture, Court of Criminal Appeals Judge, Supreme Court Justice, and Supreme Court Chief Justice. Local down ballot elections include State Senate, State Representative, District Attorney, Criminal District Attorney, District Judge, Family District Judge, Court of Appeals Chief Justice, Court of Appeals Judge, State Board of Education, and Criminal District Judge.

This statistical imbalance is interesting to the extent that they either reinforce or counter racial and ethnic stereotypes in the minds of voters. Indeed, the literature finds that the extent to which a minority candidate conforms to racial or ethnic stereotypes can affect voter choice. For example, McDermott (1998) finds the perception that African-American candidates are more liberal and more likely to focus on minority rights than white candidates is an important determinant of voter choice. In addition, studies show that minority candidates benefit when aspects of their personal lives counter racial and ethnic stereotypes. For example, African-American candidates who highlight in campaign ads that they have a white son tend to receive a boost in comparison



with African-American candidates with racially homogeneous families because having a mixed-race family sends an implicit signal regarding their distance from Blackness (Mendelberg (2001), Porter and Wood (2016)).

In our case, the fact that Hispanic candidates tend to align with the Democratic party as a group could elevate the sentiment that the Hispanic community is the “other” and strengthen the categorization of Hispanic candidates as an ideological block as opposed to individual candidates with distinct policy preferences. Further, the reinforcement of Hispanics as an ethnic category could heighten concerns that Hispanic candidates might redirect resources towards their own community rather than evenly distribute them across demographic groups. It is also possible that there is an opposite effect for Republican Hispanic candidates since Hispanic candidates who run as Republicans are rare (as shown in Table A3), and thus, counter the stereotype that associates Hispanics with the Democratic party.

These ideas could explain why we find a modestly larger penalty for Democratic Hispanic versus Republican Hispanic candidates (in percent terms). Although the effect sizes are nearly the same in percentage points, the magnitudes differ more in percent terms because Democratic candidates receive less vote share in Texas on average. In particular, our baseline estimates imply 5.1 and 5.8 percentage point losses in vote share for Democratic Hispanic and Republican Hispanic candidates which translate to decreases of roughly 15% and 9%, respectively. These results are consistent with the notion that the Hispanic penalty could differ along party lines because Democratic Hispanic candidates reinforce stereotypes whereas Republican candidates counter them.

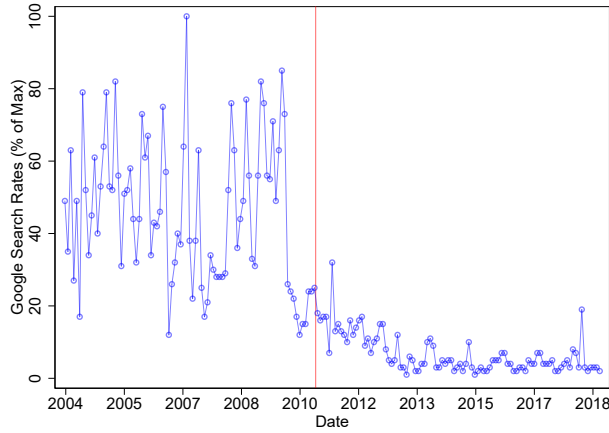
### 3.2 Google Search Trends

We present two additional figures that illustrate how Google search rates sharply change when politicians transition between low and high level statewide offices. These graphs further support the key premise in our research design that voters have less information on candidates who appear further down ballot in statewide contests. Panel A shows Google search rates for Texas’ Kay Bailey Hutchison (hereafter KBH) who is elected to the United States Senate in 1993. The red vertical line is positioned at January 13, 2011 which is when she announces that she will not seek re-election. Her tenure in the U.S. Senate would officially end in 2013 after which she joins a private law firm. The figure shows that the Google search rates are relatively high from 2004 to 2010, the period during which KBH is a member of the U.S. Senate, albeit with some volatility. There is then a gradual decline in searches for KBH as she transitions from the U.S. Senate into the private sector. In 2013, the year in which

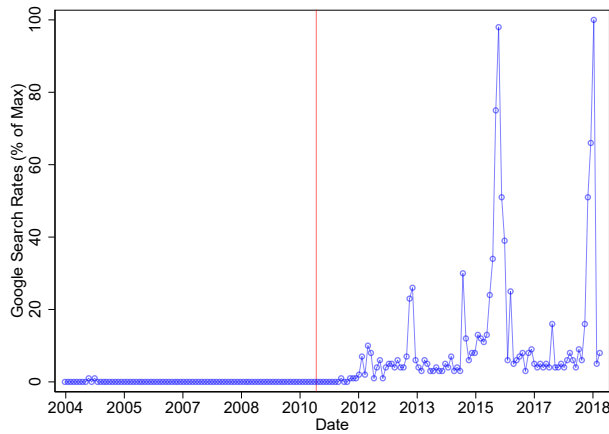
she leaves the U.S. Senate, the search rates reach their low point and remain relatively stable thereafter. Although KBH's transition is from high statewide office to the private sector rather than from high to low statewide office, it is still interesting that the marked decline in Google searches largely coincides with her exit from high profile public office.

Figure A5: Within-Person Google Trend Searches by Election Type 2004-2019

(A) Kay Bailey Hutchison



(B) Ted Cruz



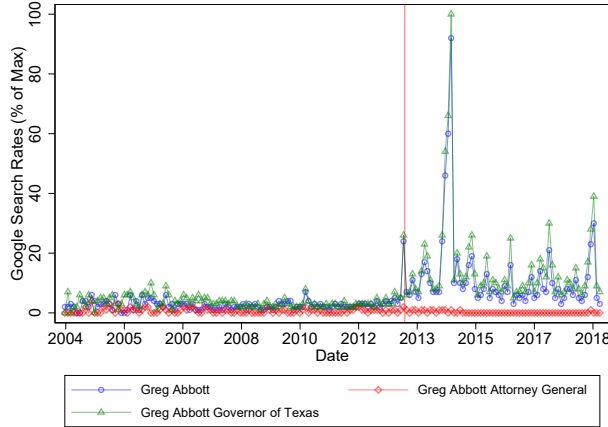
Notes: In both panels, we plot the monthly time-series of Google search rates (as a share of the maximum search rate from 2004 to 2019). Panels A and B plots the search rates for the terms “Kay Bailey Hutchison” and “Ted Cruz”, respectively. In Panel A, the red vertical line is positioned on the date at which Kay Bailey Hutchison announces that she will not seek re-election for the U.S. Senate and in Panel B, the red vertical line is located at Ted Cruz’s announcement that he will run to fill Kay Bailey Hutchison’s seat.

Panel B shows search rates for Ted Cruz who served as Texas’ Solicitor General from 2003 to 2008 and then joined a private law firm thereafter. The

red line is located on January 19, 2011 which is when Ted Cruz announces his candidacy for U.S. Senate roughly a week after KBH's announcement that she will not seek re-election. Cruz would go on to win the election and then run for President in the 2016 election. The figure shows that to the left of the red vertical line, Google search rates are consistently low for Ted Cruz during his time as Solicitor General and in the private sector. To the right of the red vertical line, the search rates are elevated during his time in the U.S. Senate. It is interesting that the peak search rates coincide with Beto O'Rourke's 2018 Democratic challenge to Cruz's Senate seat rather than his 2016 presidential run. Overall, the figure shows a continued pattern that is strongly consistent with the idea that voters seek more information when public officials are in high level offices.

One concern is that the Google search rates that we observe could *understate* the searches conducted for politicians during their time in lower level office. For example, it is possible that people conducted searches for Greg Abbott at similar rates before and after his gubernatorial campaign but used different search terms in each respective time period. To assess this possibility, we obtain data on search trends for the terms "Greg Abbott", "Greg Abbott Attorney General" and "Greg Abbott Governor of Texas". Figure [A6](#) shows the time series for each individual search term.

Figure A6: Google Search Rates for Variations of “Greg Abbott”



Notes: We plot the time-series of Google search rates for the terms “Greg Abbott”, “Greg Abbott Attorney General”, and “Greg Abbott Governor of Texas” as a share of the maximum search rate from 2004 to 2019. The red vertical line is located on July 14, 2013 which is the date when Greg Abbott announces his candidacy for the Gubernatorial election. Abbott would win the election and was sworn in as the Governor of Texas in January of 2015. Before then, Abbott served as the Attorney General of Texas from 2002 to 2015.

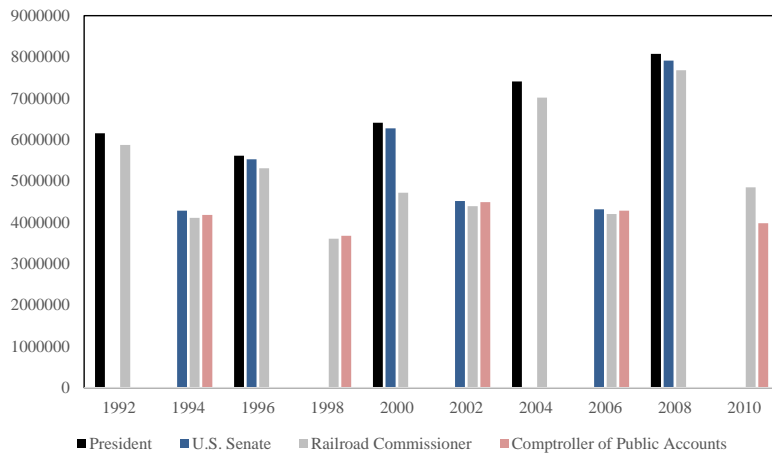
Figure A6 shows that Google searches for “Greg Abbott Attorney General” are very close to zero throughout the entire time period which implies that the volume of searches for this term is relatively low and does not exceed the threshold required for Google Trends to report the rates. In contrast, the search rates for the term “Greg Abbott Governor of Texas” exceeds the rates for the more simple search of “Greg Abbott” especially to the right of the red line which marks the beginning for Abbott’s transition to becoming the Governor of Texas. On the whole, the pattern does not appear to be consistent with idea that search rates for Greg Abbott are actually uniform over time.

### 3.3 Voter Roll-Off

A key premise of our research design is that voters are likely to be less informed about candidate-specific attributes in down ballot statewide elections. However, it is possible that voters abstain in elections in which they have little knowledge about the candidates. If voters participate in election contests further up the ballot and then roll-off as they move further down the ballot, then

this would imply that voters are well-informed *conditional* on voting. We suspect that voter roll-off is unlikely to explain our findings. This is because the negative effects of the race heuristic is not present in midterm years in which “core” voters, who are reputed to be relatively better informed, comprise a higher share of those who turnout. Thus, voter roll-off is unlikely to explain our results to the extent that roll-off is more pronounced among “peripheral” voters in Presidential years.

Figure A7: Vote Totals Across Office Type



Notes: The election results are collected from the Texas Secretary of State website. We show vote totals separately across these four types of elections by year.

In addition, we present Figure A7 which shows the total number of votes cast at the state level in general elections separately for four different offices and by year. To facilitate visual presentation, we will focus on two offices that appear near the top of the ballot – President and U.S. Senate – and two that appear further down the ballot – Railroad Commissioner and Comptroller of Public Accounts. The striking feature of this graph is that there is much more variation in vote totals across elections in midterm vs Presidential years than there is variation across different types of offices within a given year. With the exception of 2000, the vote totals in down ballot statewide elections are precipitously less than the vote totals for the Presidency and U.S. Senate. This pattern holds more generally across other types of statewide offices as well.

### 3.4 Measure of Racial Prejudice

Our approach is based on [Stephens-Davidowitz \(2012\)](#) (hereafter SD) who uses Google search rates for racial epithets that include the N-word as a measure of racial prejudice. We find this measure to be interesting for several reasons:

- The Google searches are conducted in private which allows users to be unusually forthcoming especially with respect to topics that are socially taboo. For example, SD notes that there are large number of searches for pornography and sensitive health conditions even though these topics are less likely to surface in day-to-day public interactions. Because racial animus is also a socially sensitive topic, it seems plausible that the Google searches could provide a less censored measure of racial animus. This seems relevant given the issue of social desirability bias that complicates survey measures of racial animus.
- Google searches are strongly predictive of actual beliefs and behaviors. For example, SD finds that search rates for the term “God” and “gun” explains 65% and 62% of the state-level variation in residents who believe in God and gun ownership, respectively. This raises the possibility that search rates for racially charged epithets (e.g. the [N-word]) could strongly predict geographic variation in racial animus.
- SD finds that common search terms that include the N-word are “[N-word] jokes” and “I hate [N-word]”. Although the order of the sites returned by these searches differs now from the time of SD’s study, SD describes them in the following way, “The top hits for the top racially charged searches, in fact, are nearly all textbook examples of antilocution, a majority group’s sharing stereotype-based jokes using coarse language outside a minority group’s presence. This was determined as the first stage of prejudice in Allport’s (1979) classic treatise.” After visiting some of these sites ourselves, we agree with SD’s characterization that they are extremely derogatory towards African-Americans.<sup>7</sup> The nature of these sites further reinforce the possibility that a nontrivial fraction of the searches are inspired by racial animus.
- There are additional stylized facts that appear to validate SD’s measure including the following two:

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<sup>7</sup>See, for example, <http://niggermania.com/niggerjokes/index.htm>.

- SD finds that areas with high Google search rates of racially charged epithets are also more likely to oppose interracial marriage (as measured by the General Social Survey).
- The highest search rates are in West Virginia, upstate New York, rural Illinois, eastern Ohio, southern Mississippi, western Pennsylvania, and southern Oklahoma. The lowest search rates are in Laredo, TX (a largely Hispanic area), Hawaii, parts of California, Utah, and urban Colorado.

One issue is that the Google search rates are available at the Designated Market Area (DMA) rather than county-level. To construct a county-level measure, we take a weighted average of county-level demographic characteristics that we obtain from U.S. Census data (i.e. age, education, race, and ethnicity). The weights are coefficients from a regression in SD (column (3) of Table 3) of Google search rates on these demographic characteristics. Thus, one interpretation of these weights is that they are chosen to maximize the amount of variation in these Google search rates that can be explained by these demographics. Equation (1) shows the weights and specification used to construct our measure,  $\widehat{\text{Racially Charged Search Rate}}_{ct}$ :

$$\begin{aligned} \widehat{\text{Racially Charged Search Rate}}_{ct} = & 6.492 \times \% \text{ Age 65 or older}_{ct} - \\ & 10.104 \times \% \text{ with BA degree}_{ct} - 2.659 \times \% \text{ Hispanic}_{ct} \\ & + 11.245 \times \% \text{ Black}_{ct} - 24.731 \times \% \text{ Black}_{ct}^2 \quad (1) \end{aligned}$$

SD shows that these demographic characteristics are strong predictors of the Google search rates which implies that our resulting index is a strong correlate of racial prejudice as well. For example, the coefficient attached to  $\% \text{ with BA degree}$  implies that a 10 percentage point increase in the fraction of college graduates is associated with roughly a 1 standard deviation decrease in Google search rates of racially charged epithets. Overall, the coefficients imply that geographic areas with older, less educated, and a lower share of minority constituents are more likely to search for terms that include the N-word.

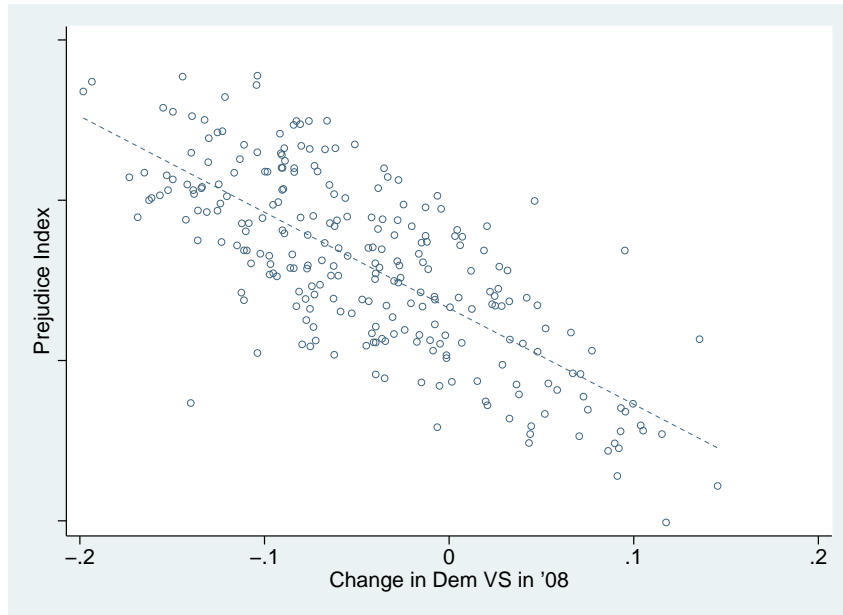
An important advantage of this approach is that it allows us to construct a county-level measure that strongly correlates with racial animus. We are unaware of any other measure of prejudice used in the literature that covers all 254 counties in the state of Texas and creating one is beyond the scope of our paper. In addition, we show that our measure (i) exhibits a strong spatial correlation with known chapters of the KKK in Texas and (ii) negatively predicts Obama’s vote share in the ’08 Presidential election (as shown below)



which is what we might expect from a valid measure of prejudice. However, our measure, like all measures of racial prejudice, suffers from substantive limitations. In particular, we cannot rule out the possibility that our measure is correlated with other factors that affect voter choice.

As a validation exercise, we corroborate the findings in [Stephens-Davidowitz \(2012\)](#) that show the measure of racial animus based on Google search rates for racial epithets is strongly correlated with the change in vote share for the Democratic Presidential candidate from 2004 to 2008. Figure A8 shows a scatter plot in which each dot represents a county's expected level racial prejudice based on our measure and a county's change in vote share for the Democratic candidate from 2004 to 2008 along with the line of best fit. The figure shows that there is a strong negative correlation between the two. This implies that counties associated with high levels of predicted racial prejudice also tend to be the counties that were less likely to vote for Barack Obama than John Kerry. The correlation between the two variables is  $-0.833$ . This provides additional validation for our measure of county level racial prejudice to the extent that we expect counties with higher levels of racial animus to defect from the Democratic party when the party's nominee is a minority.

Figure A8: Prejudice Index and  $\Delta$  Democratic Vote Share in '08



Notes: Bivariate regressions indicate that the relationship is statistically significant. The correlation between the prejudice index and the change in democratic vote share is  $-0.833$ .

## 4 Additional Details on the Empirical Model

### 4.1 Interpretation of the Key Parameters

In order to clarify the interpretation of the key parameters, we present a simplified version of the baseline empirical model:

$$Demvs = \beta_0 + \beta_1 DemHisp + \beta_2 RepHisp + X\psi + \epsilon \quad (2)$$

where we suppress all subscripts and incumbency status, county, office, and year fixed effects are all subsumed in  $X$  in order to simplify notation. In general, the effect of  $DemHisp$  should be independent of  $RepHisp$  because there is no interaction between these two terms in equation (2). However, in this particular setting, our interpretation is valid because there are no down ballot statewide elections in which both candidates have distinctly Hispanic surnames. We illustrate this point in detail next.

The expected vote share, conditional on  $X$ , for a Democratic candidate when neither the Democratic nor the Republican candidate has a distinctly Hispanic surname is given by the following expression:

$$E [Demvs | DemHisp = 0, RepHisp = 0, X] = \hat{\beta}_0 + X\hat{\psi} \quad (3)$$

The parameters  $\hat{\beta}_1$  and  $\hat{\beta}_2$  do not enter this expression since  $DemHisp$  and  $RepHisp$  are both zero. Similarly, the expected vote share, conditional on  $X$ , for the Democratic candidate when only the Democratic candidate has a distinctly Hispanic surname is given by the following expression:

$$E [Demvs | DemHisp = 1, RepHisp = 0, X] = \hat{\beta}_0 + \hat{\beta}_1 + X\hat{\psi} \quad (4)$$

Here,  $\hat{\beta}_2$  does not enter the expression since  $RepHisp$  is zero. The expected vote share, conditional on  $X$ , for the Democratic candidate when only the Republican candidate has a distinctly Hispanic surname is given by the following expression:

$$E [Demvs | DemHisp = 0, RepHisp = 1] = \hat{\beta}_0 + \hat{\beta}_2 + X\hat{\psi} \quad (5)$$

Here,  $\hat{\beta}_1$  does not enter the expression since  $DemHisp$  is zero. Finally, the expected vote share, conditional on  $X$ , for the Democratic candidate when both Democratic and Republican candidates have distinctly Hispanic surnames is given by the following expression:

$$E [Demvs | DemHisp = 1, RepHisp = 1] = \hat{\beta}_0 + \hat{\beta}_1 + \hat{\beta}_2 + X\hat{\psi} \quad (6)$$

We can now show that the apparent tension between the usual interpretation and ours arises only because there are no down ballot statewide elections in which both Democratic and Republican candidates have distinctly Hispanic surnames. We take the expression in equation (4) and subtract off the expression in equation (3) in order to get the following:

$$\underbrace{E [Demvs|DemHisp = 1, RepHisp = 0, X]}_{\hat{\beta}_0 + \hat{\beta}_1 + X\hat{\psi}} - \underbrace{E [Demvs|DemHisp = 0, RepHisp = 0, X]}_{\hat{\beta}_0 + X\hat{\psi}} = \hat{\beta}_1 \quad (7)$$

Thus,  $\hat{\beta}_1$  represents the change in the expected vote share for the Democratic candidate when the Democratic candidate has a distinctly Hispanic surname in comparison with elections in which both candidates are white holding all else constant. This is the interpretation provided in the paper.

Our functional form implies that a change in *DemHisp* should have the same impact when the Republican candidate is Hispanic since *RepHisp* enters the model additively. Here, we take the expression in equation (6) and subtract off the expression in equation (5) in order to get the following:

$$\underbrace{E [Demvs|DemHisp = 1, RepHisp = 1, X]}_{\hat{\beta}_0 + \hat{\beta}_1 + \hat{\beta}_2 + X\hat{\psi}} - \underbrace{E [Demvs|DemHisp = 0, RepHisp = 1, X]}_{\hat{\beta}_0 + \hat{\beta}_2 + X\hat{\psi}} = \hat{\beta}_1 \quad (8)$$

Thus, a change in the race/ethnicity of the Democratic candidate has the same *ceteris paribus* impact regardless of the race/ethnicity of the Republican candidate. Our interpretation is valid in this context because there are no down ballot statewide elections in which both Democratic and Republican candidates have distinctly Hispanic surnames.

## 4.2 Mixed Heritage Names

Although the U.S. Census Genealogy records do not include first names, in this section, we consider the possibility that mixed heritage names could be perceived differently by voters in comparison with more traditional names in ways that could affect voter choice. This sentiment is supported in the literature. [Mendelberg \(2001\)](#) notes that African-American candidates who highlight they have a white son in campaign ads send an implicit signal regarding their distance from Blackness. [Porter and Wood \(2016\)](#) uses random variation

in the candidate son’s race in fictitious campaign ads to confirm that there are electoral benefits for African-American candidates with racially heterogeneous families. Their interpretation is that non-Hispanic white voters favor minority candidates who can personally demonstrate cultural affinity towards them. Because names are also personal decisions, a candidate who chooses a more culturally assimilated first name, such as “Ted” instead of “Raphael” Cruz, could be perceived favorably by non-Hispanic white voters. In this section, we put forth a simple theoretical framework for thinking about how our focus on distinctly Hispanic *surnames* might affect our results. In particular, we demonstrate that our approach leads us to **understate** the extent to which voters respond negatively to the ethnic cue of distinctly Hispanic names.

The key idea is that some of candidates in our data who we believe are perceived as Hispanic due to their distinct surnames are actually perceived as white because their first names are culturally assimilated. Thus, first names create a potential wedge between the candidate’s perceived and actual ethnicity. To formalize this idea, let  $H$  be an indicator variable for whether or not the voter perceives the candidate to be Hispanic or not and let  $H^*$  be an indicator variable for whether or not we code the candidate to be Hispanic or not. Let  $Y$  denote the candidate’s vote share. The parameter that we want to quantify is the mean difference in vote share between candidates who are perceived to be Hispanic versus white:

$$E[Y|H = 1] - E[Y|H = 0] \tag{9}$$

This expression in (9) reflects the true impact of being perceived as Hispanic on voter choice. However, our data only allows us to estimate:

$$E[Y|H^* = 1] - E[Y|H^* = 0] \tag{10}$$

which is not the same as equation (9) when candidates that we code as Hispanic (i.e.  $H^* = 1$ ) are actually perceived as white (i.e.  $H = 0$ ) by voters. It is straightforward to show that the expression in equation (10) can be rewritten as the sum of the true effect and a bias term:

$$E[Y|H^* = 1] - E[Y|H^* = 0] = \underbrace{E[Y|H = 1] - E[Y|H = 0]}_{\text{True Effect}} + \text{Bias Term} \tag{11}$$

where the Bias Term is given by the following expression:

$$\text{Bias Term} = -[E[Y|H^* = 1, H = 1] - E[Y|H^* = 1, H = 0]] P(H = 0|H^* = 1) \tag{12}$$

where  $P(H = 0|H^* = 1)$  is the likelihood that a candidate is coded as Hispanic even though they are perceived to be white,  $E[Y|H^* = 1, H = 1]$  is the average vote share for candidates who are coded as Hispanic and are perceived to be Hispanic, and  $E[Y|H^* = 1, H = 0]$  is the average vote share for candidates who are coded as Hispanic but perceived to be white.

If  $P(H = 0|H^* = 1) = 0$  such that all the candidates who are coded as Hispanic based on surnames are actually perceived as Hispanics by the voters, then there is zero bias. It is intuitive that the bias term increases when these discrepancies are more likely to occur. The sign of the bias hinges on the bracketed term which we expect to be negative because candidates who are perceived to be white are expected to outperform those who are perceived to be Hispanic holding all else constant. Because there is a negative sign in front of the Bias Term, the overall sign of the Bias Term is positive. Thus, the Bias Term has the effect of **attenuating** our estimates of the Hispanic-White gap. The underlying reason is that the average vote share for candidates coded as Hispanic is inflated or overly optimistic because some of these candidates are, in fact, perceived as white and white candidates outperform Hispanics, on average.

There are two additional points worth making before we pivot to the next comment. First, this result does **not** hinge on the assumption that voters perceive candidates with mixed heritage names, such as “Ted Cruz”, as white. The key assumption is that the candidates with mixed heritage names are viewed more favorably by voters in comparison with those with traditional names which is not unreasonable given the earlier cited literature that finds African-American candidates can secure electoral gain by signaling cultural affinity towards whites (Porter and Wood (2016)). Second, candidates could deliberately choose mixed heritage names to signal proximity to Whiteness. This will have the impact of increasing  $P(H = 0|H^* = 1)$  and further push us towards the opposite finding of no Hispanic-white gap. Thus, this analysis implies that we find that voters respond negatively to the distinctly Hispanic surnames in spite of rather than because of this source of bias.

## 5 Additional Empirical Results

### 5.1 Additional Robustness Checks

In order to further fine-tune our analysis, Table A4 shows results from additional specifications. To facilitate comparison, in columns (1) and (2), we present the same results that are in the previous version of the paper.

In columns (3) and (4), we assess whether or not these results are robust to the inclusion of county-by-year fixed effects which accounts for all potential confounds that vary over time at the county-level. We omit the main county and year fixed effects due to issues of collinearity. Importantly, the estimates associated with **Democratic Hispanic** and **Republican Hispanic** are nearly identical and differ only in the decimal places beyond the first three. Thus, the county-by-year fixed effects does not substantively alter our results.

Table A4: Additional Robustness Checks

Dep Var: Democratic Vote Share						
	Presidential (1)	Midterm (2)	Presidential (3)	Midterm (4)	Presidential (5)	Midterm (6)
Candidate Race						
Democratic Hispanic	-0.051*** (0.011)	-0.020 (0.014)	-0.051*** (0.012)	-0.020 (0.015)	-0.052*** (0.011)	-0.025 (0.017)
Republican Hispanic	0.058** (0.023)	-0.004 (0.011)	0.058** (0.025)	-0.004 (0.012)	0.032** (0.014)	-0.025 (0.018)
Incumbency Status						
Democratic Incumbent	-0.007 (0.005)	0.080*** (0.025)	-0.007 (0.006)	0.080*** (0.026)	0.019 (0.017)	0.077*** (0.022)
Republican Incumbent	-0.003 (0.015)	-0.030*** (0.011)	-0.003 (0.016)	-0.030** (0.011)	-0.010 (0.016)	-0.042*** (0.013)
Controls						
County FE	Y	Y	N	N	Y	Y
Elected Office FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	N	N	Y	Y
County-by-Year FE	N	N	Y	Y	N	N
County Level Demographics	N	N	N	N	Y	Y
N	6,349	13,716	6,349	13,716	6,349	13,716

Notes: The mean of the dependent variable is 0.347. The sample is restricted to down ballot statewide elections which include contests for Attorney General, Lieutenant Governor, State Treasurer, Railroad Commissioner, Comptroller of Public Accounts, Commissioner of General Land Office, Commissioner of Agriculture, Court of Criminal Appeals, and Supreme Court Justice. Standard errors are clustered at the elected office-by-year level.

In columns (5) and (6), we control for time-varying county-level demographic characteristics. The estimates for **Democratic Hispanic** are very similar in columns (3) and (5) (5.1 versus 5.2 percentage points, respectively). The estimate for **Republican Hispanic** shows a bit more variability as it decreases by 45% from 5.8 percentage points in column (3) to 3.2 percentage points in column (5). However, the estimate in column (3) is itself statistically significant and continues to suggest that **Republican Hispanic** candidates lose vote share due to the ethnic heuristic. In addition, the standard errors are sufficiently large such that the point estimates are within the respective 95% confidence intervals. For example, the 95% confidence interval for **Republican Hispanic** in column (5) is [0.4, 6.0] which covers the 5.8 percentage point estimate in column (3). On the whole, the estimates are qualitatively similar across the various specifications and consistently show that voters respond negatively to candidates with Hispanic sounding names in Presidential years.

## 5.2 Sensitivity to Assignment Rule

In the main regression models, the key indicator variable of whether or not the candidate has a distinctively Hispanic name, is equal to one if the 80% or more of the persons in the U.S. with that surname self-identifies as Hispanic. This raises the question as to whether or not the results in the paper are sensitive to this specific 80% threshold rule. Table A5 shows results in which we use different assignment rules for categorizing candidate race. For example, in the first column, we present results using the same baseline regression that changes only the assignment rule from 80 to 50%. Note that a 50% assignment rule implies that a candidate is categorized as Hispanic even when only half of the persons from the U.S. population with that given surname self-identify as Hispanic. Thus, lower values for the threshold imply less distinctively ethnic names. In the table, columns are organized such that moving from left to right, the assignment rule increases in 10 percentage point increments.

Table A5: Robustness to Different Thresholds for Categorizing Perceived Race

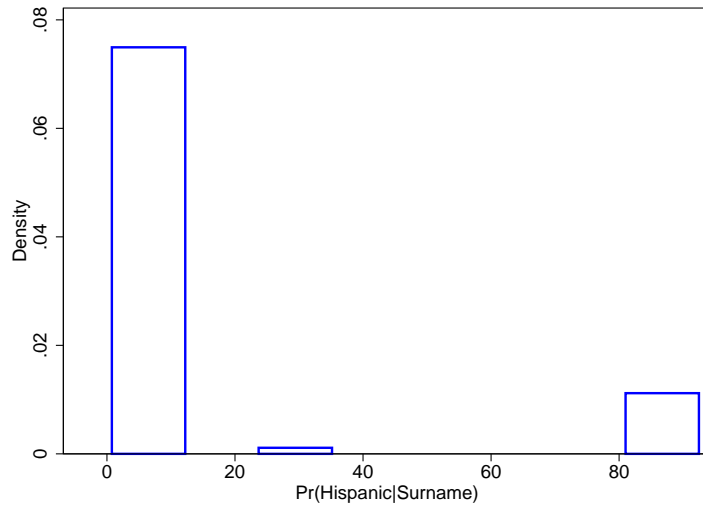
Dep Var: Dem Vote Share					
Panel A: Midterm Elections	Assign to Race $r$ if $\Pr(\text{Race}=r \mid \text{Surname})$ :				
	$\geq 0.50$	$\geq 0.60$	$\geq 0.70$	$\geq 0.80$	$\geq 0.90$
<i>Candidate Race</i>					
Democratic*Hispanic	-0.018 (0.015)	-0.018 (0.015)	-0.018 (0.015)	-0.020 (0.014)	-0.032 (0.021)
Republican*Hispanic	-0.004 (0.012)	-0.004 (0.012)	-0.004 (0.012)	-0.004 (0.011)	-0.005 (0.011)
Panel B: Presidential Elections					
<i>Candidate Race</i>					
Democratic*Hispanic	-0.051*** (0.011)	-0.051*** (0.011)	-0.051*** (0.011)	-0.051*** (0.011)	-0.053*** (0.012)
Republican*Hispanic	0.059** (0.024)	0.059** (0.024)	0.059** (0.024)	0.058** (0.023)	0.077*** (0.020)

Note: These regressions restricts the sample to statewide low information elections which include elections for Attorney General, Lieutenant Governor, State Treasurer, Railroad Commissioner, Comptroller of Public Accounts, Commissioner of General Land Office, Commissioner of Agriculture, Court of Criminal Appeals, Supreme Court Justice. Standard errors are clustered at the elected office-by-year level. Regressions include controls for office, year, and county fixed effects. Regressions are run separately for elections in midterm and Presidential years.

The table shows results that are similar across all of the different assignment rules. This is somewhat puzzling since we might expect the effect of the race heuristic to be more influential when the candidate's name is more distinct, and thus, more accurately reflects the candidate's ethnicity. Figure A9 provides the explanation. Specifically, we plot a histogram of the probability

of self-identifying as Hispanic conditional on surname,  $P(Hispa|Surname)$ , from the U.S. Census Genealogy records for all candidates who run in contested statewide down ballot elections. The distribution is not diffuse as most of the mass is either close to 0 or exceeds 0.80. This implies that candidate surnames are either extremely distinct or indistinct with little in between. Put differently, the types of surnames in our sample are those that make it easy for voters to correctly identify that the candidate is Hispanic.

Figure A9: Histogram of  $P(Hispa|Surname)$  in Contested Statewide Elections



Notes: The  $P(Hispa|Surname)$  is from the U.S. Census Genealogy Records.

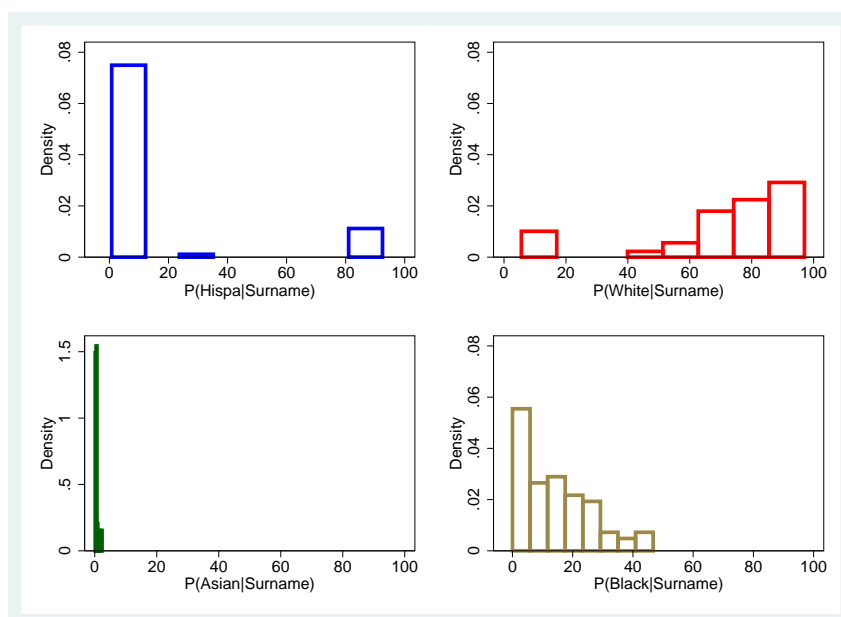
Figure A10 shows similar plots of  $P(Race|Surname)$  for the other racial groups. The plot shows that there are no candidates with distinctively Asian surnames in down ballot statewide elections in Texas from 1992 to 2010. There are, however, candidates with distinctively Asian surnames who run for local offices. The plot for  $P(Black|Surname)$  does not exceed 0.5 which implies the absence of distinctively black surnames. In other words, there are no candidates with surnames for which more than half of the persons with that surname self-identify as black. The relatively higher frequency of distinctively Hispanic versus black names is not unique to this setting. Consider, for example, the following passage from [Squire and Smith \(1988\)](#) who study partisan cues in non-partisan State Supreme Court elections from California:

Hispanics, given the ease with which Cruz Reynoso's name can be identified, are likely to have both an opinion on his confirmation



and to favor it before being provided with the additional information. These tendencies may not carryover to the other judges on the ballot. Blacks may not be aware of Justice Allen Broussard’s race, and consequently may not provide him the same level of support expected from Hispanics for Reynoso. [page 175]

Figure A10: Histogram of  $P(\text{Race}|\text{Surname})$  in Contested Statewide Elections



Notes: The data is from the U.S. Census Genealogy Records.

One concern might be that our assignment rule introduces error into our measure of the candidate’s perceived race because it is based only on surname. However, an interesting feature of our data is the scarcity of distinctly African-American first names. [Fryer Jr and Levitt \(2004\)](#) provide examples of distinctively African-American first names such as Tyrone, DeShawn, Reginald, Shanice, Precious, Kiara, and Deja. None of the down-ballot statewide candidates in our sample have these types of easily identifiable African-American first names. This is an important observation because [Fryer Jr and Levitt \(2004\)](#) finds that distinctively African-American first names positively predicts low socio-economic status. Thus, the absence of distinctively African-American first names is consistent with the minority candidates in our sample being *positively selected*. Finally, it is worth noting that this type of measurement error, in which we classify African-American candidates

as white, would lead us to *understate* the effect of the race heuristic since the estimated mean vote share for white candidates would include minority candidates who face discrimination, and thus, be less than the true mean vote share for white candidates.

### 5.3 Candidate Gender

We examine the possibility that our results are driven by voter preferences with respect to candidate gender rather than ethnicity. The motivation is twofold. First, partisanship and race/ethnicity are not the only two heuristics present on the ballot as names can signal candidate gender as well. For example, almost all persons in the United States with the first name “Linda” self-identify as female. Thus, voters can correctly infer the candidate gender’s when the candidate has a distinctively female first name. Second, although the literature shows mixed evidence, there are some studies that find a candidate’s gender can structure voter choice. For example, [McDermott \(1998\)](#) finds that voters stereotype female candidates to be more liberal than the average male candidate, and thus, garner more support among liberal voters. [Anzia and Berry \(2011\)](#) finds gender difference in performance among those elected to Congress which implies that voters evaluate female and male candidates using different standards. Thus, it seems plausible that our results could be driven by gender rather than racial or ethnic considerations.

To examine this possibility, we use Census Genealogy records that provide a list and frequencies of all female first names from a random sample of 7.2 million persons in the U.S. A nice feature of this data is that Hispanic and African-American persons are oversampled in order to ensure that minorities are well-represented in the data. The five most common female first names are Mary, Patricia, Linda, Barbara, and Elizabeth and the five least common female first names are Ardelia, Annelle, Angila, Alona, and Allyn. We merge this data onto our elections data in order to categorize candidates by gender. We then run our baseline model and include indicator variables for whether or not the Democratic or Republican candidate is female. If it is true that our earlier results are driven primarily by gender considerations, then including these variables should diminish the estimates associated with the ethnic cue.

Table A6: Voter Response to Candidate Race and Gender in Down Ballot Statewide Elections

Dep Var: Democratic Candidate Vote Share						
	Election Type:					
	Midterm (1)	Presidential (2)	Midterm (3)	Presidential (4)	Midterm (5)	Presidential (6)
<b>Candidate Race</b>						
Democratic Hispanic	-0.020 (0.014)	-0.051*** (0.011)			-0.014 (0.015)	-0.049*** (0.010)
Republican Hispanic	-0.004 (0.011)	0.058** (0.023)			-0.012 (0.011)	0.062** (0.023)
<b>Candidate Gender</b>						
Democratic Female			-0.023* (0.012)	-0.024 (0.021)	-0.020 (0.013)	-0.013 (0.011)
Republican Female			0.008 (0.010)	-0.002 (0.023)	0.009 (0.010)	0.007 (0.010)
Controls:						
Incumbency Status	Y	Y	Y	Y	Y	Y
County FE	Y	Y	Y	Y	Y	Y
Elected Office FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y
Observations	13,716	6,349	13,716	6,349	13,716	6,349

Note: The mean of the dependent variable is 0.347. These regressions restricts the sample to statewide low information elections which include elections for Attorney General, Lieutenant Governor, State Treasurer, Railroad Commissioner, Comptroller of Public Accounts, Commissioner of General Land Office, Commissioner of Agriculture, Court of Criminal Appeals, Supreme Court Justice. Elected office, county, and year fixed effects are included in all specifications. Standard errors are clustered at the elected office-by-year level.

Table A6 shows the results. To facilitate comparison, the first two columns show the main results from the previous version of the paper that exclude candidate gender. As a quick review, we see that in years when the Presidency is at stake, Democratic and Republican Hispanic candidates in down ballot statewide elections lose roughly 5.1 and 5.8 percentage points in vote share, respectively, in comparison with elections in which neither candidate is Hispanic, *ceteris paribus*. In midterm elections, however, the response to the ethnic cue is substantially diminished. These results are consistent with the idea that “peripheral” voters, whose turnout decidedly increases in Presidential years, rely more on informational shortcuts, such as ethnic cues, in down ballot statewide elections.

In columns (3) and (4), we replace the indicator variables for candidate ethnicity with those for candidate gender. The estimates imply that, in Presidential years, Democratic and Republican female candidates in down ballot statewide elections lose roughly 2.4 percentage points and gain 0.2 percentage points in vote share, respectively, holding all else constant. The magnitudes of the gender estimates are much smaller than the ethnicity effects and neither Democratic Female nor Republican Female is statistically significant at the 5% level. Overall, these estimates do not provide strong *prima facie* evidence that voters are responsive to the gender heuristic in down ballot statewide elections in either midterm or Presidential years.

In columns (5) and (6), we include indicator variables for both candidate ethnicity and gender. In column (6), the estimates associated with **Democratic Hispanic** and **Republican Hispanic** imply that in Presidential years Democratic and Republican Hispanic candidates in down ballot statewide elections lose roughly 4.9 and 6.2 percentage points in vote share, respectively, in comparison with elections in which neither candidate is Hispanic, *ceteris paribus*. Thus, the coefficients attached to candidate ethnicity are very stable even after we include the controls for candidate gender. In contrast, the coefficients on candidate gender continue to show modest effects in comparison. In column (6), the -1.3 and 0.7 percentage point effects associated with **Democratic Female** and **Republican Female** are roughly 73% and 89% smaller than their respective **Democratic Hispanic** and **Republican Hispanic** counterparts and neither is statistically significant at the 5% level.

We emphasize that these results should *not* be interpreted as evidence that voters are unresponsive to gender heuristics since it is possible that different segments of the electorate respond to the gender cue in ways that have offsetting effects in the aggregate (Urbatsch (2018)). Instead, the main take-away from this exercise is that candidate gender cannot explain away our main finding that, on average, voters respond negatively to the Hispanic cue.

## 5.4 Peripheral and Core Voters

In this section, we formally estimate the differential response to the race heuristic between peripheral and core voters. This is motivated by the fact that a sizable fraction of voter eligibles are induced to participate along this margin. Thus, by their sheer size, this specific set of peripheral voters could exert considerable influence on eventual public policy. To estimate the differential response across peripheral and core voters, we augment the baseline model by including the  $\log(\text{totalvotes})$  and  $\log(\text{totalvotes})$ -by-race interactions:

$$\begin{aligned} Demvs_{cet} = & \beta_0 + \beta_1 DemHisp_{et} + \beta_2 RepHisp_{et} + \beta_3 DemInc_{et} + \\ & \beta_4 RepInc_{et} + \beta_5 \log(\text{totalvotes})_{cet} + \beta_6 \log(\text{totalvotes})_{cet} * DemHisp_{et} \\ & + \beta_7 \log(\text{totalvotes})_{cet} * RepHisp_{et} + \delta_c + \gamma_e + \eta_t + \epsilon_{cet} \quad (13) \end{aligned}$$

The  $\beta_5$  parameter reflects the *difference* in partisan support between peripheral and core voters when both candidates are white. This is easiest to see by taking the derivative of the dependent variable,  $\frac{D}{V}$ , with respect to  $\log(V)$  where  $\frac{D}{V}$  and  $\log(V)$  is shorthand for Democratic vote share and the log of total votes,

respectively.<sup>8</sup>

$$\beta_5 = \frac{\frac{\partial D}{\partial V}}{\partial \log(V)} = \frac{(\frac{1}{V}\partial D - \frac{D}{V^2}\partial V)}{\frac{\partial V}{V}} = \underbrace{\frac{\partial D}{\partial V}}_{\text{Peripheral}} - \underbrace{\frac{D}{V}}_{\text{Core}}$$

It follows that the  $\beta_6$  and  $\beta_7$  parameters represent how the response to candidate race differs between peripheral and core voters. For example, we can say that peripheral voters are  $\beta_6 * 100$  percentage points more or less likely to vote for a Hispanic Democratic candidate in comparison with core voters. The  $\beta_7$  parameter has an analogous interpretation associated with Hispanic Republican candidates. We will show results from specifications that log the dependent variable in which case,  $\beta_6$  and  $\beta_7$  will represent the differential response between peripheral and core voters in percent terms.

In equation (13), the estimates of  $\beta_5$ ,  $\beta_6$ , and  $\beta_7$  use year-to-year variation in voter participation. This variation could be due to a number of exogenous factors including weather on election day (e.g. whether it rains or not). We want to focus on the variation in total votes that is due to the fact that the election is held during a Presidential versus midterm year. To do this, we present results from a specification that instrument for  $\log(\text{totalvotes})$  and  $\log(\text{totalvotes})$ -by-race interactions with an indicator for Presidential years and Presidential year-by-race interactions. The instrumental variable estimates will yield the differential effect between peripheral and core voters where now peripheral voters are those who turn out because of the Presidential election.

We turn our attention to estimating the difference in the responsiveness to race between peripheral and core voters. Column (1) of Table A7 presents estimates of equation (13) using OLS. The estimate in the first cell implies that peripheral voters are 6.4 percentage points more likely to vote for the Democratic candidate in comparison with core voters. The estimate in column (2) indicates that this corresponds to a 18.5% difference between peripheral and core voters. It is worth noting that this finding is in lockstep with existing political science literature that shows peripheral voters tend to lean Democratic (Fowler (2015), Gomez et al. (2007)). Interestingly, the estimates associated with the  $\log(\text{totalvotes})$ -by-race interactions imply negligible difference in the responsiveness to race between core and peripheral voters. In general, the factors that drive variation in participation may be selecting voters along dimensions that are largely unrelated to how voters respond to candidate race

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<sup>8</sup>This derivation is the same as the one used to estimate the effects of abortion access on the living conditions of the marginal child (Gruber et al. (1999)) and to relate average and marginal cost curves (Berndt (1994)).

and/or ethnicity.

Table A7: Peripheral versus Core Voters in Down Ballot Statewide Elections)

Democratic Vote Share = D/V					
<i>Dep Var:</i>	OLS		First Stage	Second Stage	
	D/V	log(D/V)	log(totalvotes)	D/V	log(D/V)
	(1)	(2)	(3)	(4)	(5)
log(totalvotes)	0.064*** (0.016)	0.185*** (0.048)		0.043*** (0.004)	0.117*** (0.010)
log(totalvotes)*Democratic Hispanic	0.007** (0.003)	0.025** (0.011)		-0.132*** (0.020)	-0.241*** (0.043)
log(totalvotes)*Republican Hispanic	0.001 (0.005)	0.002 (0.018)		0.055** (0.024)	0.262*** (0.092)
Presidential Year			0.293*** (0.023)		
Presidential Year*Democratic Hispanic			0.037 (0.030)		
Presidential Year*Republican Hispanic			0.129*** (0.025)		
P-value for Joint Significance Test			0.000		
Observations	20,065	20,065	20,065	20,065	20,065
R-squared	0.853	0.824	0.992	0.562	0.620

Note: These regressions restrict the sample to low level statewide elections which include elections for Attorney General, Lieutenant Governor, State Treasurer, Railroad Commissioner, Comptroller of Public Accounts, Commissioner of General Land Office, Commissioner of Agriculture, Court of Criminal Appeals, Supreme Court Justice. The regressions include controls for whether the Democratic or Republican candidate is an incumbent, main effects for candidate race, county fixed effects, and a time trend. Robust standard errors are reported.

Column (3) shows estimates of the first-stage regression. The estimates imply that county-level participation in down ballot statewide elections increases by roughly 29% in Presidential versus midterm years. While the interactions with race imply that the increase is even higher with Republican Hispanic candidates, this reflects the fact that the only Presidential election in which we observe Republican Hispanic candidates is in 2004, a year with above average turnout.<sup>9</sup> Formally, the F-statistic associated with a joint significance test sits comfortably above the conventional weak instruments threshold of 10 and the p-value is effectively 0. The main takeaway is that the Presidency is a very strong determinant of voter participation even in down ballot statewide elections.

Columns (4) and (5) show the two-stage least squares results in percentage point and percent terms, respectively. The estimate associated with  $\log(\text{totalvotes})$  implies that the peripheral voter is 4.3 percentage points more likely to support the Democratic candidate in comparison with core voters

<sup>9</sup>There are also Republican Hispanic candidates running in down-ballot statewide elections in 2000, however, these are uncontested elections.

when both candidates are white (an 11.7% increase). However, the interaction with Democratic Hispanic implies that peripheral voters, who typically support the Democratic party, are 13.2 percentage points or 24.1% more likely to favor the Republican candidate when the Democratic candidate’s ethnicity switches from white to Hispanic. Effect sizes for Republican Hispanic candidates are comparable in percent terms.

These estimates are interesting in light of existing research that finds the President-elect’s party tends to lose support in the subsequent midterm election, in part, because of the surge in turnout in Presidential years and the precipitous decline thereafter (Campbell (1960), Campbell (1987), Knight (2014)). Fowler (2013) finds that compulsory voting laws in Australia increase both turnout and the share of seats held by the Labor Party. Bechtel (2013) shows qualitatively similar results in a study of compulsory voting in Switzerland. Anzia et al. (2012) shows that teachers unions exert greater influence in school board elections during “off-cycle” versus “on-cycle” years. These studies demonstrate that peripheral voters can (i) directly influence the separation of powers through the likelihood of divided government, (ii) have substantial influence on the partisan composition of elected officials, and (iii) leave local elections more vulnerable to organized special interest groups. These findings show that peripheral voters can affect the ethnic composition of elected officials.

## 5.5 Preference for Co-ethnic Candidates

It is not a foregone conclusion that non-Hispanic white voters would respond negatively to Hispanic sounding names. McConnaughy et al. (2010) argues that non-Hispanic white voters should be unresponsive to distinctly Hispanic names to the extent that this constitutes an explicit rather than implicit heuristic. The implicit versus explicit distinction is important to the extent that there is heightened awareness that group-based behavior in response to explicit cues violates egalitarian norms (Mendelberg (2001)). Although there is mixed evidence on this theory (Huber and Lapinski (2006), Mendelberg (2008)), some studies have shown that non-Hispanic white voters respond to ethnic cues only when socially acceptable negative group-based attitudes are activated (McConnaughy et al. (2010)). Kam (2007) also finds that non-Hispanic white voters are unaffected by ethnic cues when there is information about the candidate’s partisan affiliation. The latter finding is especially relevant for our paper since party labels are attached to candidate names on ballots in Texas.

In this section, we assess explicitly whether or not the response to distinctly

Hispanic surnames is more or less pronounced among counties with higher shares of non-Hispanic whites voters. We obtain county-specific counts of the number of non-Hispanic whites via the 1990, 2000, and 2010 decennial censuses, divide this number by the total county-level population in order to transform the counts into shares, merge this information to our election results data set, and linearly interpolate fraction non-Hispanic white in the intervening years. Each county-year observation is then grouped into quartiles which we interact with the main variables of interest **Democratic Hispanic** and **Republican Hispanic**. For the sake of brevity, we will focus on contests held in Presidential years since these are the elections in which we observe an effect.

Table [A8](#) shows the results. In column (1), we show the baseline results to facilitate comparison. As before, the estimates imply that Democratic and Republican candidates in down ballot statewide elections lose roughly 5.1 and 5.8 percentage points in vote share when they have a distinctly Hispanic surname in Presidential years, *ceteris paribus*. Column (2) shows the interaction terms with respect to quartiles of fraction non-Hispanic whites. The coefficients on **Democratic Hispanic** and **Republican Hispanic** imply that, in counties with the lowest shares of non-Hispanic whites (i.e. the bottom quartile), Democratic and Republican Hispanic candidates lose 2.1 and 3.5 percentage points in vote share, respectively, *ceteris paribus*. The interaction terms show that the response to Hispanic sounding names is more pronounced in counties with larger shares of non-Hispanic white voters. For example, in counties with the highest share of non-Hispanic whites (i.e. the top quartile), Democratic Hispanic candidates lose 6.9 percentage points in vote share (i.e. the sum of **Democratic Hispanic** and **Democratic Hispanic**×**Top Quartile Fraction**) in Presidential years, *ceteris paribus*. This 4.8 percentage point difference between the top and bottom quartile is statistically significant at the 5% level. Overall, the estimates confirm that the negative response to distinctly Hispanic surnames is more pronounced among non-Hispanic white voters.



Table A8: Additional Heterogeneous Effects

	(1)	(2)	(3)
<b>Main Effects</b>			
Democratic Hispanic	-0.051*** (0.011)	-0.021 (0.015)	-0.061*** (0.011)
Republican Hispanic	0.058** (0.023)	0.035 (0.025)	0.071** (0.024)
<b>Interactions with Quartiles of Fraction White</b>			
Democratic Hispanic × 2nd Quartile		-0.035*** (0.008)	
Democratic Hispanic × 3rd Quartile		-0.039** (0.014)	
Democratic Hispanic × Top Quartile		-0.048** (0.018)	
Republican Hispanic × 2nd Quartile		0.029*** (0.009)	
Republican Hispanic × 3rd Quartile		0.032** (0.014)	
Republican Hispanic × Top Quartile		0.031 (0.020)	
<b>Interactions with Quartiles of Fraction Hispanic</b>			
Democratic Hispanic × 2nd Quartile			0.001 (0.009)
Democratic Hispanic × 3rd Quartile			0.002 (0.013)
Democratic Hispanic × Top Quartile			0.037* (0.018)
Republican Hispanic × 2nd Quartile			-0.005 (0.008)
Republican Hispanic × 3rd Quartile			-0.010 (0.010)
Republican Hispanic × Top Quartile			-0.033* (0.018)
Observations	6,349	6,349	6,349
R-squared	0.876	0.894	0.888

Note: The mean of the dependent variable is 0.347. These regressions restricts the sample to statewide low information elections which include elections for Attorney General, Lieutenant Governor, State Treasurer, Railroad Commissioner, Comptroller of Public Accounts, Commissioner of General Land Office, Commissioner of Agriculture, Court of Criminal Appeals, Supreme Court Justice. Elected office, county, and year fixed effects are included in all specifications. Standard errors are clustered at the elected office-by-year level.

It is interesting that our results differ from existing studies that show more modest responses among non-Hispanic white voters (Kam (2007), McConnaughy et al. (2010)). One reason for this discrepancy could be due to key differences in research design. The modal study of racial or ethnic priming conducts lab experiments, often in university settings, to test the effects of ethnic cues. Although lab experiments can credibly induce experimental variation in the racial or ethnic heuristic, there is an active discussion as to whether or not lab results generalize well into the field (Levitt and List (2007), McDermott (2002)). In our setting, there are numerous factors, such as choice fatigue, that could lead to a wedge between the lab and field. For example, Augenblick and Nicholson (2015) finds that voter reliance on decision shortcuts increases with

the number of decisions already made due to decision fatigue. Because we consider statewide contests that appear further down ballot, voters could rely more on implicit associations in our setting due to greater choice fatigue than in the lab where subjects are often presented with fewer choices. In other words, in down ballot statewide elections, distinctly Hispanic names could be an implicit rather than explicit heuristic. Thus, our results are not necessarily in conflict with lab results and are well-aligned with the social psychology literature that finds implicit prejudice affects voter choice (Arcuri et al. (2008), Payne et al. (2010)).

In addition, in column (3), we examine whether or not our estimates differ with respect to counties with low versus high shares of Hispanic population.<sup>10</sup> We focus here only on elections in Presidential years. The coefficients on Democratic Hispanic and Republican Hispanic imply that, in counties with the lowest shares of Hispanics (i.e. the bottom quartile), Democratic and Republican Hispanic candidates lose 6.1 and 7.5 percentage points in vote share, respectively, in Presidential years *ceteris paribus*. However, in counties in the top quartile of fraction Hispanic, Democratic and Republican Hispanic candidates are expected to lose only 2.4 and 3.8 percentage points, respectively. This implies that the presence of Hispanic voters offsets the “election penalty” for *both* Democratic and Republican Hispanic candidates.

It is interesting that these patterns are similar for Hispanic candidates regardless of partisanship. In a study of Latino voters, Alvarez and Bedolla (2003) finds that ideological views in public policy issues such as school choice, health insurance, gun control, and affirmative action are much stronger correlates of partisanship than either demographic characteristics or economic variables. McConnaughy et al. (2010) finds that co-ethnic voting is driven more by the belief that the electoral success of Hispanic candidates has tangible benefits to individual welfare. These studies imply that Hispanic voters respond positively to the cue because it provides a signal about the candidate’s policy positions. However, our results are not wholly consistent with this view in that Hispanic voters exhibit a preference for co-ethnic candidates regardless of their partisanship. Thus, our results support the idea that co-ethnic voting can be driven, in part, by affinity towards candidates who share cultural similarities (i.e. speak the same language, eat the same foods, share the same social networks, and etc.).

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<sup>10</sup>The fraction Hispanic is also from the decennial censuses and constructed in the same way as fraction non-Hispanic whites.

## 5.6 Effects by Decile of Predicted Prejudice

One concern is that the specification used to examine the heterogeneous effects with respect to racial prejudice is not flexible enough to the extent that the effects could be even more differentiated at extreme levels of racial prejudice, say at the 10th or 90th percentiles. This possibility is motivated by the fact that some communities in Texas are notorious for their deep history of racial animus. Consider the following passage from a 2006 CNN news article:<sup>11</sup>

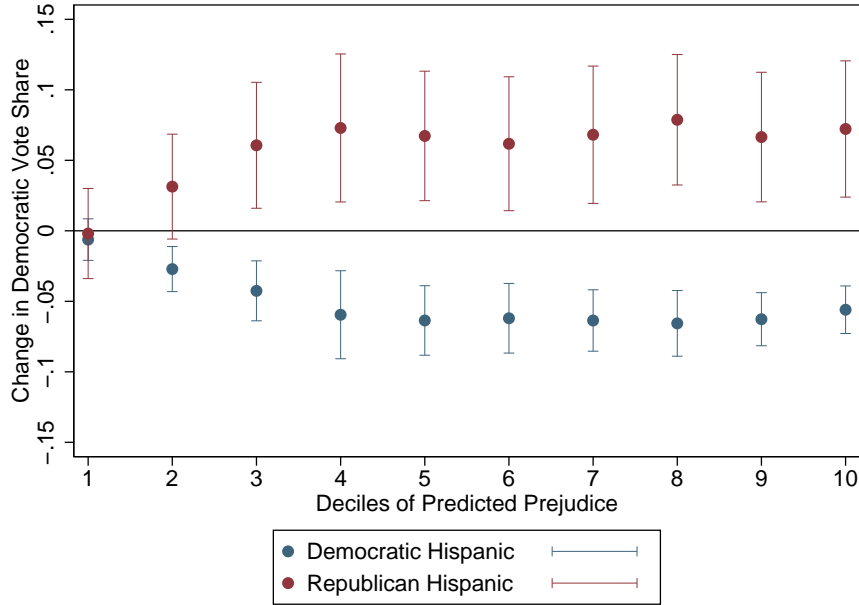
Vidor was one of hundreds of communities in America known as “sundown towns,” places where blacks were not welcome after dark. In some of these towns, signs – handwritten or printed – were posted, saying things like “Whites Only After Dark.” But in general, sundown towns existed by reputation. Blacks knew they were places to avoid after dark.

To allow for this possibility, we run the same baseline regression model but now fully interact it with a set of fixed effects that represent the deciles of predicted prejudice measure. Again, we restrict attention to statewide elections that appear down ballot in Presidential years. Figure A11 plots the key parameter estimates that reflect the loss in the Democratic or Republican party’s vote share when the party’s candidate has a distinctively Hispanic name. Along the x-axis is each decile of predicted prejudice such that higher values imply increasing racial prejudice and along the y-axis is the change in vote share for the Democratic party. The figure shows that in the lowest two deciles of predict prejudice, the race heuristic has little effect on vote share. However, in the third decile and beyond, the race heuristic has a negative impact on expected vote share for candidates with distinctively Hispanic names. Despite the loss in precision associated with a more non-parametric specification, the effects in the third decile and beyond are statistically significant at the 5% level.

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<sup>11</sup>See <http://www.cnn.com/2006/US/12/08/oppenheim.sundown.town/>

Figure A11: Effects by Decile of Predicted Prejudice



Note: These regressions restricts the sample to low level statewide elections. The regressions include controls for whether the Democratic or Republican candidate is an incumbent, county characteristics, office fixed effects, and year fixed effects. We construct a measure of predicted prejudice by taking a weighted average of the share of population older than 65, share with a bachelor’s degree, fraction Hispanic, and fraction black as in [Stephens-Davidowitz \(2012\)](#). Standard errors are clustered at the elected office-by-year level and the bars are 95% confidence intervals.

It is worth noting that the effects are quantitatively similar at the third decile and above. This implies that the heterogeneous effects presented in the paper are not masking additional non-linearities at the tail ends of predicted prejudice. One reason for this might be tied to the growing literature on implicit prejudice which is described as “*unconscious* mental associations between a target (such as African-American) and a given attribute” ([Bertrand et al. \(2005\)](#) [Emphasis theirs]). It seems possible that implicit biases that operate at a subconscious level could yield the type of “threshold” response to racial cues in low-informational elections whereas explicit prejudice might lead to increasingly strong responses to candidate race. Another reason might be that there is more substantive variation in racial prejudice at the town-level that our county-level measure masks by averaging across towns with the county. Thus, more disaggregated data might uncover a different pattern in

the tails.

## 5.7 Incumbency Advantage

In this section, we examine whether or not the incumbency advantage extends to minority incumbents and offsets the penalty associated with ethnicity. In our data, there is insufficient variation to estimate the relevant effects in Presidential years. However, we can estimate a model with ethnicity-incumbency interaction effects in midterm years.

Table A9 shows these results. Column (1) shows our baseline results and column (2) shows estimates from a model that includes the ethnicity-incumbency interactions. The interaction terms affect the interpretation of the parameters. In column (2), the coefficients associated with main effects of candidate ethnicity reflect how voters respond to Democratic and Republican *challengers* with Hispanic sounding names and the ethnicity-incumbency interactions describe how this response to the ethnic heuristic *differs* between incumbents versus challengers.<sup>12</sup> The sum of the main and interaction effects describe how voters respond to Democratic and Republican *incumbents* with Hispanic sounding names.

The coefficient on **Democratic Hispanic** implies that Democratic challengers lose 3.5 percentage points in vote share when they have Hispanic sounding names. However, Democratic Hispanic incumbents are expected to gain 6.1 percentage points in vote share in midterm years in comparison with elections in which both candidates are white, *ceteris paribus*. This 9.6 percentage point difference, as reflected in the **Democratic Hispanic Incumbent** coefficient, is statistically significant at the 5% level. In contrast, there is less evidence that incumbency offsets the negative response to the ethnic heuristic for Republican Hispanic candidates.

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<sup>12</sup>Equivalently, the interaction terms represent how the incumbency advantage *differs* for Hispanic versus white candidates holding all else constant.

Table A9: Ethnicity-Incumbency Interactions in Midterm Years

Dep Var: Democratic Vote Share		
	(1)	(2)
<b>Candidate Ethnicity</b>		
Democratic Hispanic	-0.020 (0.014)	-0.035** (0.013)
Republican Hispanic	-0.004 (0.011)	-0.019 (0.021)
<b>Incumbency Status</b>		
Democratic Incumbent	0.080*** (0.025)	0.071*** (0.025)
Republican Incumbent	-0.030*** (0.011)	-0.030*** (0.011)
<b>Ethnicity-Incumbency Interactions</b>		
Democratic Hispanic Incumbent		0.096*** (0.031)
Republican Hispanic Incumbent		0.020 (0.026)
Controls:		
County FE	Y	Y
Elected Office FE	Y	Y
Year FE	Y	Y

Note:  $n = 13,716$ . The sample consists of all down ballot statewide election contests held during midterm years which include elections for Attorney General, Lieutenant Governor, State Treasurer, Railroad Commissioner, Comptroller of Public Accounts, Commissioner of General Land Office, Commissioner of Agriculture, Court of Criminal Appeals, Supreme Court Justice. Elected office, county, and year fixed effects are included in all specifications. Standard errors are clustered at the elected office-by-year level.

These estimates imply that the incumbency advantage is differentially stronger for only Democratic and not Republican incumbents with Hispanic sounding names. One explanation for this result could be tied to the idea that Democratic Hispanic incumbents who are able to overcome the Hispanic penalty and win election for statewide office in Texas, a state that is strongly Republican, are associated with exceptional attributes. This possibility is connected to a rich theoretical and empirical literature that argues that the incumbency advantage reflects, in part, a quality advantage ([Ashworth and De Mesquita \(2008\)](#)).

## 5.8 Rural resentment

Our measure of prejudice could very well correlate with other factors that also affect voter choice. One prime example is rural resentment which [Cramer](#)

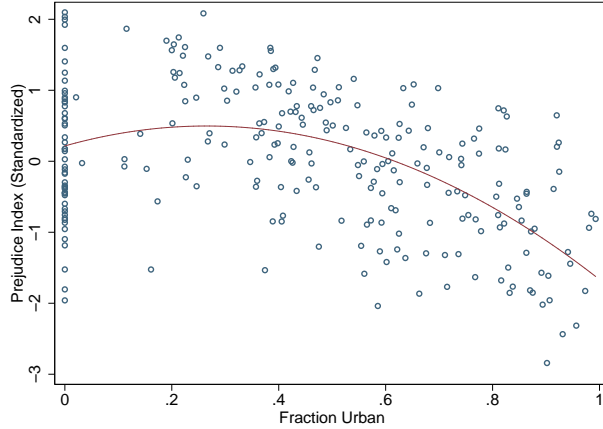
(2016) describes as a keen awareness among rural constituents that legislators consistently prioritize urban areas in the allocation of resources at the heavy expense of rural areas. Although Cramer (2016) writes that rural resentment is not all about race, rural and racial resentment are intertwined since many of the policies near the epicenter of rural resentment are also those that are highly racialized (Gilens (1996), Gilens (2009), Gilliam Jr and Iyengar (2000), Peffley and Hurwitz (2002)). In this section, we examine the possibility that our main findings are driven by rural rather than racial resentment.

To begin, Figure A12 provides visual evidence that rural and racial resentment are plausibly related. The y-axis shows the prejudice index which we standardize such that the mean and standard deviation are 0 and 1, respectively, the x-axis shows the share of the population that resides in an urban area, each dot represents the means for a specific county, and the curved line represents the best quadratic fit through the data.<sup>13</sup> There are two key features of this plot worth noting. First, there is a negative relationship between county-level prejudice and fraction urban such that more rural (urban) counties are expected to have above (below) average levels of racial prejudice as measured by our proxy. This reinforces the concern that our results could reflect rural rather than racial resentment since counties with high levels of predicted prejudice are also more rural. We will address this concern by including flexible controls for the rural-urban divide into our empirical model.

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<sup>13</sup>We obtain data on fraction urban from the decennial Censuses. Specifically, we use county-specific counts of the number of persons living in urban versus rural areas via the 1990, 2000, and 2010 decennial censuses since our elections data spans 1992 to 2010. We then divide this number by the total population of the county to construct the share of the county’s population that lives in an urban area. We will refer to this variable as “fraction urban” hereafter. We then merge this information onto our election results data set and linearly interpolate fraction urban for the intervening years. A similar procedure is used to merge the county’s population density per square mile to our elections results data as well.

Figure A12: County-level Predicted Prejudice and Fraction Urban



Notes: Each dot represents the county-level mean in predicted prejudice and fraction urban. The red line represents a quadratic of best fit.

Second, the plot shows considerable variation in predicted prejudice *conditional* on fraction urban. For example, even in counties where all of its residents live in rural areas (i.e. fraction urban = 0), there are several counties with predicted prejudice levels two standard deviations above *and* below the mean. This suggests that there is sufficient variation to analyze whether or not the response to the ethnic cue continues to vary with respect to predicted prejudice even when we exclude the most urban counties. This exercise is interesting because [Cramer \(2016\)](#) describes rural consciousness as a social cleavage that is primarily demarcated by geography - a rural versus urban divide. This analysis allows rural resentment to vary across different subgroups *within* less urban areas.

Table [A10](#) presents the results. As a point of comparison, column (1) shows baseline estimates from a model that interacts all variables with the quartiles of predicted prejudice but excludes controls for the rural-urban divide. For the sake of brevity, we show the main effects of candidate ethnicity and the candidate ethnicity-quartiles of predicted prejudice interactions. The main effects of candidate ethnicity reflect how voters respond to Democratic and Republican candidates with Hispanic sounding names in the bottom quartile of predicted prejudice and the ethnicity-quartile interactions describe how this response to the ethnic heuristic *differs* between the lowest versus second, third, and top quartiles. Thus, the estimate associated with **Democratic Hispanic** implies that



the Democratic candidate loses 1.796 percentage points in vote share when the Democratic candidate has a distinctly Hispanic surname in the *least* prejudicial counties holding all else constant. The key parameters are the interaction terms. For example, the estimate of the interaction **Democratic Hispanic × Top Quartile Prejudice** suggests that the Hispanic penalty is 4.75 percentage points larger in the most versus the least prejudicial counties (i.e. top versus bottom quartile). The results show an analogous relationship with Republican candidates with Hispanic sounding surnames.<sup>14</sup> Overall, the estimates show that the voter response to the ethnic heuristic is more pronounced in counties associated with higher levels of predicted prejudice.

Table A10: Robustness of Heterogeneous Effects with Respect to Predicted Prejudice

Dep Var: Democratic Vote Share				
<b>Main Effects</b>	(1)	(2)	(3)	(4)
Democratic Hispanic	-0.01796 (0.01453)	-0.01848 (0.01392)	-0.01978 (0.01225)	-0.01796 (0.01430)
Republican Hispanic	0.02642 (0.02444)	0.02509 (0.02414)	0.02390 (0.02315)	0.02672 (0.02459)
<b>Interactions with Quartile of Predicted Prejudice</b>				
Democratic Hispanic×2nd Quartile	-0.04027*** (0.01061)	-0.03953*** (0.00971)	-0.03764*** (0.00772)	-0.04070*** (0.01032)
Democratic Hispanic×3rd Quartile	-0.04409*** (0.01286)	-0.04360*** (0.01227)	-0.04200*** (0.00973)	-0.04398*** (0.01231)
Democratic Hispanic×Top Quartile	-0.04752** (0.01680)	-0.04662*** (0.01553)	-0.04486*** (0.01260)	-0.04737** (0.01617)
Republican Hispanic×2nd Quartile	0.04297*** (0.01150)	0.04413*** (0.01029)	0.04577*** (0.00669)	0.04258*** (0.01083)
Republican Hispanic×3rd Quartile	0.04273*** (0.01393)	0.04435*** (0.01303)	0.04561*** (0.00978)	0.04267*** (0.01337)
Republican Hispanic×Top Quartile	0.04024** (0.01814)	0.04323** (0.01678)	0.04543*** (0.01320)	0.04051** (0.01748)
Controls:				
Baseline	Y	Y	Y	Y
Quadratic in fraction urban	N	Y	Y	N
Quadratic in population density	N	N	Y	N
Excluding large cities	N	N	N	Y
N	6,349	6,349	6,349	6,224

Note: The mean of the dependent variable is 0.347. These regressions restricts the sample to statewide low information elections which include elections for Attorney General, Lieutenant Governor, State Treasurer, Railroad Commissioner, Comptroller of Public Accounts, Commissioner of General Land Office, Commissioner of Agriculture, Court of Criminal Appeals, Supreme Court Justice. Elected office, county, and year fixed effects are included in all specifications. Standard errors are clustered at the elected office-by-year level.

In column (2), we add a quadratic in fraction urban to the set of controls.

<sup>14</sup>It is worth noting the results in column (1) are slightly different from the analogous estimates in the revised paper. This is because we use a modestly different specification here; for example, for the sake of expediency, we interact only the candidate ethnicity indicators rather than all variables with the quartile of predicted prejudice in this model. The results are extremely similar across specifications.

The higher-order polynomial allows for a more flexible relationship between fraction urban and voting that may not be captured by a linear term. The important point is that estimates are strikingly stable across the two columns. For example, the estimate associated with **Democratic Hispanic** changes negligibly from -0.01796 in column (1) to -0.01848 in column (2). Similarly, the interaction term **Democratic Hispanic**  $\times$  **Top Quartile Prejudice** changes from -0.04752 in column (1) to -0.04662 in column (2). The main and interaction effects associated with **Republican Hispanic** are also very robust to the inclusion of the fraction urban quadratic. Thus, our estimates are insensitive to controls for the rural-urban divide as measured by fraction urban.

It is worth noting that we use fraction urban from the U.S. Census as a measure of rural consciousness because it is the same variable used in [Cramer \(2016\)](#).<sup>15</sup> However, it is possible that this variable does not accurately capture the rural-urban divide because of how the Census defines urban areas. Specifically, the Census classifies territory, persons, and housing units as urban if they reside in a place of 2,500 or more persons. The threshold of 2,500 seems low in the sense that counties with strong rural resentment could be classified as urban under this definition. This motivates the analysis in column (3) in which we add a quadratic in county level population density since this is also a well-known attribute of urban areas.

Overall, the estimates in column (3) continue to be extremely similar to those found in the previous two columns. For example, across the first three columns, the estimate associated with **Democratic Hispanic** lies in a tight range and implies that the Democratic candidate loses between 1.796 and 1.978 percentage points in vote share when the Democratic candidate has a distinctly Hispanic surname in the *least* prejudicial counties holding all else constant. To take another example, the coefficient attached to **Democratic Hispanic**  $\times$  **Top Quartile Prejudice** also lies within a narrow range between -0.04486 to 0.04752. On the whole, the estimates across all of the coefficients including the other interaction terms are highly stable across the three different specifications. This robustness to controls for the rural-urban divide suggests that rural resentment cannot explain our finding that the “Hispanic penalty” is more pronounced in counties associated with higher levels of prejudice.

Finally, in column (4), we exclude counties that are home to the 5 largest cities in Texas (e.g. Houston, Dallas, Fort Worth, Austin, and San Antonio) which could comport better with popular notions of what is rural versus urban.

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<sup>15</sup>For example, in Chapter 4 of *The Politics of Resentment*, Cramer presents a series of plots that show the correlation between a number of variables (e.g. state dollars per capita, federal dollars per capita, and etc.) and fraction rural which is just  $1 - \text{fraction urban}$ .

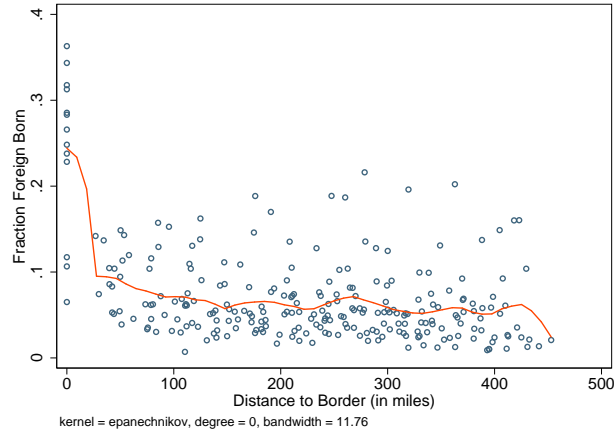
It is interesting that estimates in column (4) imply that the Hispanic penalty continues to be systematically related to our proxy of prejudice even outside of Texas' urban centers. This suggests the presence of interesting cleavages across subgroups within less urban areas that are possibly tied to prejudice. However, we emphasize that this finding does **not** definitively show that rural resentment is fueled by racial animus because our proxy could still be correlated with something else that also affects voter choice.

## 5.9 Attitudes Towards Immigrants

In the paper, our analysis accounts for distance to the border via the county fixed effects which control for all unobserved and time-invariant characteristics including a county's proximity to the border. However, our analysis could further address the possibility that attitudes towards immigration are a viable explanation for our results. This sentiment is supported by the literature. For example, [McConnaughy et al. \(2010\)](#) finds that non-Hispanic whites are unresponsive to distinctly Hispanic names because egalitarian norms constrain individual responses to explicit ethnic cues; however, those with negative attitudes towards immigration are more likely to disfavor candidates with distinctly Hispanic names. In this section, we examine this important issue.

To begin, [Figure A13](#) shows the relationship between a county's share of foreign born population with respect to its distance to the border with Mexico. We obtain county-level data on the share of foreign born population from the decennial censuses. In order to compute distance to the border, we obtain the latitude/longitude coordinates associated with the center each of Texas' 254 counties from the IPUMS NHGIS database. We then compute the distance between each county center to one of the thirteen counties that lie along the border. The minimum distance is our measure of the county's proximity to the border. The figure shows that among the thirteen counties on the border (i.e. counties with distance = 0), ten of them have a share of foreign born that exceeds 0.20 and these counties constitute the top 10 in the entire state. It is interesting that outside of the border counties, there is no evidence of a systematic relationship between share of foreign born and distance to the border. Overall, this pattern reinforces the idea that the border is uniqueness in the context of immigration.

Figure A13: Share of Foreign Born Population and Distance to the Border



Notes: Each dot represents county-level means in the share of foreign born population and distance to border. The line is estimated via a local linear regression.

The figure raises the question of whether or not our results are driven by the outlier border counties. Table A11 shows results from an analysis that examines this possibility. Column (1) shows the baseline results, and in column (2), we drop counties close to border; specifically, those in the bottom quartile of distance to the border. The estimates are qualitatively similar and exhibit little change across the two columns. For example, the coefficients on Democratic Hispanic and Republican Hispanic imply that the Democratic and Republican Hispanic candidates are expected to lose 5.7 and 6.5 percentage points in vote share in comparison with elections in which neither candidate is Hispanic, *ceteris paribus*. Although the differences between the two columns are not statistically different, it is interesting that the estimates in column (2) are slightly larger than in column (1). This is consistent with the idea that the border is a place where, on average, residents have more favorable attitudes towards immigrants (Chavez (2013)). On the whole, this analysis confirms that the baseline results are not driven by the border counties.

Table A11: Additional Robustness Checks  
Border Counties and Fraction Foreign Born

Dep Var: Democratic Vote Share			
	(1)	(2)	(3)
<b>Main Effects</b>			
Democratic Hispanic	-0.051*** (0.011)	-0.057*** (0.010)	-0.020 (0.012)
Republican Hispanic	0.058** (0.023)	0.065** (0.023)	0.023 (0.023)
<b>Interactions with Quartile of Predicted Prejudice</b>			
Democratic Hispanic×2nd Quartile			-0.038*** (0.008)
Democratic Hispanic×3rd Quartile			-0.042*** (0.009)
Democratic Hispanic×Top Quartile			-0.045*** (0.012)
Republican Hispanic×2nd Quartile			0.047*** (0.007)
Republican Hispanic×3rd Quartile			0.046*** (0.009)
Republican Hispanic×Top Quartile			0.046*** (0.012)
Controls:			
Baseline	Y	Y	Y
Exclude counties near border	N	Y	N
Quadratic in fraction foreign born	N	N	Y
N	6,349	4,749	6,349

Note: The mean of the dependent variable is 0.347. These regressions restricts the sample to statewide low information elections which include elections for Attorney General, Lieutenant Governor, State Treasurer, Railroad Commissioner, Comptroller of Public Accounts, Commissioner of General Land Office, Commissioner of Agriculture, Court of Criminal Appeals, Supreme Court Justice. Elected office, county, and year fixed effects are included in all specifications. Standard errors are clustered at the elected office-by-year level.

Another concern stems from the idea that racial and ethnic attitudes may affect voters more in counties where immigration issues are more salient. Although there is considerable ambiguity on whether or not greater inter-group contact promotes or lessens exclusionary attitudes towards minority groups, the fact that there exists a strong relationship between inter-group contact and exclusionary attitudes suggests that we should try controlling for the share of foreign born persons in our regression analysis in efforts to better account for voter attitudes towards immigrants.<sup>16</sup> This seems especially relevant since the

<sup>16</sup>On the one hand, we find numerous studies that affirm the “group threat” narrative which posits that the presence of a minority group can elevate the salience of inter-group conflict and heighten concerns that resources will be funneled towards the minority group at the expense of the majority (Enos (2014)). On the other hand, research also shows that inter-group interactions can strengthen ties, forge trust, and foster friendship between minority and majority groups (Rao et al. (2013), Finseraas et al. (2017), Marmaros and Sacerdote (2006)). The opposing results are especially interesting because both strands of research use credibly random variation to identify their effects.

literature on racial priming finds that negative attitudes towards immigrants represents a socially acceptable pathway for non-Hispanic whites to engage in group-based voting (McConnaughy et al. (2010)).

We assess this possibility in column (3). As before, we allow for interaction effects between candidate race/ethnicity and the quartiles of predicted prejudice to examine heterogeneous effects. What is different about this particular model is that we add controls for a quadratic in the county's share of foreign born population. The estimates in column (3) are very similar to the patterns that we find previously in the paper. The coefficients on **Democratic Hispanic** and **Republican Hispanic** imply that, in the *least* prejudiced counties, the Democratic and Republican Hispanic candidates are expected to lose 2 and 2.3 percentage points in vote share in comparison with elections in which neither candidate is Hispanic, *ceteris paribus*; however, neither of these estimates are statistically different from zero. The interaction terms show that the response to Hispanic candidates are more pronounced in counties associated with higher levels of predicted prejudice even after we control for the share of foreign born. For example, in counties within the top quartile of prejudice, Democratic and Republican Hispanic candidates are expected to lose 6.5 and 6.9 percentage points in vote share, respectively, in comparison with elections in which neither candidate is Hispanic, *ceteris paribus*. Thus, our results are robust to the share of foreign born which further moderates the concern that our findings are driven by exclusionary attitudes tied to greater contact with immigrants.

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