Declaration of Dr. Matt A. Barreto

1. Pursuant to 28 U.S.C. section 1746, I, Matt Barreto, declare as follows:

2. My name is Matt Barreto, and I am currently Professor of Political Science and Chicana/o Studies at the University of California, Los Angeles. I was appointed Full Professor with tenure at UCLA in 2015. Prior to that I was a tenured professor of Political Science at the University of Washington from 2005 to 2014. At UCLA I am the faculty director of the Voting Rights Project in the Luskin School of Public Affairs and I teach a year-long course on the Voting Rights Act (VRA), focusing specifically on social science statistical analysis, demographics and voting patterns, and mapping analysis that are relevant in VRA expert reports. I have written expert reports and been qualified as an expert witness more than three dozen times in Federal and State voting rights and civil rights cases, including many times in the state of Texas. I have published peer-reviewed, social science articles specifically about minority voting patterns, racially polarized voting, and have co-authored a software package (eiCompare) specifically for use in understanding racial voting patterns in VRA cases. I have been retained as an expert consultant by counties across the state of Texas to advise them on racial voting patterns as they relate to VRA compliance during redistricting. As an expert witness in VRA lawsuits, I have testified dozens of times and my testimony has been relied on by courts to find in favor of both plaintiffs and defendants.

3. I have also published books and articles specifically about the intersection of partisanship, ideology and racially polarized voting. My 2013 book, *Change They Can't Believe In* was published by Princeton University Press and was about the inherent connectedness between partisanship and racial attitudes in America today, and won the American Political Science Association award for best book on the topic of racial and ethnic politics.

4. I submitted an expert report in this matter in November 2021 and a rebuttal report in January 2022, and gave expert testimony in this court in January 2022, which the court found reliable and credible. I am continuing to rely on my earlier report and testimony in this case.

5. In this portion of my expert analysis, I was asked to assess voting patterns across the state of Texas to determine if Hispanic and Anglo voters exhibit racially polarized voting. In some instances where large Black populations are present, I also examined Black voting patterns.

6. I also reviewed Plan H2316 for the State House, Plan S2168 for the State Senate, Plan E2106 for the State Board of Education, and Plan C2193 for U.S. Congress to determine what impact the adopted plans had on Hispanic opportunities to elect candidates of choice. As part of this analysis, I reviewed alternative maps submitted by MALC and Brooks Plaintiffs that would allow minority voters to create and/or maintain opportunities to elect candidates of choice.

7. I obtained data from the Texas Legislative Council (TLC) and the Capitol Data Project for statewide election results by county and voter demographics by county. I obtained district map data from the Texas Red Apple system and from Texas District Viewer. All data are available at the voting precinct (VTD) level and I have merged together the election returns with voter racial/ethnic demographics to create a standard dataset for analyzing voting patterns. Race and population data were obtained from the U.S. Census 2010 and 2020 PL-94 Redistricting files, as well as Spanish Surname Registered Voters and Spanish Surname Turnout, which was obtained from TLC repository.

I. Background Conclusions

8. First, across the state of Texas, election results from 2014 to 2022 reveal a strong and consistent pattern of racially polarized voting. This analysis was conducted across 18 regions and/or districts for 15 different primary and general elections, using two complimentary court-approved ecological inference techniques, and relying on Census VAP data, Spanish Surname voter turnout data and Census Spanish-speaking household data. The result was more than 700 ecological inference models and in every single instance Hispanic voters were found to be strongly cohesive in their support for Hispanic preferred candidates. Similarly, Black voters are strongly cohesive, and vote consistently with Hispanic voters. Last, the analysis reports Anglo voters uniformly bloc vote against Hispanic and Black candidates of choice.

9. Second, Spanish-speaking language minorities, a group specifically protected by the VRA in Texas, face even more stark racial bloc voting vis-à-vis Anglos in regions with large Spanish-speaking voter populations. Ecological inference estimates report statistically significant findings that precincts with high concentrations of Spanish-speaking, limited English proficient voters are very unified with 80% to 90% cohesiveness in support of Hispanic candidates of choice while Anglo voters bloc-vote against these same candidates.

10. Third, the state of Texas racial and ethnic population demographics changed significantly over the last decade with Anglos declining from 46% of the state population in 2010 to 39% in 2020. At the same time, the Hispanic population grew by nearly 2 million and by 2020 surpassed Anglos as the largest racial or ethnic group in the state. Hispanic population growth alone accounted for 49.5% of the entire population growth in the state of Texas.

11. Fourth, the State House map adopted by the Texas Legislature dilutes the Hispanic vote by eliminating currently performing districts that elect Hispanic candidates of choice. Further, given the large increases in the Hispanic population, and the conclusive finding of racially polarized voting, the adopted map failed to draw additional Hispanic performing districts consistent with the Federal Voting Rights Act (VRA). The map further failed to reflect growth in African-American communities and dilutes the ability of African-Americans to elect candidates of choice.

12. Fifth, the U.S. Congressional map adopted by the Texas Legislature dilutes the Hispanic vote by eliminating currently performing districts that elect Hispanic candidates of choice. And, like the State House map, the adopted Congressional map failed to draw additional Hispanic performing districts consistent with the Federal Voting Rights Act (VRA). The map further failed to reflect growth in African-American communities and dilutes the ability of African-Americans to elect candidates of choice.

13. Sixth, the Texas State Board of Education map adopted by the Texas Legislature dilutes the Hispanic vote by reducing opportunities for Hispanic-majority performing districts, in particular in Harris County and in Central Texas. Despite robust growth in the Hispanic population, and an opportunity to create a new majority-Hispanic CVAP district, the SBOE plan actually reduces opportunities for Hispanic candidates of choice.

II. Statewide Population Growth and Enacted Map Characteristics

14. I begin with a broader view of the entire state of Texas and how its population has changed and shifted over the past decade. Overall, Texas gained almost 4 million in population, however, these gains were uneven by geography and race/ethnicity. Specifically, the Anglo/White population experienced a 7 point drop in population share from 2010 to 2020 going from 46% of the state population to now just 39%. In contrast, the Latino population grew by almost 2 million, a 21% increase, and the Black population grew by 557,887, a 19% increase. The Asian American population also grew by 65% adding over 600,000 new residents in the last 10 years. Thus, the entire population growth of almost 4 million occurred because of increases in non-Anglo populations, driven principally by the Hispanic population. A districting scheme must take into account population shifts and draw boundaries around communities of interest, careful not to overly pack or crack minority communities.

15. From a population growth perspective, the 1,980,797 increase in Hispanic residents should account for slightly more than 10 additional full state House districts, given a district size of 194,303 people. It is possible to draw 14 additional full state House districts that are greater than two-thirds Hispanic from this population growth alone. In fact, a floor amendment offered by Representative Rafael Anchia, Plan-H2249, demonstrates the ability to draw 43 Hispanic CVAP majority House districts, rather than the 30 drawn in the adopted map. Rather than seeing an increase in Hispanic-performing districts, the State House Plan H2316 overly packs Hispanics into existing districts, while also cracking the population so that it is narrowly too small to be able to elect candidates of choice.

16. Similarly, the 1,980,797 increase in Hispanic residents should account for roughly two to three additional U.S. Congressional districts that could be entirely Hispanic, given a district size of

766,986 people. Indeed, the reason Texas received two additional Congressional seats during apportionment is because of the Hispanic population growth. The Hispanic population growth of nearly 2 million could similarly be drawn into almost four U.S. Congressional districts that are over two-thirds Hispanic and elect Hispanic candidates of choice.

Table 1: Texas Population Change 2010 to 2020 by race/ethnicity

	2020	2010	Change	Pct
Texas Statewide Total	29,145,505	25,145,558	3,999,947	16%
Hispanic	11,441,717 (39.3%)	9,460,920 (37.6%)	1,980,797 (49.5%)	21%
Anglo	11,397,343 (39.1%)	11,584,597 (46.1%)	-187,254 (-4.7%)	-2%
Black	3,444,712 (11.8%)	2,886,825 (11.5%)	557,887 (13.9%)	19%
Asian	1,561,518 (5.4%)	948,426 (3.8%)	613,092 (15.3%)	65%
All other/multi-racial	1,300215 (4.5%)	264,790 (1.1%)	1,035,425 (25.9%)	391%

17. However, the State House and U.S. Congressional maps instead diluted the minority population, cracking it into multiple districts, combining it with conservative Anglo voters who bloc vote against minority candidates of choice, while also overly packing Hispanics into districts, creating what courts have called "wasted votes."

18. This inequality is visible on the Congressional map in Districts 15 and 23. District 15 is an existing performing district for Hispanic candidates of choice, however in the new map the district reduces Hispanic voting strength making this a toss-up district that is unlikely to perform for Hispanic candidates of choice in November 2022. The second is district 23 which had formerly been a toss-up district, but despite robust Hispanic population growth in this region, the new map further reduces Hispanic voting strength and turns district 23 into a strong Anglo-performing district that will not elect candidates of choice. This is despite Hispanic population growth that should have resulted in at least two *additional* Congressional seats as compared to the benchmark plan. For example, it is clearly possible to create a new Hispanic performing district that complies with the VRA in the Houston/Harris County area, and a *second* Hispanic performing districts in the Dallas area.

19. The State House maps similarly reduces Hispanic performing and opportunity districts as compared to the benchmark plan. While the population growth should have yielded an additional 10 new Hispanic districts, the new map dilutes Hispanic and/or Hispanic and Black voting strength in districts 31, 37, 54, 76, 80, 90, 118, 145, 148.

20. The State Board of Education map also fails to take into account Hispanic population growth, in particular in the Central Texas region where a Hispanic performing district can be drawn, however, the new map dilutes the Hispanic vote in district 3. Additionally, population growth should have yielded an additional Hispanic performing district in the Harris County area.

Table 2: List of benchmark districts that diluted Hispanic vote - Demographics

	Benchmark Map			New Map		
District	Latino CVAP	Spanish Surname Reg	Spanish Surname TO	Latino CVAP	Spanish Surname Reg	Spanish Surname TO
U.S. House District 23	63.6%	54.1%	47.8%	58.1%	49.2%	42.9%
House District 31	77.3%	74.1%	68.7%	66.7%	63.9%	56.3%
House District 37	85.7%	78.9%	74.1%	77.7%	70.5%	65.8%
House District 54	20.3%	12.7%	11.2%	19.6%	12.8%	11.0%
House District 76	86.9%	79.7%	80.1%	20.5%	15.3%	14.2%
House District 80	85.7%	80.6%	76.5%	77.5%	73.3%	66.1%
House District 90	58.0%	50.8%	48.1%	49.7%	41.8%	37.9%
House District 118	67.5%	59.5%	55.7%	55.9%	47.6%	43.9%

House District 145	62.8%	53.9%	50.4%	54.4%	45.3%	39.3%
House District 148	44.9%	36.1%	30.1%	39.4%	32.4%	28.9%
SBOE District 3	67.9%	59.0%	56.0%	58.4%	48.8%	28.9%

Table 3: List of benchmark districts that diluted Hispanic vote - Elections

	Benchmark Map			New Map		
District	Trump	Cornyn	Abbott	Trump	Cornyn	Abbott
U.S. House District 15	48.5%	48.6%	47.5%	50.9%	50.8%	49.3%
U.S. House District 23	50.2%	51.1%	52.9%	52.9%	54.0%	56.3%
House District 31	56.1%	53.4%	51.7%	62.1%	59.9%	58.8%
House District 37	40.9%	39.1%	40.3%	48.4%	48.1%	53.0%
House District 54	49.0%	49.9%	54.5%	52.4%	53.4%	57.9%
House District 76	24.7%	23.7%	22.6%	38.0%	39.6%	41.4%
House District 80	45.8%	42.6%	41.2%	51.6%	49.7%	48.6%
House District 90	26.3%	27.7%	24.6%	29.4%	31.2%	30.4%
House District 118	42.4%	43.6%	45.9%	47.9%	49.1%	52.7%
House District 145	34.5%	35.1%	33.1%	28.3%	30.8%	30.4%
House District 148	32.6%	35.9%	37.1%	40.5%	41.7%	42.4%
SBOE District 3	39.2%	39.9%	41.1%	43.4%	45.0%	47.6%

III. Racially Polarized Voting Analysis

21. I next examine whether voters of different racial/ethnic backgrounds tend to prefer different or similar candidates in a wide range of electoral settings. The phenomenon called *racially polarized voting* (RPV) is defined as voters of different racial or ethnic groups exhibiting different candidate preferences in an election. It means simply that voters of different groups are voting in polar opposite directions, rather than in a coalition. Voters may vote for their candidates of choice for a variety of reasons, and RPV analysis is agnostic as to why voters make decisions, instead RPV simply reports *how* voters are voting. It measures the outcomes

of voting patterns and determines whether patterns track with the race/ethnicity demographics of neighborhoods, cities, and voting precincts.

22. Issues related to minority vote dilution are especially consequential in the face of racially polarized voting. In 1986, the Supreme Court issued a unanimous ruling (*Thornburg v. Gingles*) that redistricting plans cannot dilute minority voting strength by cracking their population into multiple districts, nor can they pack the population into too few districts. In this decision, the Court established specific tests to determine if a redistricting plan violated the VRA, calling on a statistical analysis of voting patterns by race and ethnicity. The *Gingles* test concerns how minorities and Anglos vote, and whether they prefer the same, or different candidates. Specifically, the Court asks if minority voters are cohesive? Do they generally tend to vote for a "candidate of choice"? And next, the Court examines who the larger majority (or Anglo) voters prefer as their candidate. Evidence of voting patterns differing by the race of voters was called "racially polarized voting" by the courts, to simply describe a finding in which voters of one racial group were voting in one direction, but voters of the other racial group were voting in the opposite direction, i.e., their patterns are polarized.

23. In regions across Texas that have sizable populations of both Anglo and minority voters, ecological inference models point to a clear pattern of racially polarized voting. Hispanic voters, but also Black and Asian American voters demonstrate unified and cohesive voting, siding for the same candidates of choice with high support. In contrast, Anglo voters tend to bloc vote against minority candidates of choice. Anglo bloc voting varies by degree and by region. In some pockets of Austin and Dallas, Anglos evidence some cross-over voting in support of minority voters, creating the possibility of functional Hispanic-performing districts, or coalition districts in compliance with the VRA. However, in most instances outside of these two cities, Anglo voters demonstrate considerable bloc voting against Hispanic candidates of choice, often voting in the exact opposite pattern of Hispanic and other minorities.

24. It is important to acknowledge that not every election contest contains a minority-preferred candidate. In some elections, voters are more or less agnostic about the candidates, while in other elections voters have deep preferences for their candidates of choice. In Texas, most elections are partisan and candidates register and run for office most commonly as a Democrat or Republican. In these instances, partisan general elections are often understood by voters through a racial/ethnic lens. There is nothing in the Federal VRA which requires a voting analysis free of partisanship, or for experts to somehow "control for" the effects of partisanship. Even if voting patterns are influenced by partisanship, it is still evidence of racially polarized voting. Indeed, political science research has proven conclusively that racial animus and anti-immigrant viewpoints influence partisanship among White voters[1]. Thus, it is negative racial

[1]Marc Hooghe and Ruth Dassonneville. 2018. "Explaining the Trump Vote: The Effect of Racist Resentment and Anti-Immigrant Sentiments" PS: Political Science & Politics , Volume 51 , Issue 3 , July 2018 , pp. 528 –

attitudes towards Blacks or Hispanics that often push White voters today into voting for Republican candidates in the first place, providing a clear link to racially polarized voting even when one considers partisanship.[2] (For more on partisanship being intertwined with racial attitudes, see Section IV below, page 12)

25. Several methods are available to assess the *Gingles* preconditions of minority cohesion and Anglo bloc voting.[3] Ecological Inference (EI) "has been the benchmark in evaluating racial polarization in voting rights lawsuits and has been used widely in comparative politics research on group and ethnic voting patterns."[4] Two variations of EI that have emerged are referred to as King's EI and EI: RxC. The two methods are closely related, and Professor Gary King, the creator of King's EI,[5] was a co-author and collaborator on the RxC method.[6] Generally speaking, both methods take ecological data in the aggregate —such as precinct vote totals and racial demographics—and use Bayesian statistical methods to find voting patterns by regressing candidate choice against racial demographics within the aggregate precinct. Kings EI is sometimes referred to as the iterative approach, in that it runs an analysis of each

534; Ashley Jardina. 2021. "In-Group Love and Out-Group Hate: White Racial Attitudes in Contemporary U.S. Elections" Political Behavior volume 43, pages 1535–1559

[2] Michael Tesler and David Sears. 2010. "President Obama and the Growing Polarization of Partisan Attachments by Racial Attitudes and Race." American Political Science Association Annual Conference. August.; Michael Tesler. 2012. "The Spillover of Racialization into Health Care: How President Obama Polarized Public Opinion by Racial Attitudes and Race" American Journal of Political Science. 56(3); Michael Tesler. 2013. "The Return of Old-Fashioned Racism to White Americans' Partisan Preferences in the Early Obama Era" The Journal of Politics. 75(1); Caroline J. Tolbert, David P. Redlawsk and Kellen J. Gracey. 2018. "Racial attitudes and emotional responses to the 2016 Republican candidates." Journal of Elections, Public Opinion and Parties. 28

[3] For an approachable overview of this material, see Bruce M. Clarke & Robert Timothy Reagan, Federal Judicial Center, *Redistricting Litigation: An Overview Of Legal, Statistical, and Case-Management Issues* (2002).

[4] Loren Collingwood, Kassra Oskooii, Sergio Garcia Rios, and Matt Barreto, *eiCompare Comparing Ecological Inference Estimates across El and EI:R x C*, 8 R. J., 93 (2016); *see also* Abrajano et al., *Using Experiments to Estimate Racially Polarized Voting*, UC Davis Legal Studies Research Paper No. 419 (2015) ("ecological inference (EI)...[is] the standard statistical tool of vote-dilution litigation). Despite the method's prominence, researchers have identified certain limitations on EI's ability to reveal race-correlated voting patterns in jurisdictions with more than two racial groups and non-trivial residential integration. *See* D. James Greiner, *Re-Solidifying Racial Bloc Voting: Empirics and Legal Doctrine in the Melting Pot*, 86 Indiana L. J. 447–497 (2011); D. James Greiner & Kevin M Quinn, *Exit Polling and Racial Bloc Voting: Combining Individual Level and Ecological Data*, 4 Annals Applied Statistics, 1774–1796 (2010). Strategic calculations by potential candidates as well as interest groups and donors also skew EI data. Abrajano, Marisa A., Christopher S. Elmendorf, and Kevin M. Quinn, *Racially Polarized Voting* (2015); D. James Greiner, *Causal Inference in Civil Rights Litigation*, 122 Harv. L. Rev. 533, 533–598 (2008).

[5] *See* Gary King, A Solution to the Ecological Inference Problem Reconstructing Individual Behavior from Aggregate Data, Princeton University Press (1997).

[6] *See* Ori Rosen, Wenxin Jiang, Gary King, and Martin Tanner, Bayesian and frequentist inference for ecological inference: the R x C case, Statistica Neerlandica, vol. 55 at 134-46 (2001).

candidate and each racial group in iterations, whereas the RxC method allows multiple rows (candidates) and multiple columns (racial groups) to be estimated simultaneously in one model. In essence, both versions of EI operate as described above: by compiling data on the percentage of each racial group in a precinct and merging that with precinct-level vote choice from relevant election results.

26. One popular software program that has been relied on by Federal Courts is *eiCompare*, which imports data and runs both King's EI and RxC models and offers comparison diagnostics.[7] Collingwood, et al. (2016) have concluded that both EI and RxC produce similarly reliable regression estimates of vote choice. The EI models are agnostic on what type of input data political scientists use for racial demographics. It can be Voting Age Population (VAP) data from the U.S. Census, it can be a Spanish surname analysis of registered voters, or it can be a BISG estimate of race of the voter file. If the analyst is well-trained and uses the software properly, the models will perform the same statistical analysis and produce reliable estimates about voter preference by race.

27. To conduct analysis on a state as diverse as Texas I rely on three different types of racial/ethnic demographic data. First, I used VAP data from the U.S. Census, downloaded for each voting precinct/VTD from the TLC website. VAP data is useful for Anglo and Black racial estimates which are more difficult to derive from a surname analysis alone. The second data source is Spanish surname turnout, downloaded for each voting precinct/VTD from the TLC website. Spanish surname lists can be used to flag Hispanic voters on the actual voter file, in this case, among those who actually turned out to vote in elections. For all models, I relied on both VAP and Spanish surname voters to produce estimates, and in every instance the Spanish surname estimates closely replicated and matched the Hispanic VAP estimates. The third source for voting estimates is U.S. Census ACS (16-20) data on Spanish speakers who are Limited English Proficient (LEP). This data at the Census Block-Group level is matched to voting precincts/VTDs to identify the percent of voters who live in Spanish LEP areas and to determine their candidate choices.

28. Across all elections analyzed there is a clear, consistent, and statistically significant finding of racially polarized voting. Time and again, Hispanic voters in Texas are cohesive and vote for candidates of choice by a 2-to-1 or 3-to-1 margin, and always in contrast to Anglo voters who bloc-vote against Hispanic candidates of choice. These voting patterns have been widely reported for at least three decades of voting rights litigation and Federal courts in Texas have routinely concluded that elections in Texas are racially polarized. What's more, this information is well-known to state legislators, state map drawers and demographers and expert consultants for the State of Texas. In the more than 700 ecological inference statistical models

[7] Loren Collingwood, Kassra Oskooii, Sergio Garcia Rios, and Matt Barreto, *eiCompare Comparing Ecological Inference Estimates across El and EI:R x C,* 8 R J., 93 (2016).

I performed for this report, based on well-established social science published methodology, I conclude that across the 18 regions I analyzed, elections in Texas are defined by racially polarized voting.

Table 4: Summary of Regions Analyzed

Geography	Elections	Race data	EI	Total Models	Result
Bell County	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO	King's EI, RxC	36	Statistically sig. RPV
Bexar County	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO	King's EI, RxC	36	Statistically sig. RPV
Cameron County	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO, Spanish LEP	King's EI, RxC	54	Statistically sig. RPV
Central Texas	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO	King's EI, RxC	36	Statistically sig. RPV
CD 6	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO	King's EI, RxC	36	Statistically sig. RPV
CD 15	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO, Spanish LEP	King's EI, RxC	54	Statistically sig. RPV
CD 23	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO, Spanish LEP	King's EI, RxC	54	Statistically sig. RPV
CD 24	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO	King's EI, RxC	36	Statistically sig. RPV
CD 25	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO	King's EI, RxC	36	Statistically sig. RPV
DFW Metro	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO	King's EI, RxC	36	Statistically sig. RPV
Dallas County	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO	King's EI, RxC	36	Statistically sig. RPV
Dallas-Tarrant	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO	King's EI, RxC	36	Statistically sig. RPV
El Paso region	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO	King's EI, RxC	36	Statistically sig. RPV
Harris County	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO	King's EI, RxC	36	Statistically sig. RPV
HD 118	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO	King's EI, RxC	36	Statistically sig. RPV
Nueces County	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO	King's EI, RxC	36	Statistically sig. RPV
South Texas	14G (2), 16G, 18G (4), 20G (2)	VAP, SSTO, Spanish LEP	King's EI, RxC	54	Statistically sig. RPV
Tarrant County	18P (2), 20P (2), 22P (2)	VAP, SSTO	King's EI, RxC	24	Statistically sig. RPV

29. As we should expect, each region of Texas contains somewhat different voting patterns, however, all regions are characterized by some degree of racially polarized voting. Even in

instances where the patterns are not so stark as to be in complete opposite directions, they still provide clear evidence of racially polarized voting. For instance, if Hispanics are voting 60% – 40% for their preferred candidate and Anglos are voting 40% – 60% against the Hispanic preferred candidate, this is still a finding of polarized voting in line with decades of court decisions. Further, even if one or two election analyses are less conclusive, as political scientists our training informs us to look at the overall patterns and trends in the data to make conclusions with a reasonable degree of scientific certainty. In the case of elections in Texas, the statistical analyses point to an unmistakable pattern of racially polarized voting.

30. Patterns of racially polarized voting were conclusive across the state of Texas including in Bell, Bexar, Cameron, Dallas, Nueces, DFW region (Dallas, Tarrant, Denton, Collin), Harris, Tarrant, Central Texas region (Hays, Blanco, Comal, Guadalupe, Caldwell) El Paso region (El Paso, Hudspeth, Culberson, Jeff Davis, Reeves, Presidio, Pecos, Brewster, Terrell) South Texas region (Webb, Duval, Jim Wells, Zapata, Jim Hogg, Brooks, Starr, Hidalgo, Maverick, Dimmit, La Salle, McMullen, Live Oak, Zavala, Frio, Atascosa), and within the new boundaries of U.S. House Districts 6, 15 and 23, 24, 25, State Senate Districts 9, 10 and 22, and State House District 118.

31. In regions of Texas that have large Black and Hispanic populations we find clear and consistent evidence that the two minority groups vote cohesively, together, for like candidates of choice. In particular, the analysis reveals that Black and Hispanic voters are cohesive in Dallas, Harris, Tarrant and Bell counties, as well as within the greater DFW region (Dallas, Tarrant, Denton, Collin). While less probative given low turnout, primary elections in DFW also support – and do not detract – from the overall evidence of minority cohesion. At the same time, Anglo voters in these geographies' bloc-vote against minority candidates of choice. Anglo voters in U.S. House Districts 6, 24, and 25 bloc-vote such that Black and Hispanic voters can only elect preferred candidates in three, rather than four, congressional districts in the DFW region.

32. Specifically looking at the region encompassing Senate District 10, Black and Hispanic voters demonstrate overwhelming political cohesion in SD10 and Tarrant County general elections. Here, primary elections are not as probative a source of information about political cohesion, given that neither group constitutes a majority and the relatively low voter turnout among minorities. But even when primary elections are added to the full analysis, the overall picture is clear cohesion among Black and Hispanic voters in SD10. Anglo voters in enacted SD10 bloc-vote at high levels against the combined minority preferred candidates, and given reconstituted election results, will usually (or always) defeat the minority preferred candidates.

33. It is also the case that Hispanic communities in Texas are considerably younger and have lower rates of citizenship, resulting in a smaller pool of eligible voters as compared to Anglos. Due to a long history of discrimination and institutional policies related to voter registration, voter

identification laws, access to early voting and absentee-mail voting, Hispanics in Texas have lower rates of voter registration and lower rates of voter turnout. The result is that map drawers in Texas, knowledgeable of these trends, dilute the Hispanic vote by creating districts in which Hispanic voters are not large enough in size to overcome the high degree of Anglo bloc-voting against their candidates of choice.

34. While VAP data from the U.S. Census can provide reliable vote choice estimates by racial group, we can also examine Spanish Surname voters from data compiled by TLC. In particular for groups that have lower rates of citizenship, registration or turnout, such as Hispanics in Texas, we can use data from the official voter rolls for actual people who voted to more precisely measure the percentage of Hispanics in a given voting precinct/VTD. I have replicated all ecological inference analyses using Spanish Surname turnout for each respective election year to also provide vote choice estimates for Spanish Surname voters. As the results make clear, Spanish Surname voters across all regions of Texas vote cohesively for Hispanic candidates of choice, and face bloc-voting against their candidates of choice by Anglo voters. In areas with large Black voting populations such as Bell, Dallas, Harris or Tarrant counties (among others), there is evidence of strong cohesiveness among Black and Spanish Surname voters.

35. Beyond discrepancies by race or ethnicity, my analysis has identified clear patterns of cohesive voting by language minorities, who face even more significant gaps in polarized voting. Looking to pockets of Texas which have large Spanish-speaking voting populations, who are also limited English proficient (LEP) reveals that Spanish speaking voters are very unified and cohesive in their vote choice. In instances where estimates of cohesiveness for Hispanic voters as a whole cohesiveness register 64% estimates of cohesiveness of Spanish-LEP voters are 20-points higher at 84%. In the 2020 presidential election in which much has been written about how the Hispanic vote in South Texas appeared to be less cohesive, Spanish-LEP voters in South Texas were just as unified and cohesive as ever, with an estimated 82% to 92% vote for Democrat Joe Biden. Spanish-LEP voters, a group specifically protected by the Federal VRA demonstrate very high rates of cohesiveness and within the larger community they reside, Anglo voters demonstrate very high rates of bloc-voting against Spanish-LEP candidates of choice.

36. Tarrant County has a large and growing Hispanic community and MALC plaintiffs' demonstration maps make clear a majority-Hispanic CVAP district can be drawn which performs for Hispanic candidates of choice. Primary elections in Tarrant County are characterized by opposing candidate preferences between Anglos and Hispanics. Hispanic voters regularly side with Hispanic candidates in Democratic primaries while Anglo voters routinely offer much lower levels of support for Hispanic-preferred candidates.

IV. Partisanship, Ideology and Racially Polarized Voting

37. Racially polarized voting is well known and well documented as an indicator of discrimination and has been a hallmark statistical measured relied on by the courts in states and jurisdictions being challenged under the Federal VRA. But racially polarized voting does not occur in a vacuum. Social science research has documented extensively that the underlying catalysts triggering bloc voting are racial attitudes and stereotypes[8] and courts have routinely relied on measures like these as evidence of discrimination in voting lawsuits.[9]

38. In fact, extensive political science research has documented that measures of White racial attitudes have actually became more negative towards Blacks since 2008, and in turn, have become more intertwined with partisanship. Research by Crayton et al. (2013) reports more than a 10-point increase in the percent of Whites who agreed that "if Blacks would only try harder they could be just as well off as Whites" in 2008 following the election of Barack Obama. At the same time, the American National Election Study (ANES) has shown that in states such as Texas, White voters increasingly believe that Blacks, Hispanics, Asians and Jews have "too much influence in politics" and that Whites have too little influence. Research documents these beliefs have now been solidified as guiding principles in party affiliation[10]. Specifically, Crayton *et al*. draw the link between racial attitudes and partisanship noting "One might be inclined to characterize these findings simply as the product of partisanship rather than racial bloc voting, but additional data refute any serious suggestion that ideology accounts for these changes." To further investigate this relationship Crayton *et al*. examined racial attitudes, partisanship and voting patterns across all 50 states and dismissed the claim that racially polarized voting was nothing more than partisanship. They conclude "party affiliation alone simply cannot account for this difference in states with roughly similar patterns of allegiance to Republican ideology."

39. Indeed, there is an abundance of published research in leading academic publications that finds racial animus and anti-immigrant attitudes are leading indicators of party affiliation among

[8] Edward G. Carmines & James A. Stimson, ISSUE EVOLUTION: RACE AND THE TRANSFORMATION OF AMERICAN POLITICS (Princeton Univ. Press 1989); Thomas B. Edsall & Mary D. Edsall, CHAIN REACTION: THE IMPACT OF RACE, RIGHTS, AND TAXES ON AMERICAN POLITICS (W.W. Norton 1991); Michael W. Giles & Kaenan Hertz, Racial Threat and Partisan Identification, 88 Am. Pol. Sci. Rev. 317 (1994); Robert Huckfeldt & Carol Weitzel Kohfeld, RACE AND THE DECLINE OF CLASS IN AMERICAN POLITICS (Univ. of Illinois Press 1989); Martin Gilens, Paul M. Sniderman, & James H. Kuklinski, Affi rmative Action and the Politics of Realignment, 28 Brit. J. Pol. Sci. 159 (1998).

[9] *See, e.g.*, Busbee v. Smith, 549 F. Supp. 494, 501 (D. D.C. 1982) (finding state reapportionment committee's use of racially offensive terms to be probative of an intent to discriminate against Black voters).

[10] Christopher Parker and Matt Barreto. 2013. Change They Can't Believe In: The Tea Party and Reactionary Politics in America. Princeton University Press.

Whites.[11] Scholarly research has produced several significant findings showing that prejudice and discriminatory attitudes towards Blacks and Latinos persists and that it is one of the strongest predictors of party attachment among Whites.[12]

40. Further, a preponderance of the scholarship concludes that harboring negative racial attitudes is the underlying mechanism responsible for producing racial bloc voting among Whites, against minority candidates for elected office. For example, in a large-scale study of racial attitudes and voting, Professor Keith Reeves finds that "a significant number of Whites harbor feelings of antipathy toward Black Americans as a categorical group – feelings and sentiments that are openly and routinely expressed…. And where such prejudices are excited….they constitute the critical linchpin in Black office-seekers' success in garnering White votes."[13] Writing more than 10 years later about the 2008 presidential election, Michael Tesler and David Sears[14] find the same pattern. Even after controlling for partisanship and ideology, they find "the most racially resentful were more than 70 percentage points more likely to support McCain in March 2008 than were the least racially resentful." Tesler and Sears conclude that the Obama era unfortunately reshaped partisan affiliation in contemporary America almost entirely through the lens of racial attitudes.

41. In what comes close to a consensus in published, empirical political science studies, scholarly work supports the finding that discriminatory attitudes and racial prejudice play a central role in driving White party identification, and this is especially strong in states such as Texas[15].

42. These findings comport with other existing research that has noted the pattern of polarized voting in national elections. The 2008 election of Barack Obama rekindled decades old research on racial attitudes, partisanship and voting patterns. Newer published research finds clear evidence that Barack Obama received less support in his presidential elections among

[11] Dana Ables Morales, Racial Attitudes and Partisan Identification in the United States, 1980-1992, 5 Party Politics 191 (1999); Nicholas A. Valentino & David O. Sears, Old Times There Are not Forgotten: Race and Partisan Realignment in the Contemporary South, 24 Am. J. Pol. Sci. 672 (2005).
[12] M. V. Hood & Seth C. McKee, Gerrymandering on Georgia's Mind: The Effects of Redistricting on Vote Choice in the 2006 Midterm Election, 89 Soc. Sci. Q. 60 (2008); Richard Skinner & Philip Klinkner, Black, White, Brown and Cajun: The Racial Dynamics of the 2003 Louisiana Gubernatorial Election, The Forum 2 (1) (2004).
[13] Keith Reeves, VOTING HOPES OR FEARS? WHITE VOTERS, BLACK CANDIDATES & RACIAL POLITICS IN AMERICA 74 (Oxford Univ. Press 1997).
[14] Michael Tesler and David Sears, OBAMA'S RACE: THE 2008 ELECTION AND THE DREAM OF A POST-RACIAL AMERICA 61 (Univ. of Chicago Press 2010).
[15] Jonathan Knuckey, Racial Resentment and the Changing Partisanship of Southern Whites, 11 Party Politics 5 (2005); Edward G. Carmines & James A. Stimson, ISSUE EVOLUTION: RACE AND THE TRANSFORMATION OF AMERICAN POLITICS (Princeton Univ Press)

White voters than John Kerry did in 2004 or Al Gore in 2000 as a direct result of racial prejudice and discriminatory attitudes.[16]

43. In his analysis of the White vote for Obama in Southern states, Professor Ben Highton notes[17], "at the state level, the influence of prejudice on voting was comparable to the influence of partisanship and ideology. Racial attitudes explain support for Obama and shifts in Democratic voting between 2004 and 2008." This finding is corroborated by Professor Spencer Piston's individual-level analysis of voter attitudes and support for Barack Obama in Southern states, drawing a direct link between racial attitudes and voting, independent of partisanship[18]: "Negative stereotypes about Blacks significantly eroded White support for Barack Obama," concluding that "White voters punished Obama for his race rather than his party affiliation."

44. Other research demonstrates that, recently, particularly after the election of Barack Obama, White American partisan preferences are increasingly the result of "old-fashioned racism." In prior social science research, old-fashioned racism is, in part, conceived as a desire to maintain intimate social distance between the races. Published research by Tesler (2013) demonstrates that white Americans who oppose intra-racial dating are more likely to identify with the Republican party[19]. This correlation did not exist during the 1980s-early 2000s. But it manifested after the election of Barack Obama, the first Black president.

45. While the Obama era certainly brought renewed attention to the link between partisanship and racial attitudes, scholars have been studying this phenomenon since the realignment of partisanship across the South. There is a plethora of research demonstrating that partisan sorting on the basis of ethno-racial group identification is a function of racial attitudes, specifically antipathy toward non-white groups among white Americans who have sorted into the Republican Party. A recent study from the *American Economic Review*[20], the premier

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[16] Michael S. Lewis-Beck, Charles Tien, & Richard Nadeau, Obama's Missed Landslide: A Racial Cost?, 43 Pol. Sci. & Politics 69 (2010); Todd Donavan, Obama and the White Vote, 63 Pol. Res. Q. 863 (2010); Anthony G. Greenwald, Colin Tucker Smith, N. Sriram, Yoav Bar-Anon, & Brian A. Nosek, Implicit Race Attitudes Predicted Vote in the 2008 U.S. Presidential Election, 9 Analysis of Soc. Issues & Pub. Pol.'y, 241 (2009); Tom Pyszczynski, Carl Henthorn, Matt Motyl, & Kristel Gerow, Is Obama the AntiChrist? Racial Priming, Extreme Criticisms of Barack Obama, and Attitudes Towards the 2008 U.S. Presidential Candidates, 46 J. of Experimental Soc. Psychol., 863 (2010)

[17] Ben Highton, Prejudice Rivals Partisanship and Ideology When Explaining the 2008 Presidential Vote across the States, 44 PS: Pol. Sci. & Politics 530 (2011).

[18] Spencer Piston, How Explicit Racial Prejudice Hurt Obama in the 2008 Election, 32 Pol. Behavior 431 (2010).

[19] Tesler, Michael. "The return of old-fashioned racism to White Americans' partisan preferences in the early Obama era." The Journal of Politics 75, no. 1 (2013): 110-123.

[20] Kuziemko, Ilyana, and Ebonya Washington. "Why did the Democrats lose the South? Bringing new data to an old debate." American Economic Review 108, no. 10 (2018): 2830-67.

journal in the field of economics, demonstrates that White Americans, particularly in states such as Texas, began to defect from the Democratic Party after the Democratic party became more strongly committed to Civil Rights (pinpointed as the moment President Kennedy addressed the nation that he was committed to implementing Civil Rights legislation in Spring 1963). Research demonstrates White Americans in the southern states who were predisposed to leave the Democratic party in favor of the Republican party did so on the basis of racially conservative beliefs, defined in this particular paper as willingness to vote for a Black president, thus linking racial attitudes, partisanship and voting preference directly together.

46. Perhaps the most conclusive *causal* evidence that racial attitudes are driving partisanship, and not merely conservative ideology comes from the detailed and comprehensive analysis presented by Kuziemko and Washington (2018). Importantly, this paper disentangles antipathy toward Black people from other factors that may motivate White Americans to support the Republican party and not be willing to vote for a Black president, such as conservative principles, support for reduced government intervention, and other policy preferences (*e.g.*, being tough on the Russia). The overall effect is driven by White Americans in the southern states including Texas, showing that White Americans in the South relative to White Americans outside the South possess very similar attitudes on conservatism, outside the dimension of racial attitudes, such as economic and foreign policy.[21] The findings also demonstrate that Democratic commitments to general civil rights in 1963 *do not* produce defections towards the Republican party among Southern whites, if they are unwilling to support a Jewish, Catholic, or Woman president, all other groups that were associated with liberal beliefs at the time. Instead, it is *only* among those who have negative racial attitudes or who are unwilling to support a Black president who leave the Democratic Party for the Republican Party. In their regression model, they statistically adjust for views towards Jewish, Catholic, or Female president and find that unwillingness to support a Black president is the single most critical factor determining defection from the Democratic party into the Republican party.

47. More statistical evidence for this finding of the partisan shift in southern states like Texas has been published by Valentino and Sears (2005).[22] In the years following the Civil Rights Movement, whites in the South became increasingly Republican over time. However, Valentino and Sears also prove that white Southerners who hold "symbolically racist" beliefs are more likely to identify with the Republican party over time. That is, it was not just in the 1960s and 1970s that things changed, but these attitudes stayed with people and continued to

[21] E.g. agreement that government should not guarantee jobs, agreement that government should help people get medicare care at low cost, agreement the government should not be able to fire suspected communists, keep soldiers abroad to fight communism, etc

[22] Valentino, Nicholas A., and David O. Sears. "Old times there are not forgotten: Race and partisan realignment in the contemporary South." American Journal of Political Science 49, no. 3 (2005): 672-688.

inform their partisan affiliation. In their detailed statistical analysis, the scholars rule out secular conservative principles outside of providing support for Black people by demonstrating that ideologically conservativism is not causing whites to become more Republican over time. Instead, conservative racial attitudes are directly linked to Republican affiliation. Therefore, although many Southern whites hold conservative principles, this is *not* their motivation for partisan switching, rather, the key motivation is their racial attitudes.

48. The findings in political science are not limited to racial views towards Blacks, but increasingly today White partisanship is influenced by views towards Latinos and immigrants. Hajnal and Rivera (2014)[23] conclude that negative views towards immigrants motivates defection from Democrats and toward the Republican party. Likewise, more recent research published by Ostfeld (2019)[24] demonstrates that when Democratic political elites make campaign appeals to Latinos, it results in partisan defections from the Democratic party toward the Republican party on part of white Americans.

49. Perhaps most directly taking on the question of race and party are political scientists Sean Westwood and Erik Peterson in their 2020 published paper,[25] "The inseparability of race and partisanship in the United States." The authors demonstrate that although partisanship and race are highly correlated with one another, white Americans' viewpoints toward racial minority groups directly effects their attachment to either the Democratic or Republican Party, and vice versa. In other words, a negative evaluation of a Blacks or Hispanics translates into a negative evaluation of Democrats in general, and positive evaluation of Whites translates into positive evaluations of Republicans in general, and vice versa. They conclude that racial discrimination is intimately linked to partisan discrimination, and their research finds these two concepts to be "inseparable." Indeed, how White Americans view or interact with Blacks and Latinos directly influences their views of political parties, as they write "out-race interactions rapidly spill into assessments of the other political party."

50. In Texas, the most critical elections to voters of color are often the general election when Black and Hispanic voters regularly vote together for similar candidates of choice. These elections are critical because voters are deciding who to send to the State Capital or our Nation's Capital to represent them in public policy debates. While candidates also face off in primary debates, in most instances minority voters can regularly elect their candidate of choice in a primary, given their electoral influence in a district. Indeed, when it is possible to create a majority-minority

[23] Hajnal, Zoltan, and Michael U. Rivera. "Immigration, Latinos, and white partisan politics: The new democratic defection." American Journal of Political Science 58, no. 4 (2014): 773-789.
[24] Ostfeld, Mara Cecilia. "The new white flight?: The effects of political appeals to Latinos on white democrats." Political Behavior 41, no. 3 (2019): 561-582.
[25] Westwood, Sean J., and Erik Peterson. "The inseparability of race and partisanship in the United States." Political Behavior (2020): 1-23.

performing district, the primary election becomes even less relevant, because a minority candidate of choice will almost certainly prevail if their group has a majority among primary voters. However, in some instances, jurisdictions intentionally create districts in which no racial group is a majority, even though creating a majority-minority is possible. In these instances of diverse and mixed districts, coalitions can and do emerge. In districts where no single racial group is large enough by themselves to determine who wins, there can be different candidates who emerge from different communities. However, it is usually the case that even after a contested primary, minority voters form a very strong coalition in the November general election when voter turnout is much higher, and the stakes are much higher to select their ultimate representative for the State or Federal legislature. Primary elections are also not as probative a source of information about political cohesion, given the relatively low voter turnout and the skewed nature of the electorate.

V. Performance Analysis of Different Districts

51. As a result of the increase of nearly 2 million in the Hispanic population, Hispanic voters are easily large and geographically compact to form majority-Hispanic performing political districts at the State House, State Senate, U.S. House, and SBOE level. However, even before this large growth in the Hispanic population between 2010 – 2020, the Hispanic community was already large enough in size and geographically compact enough by 2010 population standards to draw additional majority-Hispanic performing districts. What the 2020 Census revealed was that, even despite the Federally acknowledged undercount of Texas Hispanics, there is no issue with Hispanic eligible voters being able to meet the *Gingles* first standard of being able to draw districts in almost every corner of the state with a noticeable Hispanic population.

52. Looking closely at the adopted maps as compared to demonstration maps submitted by plaintiffs, it is clear that maps adopted by the State of Texas dilute the Hispanic and Black vote by creating numerous districts that do not perform for minority candidates of choice. Given the large growth in the minority population and the more than 500,000 population *decline* in the Anglo population, Plaintiffs' demonstration maps can remedy the dilution in the adopted maps and create additional districts that perform for Hispanic and Black candidates of choice.

53. To assess district performance, I compiled election results constrained to the political boundaries of key State House, State Senate, SBOE and Congressional districts. Data were obtained from the State of Texas, TLC District Viewer and Red Apple platforms. Reviewing demonstration plans submitted by Brooks and MALC plaintiffs, I conclude that several districts which perform for Black and Hispanic candidates of choice can be drawn. Examining prior

election results, sorted just for the precincts/VTDs within a given district, I conclude that the State of Texas has failed to create performing Hispanic, and Black + Hispanic districts.

54. The MALC and/or Brooks demonstration plans show that:

a. the Hispanic population is sufficiently large and geographically compact enough to form a majority of voters and elect its candidate of choice in a new Dallas County Congressional district;
b. the Hispanic population is sufficiently large and geographically compact enough to form a majority of voters and elect its candidate of choice in a new Harris County Congressional district;
c. the Hispanic population in a redrawn Congressional District 23 and a redrawn Congressional District 15 can be apportioned so as to provide it with a consistently equal opportunity to elect its candidate of choice as compared with the adopted plan, while drawing a large predominantly Hispanic population in Nueces County into a district which allows that population to vote for a successful Hispanic candidate of choice as opposed to being subsumed into the Anglo-performing Congressional District 27;
d. the Hispanic population is sufficiently large and geographically compact enough to form a majority of voters and elect the candidate of their choice in a new State Board of Education District in Harris County;
e. it is possible to provide an opportunity for the sizeable Hispanic population in Central Texas to be part of a district in which it can vote for its candidate of choice, while making SBOE Districts 2 and 3 districts that consistently perform for the Hispanic candidate of choice as compared to the adopted map, which dilutes Hispanic voting strength in District 3;
f. the Hispanic population is sufficiently large and geographically compact enough to form a majority of voters and elect its candidate of choice in an additional Texas House district in Central Texas;
g. the Hispanic population is sufficiently large and geographically compact enough to form a majority of voters and elect its candidate of choice in an additional Texas House district in Harris County while maintaining the Hispanic voting strength in House Districts 145 and 148, unlike the adopted plan which draws no new Hispanic opportunity district and also significantly dilutes the Hispanic population in HDs 145 and 148;
h. it is possible to not overpopulate all of the majority Hispanic districts in Southwest Texas, and that by not doing so the Hispanic population is sufficiently large and geographically compact enough to elect its candidate of choice in seven districts along

the Southern Border as opposed to the only six performing Hispanic opportunity districts in the adopted plan;

i. the Hispanic population is sufficiently large and geographically compact enough to form a majority of voters and elect its candidate of choice in a State House district wholly contained in Tarrant County;
j. by maintaining the integrity of the Cameron County line as compared to the adopted plan, it is possible to draw two wholly contained Texas House districts in Cameron County in which the majority Hispanic population is able to consistently elect its candidate of choice in both districts

55. Further, based on analysis of the newly adopted plans:
    a. White voters in enacted HD 54 and 55 bloc vote at high levels and reconstituted election results show they will usually (or always) defeat minority preferred candidates
    b. In the benchmark plan, Black and Latino voters were nearing the ability to elect their preferred candidates in HD54
    c. The minority population is sufficiently large and geographically compact enough to form a majority of voters and elect its candidate of choice in a state house district in Bell County;
    d. Latino voters were able to reliably elect candidate of choice in HD118 under benchmark plan. Only in two exceedingly low turnout special elections did Latino preferred candidate lose the HD118 race.
    e. Enacted plan reduced HD118's Latino CVAP by over 12% and HD118 will no longer reliably perform to allow Latino voters an opportunity to elect their preferred candidates.
    f. the Hispanic population is sufficiently large and geographically compact enough to form a majority of voters and elect its candidate of choice in a properly drawn HD118.

56. My analysis and conclusions are based on Plans C2163, C2167, E2116, S2134, H2156, H2216, H2198, MALC-1 (Central Texas), MALC-2 (Harris), MALC-3 (South/West Texas), MALC-4 (Cameron) which are provided contemporaneously herewith along with the other data and information in my file. I will further provide testimony on minority performance in each of the enacted plans, the demonstration plans, as well as benchmark plans. I will offer testimony about the performance of districts in every plan submitted to the court, relying upon TLC R206 reports. TLC R206 reports are readily available to all experts and parties in this matter.

Table 5: Performance Analysis of State of Texas Adopted Districts

	Gov 2014		Prez 2016		Sen 2018		Gov 2018		LtGov 2018		Prez 2020		Sen 2020	
District	Davis	Abbott	Clinton	Trump	O'Rourke	Cruz	Valdez	Abbott	Collier	Patrick	Biden	Trump	Hegar	Cornyn
CD 6	29.7	68.5	32.5	63.7	37.7	61.5	32.9	65.5	36.8	61.1	37.4	61.3	35.5	62.1
CD 15	48.7	49.0	54.7	41.5	55.5	43.8	49.5	49.3	54.1	43.9	48.1	50.9	46.1	50.8
CD 23	38.5	59.6	45.5	49.5	48.7	50.5	42.2	56.3	46.1	51.6	45.8	52.9	43.2	54.0
CD 24	30.4	68.0	35.4	59.3	42.3	56.9	34.0	64.0	39.3	58.2	43.0	55.4	38.3	59.4
CD 25	29.9	68.2	29.5	66.3	34.7	64.5	29.9	68.5	33.7	64.2	33.7	64.9	31.8	65.7
CD 27	35.2	62.5	37.2	58.5	39.7	59.6	33.7	65.0	38.9	59.1	38.1	60.5	36.6	60.9
CD 38	26.7	71.8	34.2	60.9	39.4	59.8	33.0	65.4	37.9	60.2	40.2	58.4	36.6	61.2
HD 17	34.0	63.1	32.2	63.0	37.2	61.9	32.2	65.9	36.5	60.9	35.7	62.7	34.9	62.7
HD 31	46.2	51.8	47.1	50.4	46.0	53.3	40.2	58.8	45.1	53.0	37.1	62.1	37.3	59.9
HD 37	45.0	52.6	54.6	42.4	53.8	45.6	45.8	53.0	51.3	46.2	50.6	48.4	49.6	48.1
HD 54	34.3	64.1	41.3	53.1	45.3	54.0	40.5	57.9	43.4	54.2	45.5	52.4	43.8	53.4
HD 55	31.5	66.6	37.9	55.4	43.6	55.5	37.9	60.3	41.2	56.3	43.9	53.8	42.2	55.2
HD 80	52.6	45.2	56.3	40.6	55.9	43.2	50.3	48.6	54.8	43.0	47.3	51.6	47.1	49.7
HD 118	42.9	55.0	47.1	47.6	52.0	47.0	45.6	52.7	48.9	48.9	50.6	47.9	47.9	49.1
SBOE 2	47.8	49.8	53.9	42.3	54.6	44.7	47.8	51.0	53.0	44.9	49.4	49.4	47.6	49.3
SBOE 3	48.8	49.4	53.2	41.8	57.5	41.6	50.8	47.6	54.7	43.1	55.1	43.4	52.2	45.0
SBOE 6	30.9	67.5	38.1	56.8	43.8	55.4	37.7	60.7	41.9	56.2	43.5	55.0	40.3	57.4

Table 6: Demographic Composition of State of Texas Adopted Districts

	CVAP			Reg	Vote
District	Hispanic	Black	Anglo	SSVR	SSTO
CD 6	21.3	15.4	59.3	15.7	12.9
CD 15	74.5	1.5	22.3	67.3	61.9
CD 23	58.1	4.2	34.6	49.2	42.9
CD 24	11.9	7.0	73.2	8.4	7.7
CD 25	15.3	11.7	69.0	10.5	8.7
CD 27	49.2	4.9	43.8	40.5	34.5
CD 38	18.6	10.3	61.5	13.2	12.1
HD 17	26.7	8.9	62.5	19.7	15.6
HD 31	66.7	1.9	30.6	63.9	56.3
HD 37	77.7	0.8	20.1	70.5	65.8
HD 54	19.6	26.5	47.6	12.8	11.0
HD 55	21.5	20.4	53.8	13.7	11.8
HD 80	77.5	1.2	20.5	73.3	66.1
HD 118	55.9	6.3	35.0	47.6	43.9
SBOE 2	72.0	2.5	23.9	65.6	59.5
SBOE 3	58.4	7.8	31.2	49.7	44.5
SBOE 6	20.7	12.3	58.6	15.1	13.3

57. Finally, I considered population changes in Senate District 10 as drawn in the benchmark plan, which the court was open to hearing more detailed calculations and evidence about in its previous ruling in this matter. The results of the 2020 Census revealed that the White, non-Hispanic population is declining at a faster rate than the annual Census American Community Survey (ACS) had estimated and at the same time, the Hispanic population is growing at a faster rate than anticipated. This was also found to be the case in Tarrant County, Texas where the Anglo population actually dropped by more than 30,000 from 2010 to 2020, while the non-white population increased by over 330,000 during the same 10-year period. However, the annual ACS had been under-sampling minorities, and over-sampling Anglos and so the annual population projections for Tarrant were consistently over-estimating true Anglo population. While the ACS was picking up an annual decline in the Anglo population, Tarrant was estimated to be losing about 3,000 Anglos per year. However, when the 2020 decennial Census numbers were posted as an official count, the 2020 Anglo population for Tarrant was 44,405 lower than the 2019 Anglo population in the ACS only one year earlier. Statisticians and demographers agree that it is not probable that 44,000 Anglo suddenly left in one year, but rather that the annual estimates from the 2% sample were over-reporting the Anglo population. Armed with the 2010 and 2020 numbers from the official decennial Census full household counts, it is possible to adjust the individual yearly estimates from 2011 to 2019, as well as more accurately forecast linear trends for 2021 and 2022. These methods are well-known and

have been widely published in social science literature, often times by Census Bureau statisticians and demographers themselves.

58. Given the large-scale decline in the Anglo population in Tarrant registered in the 2020 Census, we can use this information to apply a simple linear forecast of the total population, voting-age population (VAP), and citizen voting-age population (CVAP) by race and ethnicity. To do this, I downloaded yearly CVAP estimates for the SD10-specific geography by race and ethnicity for each year from 2008 to 2019 and created an expected linear forecast for 2020. I then compared the total population forecast for 2020 to the actual true population count in 2020 reported by the decennial Census. As noted, the Anglo population declined faster than the annual ACS surveys had estimated, as noted in the visible drop in the Anglo population in Figure 1 in 2020. Using statistical and demographic forecast models relied on by social scientists and the Census itself, I adjusted the forecast to account for the drop in Anglos to fit a smoothed forecast line to the period from 2008 to 2022. Relying heavily on the official count from the 2020 Census, it is clear that SD10 is now majority-minority CVAP, and likely passed this threshold in early 2020. By 2022, SD10 is now expected to be 52.8% non-White CVAP and 47.2% white-alone, non-Hispanic CVAP (see Figure 2).

Figure 1

Census ACS Citizen Voting Age Population by Race Senate District 10

Adjusted to Census 2020 accurate numbers for White, non-Hispanic population

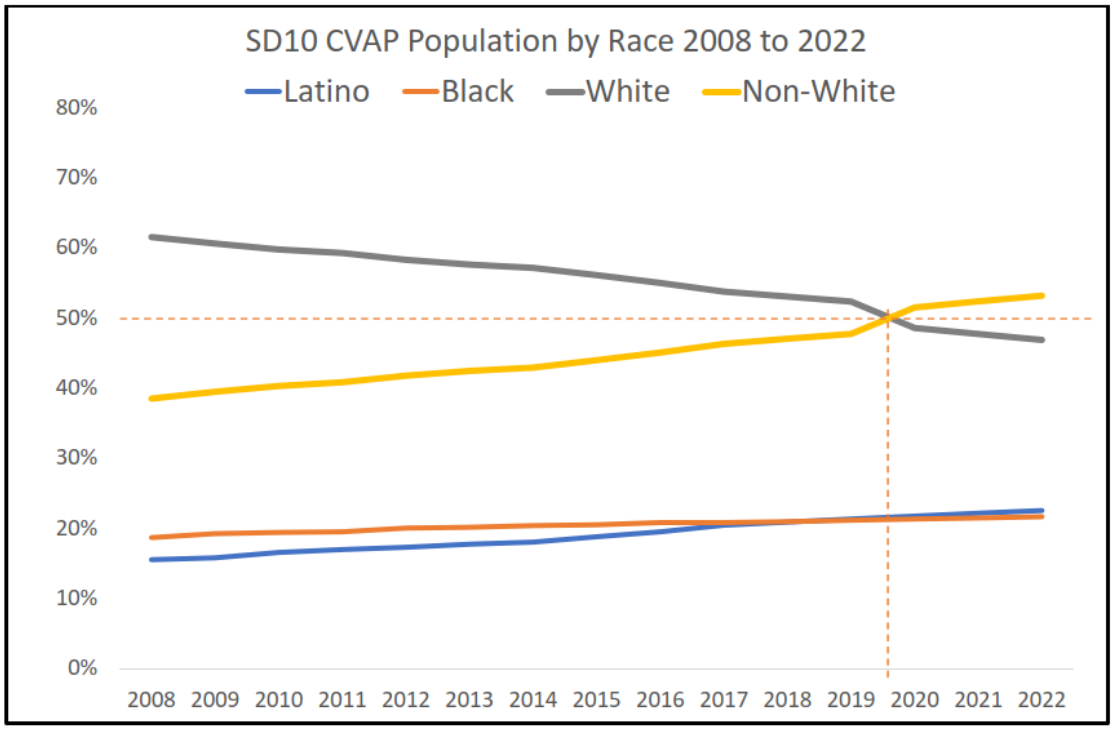
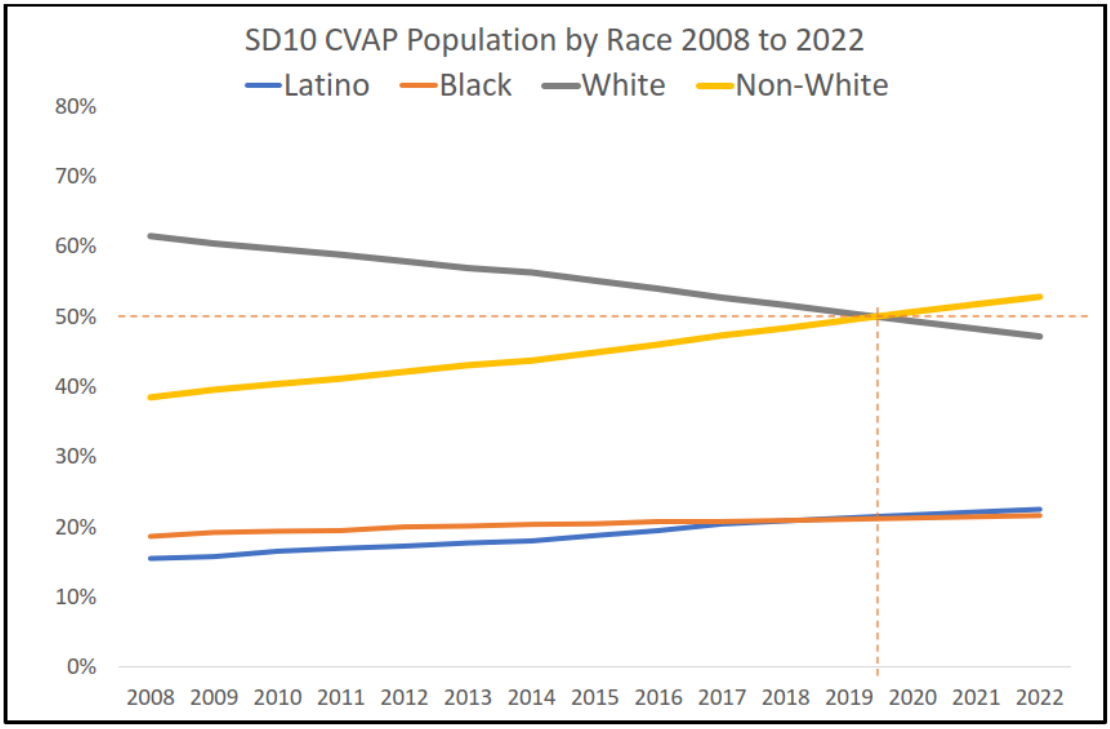


Figure 2

Census ACS Citizen Voting Age Population by Race Senate District 10

Adjusted to Census 2020 accurate numbers for White, non-Hispanic population (smoothed line)



59. In preparing this report there were some data that was not yet produced, or readily available by Defendants, and as more data does become available, or new elections results are posted, I will provide additional data and analysis of population statistics and election results to supplement this report.

60. I declare under penalty of perjury that the foregoing is true to the best of my personal knowledge.

May 20, 2022

Dr. Matt A. Barreto

Agoura Hills, California

Appendix A: Racially Polarized Voting Tables

Bell County Ecological Inference Candidate Choice Estimates

		King's EI			RxC		
		Hispanic	Black	Anglo	Hispanic	Black	Anglo
2014	Abbott	20.8	0.7	98.7	15.6	9.2	92.6
Gov	Davis	75.1	99.1	1.0	84.4	89.5	6.7
2014	Cornyn	21.8	0.3	98.9	17.1	10.6	95.5
Sen	Alameel	69.9	98.9	0.9	82.9	86.9	3.6
2016	Trump	5.8	0.1	96.5	20.7	6.3	93.6
Prez	Clinton	87.8	99.2	1.0	75.8	90.3	4.5
2018	Paxton	18.5	1.3	96.8	15.7	6.8	95.1
Att Gen	Nelson	81.3	98.1	3.2	84.3	93.3	4.9
2018	Abbott	15.9	0.5	99.1	30.0	6.3	96.6
Gov	Valdez	84.0	99.2	1.0	70.0	93.7	3.5
2018	Patrick	7.7	0.0	96.3	30.9	9.6	87.5
Lt Gov	Collier	86.0	99.4	2.0	67.0	88.6	11.8
2018	Cruz	35.4	0.7	96.3	14.1	5.9	94.9
Sen	O'Rourke	65.0	99.5	3.8	86.0	94.1	5.1
2020	Trump	20.2	1.1	95.6	40.6	10.5	80.6
Prez	Biden	77.4	100.0	2.8	57.9	88.0	18.8
2020	Cornyn	23.6	0.7	97.2	37.1	9.2	84.9
Sen	Hegar	84.7	99.8	1.6	61.2	89.1	14.5

Bexar County Ecological Inference Candidate Choice Estimates

		King's EI		RxC	
		Hispanic	Anglo	Hispanic	Anglo
2014	Abbott	18.8	86.0	27.5	83.4
Gov	Davis	78.3	13.3	71.4	15.5
2014	Cornyn	26.9	91.9	25.1	88.5
Sen	Alameel	68.4	6.4	68.5	9.9
2016	Trump	13.3	84.0	17.4	84.1
Prez	Clinton	84.3	12.5	78.1	13.5
2018	Paxton	13.5	82.5	18.7	77.8
Att Gen	Nelson	85.5	16.4	79.3	21.1
2018	Abbott	17.1	85.6	28.1	80.2
Gov	Valdez	81.4	13.3	71.2	18.8
2018	Patrick	15.0	82.4	22.2	78.4
Lt Gov	Collier	83.8	16.3	76.2	20.6
2018	Cruz	13.5	82.5	27.1	62.9
Sen	O'Rourke	86.0	17.3	72.5	36.5
2020	Trump	19.2	77.8	26.0	69.4
Prez	Biden	80.3	20.6	73.1	29.8
2020	Cornyn	19.1	82.8	24.6	77.6
Sen	Hegar	76.0	17.2	72.2	21.4

Cameron County Ecological Inference Candidate Choice Estimates

		King's EI		RxC		EI	RxC	King's EI	RxC
		Hispanic	Anglo	Hispanic	Anglo	SSTO	SSTO	Spanish LEP	Spanish LEP
2014	Abbott	32.3	99.8	34.7	86.9	20.8	20.5	2.2	9.8
Gov	Davis	64.8	0.5	63.5	10.3	79.1	79.5	99.1	90.2
2014	Cornyn	36.4	88.0	33.8	98.9	23.3	23.3	0.6	12.3
Sen	Alameel	57.4	6.6	58.6	1.9	76.6	76.7	98.1	87.7
2016	Trump	22.0	95.5	24.2	87.2	14.1	13.7	0.1	11.8
Prez	Clinton	74.3	3.9	73.5	8.2	85.9	86.2	99.8	88.2
2018	Paxton	25.1	94.5	27.3	87.1	18.0	17.2	2.9	11.4
Att Gen	Nelson	71.1	4.5	70.2	9.3	81.9	82.8	98.5	88.6
2018	Abbott	35.7	95.6	39.6	77.1	28.5	28.1	1.0	12.3
Gov	Valdez	62.7	3.6	59.8	20.6	71.6	71.8	98.4	80.3
2018	Patrick	27.7	94.8	29.9	88.1	20.6	19.6	0.1	11.8
Lt Gov	Collier	69.0	4.0	68.2	8.4	79.4	80.4	99.2	88.2
2018	Cruz	26.9	94.5	28.7	88.1	19.2	18.3	0.9	10.6
Sen	O'Rourke	72.3	5.3	71.3	11.9	80.7	81.6	98.5	85.8
2020	Trump	36.3	86.9	39.9	64.8	33.8	32.6	0.8	14.0
Prez	Biden	62.6	12.7	59.6	33.6	65.9	67.5	99.6	86.0
2020	Cornyn	34.0	91.8	36.0	82.4	31.3	30.5	0.3	13.2
Sen	Hegar	62.5	9.1	61.5	15.0	68.6	69.4	99.0	86.7

*SSTO = Spanish Surname Turnout (actual voters)

Central Texas Region* Ecological Inference Candidate Choice Estimates

		King's EI		RxC	
		Hispanic	Anglo	Hispanic	Anglo
2014	Abbott	28.9	91.8	28.8	93.5
Gov	Davis	68.3	7.8	69.1	5.0
2014	Cornyn	29.2	94.0	29.5	92.5
Sen	Alameel	65.1	3.8	63.8	6.4
2016	Trump	23.5	80.3	33.2	79.1
Prez	Clinton	71.0	14.5	61.5	19.4
2018	Paxton	22.0	78.2	24.7	78.5
Att Gen	Nelson	78.0	21.7	75.3	21.5
2018	Abbott	28.5	81.8	33.1	81.9
Gov	Valdez	71.7	18.2	66.9	18.1
2018	Patrick	20.7	78.3	36.5	72.9
Lt Gov	Collier	77.3	18.8	62.2	26.5
2018	Cruz	23.3	77.2	24.5	77.8
Sen	O'Rourke	76.9	23.0	75.5	22.3
2020	Trump	26.3	77.2	28.8	77.4
Prez	Biden	74.0	23.2	71.2	22.6
2020	Cornyn	24.7	78.5	37.8	74.7
Sen	Hegar	71.9	19.6	60.7	24.7

*Central Texas Region Counties: Hays, Blanco, Comal, Guadalupe, Caldwell

Congressional District 6 Ecological Inference Candidate Choice Estimates

		King's EI			RxC		
		Hispanic	Black	Anglo	Hispanic	Black	Anglo
2014	Abbott	35.2	16.9	93.8	43.8	17.4	93.9
Gov	Davis	64.7	83.2	7.2	56.2	82.6	6.2
2014	Cornyn	40.2	19.0	88.0	38.1	20.3	88.9
Sen	Alameel	59.7	80.7	12.0	61.9	79.7	11.1
2016	Trump	26.7	18.1	94.2	32.0	17.3	94.8
Prez	Clinton	73.5	82.2	5.8	68.0	82.8	5.2
2018	Paxton	20.5	13.6	91.7	25.4	11.8	92.0
Att Gen	Nelson	79.7	86.3	8.1	74.6	88.2	8.0
2018	Abbott	27.8	14.3	95.1	33.3	14.7	95.4
Gov	Valdez	72.2	85.9	5.0	66.7	85.3	4.7
2018	Patrick	22.2	12.8	92.0	27.5	11.0	91.9
Lt Gov	Collier	78.1	87.2	8.1	72.5	89.0	8.1
2018	Cruz	21.0	13.4	91.6	24.2	11.7	92.6
Sen	O'Rourke	78.7	86.6	8.4	75.8	88.3	7.4
2020	Trump	22.2	14.1	91.4	27.2	11.7	91.7
Prez	Biden	78.1	85.5	8.6	72.8	88.3	8.3
2020	Cornyn	23.5	14.3	93.0	29.1	12.3	93.2
Sen	Hegar	76.8	85.7	7.2	70.9	87.7	6.8

Congressional District 15 Ecological Inference Candidate Choice Estimates

		King's EI		RxC		EI	RxC	King's EI	RxC
		Hispanic	Anglo	Hispanic	Anglo	SSTO	SSTO	Spanish LEP	Spanish LEP
2014	Abbott	28.8	91.7	28.8	94.2	19.6	19.7		
Gov	Davis	68.3	7.8	69.1	4.2	77.6	77.5		
2014	Cornyn	29.1	93.8	29.4	92.5	20.4	20.3		
Sen	Alameel	65.1	3.9	63.9	6.3	79.6	79.6		
2016	Trump	22.0	93.5	22.5	92.0	15.5	15.4		
Prez	Clinton	73.5	3.8	74.1	5.8	84.4	84.6		
2018	Paxton	23.8	90.2	24.1	88.4	16.5	16.2		
Att Gen	Nelson	74.0	7.9	74.4	10.1	83.4	83.8		
2018	Abbott	31.7	92.1	32.1	90.0	24.8	24.2	8.6	5.7
Gov	Valdez	66.8	7.5	67.3	9.0	75.2	75.8	90.3	89.5
2018	Patrick	25.1	91.5	25.7	92.6	17.9	17.6		
Lt Gov	Collier	72.7	7.9	72.9	6.1	81.9	82.4		
2018	Cruz	25.1	90.8	27.5	81.7	17.6	17.3	4.8	5.5
Sen	O'Rourke	74.1	9.0	72.1	17.4	82.3	82.7	91.6	92.0
2020	Trump	35.8	90.4	37.0	85.4	32.0	31.4	7.0	17.9
Prez	Biden	63.1	8.6	62.4	13.4	68.0	68.6	92.9	77.7
2020	Cornyn	34.7	92.5	35.3	87.4	31.0	30.8		
Sen	Hegar	61.2	5.3	60.9	11.2	68.9	69.2		

Congressional District 23 Ecological Inference Candidate Choice Estimates

		King's EI		RxC		EI	RxC	King's EI	RxC
		Hispanic	Anglo	Hispanic	Anglo	SSTO	SSTO	Spanish LEP	Spanish LEP
2014	Abbott	31.5	91.6	35.7	91.0	17.1	17.9		
Gov	Davis	65.6	7.5	62.6	7.7	80.1	79.0		
2014	Cornyn	34.8	93.5	33.6	92.0	19.2	18.6		
Sen	Alameel	59.8	4.3	59.6	6.1	80.9	81.4		
2016	Trump	22.9	89.6	26.3	89.7	15.0	15.1		
Prez	Clinton	73.0	7.4	71.0	7.7	85.0	84.9		
2018	Paxton	24.5	86.9	28.8	87.5	15.4	15.6		
Att Gen	Nelson	72.6	12.3	69.4	10.9	83.5	84.4		
2018	Abbott	31.4	89.1	36.8	87.1	21.6	22.5	17.0	4.6
Gov	Valdez	67.2	10.0	62.5	11.9	78.4	77.5	83.5	89.9
2018	Patrick	25.9	86.9	30.8	87.5	16.5	17.4		
Lt Gov	Collier	71.7	12.0	67.8	11.3	83.5	82.6		
2018	Cruz	25.4	87.1	31.6	76.7	15.9	15.9	20.6	7.4
Sen	O'Rourke	73.7	12.4	67.9	22.7	84.3	84.1	80.3	88.9
2020	Trump	34.1	84.2	39.0	79.2	28.2	32.3	19.5	12.0
Prez	Biden	64.7	15.1	60.3	19.9	72.7	67.6	76.9	82.0
2020	Cornyn	32.5	86.8	37.8	84.3	27.2	30.5		
Sen	Hegar	63.4	12.6	59.7	14.5	72.9	69.5		

Congressional District 24 Ecological Inference Candidate Choice Estimates

		King's EI			RxC		
		Hispanic	Black	Anglo	Hispanic	Black	Anglo
2014	Abbott	31.0	17.8	78.6	29.5	18.6	77.4
Gov	Davis	69.1	81.8	21.3	70.5	81.4	22.6
2014	Cornyn	25.6	21.2	86.7	30.7	18.5	82.4
Sen	Alameel	74.7	79.3	13.4	69.3	81.5	17.6
2016	Trump	27.4	13.4	71.1	37.9	16.1	71.2
Prez	Clinton	72.2	87.1	29.0	62.1	84.0	28.8
2018	Paxton	20.3	6.8	68.6	29.9	11.1	67.9
Att Gen	Nelson	79.6	93.3	31.5	70.1	88.9	32.1
2018	Abbott	20.1	7.0	77.4	31.1	9.6	76.9
Gov	Valdez	80.0	93.1	22.7	68.9	90.4	23.1
2018	Patrick	21.5	7.0	69.8	32.7	7.8	69.3
Lt Gov	Collier	78.5	93.2	30.3	67.4	92.2	30.7
2018	Cruz	20.5	5.0	67.4	28.6	10.6	66.8
Sen	O'Rourke	79.7	94.9	32.5	71.4	89.4	33.2
2020	Trump	21.1	10.9	65.1	33.3	11.3	64.7
Prez	Biden	78.9	89.1	34.8	66.7	88.7	35.3
2020	Cornyn	20.1	10.3	72.2	30.9	9.9	71.3
Sen	Hegar	80.1	89.9	27.7	69.1	90.1	28.7

Congressional District 25 Ecological Inference Candidate Choice Estimates

		King's EI			RxC		
		Hispanic	Black	Anglo	Hispanic	Black	Anglo
2014	Abbott	27.9	11.4	90.2	33.2	6.6	89.0
Gov	Davis	71.8	88.7	9.8	66.8	93.4	11.1
2014	Cornyn	33.3	11.0	93.6	41.2	7.0	92.3
Sen	Alameel	66.6	89.0	6.4	58.8	93.0	7.7
2016	Trump	30.1	10.9	91.3	24.1	5.0	91.6
Prez	Clinton	70.3	89.3	8.7	75.9	95.0	8.4
2018	Paxton	23.7	8.3	87.2	17.7	4.4	87.6
Att Gen	Nelson	76.4	91.9	12.9	82.3	95.6	12.4
2018	Abbott	31.8	8.4	91.6	25.5	4.7	91.8
Gov	Valdez	69.1	91.8	8.4	74.5	95.4	8.2
2018	Patrick	22.0	7.1	87.8	19.7	4.0	87.7
Lt Gov	Collier	78.2	92.7	12.1	80.3	96.1	12.3
2018	Cruz	25.8	9.2	86.7	17.1	4.0	87.6
Sen	O'Rourke	74.0	90.7	13.3	82.9	96.0	12.5
2020	Trump	29.3	8.8	87.2	22.4	4.6	87.3
Prez	Biden	71.2	91.3	12.8	77.6	95.5	12.7
2020	Cornyn	30.8	8.2	89.1	23.7	4.6	89.1
Sen	Hegar	69.5	91.8	11.0	76.3	95.4	10.9

Dallas County Ecological Inference Candidate Choice Estimates

		King's EI			RxC			EI	Rxc
		Hispanic	Black	Anglo	Hispanic	Black	Anglo	SSTO	SSTO
2014	Abbott	23.2	5.0	75.0	33.1	5.5	68.7	21.9	21.9
Gov	Davis	74.3	93.0	23.9	65.8	93.4	30.5	74.0	67.7
2014	Cornyn	35.1	2.4	77.9	24.9	5.5	79.2	22.0	24.5
Sen	Alameel	61.4	95.6	20.5	70.0	93.3	18.3	78.1	75.5
2016	Trump	17.3	6.4	68.0	22.1	1.9	64.2	11.5	10.9
Prez	Clinton	80.0	93.1	26.8	75.3	96.6	33.3	88.5	89.0
2018	Paxton	16.5	6.2	66.4	17.7	2.7	63.4	9.5	9.7
Att Gen	Nelson	83.4	94.8	33.7	82.3	97.3	36.6	90.5	90.3
2018	Abbott	17.1	6.7	74.6	23.2	4.9	68.3	10.4	9.1
Gov	Valdez	81.1	92.4	23.6	75.6	93.1	30.9	89.8	90.9
2018	Patrick	16.7	6.2	67.4	21.2	2.0	61.8	11.0	10.7
Lt Gov	Collier	81.3	93.3	30.8	77.4	96.3	37.3	89.0	89.3
2018	Cruz	16.1	6.0	65.3	16.4	2.6	62.6	8.6	8.7
Sen	O'Rourke	83.9	94.0	34.7	83.6	97.4	37.4	91.4	91.2
2020	Trump	21.1	4.8	61.5	24.0	3.3	55.6	17.4	18.6
Prez	Biden	77.1	95.2	37.2	74.9	95.7	43.8	82.4	81.4
2020	Cornyn	19.7	4.8	69.1	22.2	1.3	64.7	17.2	17.2
Sen	Hegar	75.7	95.1	30.1	74.1	96.1	34.6	82.9	82.7

Dallas County – Tarrant County <u>Combined</u> Ecological Inference Candidate Choice Estimates

		King's EI			RxC		
		Hispanic	Black	Anglo	Hispanic	Black	Anglo
2014	Abbott	20.9	7.4	81.2	30.1	5.5	77.0
Gov	Davis	77.3	91.6	17.6	68.5	93.4	22.4
2014	Cornyn	32.3	2.1	84.6	21.9	7.6	84.6
Sen	Alameel	64.2	95.5	14.1	73.2	91.0	13.3
2016	Trump	15.0	7.5	77.8	19.6	1.9	76.2
Prez	Clinton	82.8	91.6	17.7	77.3	96.4	21.9
2018	Paxton	14.7	7.8	76.1	15.9	2.3	73.9
Att Gen	Nelson	85.3	92.2	23.9	84.1	97.7	26.1
2018	Abbott	16.1	8.5	82.4	20.5	3.7	80.6
Gov	Valdez	83.9	91.5	17.5	79.5	96.3	19.4
2018	Patrick	15.0	7.7	77.0	19.4	1.8	71.2
Lt Gov	Collier	83.6	91.9	20.5	79.1	96.3	28.0
2018	Cruz	13.8	7.0	75.6	24.5	10.0	60.6
Sen	O'Rourke	85.6	92.9	23.5	75.0	89.3	39.0
2020	Trump	17.1	6.8	73.4	23.1	3.7	65.1
Prez	Biden	81.3	93.0	25.1	75.7	95.2	34.4
2020	Cornyn	16.7	7.0	78.7	21.1	1.1	72.7
Sen	Hegar	80.0	92.5	20.2	74.9	96.3	26.6

Dallas Ft. Worth Region* Ecological Inference Candidate Choice Estimates

		King's EI			RxC		
		Hispanic	Black	Anglo	Hispanic	Black	Anglo
2014	Abbott	21.4	8.4	81.7	30.2	3.9	82.4
Gov	Davis	78.6	91.5	18.3	69.8	96.1	17.6
2014	Cornyn	24.5	9.0	85.8	35.3	4.7	87.3
Sen	Alameel	75.4	91.1	14.1	64.7	95.3	12.7
2016	Trump	16.4	8.3	77.0	21.6	3.1	77.2
Prez	Clinton	83.6	91.7	23.0	78.4	96.9	22.8
2018	Paxton	14.9	7.8	71.7	18.1	2.5	71.9
Att Gen	Nelson	85.0	92.2	28.2	81.9	97.5	28.1
2018	Abbott	16.6	8.5	79.0	22.9	4.1	78.6
Gov	Valdez	83.6	91.5	20.9	77.1	95.9	21.4
2018	Patrick	15.7	8.0	72.9	19.8	2.7	72.9
Lt Gov	Collier	84.3	92.0	27.1	80.2	97.4	27.1
2018	Cruz	14.4	7.2	70.3	17.1	2.4	70.5
Sen	O'Rourke	85.7	92.8	29.7	83.0	97.6	29.5
2020	Trump	17.8	6.8	68.9	23.2	2.4	68.9
Prez	Biden	82.3	93.2	31.1	76.8	97.7	31.1
2020	Cornyn	17.9	7.3	74.0	24.4	2.5	73.7
Sen	Hegar	82.1	92.8	26.0	75.6	97.5	26.3

*Dallas Ft. Worth Region = Dallas, Tarrant, Denton, Collin counties

El Paso Region* Ecological Inference Candidate Choice Estimates

		King's EI		RxC	
		Hispanic	Anglo	Hispanic	Anglo
2014	Abbott	26.3	86.3	27.8	84.0
Gov	Davis	71.1	12.4	70.8	13.6
2014	Cornyn	29.8	83.1	28.4	86.4
Sen	Alameel	64.3	11.6	64.4	10.7
2016	Trump	13.2	86.6	16.8	81.9
Prez	Clinton	80.5	11.4	79.3	14.1
2018	Paxton	15.3	81.0	18.5	79.3
Att Gen	Nelson	80.7	18.1	79.4	17.9
2018	Abbott	20.4	81.9	23.3	80.1
Gov	Valdez	77.7	17.0	76.1	17.8
2018	Patrick	17.2	80.3	20.0	79.8
Lt Gov	Collier	79.4	18.1	78.5	17.3
2018	Cruz	13.2	81.1	15.3	82.4
Sen	O'Rourke	86.8	18.7	84.7	17.6
2020	Trump	22.8	80.7	26.9	65.7
Prez	Biden	75.4	18.6	72.5	32.5
2020	Cornyn	21.2	82.3	24.2	79.7
Sen	Hegar	71.1	18.7	71.1	17.4

*El Paso Region Counties: El Paso-Hudspeth-Culberson-Jeff Davis-Reeves-Presidio-Pecos-Brewster-Terrell combined

Harris County Ecological Inference Candidate Choice Estimates

		King's EI			RxC		
		Hispanic	Black	Anglo	Hispanic	Black	Anglo
2014	Abbott	28.4	6.7	82.0	41.2	5.5	79.0
Gov	Davis	68.7	93.0	17.1	57.7	93.3	20.3
2014	Cornyn	42.8	2.8	85.7	30.6	7.0	85.2
Sen	Alameel	54.6	94.2	12.7	62.7	92.4	12.6
2016	Trump	17.1	4.4	79.3	25.1	1.7	79.2
Prez	Clinton	78.9	95.2	16.5	72.4	96.3	18.7
2018	Paxton	18.7	2.5	79.2	22.2	2.2	78.9
Att Gen	Nelson	81.4	97.7	20.9	77.8	97.9	21.1
2018	Abbott	23.0	2.8	84.2	31.7	5.4	77.7
Gov	Valdez	75.4	97.2	14.4	67.6	93.4	21.5
2018	Patrick	19.9	2.7	79.5	26.5	4.1	74.5
Lt Gov	Collier	78.1	97.5	18.7	72.6	94.6	24.7
2018	Cruz	17.9	2.6	78.8	31.1	10.0	64.1
Sen	O'Rourke	81.5	97.6	20.5	68.5	89.3	35.5
2020	Trump	28.3	3.3	77.6	34.4	4.7	69.4
Prez	Biden	70.1	95.8	21.1	64.9	94.1	30.0
2020	Cornyn	27.1	3.5	81.4	30.5	1.2	76.1
Sen	Hegar	68.4	96.5	17.4	66.1	96.0	23.1

House District 118 Ecological Inference Candidate Choice Estimates

		King's EI		RxC	
		Hispanic	Anglo	Hispanic	Anglo
2014	Abbott	24.0	96.4	28.1	95.2
Gov	Davis	75.9	3.6	71.9	4.8
2014	Cornyn	31.8	97.1	35.9	95.5
Sen	Alameel	68.1	2.9	64.1	4.5
2016	Trump	21.6	98.9	25.0	93.5
Prez	Clinton	78.2	1.5	75.0	6.5
2018	Paxton	21.5	95.2	23.5	90.8
Att Gen	Nelson	78.8	4.8	76.5	9.2
2018	Abbott	27.7	95.3	31.2	94.9
Gov	Valdez	72.2	4.4	68.8	5.1
2018	Patrick	24.6	95.0	26.4	93.1
Lt Gov	Collier	75.9	5.0	73.6	6.9
2018	Cruz	21.5	95.0	23.4	91.7
Sen	O'Rourke	78.6	4.8	76.6	8.3
2020	Trump	29.9	92.3	29.1	87.4
Prez	Biden	70.0	7.2	70.9	12.6
2020	Cornyn	31.5	94.2	30.4	91.2
Sen	Hegar	69.2	6.2	69.6	8.8

Nueces County Ecological Inference Candidate Choice Estimates

		King's EI		RxC	
		Hispanic	Anglo	Hispanic	Anglo
2014	Abbott	27.2	93.6	30.9	91.9
Gov	Davis	72.8	6.5	69.1	8.1
2014	Cornyn	32.9	95.7	35.1	94.4
Sen	Alameel	67.0	4.4	64.9	5.6
2016	Trump	20.7	92.3	24.1	91.1
Prez	Clinton	79.2	7.6	75.9	8.9
2018	Paxton	19.1	92.0	23.9	90.5
Att Gen	Nelson	80.8	7.8	76.1	9.5
2018	Abbott	30.3	94.9	34.8	93.1
Gov	Valdez	69.9	5.0	65.2	6.9
2018	Patrick	19.5	92.4	24.0	90.9
Lt Gov	Collier	80.4	7.7	76.0	9.1
2018	Cruz	18.7	91.3	23.7	89.9
Sen	O'Rourke	81.3	8.7	76.3	10.1
2020	Trump	24.6	89.9	29.6	89.6
Prez	Biden	75.5	10.0	70.4	10.4
2020	Cornyn	25.1	92.0	30.8	91.2
Sen	Hegar	74.6	8.0	69.2	8.8

South Texas Region* Ecological Inference Candidate Choice Estimates

		King's EI		RxC		EI	RxC	King's EI	RxC
		Hispanic	Anglo	Hispanic	Anglo	SSTO	SSTO	Spanish LEP	Spanish LEP
2014	Abbott	28.2	90.5	27.8	93.0	18.4	18.3	10.4	2.3
Gov	Davis	69.0	8.8	69.7	4.1	78.7	78.9	90.1	87.6
2014	Cornyn	28.3	90.6	27.9	92.7	20.2	19.8	15.9	6.3
Sen	Alameel	64.3	8.1	64.9	4.0	79.8	80.2	83.9	93.7
2016	Trump	22.1	93.2	21.9	93.8	14.7	14.2	1.9	3.1
Prez	Clinton	74.1	6.0	74.4	3.2	85.3	85.9	97.9	84.6
2018	Paxton	24.2	88.0	23.6	92.6	15.6	14.8	2.9	3.5
Att Gen	Nelson	73.1	11.5	73.9	4.7	84.4	85.2	96.7	86.4
2018	Abbott	32.4	91.4	32.1	93.1	24.2	23.4	10.4	5.5
Gov	Valdez	66.4	8.3	67.0	3.9	75.8	76.6	89.6	90.2
2018	Patrick	25.9	89.2	25.4	93.0	17.3	16.7	3.8	3.0
Lt Gov	Collier	71.8	10.8	72.6	4.3	82.6	83.3	96.1	88.9
2018	Cruz	25.9	90.1	26.6	84.2	17.2	16.5	4.4	7.3
Sen	O'Rourke	73.4	9.9	72.9	13.3	82.8	83.5	95.6	90.1
2020	Trump	37.9	91.6	37.7	92.8	31.9	31.5	7.8	13.5
Prez	Biden	61.0	8.2	61.4	5.2	68.0	68.5	92.0	82.3
2020	Cornyn	35.6	92.5	35.4	93.8	29.6	29.2	10.2	6.3
Sen	Hegar	60.3	7.1	60.7	4.3	70.4	70.8	90.0	93.7

*South Texas Region Counties: Webb, Duval, Jim Wells, Zapata, Jim Hogg, Brooks, Starr, Hidalgo, Maverick, Dimmit, La Salle, McMullen, Live Oak, Zavala, Frio, Atascosa

Tarrant County Ecological Inference Candidate Choice Estimates – Dem Primary

		King's EI		RxC	
		Hispanic	Anglo	Hispanic	Anglo
2018	White	6.7	35.4	11.7	34.3
Gov	Valdez	65.2	46.7	69.7	48.0
	Other	17.6	14.9	18.6	17.7
2018	Hernandez	42.5	8.8	50.5	10.4
Sen	O'Rourke	34.6	85.7	35.5	85.0
	Other	34.1	3.4	14.0	4.6
2020	Alonzo	52.7	14.4	51.5	16.7
RR	Castaneda	15.5	40.4	22.6	41.5
	Stone	5.7	33.3	9.0	26.5
	Watson	20.0	16.6	16.8	15.3
2020	Hegar	4.4	32.4	3.6	32.7
Sen	West	19.2	9.4	14.1	9.8
	Latino combined	37.4	25.2	43.0	26.1
	Other	33.7	33.3	39.4	31.4
2022	Duddling	33.2	60.3	31.9	60.8
Comp	Mahoney	18.7	17.8	10.8	12.8
	Vega	48.1	21.9	44.3	18.0
2022	Lange	30.8	16.4	43.4	15.5
Land	Suh	12.7	31.0	8.8	31.1
	Kleberg	11.8	32.7	7.6	34.0
	Martinez	44.6	20.0	43.3	13.8