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U.S. DISTRICT COURT
N.D. OF ALABAMA

EXPERT REPORT OF MAXWELL PALMER, PH.D.

I, Dr. Maxwell Palmer, declare as follows:

1. My name is Maxwell Palmer. I am currently an Associate Professor of Political Science at Boston University. I joined the faculty at Boston University in 2014, after completing my Ph.D. in Political Science at Harvard University. I was promoted to Associate Professor, with tenure, in 2021. I teach and conduct research on American politics and political methodology.

2. I have published academic work in leading peer-reviewed academic journals, including the *American Political Science Review*, *Journal of Politics*, *Perspectives on Politics*, *British Journal of Political Science*, *Journal of Empirical Legal Studies*, and *Political Science Research and Methods*. My book, *Neighborhood Defenders: Participatory Politics and America's Housing Crisis* was published by Cambridge University Press in 2019. I have also published academic work in the *Ohio State University Law Review*. My published research uses a variety of analytical approaches, including statistics, geographic analysis, and simulations, and data sources including academic surveys, precinct-level election results, voter registration and vote history files, and census data. My curriculum vitae is attached to this report.

3. I have served as an expert witness or litigation consultant on numerous cases involving voting restrictions. I testified at trial or by deposition in *Bethune Hill v. Virginia* before the U.S. District Court for the Eastern District of Virginia (No. 3:14-cv-00852-REP-AWA-BMK); *Thomas v. Bryant* before the U.S. District Court for the Southern District of Mississippi (No. 3:18-CV-00441-CWR-FKB); *Chestnut v. Merrill* before the U.S. District Court for the Northern District of Alabama (No. 2:18-cv-00907-KOB); *Dwight v. Raffensperger* before the U.S. District Court for the Northern District of Georgia (No. 1:18-cv-2869-RWS); *Bruni v. Hughs* before the U.S. District Court for the Southern District of Texas (No. 5:20-cv-35); and *Texas Alliance for Retired Americans v. Hughs* before the U.S. District Court for the Southern District of Texas (No. 5:20-cv-128). I also served as the independent racially polarized voting analyst for the Virginia Redistricting Commission in 2021. I worked as a data analyst assisting testifying experts in *Perez v. Perry* before the U.S. District Court for the Western District of Texas (No. 5:11-cv-00360-OLG); in *LULAC v. Edwards Aquifer Authority* before the U.S. District Court for the Western District of Texas (No. 5:12-cv-00620-OLG); in *Harris v. McCrory* before the U. S. District Court for the Middle District of North Carolina (No. 1:13-cv-00949-WO-JEP); in *Guy v. Miller* before the U.S. District Court for the District of Nevada (No. 11-OC-00042-1B); in *In re Senate Joint Resolution of Legislative Apportionment* before the Florida Supreme Court (Nos. 2012-CA-412, 2012-CA-490); and in *Romo v. Detzner* before the Circuit Court of the Second Judicial

2:21-cv-01536-AMM
02/10/2025 Trial
Plaintiff Exhibit No. 13

Circuit in Florida (No. 2012 CA 412).

4. I am being compensated at a rate of $350/hour for my work in this case. No part of my compensation is dependent upon the conclusions that I reach or the opinions that I offer.

5. I was retained by the plaintiffs in this litigation to offer an expert opinion on the extent to which voting is racially polarized in parts of Alabama. I was also asked to evaluate the performance of the majority-minority districts in the plaintiffs' illustrative maps.

6. I find strong evidence of racially polarized voting across the focus area, which is comprised of the 1st, 2nd, 3rd, 6th, and 7th Congressional Districts under the 2021 redistricting map. Black and White voters consistently support different candidates. I also find strong evidence of racially polarized voting in each of the five individual congressional districts.

7. Black-preferred candidates are largely unable to win elections in the focus area. Across an analysis of 12 statewide elections, the Black-preferred candidate was able to win in the focus area only once. When taken on a district-by-district basis, the Black-preferred candidate was defeated in every one of the 12 elections analyzed in the 1st, 2nd, 3rd, and 6th Congressional Districts. The Black-preferred candidate won a majority of the vote in District 7 in all 12 elections.

8. Under all six of the illustrative maps, I find that Black-preferred candidates are able to win elections in both majority-minority districts.

Data Sources and Elections Analyzed

9. For the purpose of my analysis, I examined elections in the 1st, 2nd, 3rd, 6th, and 7th Congressional Districts, under the plan adopted by the state legislature in 2021. Collectively, I refer to this area as the "focus area." Figure 1 maps the focus area.

10. To analyze racially polarized voting, I examined election results from the 2012, 2014, 2016, 2018, and 2020 general elections, and the 2017 special election for U.S. Senate. I included statewide elections for U.S President, U.S. Senate, Governor, Lieutenant Governor, Secretary of State, Attorney General, State Auditor, Treasurer, Commissioner of Agriculture and Industries, Chief Justice of the State Supreme Court, and Associate Justice of the State Supreme Court. I excluded all offices that were only contested by one of the major parties.

11. I analyzed racially polarized voting using two different data sources:

- Precinct-level election results and data on Citizen Voting Age Population (CVAP) by race for the 2016, 2018, and 2020 general elections and the 2017 special election for U.S. Senate. The precinct level data was assembled by the Voting and Election Science Team, an academic group that provides precinct-level data for U.S. Elections, based on data from the Secretary of State. This data was then updated to use 2020 Voting Tabulation

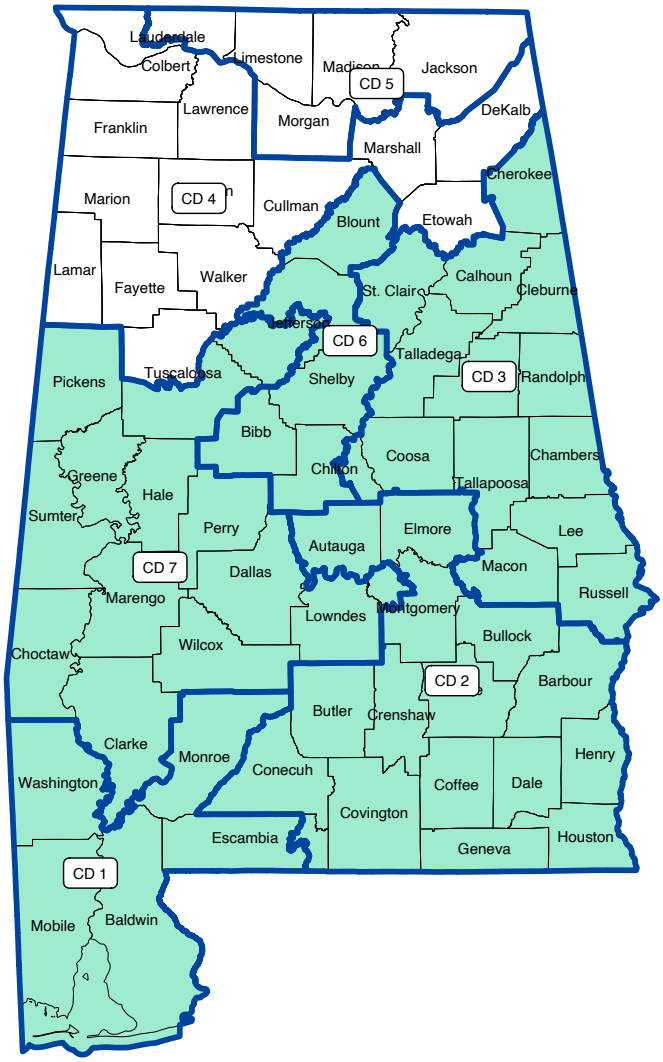

Figure 1: Map of the Focus Area

Districts (VTDs), and distributed on the Redistricting Data Hub.[1] I merged this with Citizen Voting Age Population data from the U.S. Census' American Community Survey (ACS).[2] I used CVAP data at the census block group level, and allocated populations to 2020 VTDs. When census blocks or VTDs were split, I weighted the population data using 2010 census block populations.[3]

- Precinct-level election results and data on actual voter turnout by race for the 2020

[1] https://redistrictingdatahub.org/dataset/2016-al-election-data-projected-to-2020-vtds/; https://redistrictingdatahub.org/dataset/2018-al-election-data-projected-to-2020-vtds/; https://redistrictingdatahub.org/dataset/2020-al-election-data-projected-to-2020-vtds/. For 2017, I used 2017 election results and shape files provided by VEST at https://doi.org/10.7910/DVN/VNJAB1 and updated the results to use 2020 VTDs.

[2] https://www.census.gov/programs-surveys/decennial-census/about/voting-rights/cvap.html

[3] I used the ACS 2014-2018 5-year averages for the 2016 election, and ACS 2015-2019 5-year averages for the 2017, 2018, and 2020 elections.

general elections. The precinct level data was assembled by the Voting and Election Science Team and updated to use 2020 Voting Tabulation Districts (VTDs), and distributed on the Redistricting Data Hub.[4] Actual turnout by race was calculated by the Redistricting Data Hub using a commercial voter file provided by the data vendor L2.[5] This data provides a close estimate of the actual number of voters who cast a ballot in each VTD in the 2020 general election.[6]

- County-level election results and data on voter registration by race for the 2012 and 2014 general elections. This data was downloaded from the website of the Alabama Secretary of State.[7] I use this data to estimate racially polarized voting at the county level for the focus area in 2012 and 2014, where precinct-level data is not available.

Racially Polarized Voting Analysis

13. In analyzing racially polarized voting in each election, I used a statistical procedure, ecological inference (EI), that estimates group-level preferences based on aggregate data. I analyzed the results for three racial demographic groups: Non-Hispanic Black, non-Hispanic White, and Other, based on the voters' self-identified race in the voter registration database or American Community Survey Citizen Voting Age Population ("CVAP") data. I excluded third party and write-in candidates, and analyzed votes for the two major-party candidates in each election. The results of this analysis are estimates of the percentage of each group that voted for the candidate from each party in each election. The results include both a mean estimate (the most likely vote share), and a 95% confidence interval.[8]

14. Interpreting the results of the ecological inference models proceeds in two general stages. First, I examined the support for each candidate by each demographic group to determine if members of the group vote cohesively in support of a single candidate in each election. When a significant majority of the group supports a single candidate, I can then identify that candidate as the group's candidate of choice. If the group's support is roughly evenly divided between the two candidates, then the group does not cohesively support a single candidate and does not have a clear preference. Second,

[4] https://redistrictingdatahub.org/dataset/2020-al-election-data-projected-to-2020-vtds/

[5] https://redistrictingdatahub.org/dataset/2020-alabama-elections-turnout-by-race-ethnicity-aggregated-to-2020-census-vtds/

[6] The estimates provided in this data source are inexact because the voter file used for the calculation is dated August 22, 2021. It is missing any voters removed from the voter file between election day and this date, and may also locate voters who changed addresses since the election in the wrong precinct. I validated this data by comparing county totals by race to actual turnout by race data from the Secretary of State.

[7] https://www.sos.alabama.gov/alabama-votes/voter/election-data

[8] The 95% confidence interval is a measure of uncertainty in the estimates from the model. For example, the model might estimate that 94% of the members of a group voted for a particular candidate, with a 95% confidence interval of 91-96%. This means that based on the data and the model assumptions, 95% of the simulated estimates for this group fall in the range of 91-96%, with 94% being the average value. Larger confidence intervals reflect a higher degree of uncertainty in the estimates, while smaller confidence intervals reflect less uncertainty. For the analyses using Citizen Voting Age Population data and voter registration data, I estimated models that allow for different voter turnout levels by race.

after identifying the preferred candidate for each group (or the lack of such a candidate), I then compared the preferences of White voters to the preferences of Black voters. Evidence of racially polarized voting is found when Black voters and White voters support different candidates.

15. Figure 2 presents the estimates of support for the Black-Preferred candidate for Black and White voters for all 12 electoral contests from 2016 to 2020 using precinct-level election data and Citizen Voting Age Population data. Here, I present only the estimates and confidence intervals, and exclude individual election labels. Full results for each election are presented in Figure 3 and Table 2. In each panel, the solid dots correspond to an estimate in a particular election, and the gray vertical lines behind each dot are the 95% confidence intervals for the estimate.[9]

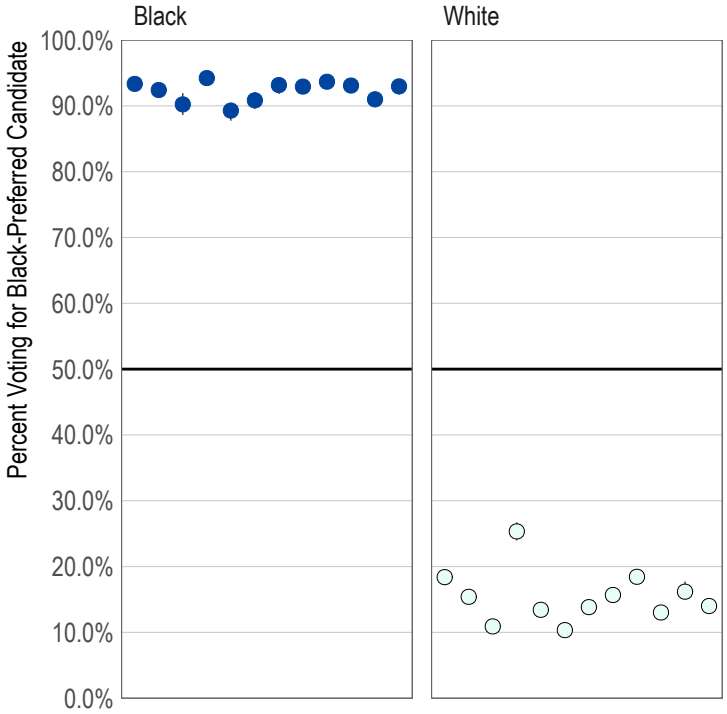

Figure 2: Racially Polarized Voting Estimates by Race — Focus Area

16. Examining Figure 2, the estimates for support for Black-Preferred candidates by Black voters are all significantly above 50%. Black voters are extremely cohesive, with a clear candidate of choice in all 12 elections. On average, Black voters supported their candidates of choice with 92.3% of the vote.

17. In contrast to the Black voters, Figure 2 shows that White voters are highly cohesive in voting in opposition to the Black candidate of choice in every election. On average, White voters supported Black-preferred candidates with 15.4% of the vote, and in no election did this estimate exceed 26%.

[9] In some cases the lines for the confidence intervals are not visible behind the dots because they are relatively small.

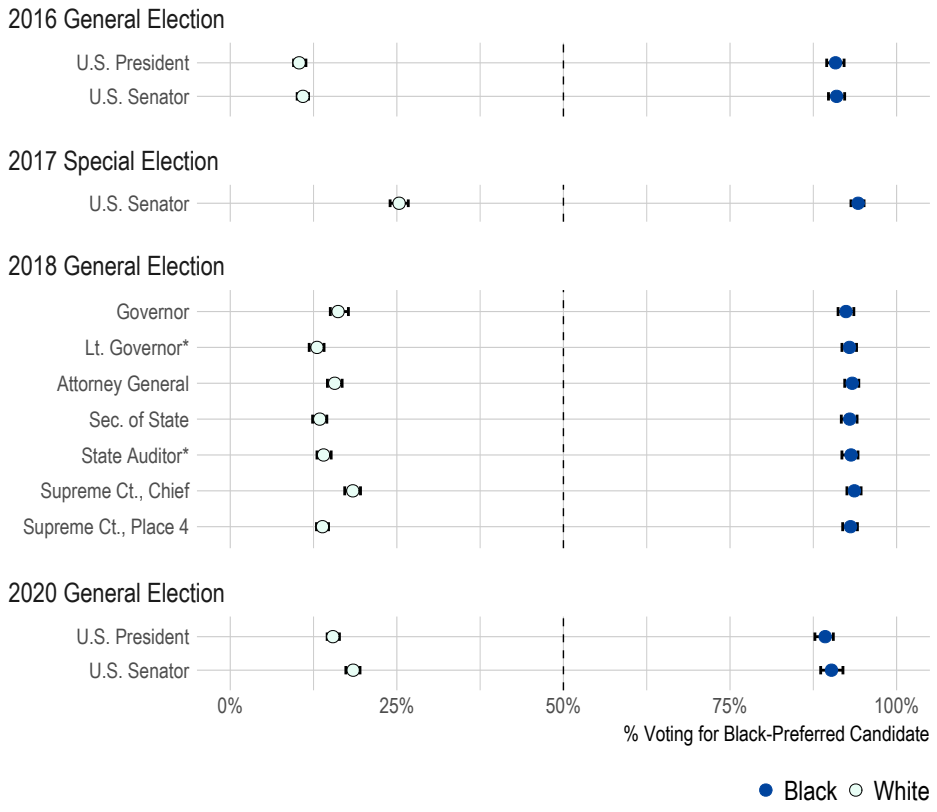

Figure 3: Racially Polarized Voting Estimates by Election — Focus Area

18. Figure 3 presents the same results as Figure 2, separated by each electoral contest. The estimated levels of support for the Black-Preferred candidate in each election for each group are represented by the colored points, and the horizontal lines indicate the range of the 95% confidence intervals. In every election, Black voters have a clear candidate of choice, and White voters are strongly opposed to this candidate.

19. Table 9 presents the ecological inference results for the precinct-level data with actual voter turnout by race for 2020. These results support the findings discussed above. Black voters are highly cohesive and have a clear candidate of choice in each election, and White voters cohesively oppose the Black candidates of choice.

20. While the precinct data is limited to 2016 to 2020, county-level election results provide similar evidence of racially polarized voting in 2012 and 2014. Figure 4 and Table 3 present county-level ecological inference results for these elections, using county-level voter registration by race to estimate the voting population. The results are consistent across these seven elections; Black voters have a clear candidate of choice in each election, and White voters strongly opposed the Black-preferred candidates.

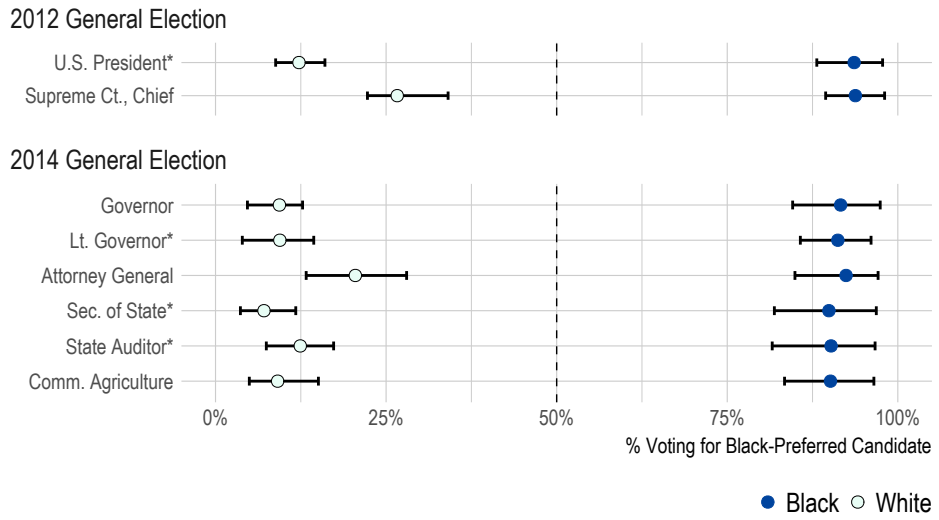

Figure 4: Racially Polarized Voting Estimates by Election Using County-Level Data — Focus Area

21. There is also strong evidence of racially polarized voting in each of the five congressional districts that comprise the focus area. Figure 5 plots the results, and Tables 4–8 present the full results, using precinct-level election results and Citizen Voting Age Population Data.[10] Black voters are extremely cohesive, with a clear candidate of choice in all 12 elections in each district. On average, Black voters supported their candidates of choice with 92.7% of the vote in CD 1, 88.8% in CD 2, 90.0% in CD 3, 92.2% in CD 6, and 94.4% in CD 7.[11]

22. In contrast to the Black voters, Figure 5 shows that White voters are highly cohesive in voting in opposition to the Black candidate of choice in every election in each district. On average, White voters supported Black-preferred candidates with 16.2% of the vote in CD 1, 9.2% in CD 2, 11.9% in CD 3, 22.8% in CD 6, and 25.0% in CD 7.

Performance of Black-Preferred Candidates in the Focus Area

23. Having identified the Black candidate of choice in each election, I now turn to their ability to win elections in these districts. Table 1 presents the results of each election in the focus area and each congressional district for the 2016 to 2020 elections. For each election, I present the vote share obtained by the Black-preferred candidate.

24. Across the 12 statewide contests analyzed, the Black-preferred candidate won only once in the focus area. In all other cases, the White-preferred candidate won the

[10] Table 9 presents the ecological inference results for the precinct-level data with actual voter turnout by race for 2020.

[11] I restrict this analysis to the 2016–2020 elections because the necessary precinct-level data is not available for 2012 and 2014.

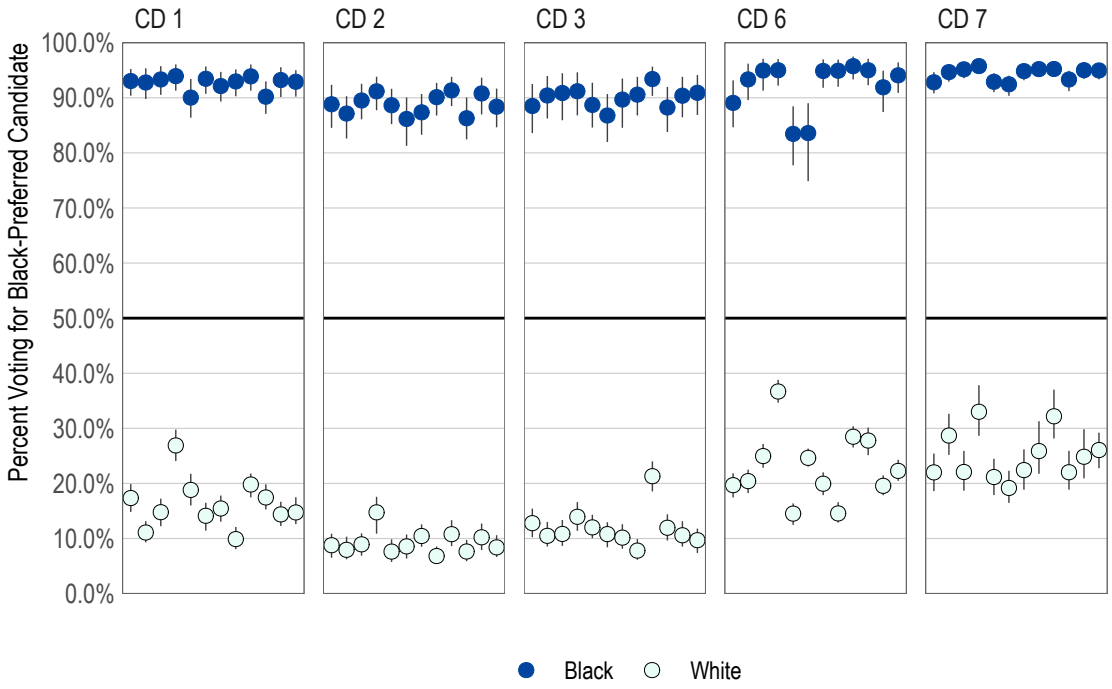

Figure 5: Racially Polarized Voting Estimates by Race — Congressional Districts

majority of the vote. In the 1st, 2nd, 3rd, and 6th Congressional Districts, the White-preferred candidate defeated the Black-preferred candidate in all 12 elections. In the 7th Congressional District, the Black-preferred candidate won all 12 elections.[12]

25. The Black-preferred candidate won the majority of the vote in the focus area in only one contest, the 2017 special election for U.S. Senate. In this election the White-preferred candidate was Roy Moore, a former Chief Justice of the Alabama Supreme Court.[13] Moore is a uniquely controversial figure in Alabama politics, having been removed from his position on the Supreme Court in 2003, and later suspended from his position on the Supreme Court in 2016 following his 2012 election. In the 2017 U.S. Senate election, Moore was also accused of sexual assault and misconduct by several women.[14] Moore's unique unpopularity is highlighted by a statement of the National Republican Senate Committee on the 2020 Senate race: " 'The NRSC's official stance is ABRM: anyone but Roy Moore,' said Kevin McLaughlin, the committee's executive director. 'The only thing Doug Jones and I agree on is that his only prayer for electoral success in

[12] I restrict this analysis to the 2016–2020 elections where I have precinct-level data in order to analyze performance in each Congressional District. However, the results are similar when I include the 2012 and 2014 elections at the county-level for the focus area; Black-preferred candidates win only one of the eight statewide elections analyzed in 2012 and 2014.

[13] When the 2012 and 2014 elections are included for the focus area, the Black-preferred candidate wins one additional election, the 2012 election for Chief Justice of the Supreme Court. In this election, the White-preferred candidate was Roy Moore as well.

[14] Notwithstanding these potentially distinguishing features of Mr. Moore's candidacy, more than 74% of White voters voted for Moore in 2012 and 2017. See Table 2.

2020 is a rematch with Roy Moore.' "[15] However, the Black-preferred candidate, Doug Jones, won this election in the focus area only because of his large margin of victory in the 7th Congressional District; Moore won the majority of the vote in the other four congressional districts in the focus area.

Performance of the Majority-Minority Districts in the Illustrative Maps

26. I also analyzed the performance of Black-preferred candidates for the versions of CD 2 and CD 7 in the plaintiffs' six illustrative maps by calculating the percentage of the vote won by the Black-preferred candidates across the twelve statewide races from 2016 through 2020 analyzed above.

27. Figure 6 presents the results of this analysis. In the two majority-minority districts in each illustrative map, CD 2 and CD 7, the Black-preferred candidate won all twelve statewide elections, with an average of at least 57% of the vote in all maps for CD 2, and an average of at least 65% of the vote for CD 7. Figure 7 plots the vote shares in each election of the Black-preferred candidates for districts 2 and 7 for each illustrative map. In Districts 1, 3, and 6 the White-preferred candidate defeated the Black-preferred candidate in all 12 elections. Tables 10-15 provide the full results in all districts for each map.

I reserve the right to continue to supplement my reports in light of additional facts, testimony and/or materials that may come to light.

I declare under penalty of perjury that the foregoing is true and correct.

Maxwell Pal

Executed on: December 10, 2021

[15] https://www.politico.com/newsletters/playbook-pm/2019/02/28/netanyahu-indicted-pelosi-attempts-to-wrangle-dems-and-says-noko-won-the-summit-401605

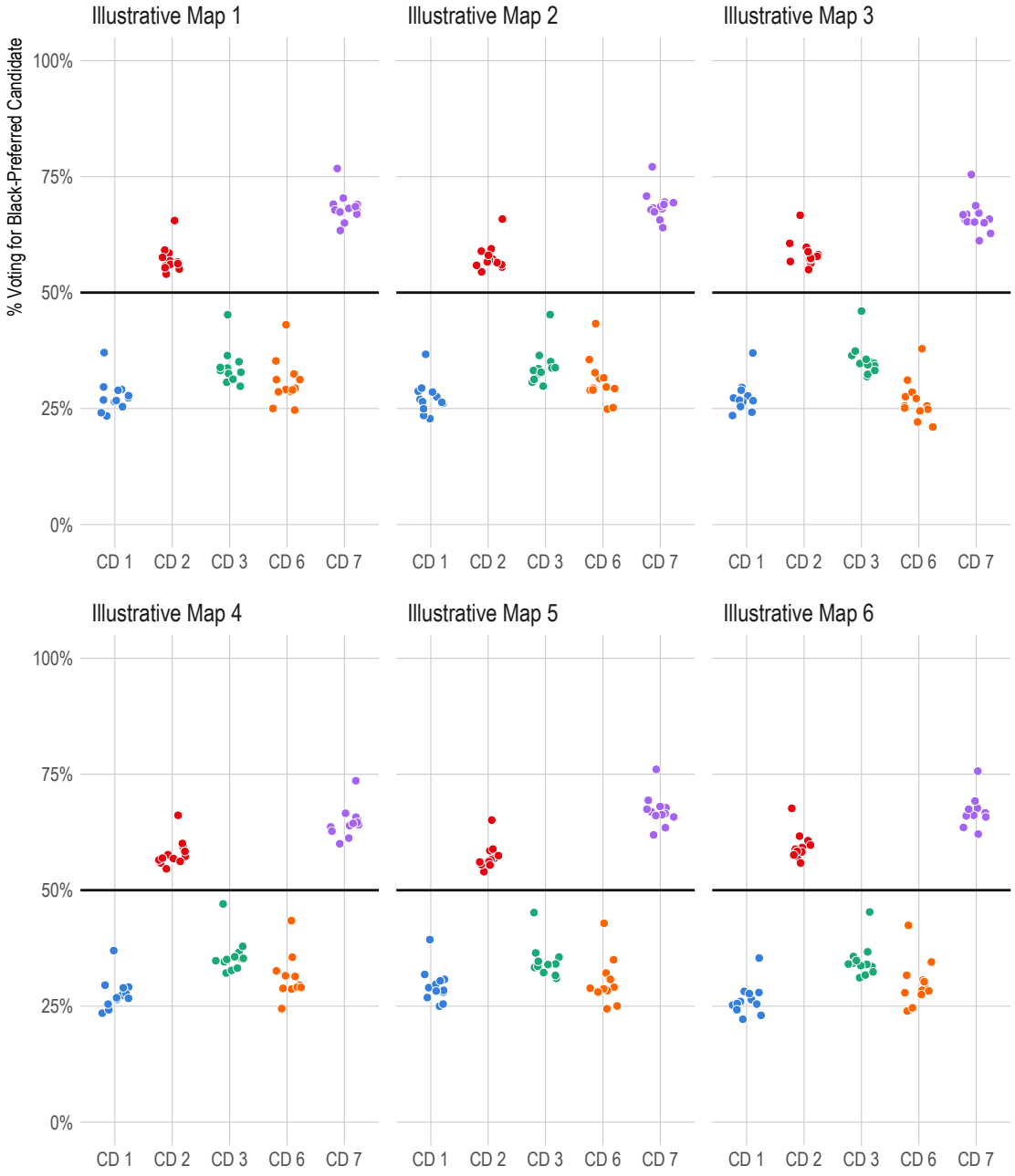

Figure 6: Vote Shares of Black-Preferred Candidates Under the Illustrative Maps

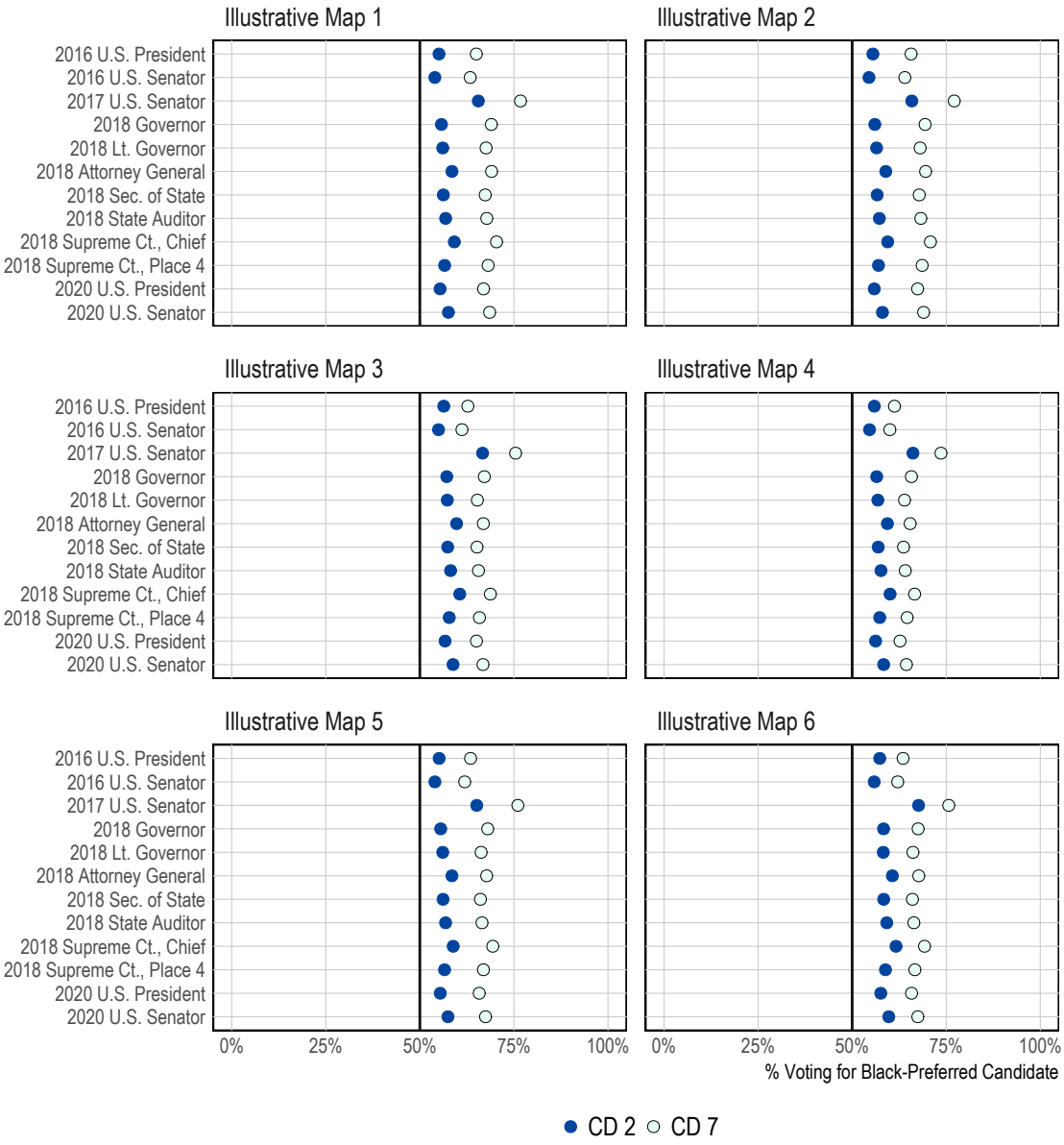

Figure 7: Vote Shares of Black-Preferred Candidates Under the Illustrative Maps, Districts 2 and 7

Table 1: Election Results in the Focus Area — Vote Share of Black-Preferred Candidates

		Focus Area	CD 1	CD 2	CD 3	CD 6	CD 7
2016	U.S. President	39.5%	35.0%	33.3%	32.1%	29.7%	65.7%
	U.S. Senator	39.3%	34.6%	33.7%	33.0%	29.7%	64.1%
2017	U.S. Senator	54.3%	49.1%	45.7%	47.0%	48.6%	76.2%
2018	Governor	43.8%	39.4%	35.8%	35.4%	37.9%	68.0%
	Lt. Governor	42.3%	37.7%	35.7%	34.6%	34.3%	67.1%
	Attorney General	44.6%	40.3%	38.8%	36.4%	36.7%	68.6%
	Sec. of State	42.4%	37.9%	35.8%	34.8%	34.5%	67.0%
	State Auditor	42.9%	38.6%	36.8%	35.1%	35.0%	67.4%
	Supreme Ct., Chief	46.2%	41.9%	38.5%	37.8%	40.8%	69.6%
	Supreme Ct., Place 4	42.7%	38.1%	36.1%	35.1%	34.7%	67.7%
2020	U.S. President	40.9%	35.7%	35.2%	32.8%	34.6%	66.2%
	U.S. Senator	43.4%	39.1%	37.8%	35.2%	37.2%	67.8%

Table 2: Ecological Inference Results — Estimated Vote Share of Black-Preferred Candidates — Precinct-Level Election Data with Citizen Voting Age Population — Focus Area

		Black	White	Other
2016	U.S. President	90.8% (89.5, 92.1)	10.3% (9.5, 11.4)	68.8% (63.9, 74.0)
	U.S. Senator	91.0% (89.8, 92.2)	10.9% (10.0, 11.7)	70.7% (64.8, 77.0)
2017	U.S. Senator	94.2% (93.2, 95.1)	25.3% (24.0, 26.7)	79.9% (70.3, 86.8)
2018	Governor	92.4% (91.2, 93.6)	16.2% (15.0, 17.7)	78.1% (69.1, 84.3)
	Lt. Governor*	92.9% (91.8, 94.0)	13.0% (11.8, 14.1)	79.9% (73.2, 85.2)
	Attorney General	93.3% (92.2, 94.3)	15.7% (14.6, 16.8)	83.6% (78.2, 88.1)
	Sec. of State	93.0% (91.7, 94.1)	13.4% (12.4, 14.5)	81.3% (74.6, 87.2)
	State Auditor*	93.2% (91.8, 94.2)	14.0% (13.0, 15.1)	81.5% (76.2, 86.3)
	Supreme Ct., Chief	93.7% (92.5, 94.7)	18.4% (17.2, 19.5)	82.0% (75.4, 87.9)
	Supreme Ct., Place 4	93.1% (91.9, 94.1)	13.8% (12.9, 14.7)	80.9% (73.6, 87.6)
2020	U.S. President	89.3% (87.7, 90.5)	15.4% (14.5, 16.4)	66.1% (60.9, 72.2)
	U.S. Senator	90.2% (88.6, 91.9)	18.4% (17.4, 19.5)	71.9% (66.7, 76.6)

* Indicates that the Black candidate of choice was Black.

Table 3: Ecological Inference Results — Estimated Vote Share of Black-Preferred Candidates — County-Level Election Data with Voter Registration by Race — Focus Area

		Black	White	Other
2012	U.S. President*	93.6% (88.1, 97.8)	12.2% (8.8, 16.0)	52.6% (16.7, 84.5)
	Supreme Ct., Chief	93.8% (89.4, 98.1)	26.6% (22.3, 34.1)	56.1% (19.2, 86.4)
2014	Governor	91.6% (84.6, 97.4)	9.4% (4.7, 12.8)	50.9% (20.6, 82.3)
	Lt. Governor*	91.2% (85.7, 96.1)	9.4% (3.9, 14.4)	51.9% (16.0, 82.9)
	Attorney General	92.4% (84.9, 97.1)	20.5% (13.3, 28.0)	62.7% (28.1, 93.0)
	Sec. of State*	89.9% (81.9, 96.8)	7.1% (3.6, 11.8)	55.4% (22.6, 85.4)
	State Auditor*	90.2% (81.6, 96.7)	12.4% (7.4, 17.3)	54.5% (22.5, 84.1)
	Comm. Agriculture	90.1% (83.4, 96.5)	9.1% (5.0, 15.1)	54.2% (23.3, 82.2)

* Indicates that the Black candidate of choice was Black.

Table 4: Ecological Inference Results — Estimated Vote Share of Black-Preferred Candidates — Precinct-Level Election Data with Citizen Voting Age Population — CD 1

		Black	White	Other
2016	U.S. President	93.0% (90.3, 95.2)	9.9% (8.1, 12.1)	66.8% (50.3, 79.8)
	U.S. Senator	92.1% (89.3, 94.7)	11.1% (9.3, 13.1)	63.3% (37.1, 80.6)
2017	U.S. Senator	93.9% (91.3, 96.0)	26.9% (24.1, 29.8)	63.1% (41.4, 80.7)
2018	Governor	92.9% (90.2, 95.0)	17.5% (15.3, 19.8)	65.0% (41.1, 83.0)
	Lt. Governor*	92.8% (89.8, 95.4)	14.1% (11.4, 16.5)	69.3% (50.7, 83.8)
	Attorney General	93.9% (91.3, 96.1)	17.3% (14.8, 19.9)	73.3% (45.8, 86.4)
	Sec. of State	93.0% (90.4, 95.2)	14.7% (12.6, 17.5)	71.0% (50.3, 86.9)
	State Auditor*	93.2% (90.1, 95.6)	15.5% (13.1, 17.8)	72.4% (51.1, 85.4)
	Supreme Ct., Chief	93.5% (90.7, 95.7)	19.8% (17.5, 21.8)	73.9% (57.9, 86.1)
	Supreme Ct., Place 4	93.3% (90.5, 95.7)	14.8% (12.2, 17.2)	70.7% (49.3, 84.6)
2020	U.S. President	90.0% (86.4, 93.4)	14.4% (12.3, 16.7)	55.4% (42.0, 71.0)
	U.S. Senator	90.2% (87.1, 93.0)	18.8% (16.0, 21.7)	64.6% (46.7, 78.7)

* Indicates that the Black candidate of choice was Black.

Table 5: Ecological Inference Results — Estimated Vote Share of Black-Preferred Candidates — Precinct-Level Election Data with Citizen Voting Age Population — CD 2

		Black	White	Other
2016	U.S. President	86.2% (81.3, 90.1)	6.8% (5.5, 8.6)	60.9% (42.5, 75.8)
	U.S. Senator	87.4% (83.3, 90.7)	7.6% (5.7, 9.9)	70.3% (48.7, 84.3)
2017	U.S. Senator	91.3% (88.5, 93.8)	14.8% (10.9, 17.6)	70.9% (50.5, 86.1)
2018	Governor	88.8% (84.5, 92.4)	8.6% (6.4, 10.7)	64.8% (37.9, 82.4)
	Lt. Governor*	88.6% (85.2, 91.6)	7.9% (6.2, 10.3)	71.3% (50.5, 85.5)
	Attorney General	90.8% (87.0, 93.6)	10.5% (8.5, 12.6)	66.1% (48.4, 80.2)
	Sec. of State	88.4% (84.6, 91.7)	8.4% (6.7, 10.6)	68.8% (47.1, 84.1)
	State Auditor*	89.5% (86.1, 92.5)	8.8% (6.5, 10.9)	68.9% (45.7, 85.4)
	Supreme Ct., Chief	91.2% (87.7, 93.8)	10.2% (7.9, 12.7)	72.3% (54.0, 86.7)
	Supreme Ct., Place 4	90.1% (86.8, 92.7)	7.6% (5.9, 9.7)	73.7% (55.7, 87.4)
2020	U.S. President	87.1% (82.6, 90.3)	8.9% (6.9, 10.9)	60.0% (46.3, 76.2)
	U.S. Senator	86.3% (82.5, 90.1)	10.8% (8.6, 13.3)	71.0% (50.8, 83.4)

* Indicates that the Black candidate of choice was Black.

Table 6: Ecological Inference Results — Estimated Vote Share of Black-Preferred Candidates — Precinct-Level Election Data with Citizen Voting Age Population — CD 3

		Black	White	Other
2016	U.S. President	88.7% (84.6, 92.7)	7.8% (6.1, 9.9)	77.4% (63.1, 91.0)
	U.S. Senator	88.5% (83.6, 92.5)	10.5% (8.6, 13.0)	71.8% (54.9, 84.1)
2017	U.S. Senator	93.4% (90.3, 95.7)	21.3% (18.6, 24.0)	82.4% (70.0, 91.1)
2018	Governor	89.7% (84.6, 93.5)	12.0% (10.1, 14.3)	72.6% (58.1, 84.9)
	Lt. Governor*	90.6% (86.8, 93.8)	10.2% (8.1, 12.6)	76.7% (60.9, 88.5)
	Attorney General	90.4% (86.5, 93.8)	12.8% (10.2, 15.4)	76.0% (59.8, 88.5)
	Sec. of State	90.9% (86.9, 94.1)	10.8% (8.7, 13.4)	72.6% (47.8, 87.8)
	State Auditor*	90.4% (86.2, 94.0)	10.6% (8.5, 13.1)	76.3% (63.3, 86.1)
	Supreme Ct., Chief	90.9% (85.9, 94.5)	13.9% (11.4, 16.6)	79.7% (63.7, 91.1)
	Supreme Ct., Place 4	91.2% (86.8, 94.6)	10.8% (8.4, 13.0)	73.5% (56.1, 85.9)
2020	U.S. President	86.8% (82.0, 90.7)	9.7% (7.4, 11.8)	67.7% (56.3, 79.8)
	U.S. Senator	88.2% (83.8, 92.0)	12.0% (9.6, 14.4)	73.5% (59.1, 86.0)

* Indicates that the Black candidate of choice was Black.

Table 7: Ecological Inference Results — Estimated Vote Share of Black-Preferred Candidates — Precinct-Level Election Data with Citizen Voting Age Population — CD 6

		Black	White	Other
2016	U.S. President	91.9% (87.4, 94.9)	14.5% (12.5, 16.4)	48.4% (34.5, 68.6)
	U.S. Senator	89.1% (84.6, 93.2)	14.6% (12.9, 16.6)	57.8% (45.6, 69.7)
2017	U.S. Senator	93.3% (89.6, 96.2)	36.7% (34.7, 38.8)	46.9% (25.3, 72.6)
2018	Governor	94.1% (90.9, 96.4)	25.0% (22.8, 27.2)	48.9% (27.6, 76.4)
	Lt. Governor*	95.0% (92.3, 97.1)	19.6% (17.9, 21.5)	52.6% (29.2, 80.3)
	Attorney General	94.9% (91.8, 97.0)	22.3% (20.5, 24.3)	61.8% (39.5, 81.8)
	Sec. of State	95.0% (92.2, 97.0)	19.9% (17.9, 22.0)	53.6% (24.5, 77.9)
	State Auditor*	94.9% (92.0, 96.9)	20.4% (18.2, 22.5)	53.3% (26.6, 81.7)
	Supreme Ct., Chief	95.0% (91.3, 97.1)	28.5% (26.5, 30.4)	52.9% (26.9, 80.4)
	Supreme Ct., Place 4	95.7% (93.3, 97.5)	19.7% (17.4, 21.8)	57.3% (34.1, 79.0)
2020	U.S. President	83.5% (77.7, 88.4)	24.6% (23.1, 26.3)	35.2% (20.2, 59.0)
	U.S. Senator	83.6% (74.9, 89.0)	27.8% (25.1, 30.1)	38.5% (23.6, 54.8)

* Indicates that the Black candidate of choice was Black.

Table 8: Ecological Inference Results — Estimated Vote Share of Black-Preferred Candidates — Precinct-Level Election Data with Citizen Voting Age Population — CD 7

		Black	White	Other
2016	U.S. President	93.3% (91.2, 94.9)	21.2% (17.9, 24.5)	82.1% (71.9, 89.3)
	U.S. Senator	92.9% (91.0, 94.5)	19.2% (16.5, 22.3)	80.4% (69.7, 90.1)
2017	U.S. Senator	95.8% (94.6, 96.9)	32.2% (28.2, 37.0)	88.1% (79.4, 93.9)
2018	Governor	94.7% (92.9, 96.0)	24.8% (20.9, 29.8)	83.0% (72.6, 91.4)
	Lt. Governor*	94.8% (93.2, 96.1)	22.1% (18.7, 25.9)	84.0% (67.6, 92.0)
	Attorney General	95.0% (93.4, 96.4)	25.9% (21.8, 31.3)	87.5% (80.1, 93.4)
	Sec. of State	95.0% (93.3, 96.2)	22.0% (18.6, 25.4)	88.5% (80.7, 93.9)
	State Auditor*	95.2% (93.9, 96.3)	22.4% (18.9, 26.2)	85.5% (73.2, 92.9)
	Supreme Ct., Chief	95.2% (93.8, 96.5)	26.1% (22.8, 29.2)	89.3% (81.5, 94.1)
	Supreme Ct., Place 4	95.2% (93.5, 96.5)	22.0% (18.9, 25.9)	89.3% (82.1, 94.6)
2020	U.S. President	92.4% (90.4, 94.0)	28.7% (25.2, 32.6)	77.3% (69.1, 86.1)
	U.S. Senator	92.8% (90.8, 94.7)	33.0% (28.6, 37.8)	84.4% (74.2, 92.6)

* Indicates that the Black candidate of choice was Black.

Table 9: Ecological Inference Results — Estimated Vote Share of Black-Preferred Candidates — Precinct-Level Election Data with Voter Turnout by Race — 2020 Elections

		Black	White	Other
Focus Area	U.S. President	97.3% (96.8, 97.6)	9.1% (8.7, 9.5)	82.0% (78.6, 84.9)
	U.S. Senator	97.6% (97.2, 98.0)	12.1% (11.8, 12.5)	88.9% (85.6, 91.6)
CD 1	U.S. President	96.5% (95.2, 97.6)	8.6% (7.5, 9.8)	75.9% (66.3, 83.1)
	U.S. Senator	97.0% (95.5, 98.1)	12.7% (11.7, 14.0)	82.1% (72.7, 89.7)
CD 2	U.S. President	96.9% (95.7, 97.8)	5.6% (4.7, 6.8)	68.6% (58.2, 77.2)
	U.S. Senator	97.1% (96.0, 98.0)	6.9% (6.4, 7.6)	92.8% (88.3, 96.0)
CD 3	U.S. President	96.7% (95.3, 97.8)	7.4% (6.8, 8.2)	83.1% (75.9, 88.7)
	U.S. Senator	97.0% (95.5, 98.1)	10.7% (9.9, 11.7)	83.9% (74.8, 91.1)
CD 6	U.S. President	97.0% (95.5, 98.1)	11.8% (11.2, 12.6)	91.6% (86.0, 95.3)
	U.S. Senator	96.8% (94.8, 98.1)	15.2% (14.6, 16.0)	93.0% (88.4, 96.2)
CD 7	U.S. President	97.5% (97.0, 98.0)	16.6% (15.0, 19.3)	66.4% (39.8, 80.6)
	U.S. Senator	98.0% (97.4, 98.4)	19.7% (18.4, 21.2)	71.5% (58.3, 82.4)

Table 10: Vote Share of Black-Preferred Candidates — Illustrative Map 1

		CD 1	CD 2	CD 3	CD 4	CD 5	CD 6	CD 7
2016	U.S. President	23.4%	55.1%	29.8%	16.1%	33.9%	24.7%	65.0%
	U.S. Senator	24.1%	54.0%	30.7%	19.0%	34.4%	25.0%	63.4%
2017	U.S. Senator	37.1%	65.5%	45.2%	27.8%	51.4%	43.1%	76.8%
2018	Attorney General	29.1%	58.5%	35.1%	21.6%	41.2%	31.2%	69.1%
	State Auditor	27.3%	56.9%	33.6%	19.7%	39.8%	29.4%	67.8%
	Governor	27.8%	55.7%	33.7%	21.9%	40.1%	32.5%	69.0%
	Lt. Governor	26.5%	56.1%	32.5%	18.7%	38.5%	28.7%	67.6%
	Supreme Ct., Place 4	26.9%	56.6%	33.2%	20.1%	39.8%	29.1%	68.1%
	Supreme Ct., Chief	29.7%	59.2%	36.4%	22.6%	41.9%	35.3%	70.4%
	Sec. of State	26.7%	56.2%	32.8%	19.0%	39.1%	29.0%	67.4%
2020	U.S. President	25.4%	55.4%	31.3%	16.5%	37.2%	28.6%	66.9%
	U.S. Senator	28.9%	57.6%	33.9%	19.6%	40.5%	31.2%	68.5%

Table 11: Vote Share of Black-Preferred Candidates — Illustrative Map 2

		CD 1	CD 2	CD 3	CD 4	CD 5	CD 6	CD 7
2016	U.S. President	22.8%	55.5%	29.8%	16.1%	33.9%	24.9%	65.7%
	U.S. Senator	23.5%	54.5%	30.7%	19.0%	34.4%	25.2%	64.0%
2017	U.S. Senator	36.7%	65.8%	45.3%	27.8%	51.4%	43.3%	77.1%
2018	Attorney General	28.7%	58.9%	35.1%	21.6%	41.2%	31.5%	69.5%
	State Auditor	27.0%	57.2%	33.6%	19.7%	39.8%	29.6%	68.3%
	Governor	27.5%	56.0%	33.7%	21.9%	40.1%	32.7%	69.4%
	Lt. Governor	26.1%	56.5%	32.5%	18.7%	38.5%	29.0%	68.1%
	Supreme Ct., Place 4	26.5%	57.0%	33.2%	20.1%	39.8%	29.4%	68.6%
	Supreme Ct., Chief	29.4%	59.4%	36.4%	22.6%	41.9%	35.6%	70.8%
	Sec. of State	26.4%	56.6%	32.8%	19.0%	39.1%	29.3%	67.8%
2020	U.S. President	24.9%	55.9%	31.3%	16.5%	37.2%	29.0%	67.4%
	U.S. Senator	28.6%	58.0%	33.8%	19.6%	40.5%	31.6%	69.0%

Table 12: Vote Share of Black-Preferred Candidates — Illustrative Map 3

		CD 1	CD 2	CD 3	CD 4	CD 5	CD 6	CD 7
2016	U.S. President	23.5%	56.4%	31.9%	17.7%	33.9%	21.0%	62.8%
	U.S. Senator	24.2%	55.0%	32.4%	20.4%	34.4%	22.1%	61.2%
2017	U.S. Senator	37.0%	66.7%	46.0%	31.3%	51.4%	37.9%	75.4%
2018	Attorney General	29.1%	59.8%	36.5%	23.4%	41.2%	27.6%	66.9%
	State Auditor	27.3%	58.2%	35.0%	21.6%	39.8%	25.6%	65.6%
	Governor	27.7%	57.2%	34.7%	23.9%	40.1%	28.5%	67.1%
	Lt. Governor	26.5%	57.3%	34.2%	20.5%	38.5%	24.9%	65.3%
	Supreme Ct., Place 4	26.8%	57.8%	34.7%	21.8%	39.8%	25.6%	65.8%
	Supreme Ct., Chief	29.5%	60.6%	37.4%	24.6%	41.9%	31.1%	68.7%
	Sec. of State	26.7%	57.4%	34.4%	20.8%	39.1%	25.1%	65.2%
2020	U.S. President	25.4%	56.7%	33.2%	18.1%	37.2%	24.5%	65.0%
	U.S. Senator	29.0%	58.8%	35.6%	21.2%	40.5%	27.2%	66.8%

Table 13: Vote Share of Black-Preferred Candidates — Illustrative Map 4

		CD 1	CD 2	CD 3	CD 4	CD 5	CD 6	CD 7
2016	U.S. President	23.5%	55.9%	32.1%	16.6%	33.9%	24.3%	61.2%
	U.S. Senator	24.2%	54.6%	32.7%	19.7%	34.4%	24.5%	60.0%
2017	U.S. Senator	37.0%	66.1%	47.0%	28.6%	51.4%	43.4%	73.6%
2018	Attorney General	29.1%	59.4%	36.6%	22.2%	41.2%	31.4%	65.4%
	State Auditor	27.3%	57.7%	35.2%	20.3%	39.8%	29.5%	64.1%
	Governor	27.7%	56.5%	35.3%	22.1%	40.1%	32.6%	65.7%
	Lt. Governor	26.5%	56.8%	34.6%	19.2%	38.5%	28.7%	63.9%
	Supreme Ct., Place 4	26.8%	57.3%	35.1%	20.6%	39.8%	29.1%	64.6%
	Supreme Ct., Chief	29.5%	60.1%	37.9%	23.3%	41.9%	35.6%	66.6%
	Sec. of State	26.7%	56.9%	34.8%	19.6%	39.1%	29.0%	63.6%
2020	U.S. President	25.4%	56.2%	33.2%	16.9%	37.2%	28.8%	62.7%
	U.S. Senator	29.0%	58.4%	35.7%	20.0%	40.5%	31.6%	64.4%

Table 14: Vote Share of Black-Preferred Candidates — Illustrative Map 5

		CD 1	CD 2	CD 3	CD 4	CD 5	CD 6	CD 7
2016	U.S. President	25.0%	55.1%	31.0%	15.9%	33.9%	24.4%	63.5%
	U.S. Senator	25.5%	54.0%	31.6%	18.8%	34.4%	25.0%	61.9%
2017	U.S. Senator	39.4%	65.1%	45.2%	27.6%	51.4%	42.9%	76.0%
2018	Attorney General	30.8%	58.5%	35.6%	21.4%	41.2%	31.1%	67.8%
	State Auditor	29.0%	56.8%	34.1%	19.5%	39.8%	29.1%	66.5%
	Governor	29.7%	55.5%	34.0%	21.7%	40.1%	32.1%	68.0%
	Lt. Governor	28.0%	56.1%	33.3%	18.5%	38.5%	28.3%	66.3%
	Supreme Ct., Place 4	28.4%	56.6%	33.8%	19.9%	39.8%	28.9%	66.9%
	Supreme Ct., Chief	31.8%	58.9%	36.5%	22.4%	41.9%	35.0%	69.4%
	Sec. of State	28.3%	56.2%	33.6%	18.8%	39.1%	28.7%	66.1%
2020	U.S. President	26.9%	55.4%	32.2%	16.3%	37.2%	28.0%	65.8%
	U.S. Senator	30.5%	57.5%	34.7%	19.4%	40.5%	30.8%	67.5%

Table 15: Vote Share of Black-Preferred Candidates — Illustrative Map 6

		CD 1	CD 2	CD 3	CD 4	CD 5	CD 6	CD 7
2016	U.S. President	22.2%	57.3%	31.1%	15.7%	33.9%	23.9%	63.5%
	U.S. Senator	23.0%	55.9%	31.7%	18.4%	34.4%	24.6%	62.1%
2017	U.S. Senator	35.4%	67.6%	45.3%	27.8%	51.4%	42.4%	75.7%
2018	Attorney General	27.9%	60.7%	35.7%	21.3%	41.2%	30.6%	67.7%
	State Auditor	26.0%	59.2%	34.3%	19.4%	39.8%	28.7%	66.4%
	Governor	26.4%	58.3%	34.1%	21.9%	40.1%	31.7%	67.5%
	Lt. Governor	25.2%	58.3%	33.5%	18.4%	38.5%	27.9%	66.2%
	Supreme Ct., Place 4	25.6%	58.8%	34.0%	19.8%	39.8%	28.4%	66.7%
	Supreme Ct., Chief	28.2%	61.7%	36.7%	22.5%	41.9%	34.5%	69.2%
	Sec. of State	25.5%	58.4%	33.7%	18.7%	39.1%	28.3%	66.0%
2020	U.S. President	24.2%	57.6%	32.4%	16.2%	37.2%	27.5%	65.8%
	U.S. Senator	27.7%	59.7%	34.8%	19.3%	40.5%	30.3%	67.4%