

EXHIBIT A

DECLARATION OF WILLIAM S. COOPER

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND
(Northern Division)**

Baltimore County Branch of the
National Association for the
Advancement of Colored People, *et al.*,

Plaintiffs,

v.

Baltimore County, Maryland, *et al.*,

Defendants.

Civil Action No. LKG-21-3232

DECLARATION OF WILLIAM S. COOPER

I. INTRODUCTION

1. I, William Cooper, am over 18 years of age and am competent to testify. I have a B.A. degree in economics from Davidson College. For more than three decades I have worked as a private consultant serving as a demographic and redistricting expert for civil rights organizations and governmental entities, employed here as an expert for the Plaintiffs. I am compensated at a rate of \$150 per hour for my work.

A. Redistricting Experience

2. I have testified at trial as an expert witness on redistricting and demographics in federal courts in about 45 voting rights cases in 19 states, with most of these lawsuits resulting in changes to statewide legislative boundaries or local election district plans.

3. Since 2011, based in part on my testimony, federal courts have found a Section 2 violation based on the first factor (“Gingles 1”) in *Thornburg v. Gingles*, 478 U.S. 30 (1986) (discussed further below) in the following cases: *Montes v. City of Yakima, Washington*, 40 F.Supp.3d 1377 (E.D. Wash. 2014); *Pope v. Albany County, New York*, 94 F.Supp.3d 302

(N.D.N.Y. 2015); *NAACP v. Ferguson-Florissant School District, Missouri*, 201 F.Supp.3d 1006 (E. D. Mo. 2016); *Thomas v. Bryant*, 366 F.Supp.3d 786 (S.D. Miss. 2019), *Navajo Nation v. San Juan County, Utah*, No. 18-4005 (10th Cir. 2019), and *National Association for the Advancement of Colored People, Spring Valley Branch et al v. East Ramapo Central School District et al*, 462 F. Supp 3d 368 (S.D.N.Y. 2020).

4. In 2016, two redistricting plans that I developed for consent decrees in Section 2 lawsuits in Georgia were adopted – *Georgia NAACP v. Fayette County Bd. of Com'rs*, 118 F. Supp 3d 1338 (N.D. Ga. 2015) and *NAACP v. Emanuel County Bd. of Com'rs*, Civil Action No. 16-0021 (N.D.Ga. 2016).

5. In 2017, I served as a redistricting consultant to the State of Maryland in *Benisek v. Lamone*, 241 F.Supp. 3d 566 (D.Md. 2017) (three-judge-court). I filed a declaration and was deposed in that lawsuit.

6. In 2019, I prepared a consent decree election plan for the Jefferson County, Alabama Board of Education (*James v. Jefferson County Board of Education*). I served as a redistricting consultant to the City of Decatur, Alabama (*Voketz v. City of Decatur*) between 2015 and 2020. I also served as a redistricting consultant to the plaintiffs in *Alabama State NAACP v. City of Pleasant Grove* in 2018 and 2019.

7. In October 2021, I briefly served as a consultant to the city council in Wenatchee, Washington and determined that the 2018 redistricting plan I drew is not malapportioned under the 2020 Census.¹

¹ During the 2010 redistricting cycle, five plans that I developed for local government clients were adopted – Bolivar County, Mississippi; Claiborne County, Mississippi; the City of Grenada, Mississippi; Sussex County, Virginia; and Wenatchee, Washington. I also served as a redistricting consultant in 2011 to the Miami-Dade County Commission and Board of Education.

8. I currently serve as a redistricting consultant to the San Juan County, Utah Commission. On December 14, 2021, the Commission adopted a 3-district commission plan that I developed. On January 4, 2022, the Commission adopted a 5-district school board plan that I developed.

9. On January 5, 2022, I testified at trial in the Northern District of Alabama on behalf of plaintiffs challenging Alabama's 2021 Congressional Plan under Section 2 of the Voting Rights Act – *Caster v. Merrill*, Civil Action No. 21-1356-AMM (N.D. Ala.) (three-judge-court).

10. On January 7, 2022, I filed a declaration in the Northern District of Georgia supporting a preliminary injunction motion in a Section 2 case challenging Georgia's 2021 State House and Senate Plans -- *Alpha Phi Alpha Fraternity v. Raffensberger*.

11. On January 12, 2022, I filed a declaration in the Northern District of Georgia supporting a preliminary injunction motion in a Section 2 case challenging Georgia's 2021 U.S. House Plans – *Pendergrass v. Raffensberger*, Civil Action No. 21-05337-SCJ (N.D. Ga.).

12. I have worked with the ACLU of Maryland on local redistricting plans in Maryland on numerous occasions, including drafting illustrative plans submitted by the ACLU to municipal and county officials in Chestertown (2019), Salisbury (2015), Cambridge (2011), Annapolis (2011), and Somerset County (2011). Usually, we worked collaboratively with government officials, and plans I developed either were adopted outright or influenced the plans ultimately adopted, most recently in Chestertown.

13. I also provided consulting services to the ACLU of Maryland in the mid-2000s regarding prison gerrymandering in Somerset County. This project was an important catalyst leading to the 2010 passage of Maryland Assembly of the State's first-in-the-nation's *No Representation Without Population Act* to provide more accurate representation in government.

By counting persons incarcerated in state prisons in their home districts rather than their place of incarceration for redistricting purposes, this law did away with artificial inflation of voting population in districts where prisons are located, and has since been followed in numerous other states and local governments.

14. While it has been some years since I testified as an expert in federal court in Maryland, I was the demographer for the plaintiffs in *Cane v. Worcester County*, 840 F. Supp. 1081 (D. Md. 1994), a Section 2 case from the Eastern Shore, in which the Court ruled, in part based on my testimony, that the County's election system illegally diluted the Black vote, in violation of the Voting Rights Act. Specifically, I testified, and the District Court found, that Worcester County's Black community was sufficiently large and geographically compact to create a majority in a single-member-district, so as to satisfy the first precondition to Section 2 liability established by the Supreme Court in *Thornburgh v. Gingles*, 478 U.S. 30 (1986). Although subject to several appeals specifically challenging my compactness finding, the Fourth Circuit ultimately affirmed both the liability and remedy rulings, and the Supreme Court twice denied certiorari.

15. For more information on my testimony as an expert witness and experience preparing and assessing proposed redistricting maps for Section 2 litigation and other efforts to promote compliance with the Voting Rights Act of 1965, see the summary of my redistricting work in **Exhibit A**.

B. Purpose of Declaration

16. The attorneys for the Plaintiffs in this case asked me to determine two things:

- (a) Whether it is possible to create at least two reasonably compact and contiguous districts with a Black² voting-age majority population (“BVAP”) under a seven single-member district plan for the Baltimore County Council, so as to satisfy *Gingles* 1; and
- (b) To compare measures of socio-economic status for Blacks and non-Hispanic Whites in Baltimore County, as reported in the *2019 American Community Survey 1-Year Estimates* dataset produced by the U.S. Census Bureau (“Census Bureau”), so as to determine if Black residents of Baltimore County suffer continuing effects of past discrimination in their socio-economic status, a factor identified by the Senate as significant in assessing liability under the Voting Rights Act.

C. Expert Summary Conclusions:

17. Based on my analysis, my conclusions, which I explain below, are as follows:

- Using Baltimore County’s established election structure of seven single-member districts, Black residents in Baltimore County are sufficiently numerous and geographically compact to easily comprise two westside Council districts with majority-Black voting age populations, commensurate with their 32% presence in the County population.

- Further, beyond these two majority-Black districts, BIPOC³ residents as a whole are sufficient in number and geographic concentration to create a third “coalition” or “influence”

² In this declaration, “Black” and “African American” are synonymous, as are “Latino” and “Hispanic.” White and non-Hispanic White are also synonymous.

Unless otherwise noted, “Black” means Any Part Black. “BVAP” means Any Part Black voting age population, i.e. voting age persons who self-identified in the 2020 Census as single-race Black or Black plus one or more other races, including Black Hispanics.

It is my understanding that following the U.S. Supreme Court decision in *Georgia v. Ashcroft*, 539 U.S. 461 (2003), the “Any Part” definition is an appropriate Census classification to use in most Section 2 cases.

³ “BIPOC” means Black, Indigenous, and People of Color, and my use of the term “minority” throughout refers to populations not in the majority. My primary focus on a Black threshold VAP-majority is not meant to imply that Black voters in Baltimore County are not part of a larger community of interest and voting coalition that includes all BIPOC voters.

district comprising a significant bloc of Black, Latino, and Asian voting age County residents.

(See Plaintiffs' Proposed Plans 1 and 5 *infra*)

- As reported in the 2019 American Community Survey, in Baltimore County, non-Hispanic White people significantly outpace Black people across most key indicators of socio-economic well-being.

D. Methodology and Sources

18. For the calculation of ideal population size, as it pertains to districts in the election plans I review, I rely on the 2020 prison-adjusted dataset prepared by the Maryland Department of Planning, as required by the *No Representation Without Population Act*.⁴

19. There are no state prisons in Baltimore County and just 2,138 prisoners on April 1, 2020 are listed as having a Baltimore County address.⁵ The addition of these prisoners to the adjusted population adds 0.25% to the 2020 total population – from 854,535 under the 2020 Census to 856,673 after the reallocation of prisoners. Given this *de minimis* difference of 0.25%, throughout this declaration I refer to U.S. Census Bureau population counts from the PL94-171 file of the 2020 Census and citizenship statistics from the American Community Survey (except for in district-by-district deviation calculations, in which I use the prison-adjusted dataset).

20. **Exhibit B** describes the sources and methodology I have employed in the preparation of this report. Briefly, I used the *Maptitude for Redistricting* software program as well as data and shapefiles from the U.S. Census Bureau.

⁴ <https://redistricting.maryland.gov/Pages/data.aspx>

⁵ Source: <https://redistricting.maryland.gov/Documents/Data/PopulationAdjustmentFinal.pdf>

E. Organization of Declaration

21. The remainder of this declaration is organized as follows: **Section II** reviews Baltimore County 2000-2020 demographics. **Section III** reviews the adopted 2021 County Council Plan (“Council Plan” or “2021 Council Plan”). **Section IV** presents two proposed plans that I prepared, based on the 2020 Census. Both proposed plans contain an additional second majority-Black district. And both proposed plans were presented to the County Council in November 2021. Finally, **Section V** provides information about Baltimore County’s socioeconomic profile, including disparities in socioeconomic status between the County’s Black and white residents.

II. DEMOGRAPHIC PROFILE OF BALTIMORE COUNTY

A. Location and Characteristics of Baltimore County

22. Baltimore County is a densely populated suburban county that encircles the City of Baltimore, which is a separate governmental entity treated as equivalent to a county in Maryland. Baltimore County is geographically large (the third largest in Maryland, in terms of land area and population) covering an area of 682 square miles.

23. Baltimore County is highly unusual, because it has no incorporated municipalities and no other localized municipal governments or elected municipal officials, meaning all County residents are represented only by the County Councilmember elected from the district in which they live, and the County Executive, who is elected at large. This means even large Baltimore County communities – such as the county seat of Towson – are merely “census designated places”⁶ (“CDPs”) rather than actual municipalities.

⁶ The Census Bureau defines a census designated place as “statistical equivalents of incorporated places and represent unincorporated communities that do not have a legally defined boundary or an active, functioning governmental structure. Examples of CDPs include unincorporated

24. In considering election opportunities for Black voters and candidates, Baltimore County's lack of municipalities and elected municipal officials is significant. City or other local municipal councils are often a key stepping-stone to countywide office, especially for voters and candidates from racial minority groups that have historically been underrepresented in government. By eliminating these opportunities entirely, Baltimore County's governmental structure makes it harder for Black voters to influence elections and gain self-representation. If, for example, some of the west-County census designated places, such as Woodlawn, Randallstown, Milford Mill, Lochearn, and Owings Mills – all of which now are majority Black in voting age population – were incorporated municipalities, there would be more opportunities for Black voters to elect Black candidates to offices at the local level. By maintaining a government only at the County level, the White countywide majority generally remains able to defeat Black candidates of choice.

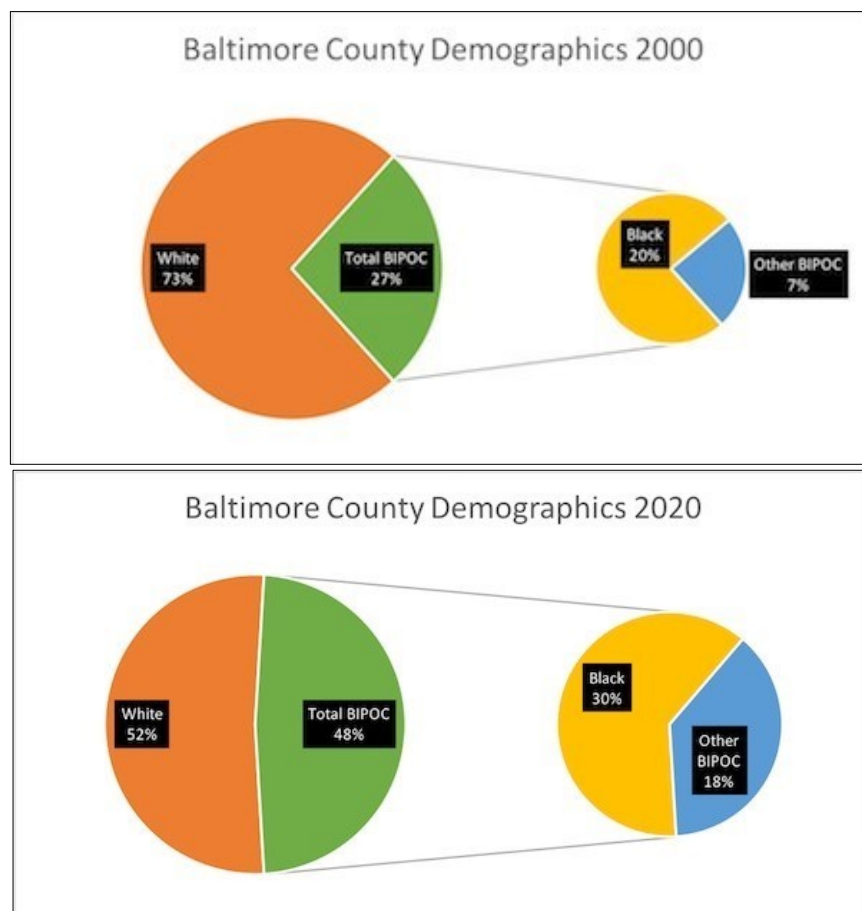
B. 2020 Census – Population by Race and Ethnicity

25. According to the 2020 Census, Baltimore County has a total population of 854,535, of whom 669,511 are of voting age. At 51.9%, non-Hispanic Whites (“NH Whites”) constitute the largest racial/ethnic category in the county. African Americans, at 32.2% Any Part Black (“AP Black”), represent the largest minority population, followed by Latinos (7.2%), who may be of any race, and NH Asian-Americans (6.3%). The 2020 total Black, Indigenous, People of Color (“BIPOC”) population in Baltimore County is 48.1% – consisting of all persons who are not single-race non-Hispanic White.

communities, planned communities, military installments, university towns, resort towns, etc.”
Source: <https://www.census.gov/programs-surveys/bas/information/cdp.html>

26. As illustrated in **Figure 1**, between 2000 and 2020, Baltimore County's population diversified significantly, with the BIPOC population growing from 27% in 2000 to 48% in 2020. During the same period, the single-race Black population has increased from 20% to 30% (32% AP Black). Whereas the County's non-Hispanic White population was 73% in 2000, by 2020 it had declined to 52%.

Figure 1 - Demographic Change in Baltimore County 2000-2020



27. Specifics of the County's demographic population changes from 2000 to 2020 are shown in **Figure 2**. Although Baltimore County's overall population grew by more than 100,000 during this period, from 754,292 to 854,535 persons, the County's non-Hispanic White population fell by even more – 110,627 persons – representing a *decline* of 20%. Meanwhile, the AP Black population *grew* over the same period, adding 118,814 persons, or 75.9%. The total

BIPOC population (including Black, Latino, Asian, and multi-racial populations) grew from 200,402 persons in 2000 to 411,272 persons in 2020, an increase of 210,870 persons or 105%.

Figure 2

**Baltimore County – 2000 Census to 2020 Census
Population by Race and Ethnicity**

	2000 Population	Percent	2010 Population	Percent	2020 Population	Percent	2000 - 2020 Change	% 2000 - 2020 Change
Total Population	754,292	100.00%	805,029	100.00	854,535	100.00%	100,243	13.29%
NH White*	553,890	73.43%	504,556	62.68%	443,263	51.87%	-110,627	-19.97%
Total Minority(BIPOC)	200,402	26.57%	300,473	37.32%	411,272	48.13%	210,870	105.22%
Latino	13,774	1.83%	33,735	4.19%	61,492	7.20%	47,718	346.44%
NH Black*	150,456	19.95%	206,913	25.70%	252,724	29.57%	102,268	67.97%
NH Asian*	23,845	3.16%	39,865	4.95%	54,701	6.40%	30,856	129.40%
NH Hawaiian and PI*	195	0.03%	255	0.03%	252	0.03%	57	29.23%
NH Indigenous*	1,769	0.23%	2,107	0.26%	1,942	0.23%	173	9.78%
NH Other*	1,016	0.13%	1,445	0.18%	4,461	0.52%	3,445	339.07%
NH Two or More Races*	9,347	1.24%	16,153	2.01%	35,700	4.18%	26,353	281.94%
SR Black (Single-race Black)	151,600	20.10%	209,738	26.05%	255,793	29.93%	104,193	68.73%
AP Black (Any Part Black)	156,546	20.75%	220,378	27.38%	275,360	32.22%	118,814	75.90%

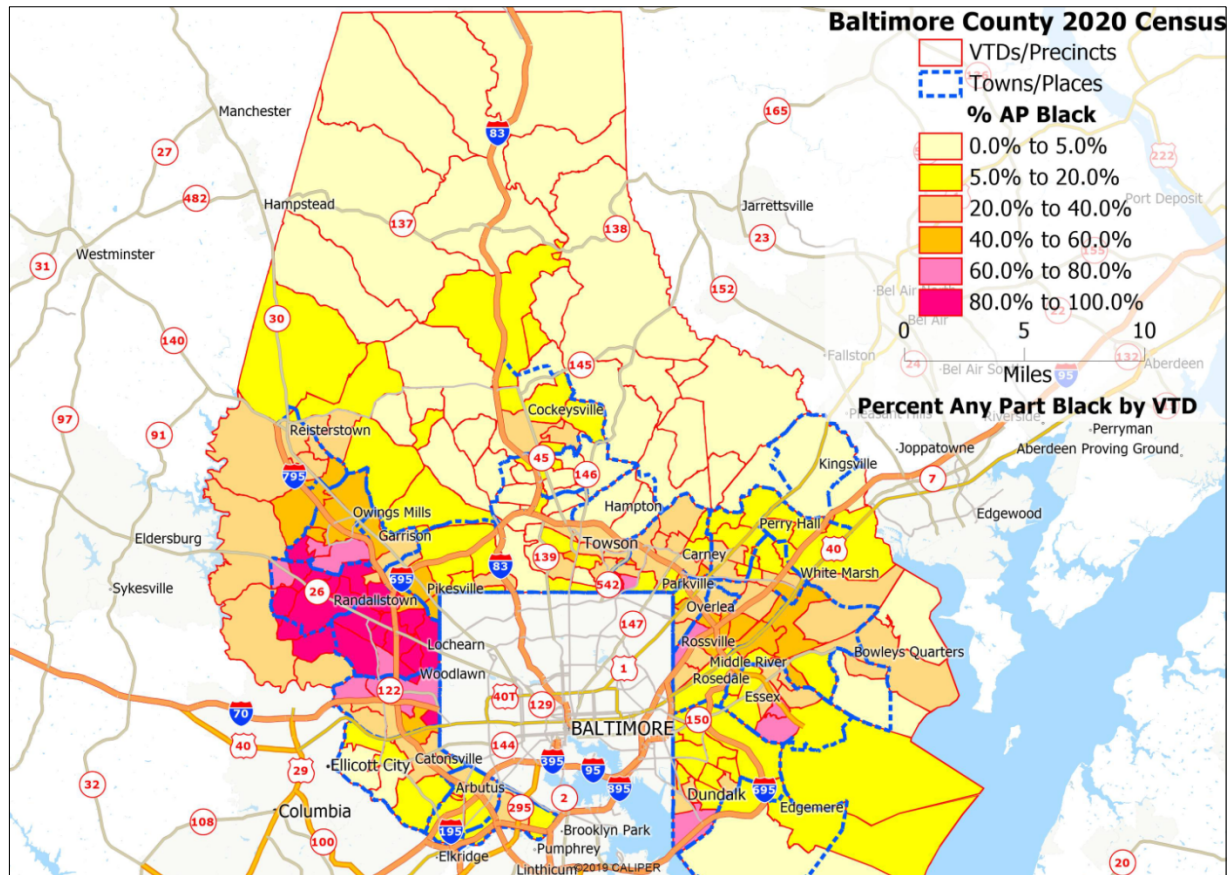
*Single-race, non-Hispanic

C. Geographic Distribution of the Black Population

28. The Black population in Baltimore County is concentrated in the western areas of the County, with some significant BIPOC population also to the northeast of the border with the City. The map in **Figure 3** shows the geographic distribution of the Black population in Baltimore County, based on 2020 Census voting tabulation districts (“VTDs”)⁷. The bulk of the County’s Black population lives in geographically compact areas running throughout western Baltimore County. **Exhibit C-1** is a higher resolution version of Figure 3.

⁷ “VTD” is a Census Bureau term meaning “voting tabulation district.” VTDs generally correspond to precincts. In Baltimore County, there are 237 VTDs, ranging in population size from 6 persons to 11,576 –193 of the VTDs have populations over 1,000 persons.

Figure 3
Geographic Distribution of the Black Population in Baltimore County
By 2020 Census VTD



29. Several westside census designated places depicted on the map, including Randallstown, Woodlawn, Lochearn, Milford Mill and Owings Mills, are majority Black in population. **Exhibit C-2** is a table with population by race and ethnicity for the 32 census designated places in Baltimore.

D. Voting Age and Citizen Voting Age by Race and Ethnicity

30. As shown in **Figure 4**, African Americans in Baltimore County constitute a slightly smaller percentage of the voting age population (VAP) than they do of the total population – amounting to 30.39% of the voting age population as compared to 32.2% of the general population. Specifically, according to the 2020 Census, Baltimore County has a total VAP of 669,511– of whom 203,447 (30.39%) are AP Black. The NH White VAP is 369,566 (55.20%).

Figure 4

**Baltimore County – 2020 Voting Age Population
& 2019 Estimated Citizen Voting Age Population
By Race and Ethnicity⁸**

	2020 VAP	2020 VAP Percent	2019 CVAP Percent
Total	669,511	100.00%	100.00%
NH White 18+	369,566	55.20%	68.5 %
Total BIPOC18+	299,945	44.80%	31.5%
Latino 18+	40,189	6.00%	2.2%
Single-race Asian (Including Asian Hispanics)18+	42,424	6.34%	4.3%
Single-race Black (Including Black Hispanics)18+	192,662	28.78%	26.7%
Any Part Black (Including Black Hispanics) 18+	203,447	30.39%	NA

31. The rightmost column in **Figure 4** reveals that the NH White population in Baltimore County comprises a significantly higher percentage of the citizen voting age population (“CVAP”) – 68.50% -- than the corresponding voting age population, owing to higher non-citizenship rates among the BIPOC voting age population. CVAP percentages for the AP Black VAP are not available in the 1-year 2019 ACS. However, for all ages, AP Black citizens represent 31.49% of all citizens in Baltimore County (261,367 of 827, 370.).⁹

32. In Baltimore County, BIPOC CVAP (31.5%) is considerably lower than BIPOC VAP (44.80%). This 13-percentage point gap between BIPOC VAP to BIPOC CVAP will likely narrow over the course of the decade, as the younger citizen BIPOC population attains voting age. For all ages, the BIPOC citizenship rate is 41.79%, according to the 1-year 2019 ACS.¹⁰

⁸ Sources: **PL94-171 Redistricting File** (Census 2020); **Table S2901 -- CITIZEN, VOTING-AGE POPULATION BY SELECTED CHARACTERISTICS** (1-year 2019 ACS)
<https://data.census.gov/cedsci/table?q=S2901&g=05000000US24005>

⁹ Calculated from **Exhibit G-2, p. 4** (*infra*), as reported in the 1-Year ACS Table S0201, published by the U.S. Census Bureau.

¹⁰ Ibid.

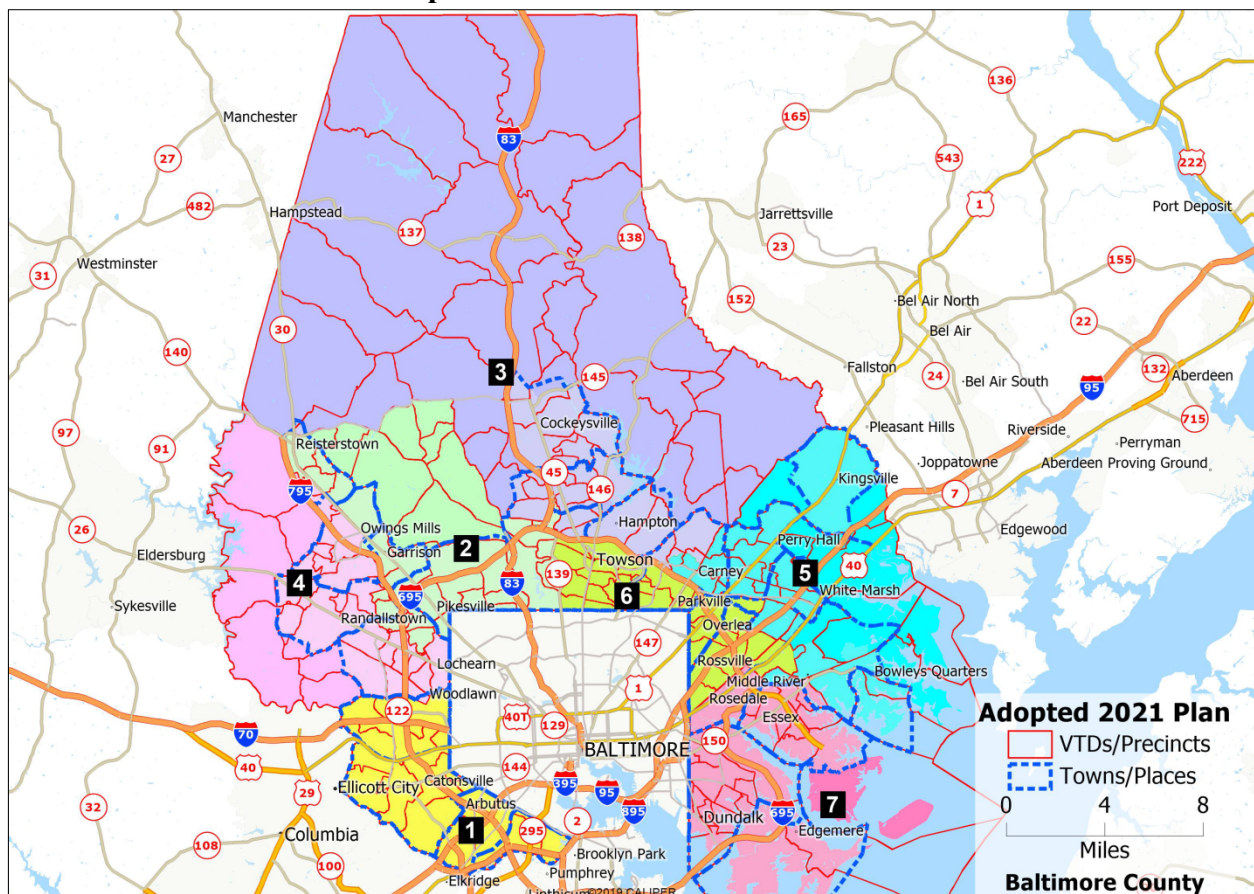
III. THE CHALLENGED COUNCIL REDISTRICTING PLAN

33. Under the redistricting plan adopted by the Baltimore County Council on December 20, 2021, each of the seven Council members will be elected from a single-member district. Based on the prison-adjusted 2020 Census dataset, the ideal district size for each of the seven districts within the county is 122,382 (856,673 divided by 7).

34. A map of the 2021 Council Plan is shown in **Figure 5**. A higher resolution version of the Figure 5 map is in **Exhibit D-1**. **Exhibit D-2** contains a set of maps that zoom on each of the Council Plan districts.

Figure 5

Adopted 2021 Council Plan



35. The table in **Figure 6** shows 2020 summary population statistics for the Council Plan. **Exhibit D-3** contains detailed 2020 population statistics by district.

Figure 6

2021 Council Plan Population Summary

District	Prison Adjusted Pop.	% Dev.	Population	18+ Pop	% 18+ AP Black	% 18+ NH White	% 18+ BIPOC
1	122,391	0.01%	122,074	95,419	29.71%	49.50%	50.50%
2	118,343	-3.30%	118,145	91,675	31.18%	55.55%	44.45%
3	119,477	-2.37%	119,377	94,192	8.09%	77.58%	22.42%
4	119,487	-2.37%	119,068	93,489	74.74%	16.31%	83.69%
5	121,237	-0.94%	121,023	94,526	18.77%	66.12%	33.88%
6	128,310	4.84%	127,988	102,680	31.20%	54.71%	45.29%
7	127,428	4.12%	126,860	97,530	19.72%	66.04%	33.96%

36. The overall deviation from the ideal district size for the seven districts in the Council Plan – combining the largest positive deviation from ideal size with the largest negative deviation – is 8.14%; this meets population equality requirements under the Constitution that presumptively allow combined deviations up to 10%.

37. Unlike the Plaintiff’s Proposed Plans discussed below, however, the Council Plan is highly problematic in that it fails to prevent minority vote dilution. That is because only one district in the Council Plan, District 4, includes a majority Black voting age population, when it is readily possible to create two substantial majority Black districts because the Black population on the western side of the County is “large and geographically compact”.

38. Instead of allowing the County’s significant Black population to create majorities in two districts, the Council Plan “packs”¹¹ an excessively high share of Black voters into a single district, District 4, comprising 76.1% of the District’s general population and 74.7% of the District’s voting age population. Only 16.3% of the voting-age population in the Council Plan’s District 4 is white, meaning the Black VAP is over 58 percentage points higher than the NH White VAP. Even a 60% Black voting age population in a single member district could only be

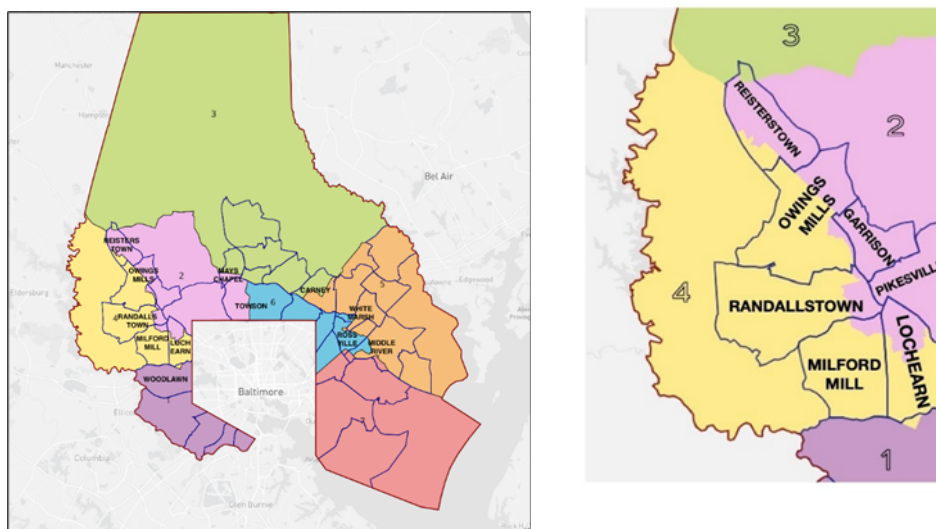
¹¹ Packing” describes election districts where a minority population is unnecessarily concentrated, resulting in an overall dilution of minority voting strength in the voting plan.

justified today in a place where a high percentage of the minority VAP at issue is non-citizen. But citizenship is not an issue for the Black population in Baltimore County, where Black CVAP closely tracks Black VAP. Thus, the Adopted Plan’s inclusion of nearly 75% Black VAP in District 4 is clearly unnecessary.

39. Also, as illustrated in the **Figure 7** detail map, the Council Plan “cracks”¹² certain majority-Black communities, including Randallstown (84.6% Black), Milford Mill (86.3% Black), Lochearn (83.7% Black), and Owings Mills (63.2% Black), between majority-Black District 4 and white-majority District 2. A total population of 22,950 persons (66.6% Black) is shifted into majority-white District 2 from the above four majority-Black towns.

Figure 7

**2021 Council Plan
Detail of Black Community Cracking Among Districts**



40. In addition, racially diverse neighborhoods (pop. 22,153 -- 37.6% Black) in Reisterstown are drawn into majority-white District 2. Taken together, the Reisterstown shift and

¹² “Cracking” describes election plans with one or more districts that fragment or divide the minority population, also resulting in an overall dilution of minority voting strength in the voting plan.

the cracking of the four majority-Black towns add up to a total population of 45,463 (52.4% Black) – enough to form about one-third of a second majority-Black district.

41. At the same time, the Council Plan keeps the adjacent majority-White community of Pikesville (67.3% White) wholly in District 2. In combination with the District 4 packing, division of majority-Black or significantly Black communities in the Council Plan results in the Plan's failure to create a second majority-Black district. In fact, the highest share of AP Black voting age population in any districts except District 4 in the Council Plan is 31.2%, in Districts 1 and 6. And in every one of the districts in the Council Plan except District 4, the white voting age population outnumbers the Black by over 19 percentage points. Thus, in six of the seven districts in the Council Plan, a white majority voting as a bloc would retain power to defeat the choices of a cohesive Black community of voters.

V. PLAINTIFFS' PROPOSED PLANS

42. Following release of Census data in mid-August, I worked with the Plaintiffs and their counsel to develop illustrative redistricting plans showing how a Baltimore County Council plan with seven single-member districts could be drawn, consistently with all traditional redistricting principles, to include two majority-Black districts among the seven.

43. Over the period from late August through October, I prepared five different illustrative plans with two majority-Black districts, each of which was submitted by the Plaintiffs to the Baltimore County officials involved in the redistricting process to show there were several ways to create a second majority-Black district. Each of these five plans adheres to all traditional redistricting principles, including that they (i) satisfy Constitutional one-person one-vote requirements, (ii) are reasonably shaped, compact and contiguous, (iii) respect communities of interest, and (iv) prevent dilution of minority voting strength.

44. For purposes of this action, I will focus attention on Plan 1 and Plan 5 submitted to the Council. Both of these Proposed Plans create two districts that are majority Black in voting age population by at least 20 percentage points over non-Hispanic White VAP. This 20+ percentage point Black-White VAP margin in the proposed majority-Black districts is significantly wider than in typical illustrative majority-minority districts I have drawn in Section 2 cases where courts relied upon my Gingles 1 analysis, suggesting that it is strongly protective of Black voting opportunities.

45. Both Proposed Plans also include a third “influence” district where the population is roughly split between BIPOC and White residents.¹³ Overall, both plans recognize the County’s diversifying population and afford all voters fair and realistic opportunities to elect representatives of their choice.

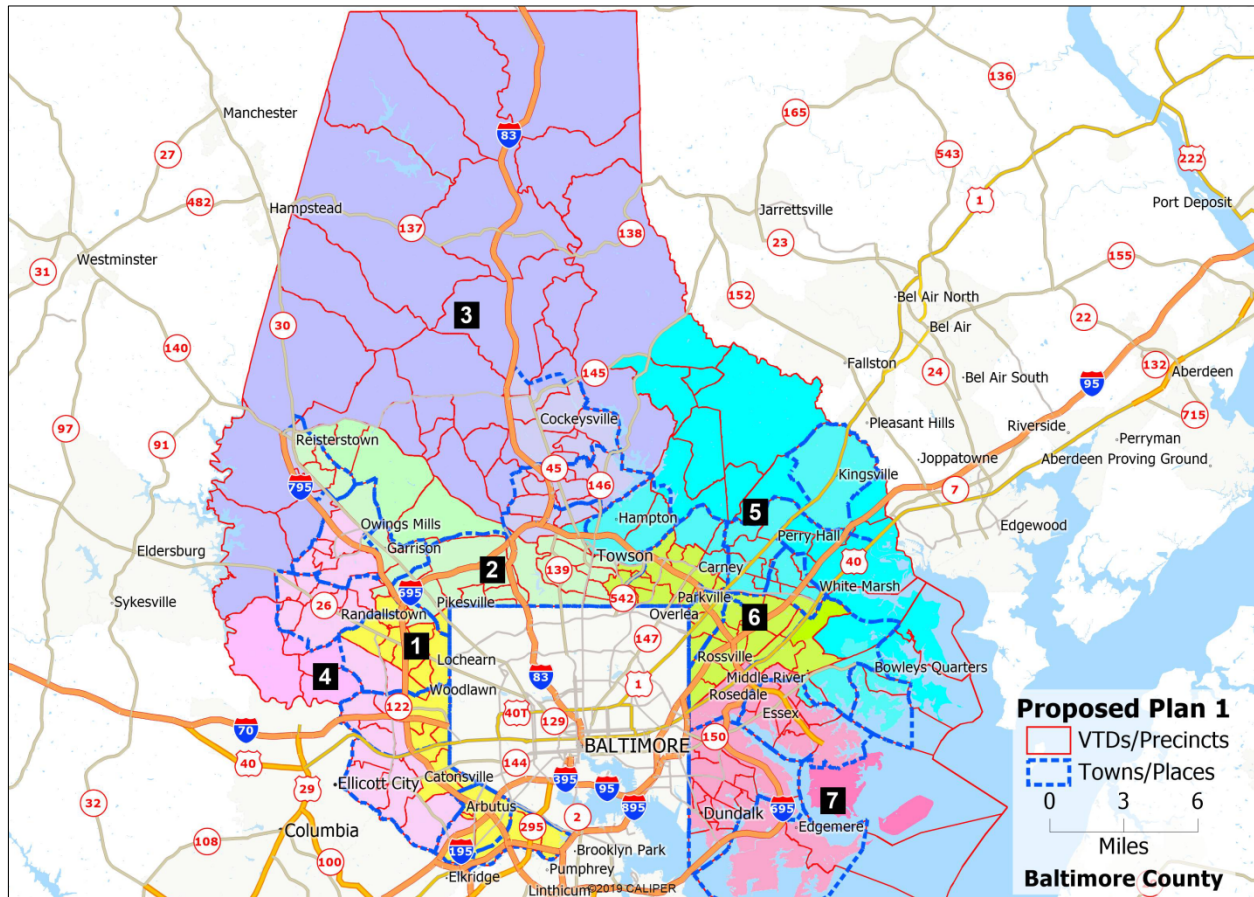
A. Plaintiffs Proposed Plan 1

46. The map in **Figure 8** shows Plaintiffs Proposed Plan 1. A higher resolution version of the Figure 8 map is in **Exhibit E-1**. **Exhibit E-2** contains a set of maps that zoom on each of the districts in Proposed Plan 1.

¹³ District 1 in Proposed Plan 1 and District 6 in Proposed Plan 5.

Figure 8

Plaintiffs' Proposed Plan 1



47. In Proposed Plan 1, majority-Black District 1 follows the city limits of Baltimore, encompassing all of Baltimore Highlands and Landsdowne, then north generally along I-695 to include whole precincts in Randallstown and Pikesville. Majority-Black District 4 follows District 1 from the south and east, with the Carroll and Howard County lines forming its western border. In the north, District 4 extends east to Owings Mills, which is split along precinct lines and shared with District 2 and District 3.

48. **Figure 9** shows summary population statistics for Proposed Plan 1. **Exhibit E-3** contains detailed 2020 population statistics by district.

Figure 9

Plaintiffs' Proposed Plan 1 Population Summary							
District	Prison Adjusted Pop.	% Dev.	Population	18+ Pop	% 18+ AP Black	% 18+ NH White	% 18+ BIPOC
1	123,487	0.90%	123,009	95,862	54.83%	31.05%	68.95%
2	124,871	2.03%	124,715	98,207	24.26%	62.03%	37.97%
3	119,713	-2.18%	119,607	94,362	12.36%	72.37%	27.63%
4	118,817	-2.91%	118,532	93,414	53.90%	31.36%	68.64%
5	124,615	1.82%	124,450	99,050	13.49%	72.65%	27.35%
6	120,554	-1.49%	120,152	92,918	36.10%	48.96%	51.04%
7	1246,16	1.83%	124,070	95,698	18.95%	66.72%	33.28%

49. The overall deviation (positive plus negative) from the ideal district size for the seven districts in this Plan is 4.94%. The two districts with majority Black voting age population are District 1 which is 54.8% BVAP (31.0% NH White VAP), and District 4 which is 53.9% BVAP (31.4% NH White VAP).

50. In both of these districts, the Black VAP is over 22 percentage points higher than the White VAP, ensuring that a cohesive Black community of voters would have a fair and realistic opportunity to elect representatives of their choice, in keeping with the requirements of the Voting Rights Act.

51. In addition, Proposed Plan 1 includes a third influence district that is split nearly evenly between BIPOC and the NH White voting age populations: District 6 is 51.0% in total BIPOC VAP and 49.0% in non-Hispanic White VAP.

52. Proposed Plan 1 can also be viewed online in detail on the *Dave's Redistricting Application* (DRA) website via the link below:

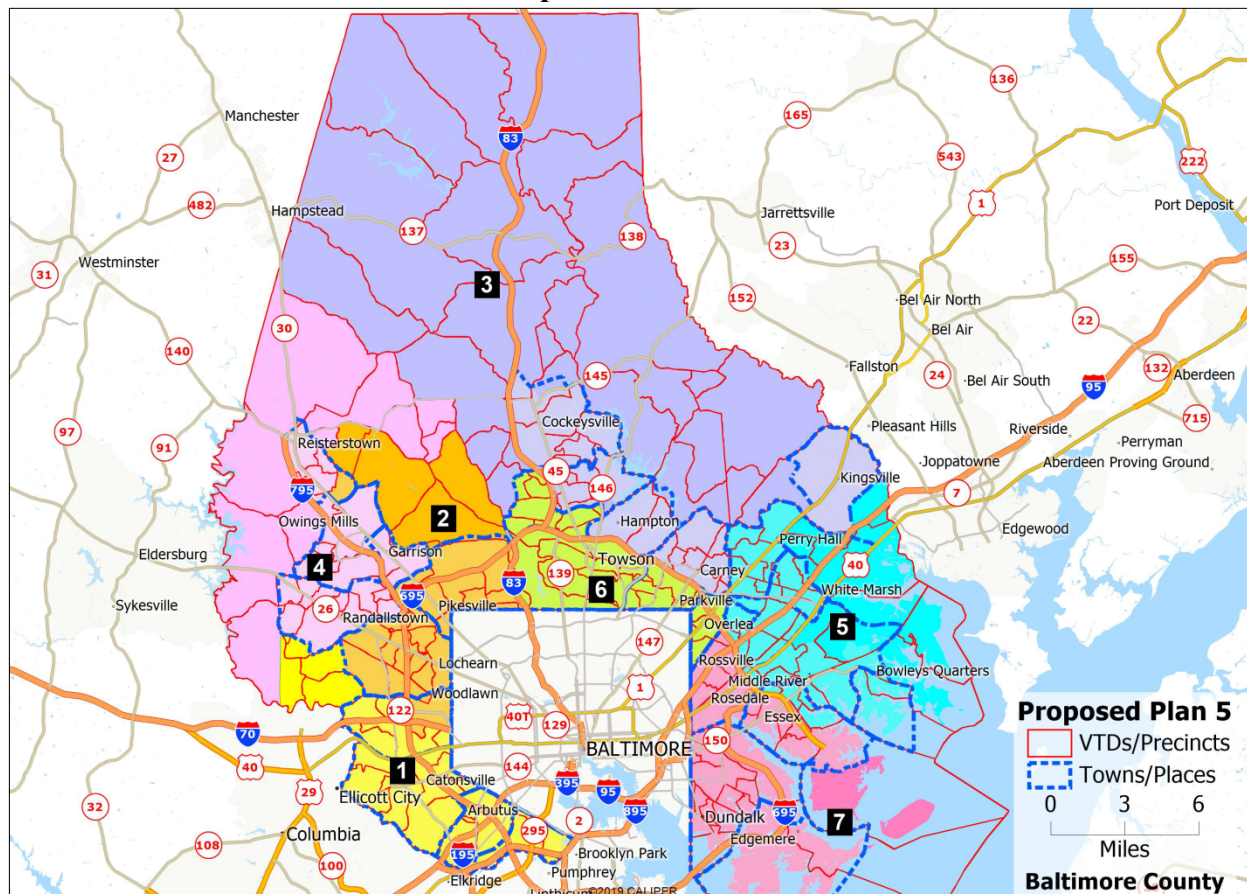
<https://davesredistricting.org/join/326d6025-b344-44c4-b75f-4f0767cab34a>

B. Plaintiffs Proposed Plan 5

53. **Figure 10** shows the map for Plaintiffs' Proposed Plan 5. A higher resolution version of the Figure 10 map is in **Exhibit F-1**. **Exhibit F-2** contains a set of maps that zoom on each of the districts in Proposed Plan 5.

Figure 10

Plaintiffs' Proposed Plan 5



54. Proposed Plan 5 is drawn to prioritize keeping communities and towns whole. Just three CDPs are split -- Woodlawn - D 1 and D 2; Reisterstown - D 2 and D 4; and Essex - D 5 and D 7.

55. In Proposed Plan 5, majority-Black District 2 encompasses Lochearn, Millford Mill, and Pikesville. Parts of Woodlawn and Reisterstown are also in District 2. Majority-Black District 4 includes all of Garrison, Owings Mills, and Randallstown.

56. **Figure 11** shows summary population statistics for Proposed Plan 5. **Exhibit F-3** contains detailed 2020 population statistics by district.

Figure 11

Plaintiffs' Proposed Plan 5 -- Population Summary

District	Prison Adjusted Pop.	% Dev.	Population	18+ Pop	% 18+ AP Black	% 18+ NH White	% 18+ BIPOC
1	117,582	-3.92%	117,299	91,822	27.63%	51.39%	48.61%
2	118,013	-3.57%	117,653	91,368	55.00%	35.01%	64.99%
3	124,905	2.06%	124,772	98,770	10.19%	76.27%	23.73%
4	116,414	-4.88%	116,127	91,106	56.03%	31.55%	68.45%
5	127,792	4.42%	127,490	98,805	22.97%	61.11%	38.89%
6	123,477	0.89%	123,256	98,894	22.39%	64.21%	35.79%
7	128,490	4.99%	127,938	98,746	22.16%	63.22%	36.78%

57. The overall deviation from the ideal district size for the seven districts in this Plan is 9.87%, satisfying Constitutional population equality requirements. The two districts with majority Black voting age population are District 2, which is 55.0% BVAP (35.0% NH White VAP), and District 4, which is 56.0% BVAP (31.5% NH White VAP).

58. In both of these districts, the Black VAP is very significant compared to White VAP, with District 2 20 percentage points higher and District 4 24.5 percentage points higher. Both districts ensure that a cohesive Black community of voters would have a fair and realistic opportunity to elect representatives of their choice, in keeping with the requirements of the Voting Rights Act.

59. In addition, Proposed Plan 5 includes a third district that is split nearly evenly between BIPOC and White voting age populations, District 1, which is 48.6% in BIPOC VAP and 51.4% in non-Hispanic White VAP.

60. Proposed Plan 5 can also be viewed online in detail on the *Dave's Redistricting Application* (DRA) website via the link below:

<https://davesredistricting.org/join/842017de-6691-4036-b180-ee8f02cb8eee>

C. Supplemental Plan Information

(a) Compactness Measures

61. **Figure 12** reports compactness scores generated by Maptitude for the 2021 Council Plan and Proposed Plans 1 and 5. The table summarizes the Reock¹⁴ and Polsby-Popper¹⁵ scores – the two most widely-referenced measures of compactness. Higher scores indicate higher compactness.

Figure 12

Compactness Comparison – Proposed Plans 1 and 5 vis-à-vis 2021 Council Plan

	Reock		Polsby-Popper	
	Mean	Low	Mean	Low
2021 Council Plan	.45	.25	.42	.26
Proposed Plan 1	.36	.20	.33	.18
Proposed Plan 5	.39	.23	.37	.20

62. There is no bright line rule on what constitutes an acceptable compactness score. Acceptable scores vary widely depending on the jurisdiction and type of plan at issue. In my opinion, the districts in the 2021 Council Plan and both of the Plaintiffs' Proposed Plans are reasonably shaped and compact – and clearly within the normal range for compactness.

¹⁴"The Reock test is an area-based measure that compares each district to a circle, which is considered to be the most compact shape possible. For each district, the Reock test computes the ratio of the area of the district to the area of the minimum enclosing circle for the district. The measure is always between 0 and 1, with 1 being the most compact. The Reock test computes one number for each district and the minimum, maximum, mean and standard deviation for the plan." *Maptitude For Redistricting* software documentation (authored by the Caliper Corporation).

¹⁵ The Polsby-Popper test computes the ratio of the district area to the area of a circle with the same perimeter: $4\pi\text{Area}/(\text{Perimeter}^2)$. The measure is always between 0 and 1, with 1 being the most compact. The Polsby-Popper test computes one number for each district and the minimum, maximum, mean and standard deviation for the plan. *Maptitude For Redistricting* software documentation (authored by the Caliper Corporation).

(b) Political Subdivision Splits

63. As shown in **Figure 13**, the Council Plan splits 5 VTDs and 15 CDPs. Proposed Plan 1 is drawn entirely at the VTD-level, so there are no split VTDs. Both the Council Plan and Proposed Plan 1 prioritize keeping VTDs intact, but in doing so CDP boundary lines are crossed by districts, resulting in 15 split CDPs in the two plans.

64. On the other hand, Proposed Plan 5 prioritizes keeping communities intact. All but three CDPs are in a single district. Because VTD boundaries do not always follow town boundaries, there are 22 VTDs split in Proposed Plan 5.

Figure 13

VTD and Municipal Splits – Illustrative Plan vis-à-vis 2021 Plan

	2020 VTD Splits	Census Designated Place Splits
2021 Council Plan	5	15
Proposed Plan 1	0	15
Proposed Plan 5	22	3

(c) Incumbents

65. Upon information and belief, all incumbents who are not retiring this year are placed in separate districts under Proposed Plan 1 and Proposed Plan 5.

V. BALTIMORE COUNTY’S SOCIO-ECONOMIC PROFILE

A. Countywide

66. As detailed below, non-Hispanic Whites in Baltimore County consistently outpace African Americans across a broad range of economic measures, as reported in the *2019 American Community Survey* (“ACS”).¹⁶ These disparities are summarized below and depicted with further detail in the charts found in **Exhibit G-1**, using data drawn from the *2019 ACS*.¹⁷ The *ACS* is an ongoing survey conducted by the U.S. Census Bureau that gathers information annually about jobs and employment, educational attainment, housing, and other topics. **Exhibit G-2** contains the complete dataset underlying the charts, published by the U.S. Census Bureau.¹⁸

a) Education

67. African American educational attainment in Baltimore County is roughly comparable to their White cohorts through high school—26.6% of Blacks over the age of 25 have a high school degree as their highest level of education, compared to 25.5% of whites. However African Americans fall behind at the college level, with 33.4% holding a college degree, compared to 43.8% of whites. See **Exhibit G-1 at 5**.

b) Income

68. African Americans in the County experience a poverty rate higher than for whites – 9.9% of Blacks live below the poverty line, versus 7.3% of whites. For children, these

¹⁶ In this section, the term “White” refers to non-Hispanic White. The term “Black” or “African American” refers to Any Part Black, including Black Hispanics.

¹⁷ The 1-year 2019 ACS is the most current available. The 2020 ACS was canceled due to the COVID-19 pandemic.

¹⁸ <https://data.census.gov/cedsci/table?text=s0201&t=-0A%20-%20All%20available%20non-Hispanic%20Origin%3A005%20-%20Black%20or%20African%20American%20alone%20or%20in%20combination%20with%20one%20or%20more%20other%20races&g=0500000US24005&y=2019&tid=ACSSPPIY2019.S0201>

disparities are worse: 11.7% of Black children live in poverty, compared to 6.2% of White children. *See Exhibit G-1 at 22.*

69. Black family households are two-thirds more likely (6.7%) to live in poverty than do White families (4.0%). **Exhibit G-1 at 19.**

70. Black median household income is \$67,457— about 78% of the \$85,929 median income of White households. *See Exhibit G-1 at 14.*

71. Black family households exhibit an even greater median income disparity compared to White family households – \$76,726 for Black median family household income, compared to \$111,325 for White family households, meaning Black family income averages 69% that of White families. *See Exhibit G-1 at 16.*

72. Black per capita income is \$31,133, which is about 63% of the \$49,339 White per capita income. *See Exhibit G-1 at 17.*

73. About one in seven Black households relies on food stamps –14.9% of Black households participate in the Supplemental Nutrition Assistance Program (SNAP), compared to one in 18 White households – 5.7%. *See Exhibit G-1 at 15.*

c) Employment

74. Although a larger percentage of African Americans (72.0%) work in the labor force than whites (63.4%), the earnings they bring home are consistently less. Data show that Black workers, both male and female, employed full time, year-round, earn substantially less money than do their White counterparts. For Black men among this group, average income (\$57,849) is dramatically less than it is for White men (\$98,619), meaning Black men average just 59 cents for every dollar earned by White men. *See Exhibit G-2 at 8.*

75. The Black unemployment rate (for the working age population ages 16-64 – expressed as a percent of the civilian labor force) – is higher than for whites. At the time of the survey, 5.8% of working-age African Americans were unemployed, compared to a 3.3% rate for the White workforce. *See Exhibit G-1 at 11.*

76. More than twice as many Black Baltimore Countians (7.6%) lack health insurance than do whites (3.3%), an especially acute issue during the pandemic. *See Exhibit G-1 at 18.*

d) Housing and Transportation

77. More than half of Black households in the County (54.2%) rent their homes, versus just 23.6% of White households who are renters. *See Exhibit G-1 at 21.*

78. More than twice as many Black as White households have no access to a vehicle: 12.5% of Black households lack a vehicle, compared to 5.9% of White households. *See Exhibit G-1 at 23.*

B. Census Designated Places

79. For additional socioeconomic information, I have prepared charts and tables for 24 Baltimore County census designated places with significant minority populations. The charts available at the link below are based on the five-year 2015-2019 American Community Survey and include data for the SR Black population, as well as Latino population.¹⁹

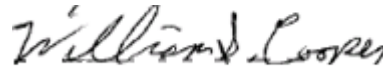
http://www.fairdata2000.com/ACS_2015_19/Baltimore_County/

¹⁹ The 2019 1-year ACS is not available for counties and places with populations under 65,000. The 5-year 2015-2019 ACS reports SR Black socioeconomic estimates only. AP Black estimates are not published in the 5-year ACS

I declare under penalty of perjury that the foregoing is true and correct according to the best of my knowledge, information, and belief.

Executed on:

Date: January 18, 2022

A handwritten signature in cursive script, reading "William S. Cooper".

William S. Cooper