UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF CONNECTICUT

NATIONAL ASSOCIATION FOR THE ADVANCEMENT OF COLORED PEOPLE, NAACP CONNECTICUT STATE CONFERENCE, JUSTIN FARMER, GERMANO KIMBRO, CONLEY MONK, JR., GARRY MONK, and DIONE ZACKERY, *Plaintiffs*, v. DENISE MERRILL, SECRETARY OF STATE, and EDWARD LAMONT, JR., GOVERNOR, *Defendants.*	No. 3:18-cv-01094-JBA-PWH-JMW

DECLARATION OF WILLIAM S. COOPER

WILLIAM S. COOPER, acting in accordance with 28 U.S.C. § 1746, Federal Rule of Civil Procedure 26(a)(2)(B), and Federal Rules of Evidence 702 and 703, does hereby declare and say:

I. INTRODUCTION

1. My name is William S. Cooper. I have a B.A. in Economics from Davidson College. As a private consultant, I currently serve as a demographic and redistricting expert for the Plaintiffs. I am compensated at a rate of $150 per hour.

A. <u>Redistricting Experience</u>

2. I have testified at trial as an expert witness on redistricting and demographics in federal courts in about 40 voting rights cases since the late 1980s. Five of these lawsuits resulted in changes to state legislative boundaries: **Tennessee (1992)** – *Rural West Tennessee African-American Affairs v. McWherter*, **Montana (1998, 2001)** – *Old Person v. Cooney,* ***South Dakota (2007)*** – *Bone Shirt v. Hazeltine*; **Alabama (2013)** – *Alabama Legislative Black Caucus v. Alabama,* and **Mississippi (2019) –** *Thomas v. Bryant.* Approximately 25 of the cases led to changes in local election district plans.

3. 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.

4. I served as a redistricting consultant in 2011 to the Miami-Dade County Commission and Board of Education. Currently, I serve as a consultant and expert witness for the City of Decatur, Alabama defendants in *Voketz v. City of Decatur*

5. Since 2011, based in part on my testimony, five federal courts have found a Section 2 violation based on the first prerequisite (*Gingles* 1) pursuant to *Thornburg v. Gingles*, 478 U.S. 30 (1986): *Montes v. City of Yakima*, *Washington*

(E.D. Wash. Aug. 22, 2014); *Pope v. Albany County, New York* (N.D.N.Y. Jan. 28, 2014; N.D.N.Y. Mar. 24, 2015); *NAACP v. Ferguson-Florissant School District, Missouri* (E. D. Mo. August 22, 2016); *Terrebonne Parish Branch NAACP v. Jindal (*M.D. La. July 27, 2017); and *Thomas v. Bryant* (S.D. Ms. Feb 16, 2019).

6. In 2016, two redistricting plans that I developed for consent decrees in Section 2 lawsuits in Georgia were adopted – *NAACP v. Fayette County, Georgia* and *NAACP v. Emanuel County, Georgia.*

7. In 2019, I developed a redistricting plan for a consent decree in Jefferson County, Alabama – *Jones v. Jefferson County Board of Education*.

8. This decade I served as a redistricting and demographics consultant in three cases where the prison population was a redistricting issue. I filed declarations in all three lawsuits. *Fletcher v. Lamone* (831 F. Supp. 2d 887 - Dist. Court D Maryland, 2011) involved Maryland congressional districts. Two lawsuits involved local governing bodies – *Calvin v. Jefferson County Board of Commissioners* (172 F. Supp. 3d 1292 - Dist. Court, ND Florida 2016) and *Davidson v. City of Cranston* (837 F. 3d 135 - Court of Appeals, 1st Circuit, 2016).

9. For additional historical information on my testimony as an expert witness and experience preparing and assessing proposed redistricting maps for voting litigation, see a summary of my redistricting work attached as **Exhibit A**.

B. Purpose of Declaration

10. The attorneys for the Plaintiffs in this case asked me to complete four tasks:

- Analyze the population of incarcerated persons in Connecticut based on information from the U.S. Census Bureau ("Census Bureau") and the Connecticut Department of Corrections ("DOC").
- Distribute persons incarcerated in Connecticut state prisons to home addresses and neighborhoods rather than the legislative districts where they are incarcerated.
- Examine the distribution of the state prison population by race/ethnicity by town and by legislative districts.
- Prepare a demonstrative plan for the Connecticut State House, with modified districts, counting incarcerated people in their home districts rather than the districts where they are incarcerated.

11. **Exhibit B** describes the methodology I employed to geocode and redistribute persons who were incarcerated in state and federal prisons in 2010.

C. Background, Summary, and Conclusions

(1) Persons Incarcerated in Prisons in Connecticut

12. In the 2010 Census, state prisoners in Connecticut were counted at the location of the prison facility rather than at their home address or place of last residence. Thus, the decennial Census tabulation for localities with prison facilities has the effect of a population over-count.

13. In turn, persons who live in legislative districts that encompass prisons often have disproportionate voting power because their districts are significantly underpopulated after accounting for non-resident incarcerated persons.

14. The state prison population in Connecticut is predominantly African American or Latino.[1] According to the DOC, as of March 1, 2010, approximately 69% of the state prisoners with a Connecticut address were non-White. This compares to a statewide population that is 28.76% minority, according to the 2010 Census.[2]

15. Given that minorities represent a disproportionate share of the population incarcerated in Connecticut prisons, the decennial Census tabulation for many predominantly minority communities is undercounted vis-à-vis the rest of the state because incarcerated community members are excluded from the count in their home districts.[3]

[1] In this declaration, "African American" and "Black" are synonymous, as are "Hispanic" and "Latino", and "non-Hispanic White" and "White".

[2] "Non-White" or "minority" refers to prisoners who are not identified as White in the March 2010 count of incarcerated persons prepared by the DOC. In the 2010 Census, "non-White" or "minority" refers to persons who did not self-identify as single-race non-Hispanic White.

[3] This racial/ethnic prison population imbalance persists and will be a factor in the 2021 legislative redistricting. According to the DOC, as of June 1, 2019, approximately 70% of the 13,000 state prisoners are non-White.

(2) One-Person, One-Vote

16. The ideal population size for a legislative district in Connecticut is calculated by dividing the statewide population by the number of districts. In Connecticut, the ideal size for a state House district is 23,670 persons (3,574,097 divided by 151). The ideal size for a state Senate district is 99,230 persons (3,574,097 divided by 36).

17. A one-person, one-vote deviation metric is calculated by summing the absolute value of the most underpopulated district deviation (a negative value representing the percentage by which a district population falls below the ideal size) plus the value of the most overpopulated district deviation (a positive value representing the percentage by which a district population is above the ideal size). The resulting summation is usually referred to as "total deviation", "maximum deviation", or simply "deviation".

18. For one-person, one-vote compliance, the rule of thumb acceptable maximum deviation is 10%, with no individual district exceeding plus or minus 5%. Legislatures may select a more restrictive deviation range than +/- 5%. In the 2011 redistricting, the Connecticut Legislature established a deviation range of +/- 3% for the State House per district, equating to a maximum deviation of 6%. On the

other hand, for the State Senate, the Legislature enacted a plan in 2011 with a +/- 5% deviation.

19. Based on 2010 population as reported in the decennial Census, the maximum deviation of the House Plan is 5.99%, which is the sum of the absolute value (expressed as a percentage) of the least populated district– HD 15 and HD 98 (both at -3%) – plus the most populated district – HD 88 (2.99%).

20. Based on 2010 population as reported in the decennial Census, the maximum deviation of the Senate Plan is 9.79%. SD 26 (4.91%) is the most populated district and SD 14 (-4.89 %) is the least populated.

(3) One-Person, One-Vote and the Incarcerated Population

21. The ideal district size is the same for a redistricting plan that reassigns incarcerated persons to their home addresses (see Plan A *infra*) rather than counting them at their places of incarceration because both methods begin and end with identical counts for the statewide population.

22. The methodology for determining whether a redistricting plan complies with one-person, one-vote is also identical under both methods – albeit with different results after reassigning incarcerated persons to their hometowns.

23. In this declaration, "prison-adjusted" refers to the population count (e.g. for a census block, legislative district or town) after: (1) reassigning incarcerated persons to their home addresses and (2) distributing the remainder without a known

Connecticut address in a uniform fashion statewide. In Connecticut, the prison-adjusted population applied to the House and Senate redistricting plans enacted in 2011 yields the following:

(a) Malapportioned 2011 House Plan

- Nine of the 151 House districts are underpopulated by more than 5% of the ideal population size. Three districts are underpopulated by more than 10% – HDs 52, 59, and 103. Two are underpopulated between 9% and 10% – HD 37 and HD 61.The other four districts – HDs 5, 42, 106, and 108 – are underpopulated in the range of 5% to 6%.

- Eight of the nine underpopulated districts in the House Plan that are underpopulated by more than 5% have overwhelmingly White electorates. Using prison-adjusted citizen voting age population ("CVAP") as a proxy for the electorates, these eight districts range from 84% to 94% White.

- The House Plan has a maximum deviation of 16.12%, significantly higher than the rule-of-thumb 10% benchmark for determining whether a legislative district complies with one person, one vote requirements.

- Thirty-five of the House districts exceed the +/-3% deviation standard established by the Connecticut Legislature during the 2011 redistricting process.

(b) 2011 Senate Plan

- The Senate Plan has a maximum deviation of 9.65% and is not *prima facie* malapportioned.

- SD 7 in the prison complex area along the Massachusetts border has a prison-adjusted deviation of -4.3%, which is about 7 points lower than the +3.37% unadjusted deviation based on the 2010 population reported in the decennial Census.

(4) Prison-Adjusted Plan A

24. A revised House plan based on the prison-adjusted count would require changes to over 60 districts in order to bring the deviation range to +/-3% across all districts. However, a prison-adjusted plan with districts in the range of +/- 5% deviation can be developed with minimal changes to the 2011 House Plan districts. Accordingly, I have developed a demonstrative prison-adjusted plan ("Plan A") with the following key features:

- Twenty-two House districts are modified, with no changes to the remaining 129 districts.
- The maximum deviation is 9.32%.
- Current incumbents remain in their respective districts. Prisons remain in the same districts.
- About 81,000 non-incarcerated citizens of voting age are assigned to another district, representing 3.1% of the statewide CVAP.
- Compared to the 2011 House Plan, district boundaries change in 14 towns.
- Plan A creates a new minority-opportunity district – District 60 (50.19% minority CVAP) in Windsor, which is centrally located between urban Hartford and the prison complex area in the rural towns along the Massachusetts border.
- There are approximately 8,600 non-incarcerated minority citizens of voting age in Windsor-based District 60 under Plan A. This represents an increase of nearly 5,000 non-incarcerated minority citizens of voting age compared to HD 60 in the 2011 House Plan.

25. In my opinion, within the context of the 2011 House Plan, Plan A complies with traditional redistricting principles, including one-person one-vote,

compactness, contiguity, respect for communities of interest, and the non-dilution of minority voting strength.

26. Reconfiguring a small number of House districts in Connecticut to account for the prison population is a relatively simple technical exercise. Plan A represents just one of many ways to realign district boundaries to properly balance the prison population in Connecticut.

D. Organization of Report

27. The remainder of this declaration is organized as follows: **Section II** reviews state demographics; **Section III** focuses on the spatial distribution of the incarcerated population; **Section IV** reviews the 2011House Plan – before and after adjusting for the prison population; and **Section V** presents Plan A – a demonstrative plan that modifies 22 districts to account for the prison population.

II. DEMOGRAPHIC PROFILE OF CONNECTICUT

A. Population by Race and Ethnicity – 2010-2018

28. According to the 2010 Census, non-Hispanic Whites comprised 71.24% of the population in Connecticut. Latinos represented 13.4% of the population. African Americans were the second largest minority category – 9.38% of the statewide population was single-race non-Hispanic Black ("NH Black"). Including Hispanic Blacks, 10.14% of the population was single-race Black and 11.35% Any Part Black (including persons who were Black and one or more other races).

29. The table in **Figure 1** reports the population of Connecticut by race and ethnicity, according to the 2010 Census and 2018 U.S Census Bureau estimates.

Figure 1
Connecticut – 2010 Census and 2018 Census Bureau Estimates
Population by Race and Ethnicity

	2010	Percent of Total Population	2018 Estimates	Percent of Total Population	Change 2010 to 2018	% Change 2010 to 2018
Total Population	3,574,097	100%	3,572,665	100%	-1,432	-0.04%
NH White*	2,546,262	71.24%	2,376,351	66.51%	-169,911	-6.67%
Total Minority Pop.	1,027,835	28.76%	1,196,314	33.49%	168,479	16.39%
Latino	479,087	13.40%	589,809	16.51%	110,722	23.11%
NH American Indian*	6,885	0.19%	7,758	0.22%	873	12.68%
NH Asian*	134,091	3.75%	169,570	4.75%	35,479	26.46%
NH Black*	335,119	9.38%	364,858	10.21%	29,739	8.87%
Single Race Black	362,296	10.14%	429,298	12.02%	67,002	18.49%
Any Part Black	405,600	11.35%	433,855	12.14%	28,255	6.97%

*Non-Hispanic single-race.

30. As shown in **Figure 1**, the most recent Census Bureau estimates indicate virtually no change in the total statewide population between 2010 and 2018. However, there has been dynamic change since 2010 within the various racial and ethnic groups.

31. Between 2010 and 2018, the non-Hispanic White ("NH White") population fell by an estimated 169,911 persons (-6.67%), which was offset by an increase of 168,479 (16.39%) in the minority population. As of 2018, minorities represent one-third (33.49%) of the statewide population – up nearly 5 percentage points compared to 2010. Taken together, Latinos and African Americans account for 83.4% of the overall growth in Connecticut's minority population between 2010

and 2018. **Figure 2** reveals that the bulk of the minority population gain since 2010 has occurred in three urban counties – Fairfield, Hartford, and New Haven. Due to the decline in Connecticut's White population since 2010, Fairfield County in southwest Connecticut is the only county that has experienced overall population growth since 2010.

Figure 2
Connecticut Counties – 2010 Census and 2018 Census Bureau Estimates
Total Population and Minority Population

County	2010 Population	2010 Minority	% 2010 Minority	2018 Population	2018 Minority	% 2018 Minority	2010-2018 Population Change	2010-2018 Minority Change
Fairfield	916,829	310,113	33.82%	943,823	363,243	38.49%	26,994	53,130
Hartford	894,014	302,731	33.86%	892,697	351,528	39.38%	-1,317	48,797
Litchfield	189,927	16,524	8.70%	181,111	21,609	11.93%	-8,816	5,085
Middlesex	165,676	22,532	13.60%	162,682	26,484	16.28%	-2,994	3,952
New Haven	862,477	280,093	32.48%	857,620	322,987	37.66%	-4,857	42,894
New London	274,055	59,450	21.69%	266,784	65,967	24.73%	-7,271	6,517
Tolland	152,691	19,102	12.51%	150,921	23,699	15.70%	-1,770	4,597
Windham	118,428	17,290	14.60%	117,027	20,797	17.77%	-1,401	3,507

32. Taken together, the three urban counties account for 86% of the minority population growth since 2010. More granular town-level estimates by race and ethnicity are not available from the Census Bureau.

33. **Exhibit C-1** contains 2010 Census population data for all 169 towns, along with Connecticut Department of Public Health ("CDPH") estimates for 2018. **Exhibit C-2** is a state-produced map of the nine regional councils of government which, in Connecticut, are more relevant than counties.

34. **Figure 3** consolidates the town-level demographics to the regional council level for 2010 and 2018. The Western Region and Greater Bridgeport are the only two regions that have experienced population growth since 2010.

Figure 3
Connecticut Regional Councils – 2010 Census and 2018 CDPH Estimates
Total Population and Minority Population

Region	2010 Population	2010 Minority	% 2010 Minority	2018 Population	2010-2018 Population Change	2010-2018 Percent Change
Capitol Region	973,959	310,899	31.92%	970,961	-2,998	-0.31%
Greater Bridgeport	318,004	142,483	44.81%	321,608	3,604	1.13%
Lower CT River	175,685	23,078	13.14%	172,386	-3,299	-1.88%
Naugatuck Valley	448,738	107,146	23.88%	444,473	-4,265	-0.95%
Northeastern	96,617	6,947	7.19%	95,696	-921	-0.95%
Northwest Hills	115,247	9,941	8.63%	110,476	-4,771	-4.14%
South Central	570,001	192,127	33.71%	568,081	-1,920	-0.34%
Southeastern	286,711	69,311	24.17%	279,251	-7,460	-2.60%
Western	589,135	165,903	28.16%	609,733	20,598	3.50%

B. Citizen Voting Age Population – 2010 and 2018

35. The table in **Figure 4** (on the next page) compares voting age population ("VAP") and citizen voting age population ("CVAP") in Connecticut. In 2010, minorities represented 25.8% of the VAP and 21.2% of the CVAP. By 2018, the estimated minority VAP had increased to 29.37%, with minority CVAP climbing to 26.1%.

Figure 4
Connecticut – Citizen Voting Age Population (ACS) – 2010 and 2018

	2010 % VAP	2010 % CVAP	2018 % VAP	2018 % CVAP
NH White	74.20%	78.3%	70.63%	73.9%
All Minorities	25.80%	21.2%	29.37%	26.1%
Latino	11.56%	9.4%	14.39%	11.7%
Single-race Black*	8.92%	9.1%	10.55%	9.9%

*Non-Hispanic Black is not reported as a separate category in the 1-year American Community Survey.

C. Socio-Economic Profile of Connecticut by Race and Ethnicity – 2017

36. The 1-year 2017 American Community Survey ("ACS") reveals that non-Hispanic Whites outpace non-Hispanic African Americans and Latinos across a broad range of measures of socio-economic well-being. This disparity is summarized below and depicted with further detail in charts found in **Exhibit D-1** and the table in **Exhibit D-2.**

(a) Income

• The poverty rate for African Americans is 15.1% – more than twice the 6% rate for Whites. The Latino poverty rate is over three times higher (21.0%). (**Exhibit D-1 at p. 22 and Exhibit D-2 at p. 7**)

• The poverty rate for Black children is 19.9% and even higher (25.6%) for Latino children – much higher than the 6% poverty rate for White children. (**Exhibit D-1 at p. 22 and Exhibit D-2 at p. 7**)

• At about $46,000, Black and Latino median household incomes are barely half of White median household income ($85,122) – (**Exhibit D-1- at p. 14 and Exhibit D-2 at p.6**)

(b) Education

• Of persons 25 years of age and over, 12.5% of African Americans and 28.4% of their Latino counterparts are without a high school diploma. Just 5.6% of

Whites have not finished high school.(**Exhibit D-1 at p. 5 and Exhibit D-2 at p. 3**)

• At the other end of the educational scale, for ages 25 and over, 19.9% of African Americans and 16% of Latinos have a bachelor's degree or higher, compared to 43.9% of Whites with college degrees. (**Exhibit D-1- at p. 5 and Exhibit D-2 at p. 3)**

(c) Housing

• Just 40.4% of African American householders and 34.2% of Latino householders own their homes, compared to a home ownership rate of 76.1% for White households. (**Exhibit D-1 at p. 21 and Exhibit D–2 at p. 8**)

• Median home values for African Americans ($190,800) and Latinos ($196,600) trail the $285,800 median home value for Whites. (**Exhibit D-1 at p. 25 and Exhibit D–2 at p. 8**)

(d) Employment

• African Americans and Latinos experience double-digit unemployment rates of about 10%, more than twice the 4.7% rate for Whites. (**Exhibit D-1 at p. 11 and Exhibit D-2 at p. 8**)

• One in three African Americans (33.4%) and one in five Latinos (20.8%) are employed in management or professional occupations. By contrast, about half of Whites (49.4%) hold management-level positions. (**Exhibit D-1 at p. 13 and Exhibit D-2 at p. 8**)

(e) Transportation/Communication

• One in five African-American households (20.9%) and 15.6% of Latino households lack access to a vehicle, while 5.8% of White households are without a vehicle. (**Exhibit D–1 at p. 23 and Exhibit D–2 at p. 8**)

• A little over three-quarters of African American (78.4%) and Latino households (79.4%) have a broadband Internet subscription, as compared to nearly 9 in 10 White (87%) households.

III. THE PRISON POPULATION IN CONNECTICUT

A. Prison Population by Race and Ethnicity – 2010 -2019

37. **Figure 5** compares 2010 and 2019 percentages by race and ethnicity of persons incarcerated in the state prisons.

Figure 5
Connecticut – State Prisoners by Race and Ethnicity – 2010 and 2019

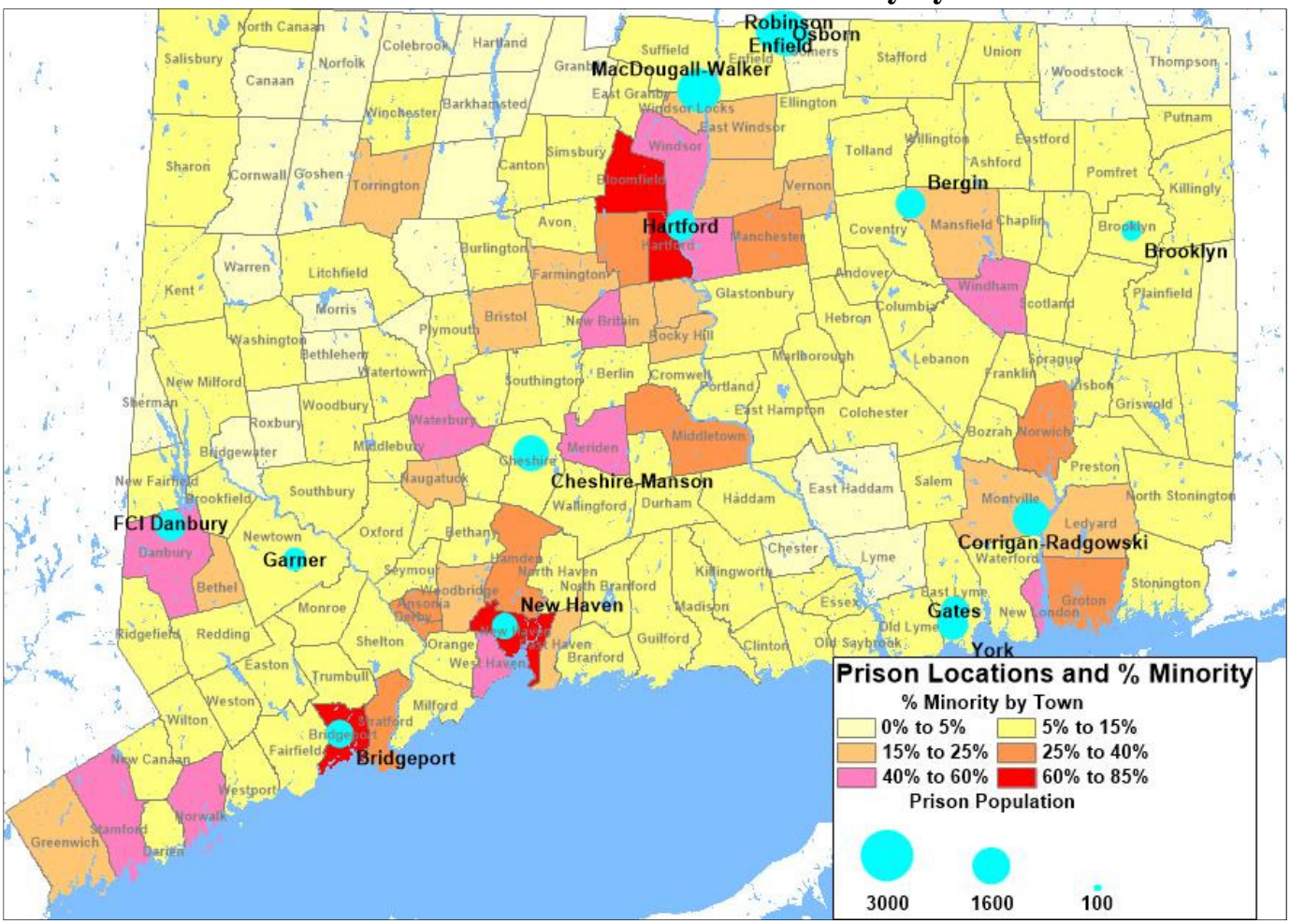
	March 1, 2010	June 1, 2019
NH White	31%	30%
All Minorities	69%	70%
Latino	26%	25%
Black	42%	40%

38. The number of incarcerated persons who indicate a Connecticut residency has dropped from about 17,400 in 2010 to 13,000 in 2019, but the racial composition has not changed. In June 2019, 70% of state prisoners were minorities, compared to 69% in March 2010.

B. Geographic Distribution of the Prison Population in 2010

39. The map in **Figure 6** (on the next page) shows the minority population percentage by town, as reported in the 2010 Census. Light blue dots show prison facilities that were operating in 2010 (scaled to facility population size), including the federal prison in Danbury. **Exhibit E** is a higher resolution version of the **Figure 6** map.

Figure 6
2010 – Prison Locations and Percent Minority by Town



40. The table in **Figure 7** (on the next page) reports the 2010 population incarcerated in prisons by town, as represented by the blue dots on the **Figure 6** map. The rightmost columns in the table compare minority CVAP by town. The minority CVAP drops significantly in the non-urban towns because the incarcerated population represents a major component of the population. For instance, after removing incarcerated persons, both Somers and Suffield in the north show double-digit percentage point drops in minority CVAP from the high teens to single-digits.

Figure 7
Municipalities with Non-Residents Incarcerated in Prisons (2010)

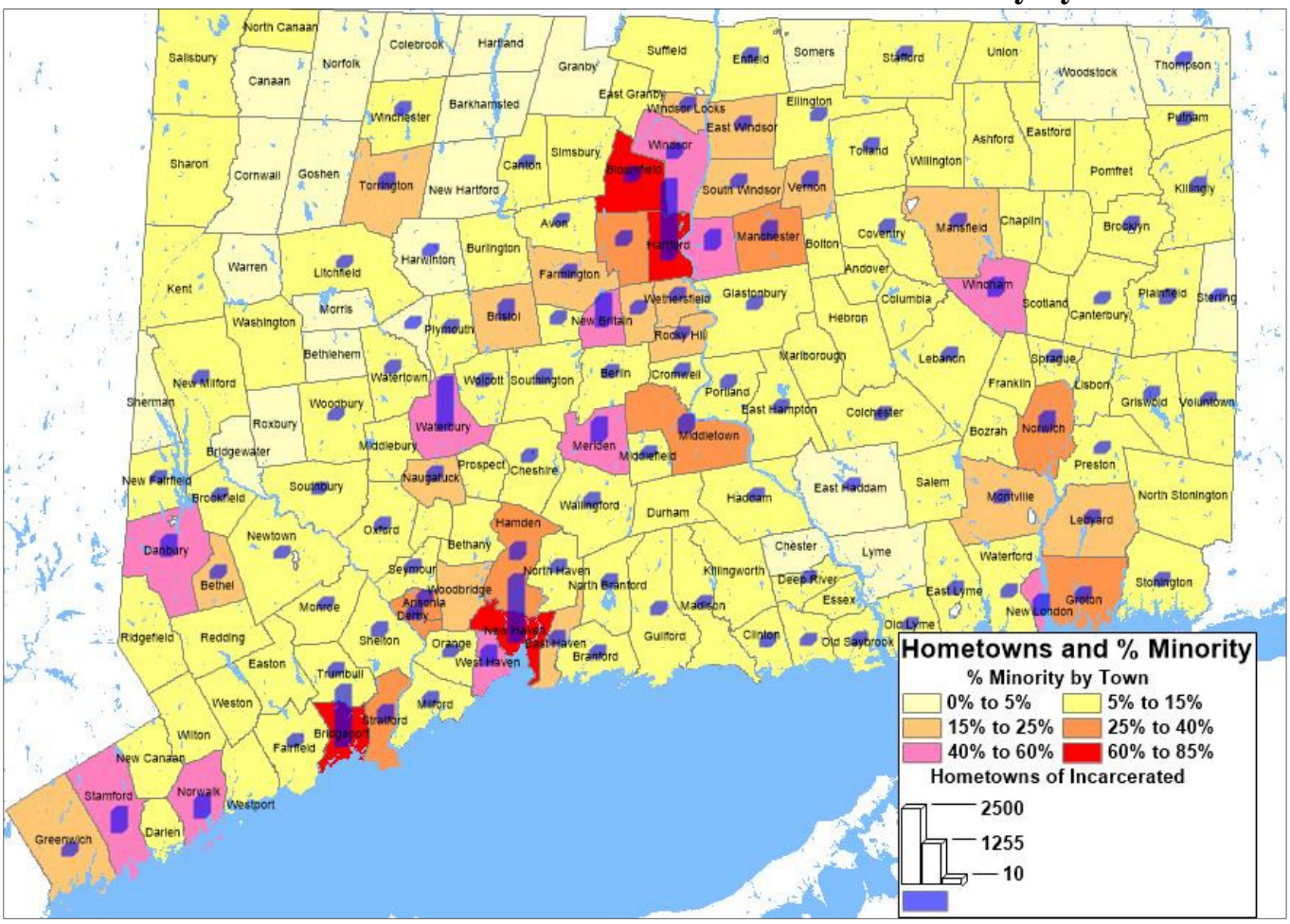
Town	2010 Census Population	Prison Facilities	2010 Prison Pop.*	% 2010 Prison Pop.	% Minority CVAP (with prison) **	% Minority CVAP (without prison) **	% Minority CVAP Difference (with prison minus without prison)
Bridgeport	144,229	Bridgeport	910	0.6%	72.5%	72.6%	0.1%
Brooklyn	8,210	Brooklyn	458	5.6%	7.1%	3.2%	-3.9%
Cheshire	29,261	Cheshire/ Mansfield	2,103	7.2%	14.8%	9.3%	-5.5%
Danbury	80,893	FCI Danbury	1,339	1.7%	30.9%	30.3%	-0.6%
East Lyme	19,159	Gates	2,014	10.5%	15.4%	10.0%	-5.4%
Enfield	44,654	Robinson	3,374	7.6%	16.0%	11.2%	-4.8%
Hartford	124,775	Hartford	1,095	0.9%	80.6%	80.7%	0.1%
Mansfield	26,543	Bergin	1,017	3.8%	19.1%	18.8%	-0.3%
Montville	19,571	Corrigan-Radgowski	1,511	7.7%	22.6%	17.6%	-5.0%
New Haven	129,779	New Haven	793	0.6%	61.9%	62.0%	0.1%
Newtown	27,560	Garner	608	2.2%	8.8%	7.3%	-1.5%
Somers	**11,444**	**Osborn and Northern**	**2,339**	**20.4%**	**18.6%**	**5.5%**	**-13.1%**
Suffield	**15,735**	**MacDougall -Walker**	**2,137**	**13.6%**	**20.5%**	**8.1%**	**-12.4%**

* Source: Advanced Group Quarters Summary File:
https://www.census.gov/newsroom/releases/archives/2010_census/cb11-tps13.html

**Based on disaggregated 2013-2017 ACS Special Tabulation:
https://www.census.gov/programs-surveys/decennial-census/about/voting-rights/cvap.html

41. **Figure 8** (on the next page) replicates the base map in **Figure 6** (2010 minority population by town), with vertical bar charts (purple) scaled to depict the number of town residents incarcerated in state prisons. **Exhibit F** is a higher resolution version of the **Figure 8** map.

Figure 8
2010 – Hometowns of Incarcerated Persons and Percent Minority by Town



42. Vertical bars over Bridgeport, Hartford, New Haven, and Waterbury stand out in the **Figure 8** map. These are the primary communities where the outflow of incarcerated community members (blue dots in **Figure 6**) leads to a representational undercount and dilution of legislative influence.

43. The table in **Figure 9** shows the 2010 count of state prisoners by race and ethnicity for the 12 municipalities with the highest number of incarcerated residents by hometown or place of last residence. These 12 cities account for two-

thirds of all state prisoners. About 84% of the 11,500 incarcerated persons with known addresses who are reassigned to their home addresses in these 12 cities are non-White.

Figure 9
Top 12 Municipalities with Persons Incarcerated in State Prisons

Town	Population 2010 Census	% Minority 2010 Census	2010 Prison Pop.	2010 Reassigned State Prisoners*	% Black Reassigned Prisoners	% Latino Reassigned Prisoners	% White Reassigned Prisoners
Bridgeport	**144,229**	**77.26%**	**910**	**1,837**	**59.4%**	**32.7%**	**7.6%**
Bristol	60,477	17.00%	0	324	14.8%	21.9%	63.0%
Danbury	80,893	42.75%	1,339	365	29.0%	31.5%	35.3%
East Hartford	51,252	58.14%	0	315	49.5%	27.3%	22.9%
Hartford	**124,775**	**84.16%**	**1,095**	**2,635**	**50.6%**	**44.1%**	**5.0%**
Meriden	60,868	41.17%	0	435	25.5%	37.5%	36.3%
New Britain	73,206	52.30%	0	784	25.1%	49.9%	24.9%
New Haven	**129,779**	**68.23%**	**793**	**2,039**	**71.7%**	**18.9%**	**9.5%**
Norwalk	85,603	44.26%	0	392	58.9%	18.4%	21.9%
Norwich	40,493	35.35%	0	315	41.6%	13.7%	43.2%
Stamford	122,643	46.67%	0	529	54.4%	29.5%	15.7%
Waterbury	110,366	54.62%	0	1,510	43.9%	34.1%	21.7%

*The reassigned count in this table does not include federal, out-of-state, and persons with unknown residences.

44. Three minority-majority cities with prison facilities – Bridgeport, Hartford, and New Haven – see an upward population adjustment because the resident population incarcerated elsewhere (purple highlight) offsets the removal of the local prison facilities (blue highlight). The remaining cities lose population as compared to the decennial Census count.

45. **Exhibit G** is a comprehensive analysis of Connecticut's prison population and its impact on legislative districts under the 2011 House and Senate

plans, published by the Prison Policy Initiative and Common Cause Connecticut in 2013.[4]

IV. THE MALAPPORTIONED 2011 HOUSE PLAN

46. The table in **Figure 10** identifies nine malapportioned districts under the 2011 House Plan ("2011 Plan"), based on the 2010 prison-adjusted count and an ideal district size of 23,670. All nine districts are underpopulated and located, wholly or partly, in towns with prisons.

Figure 10
2011 Plan – Malapportioned Districts (Prison-Adjusted)

District	2010 Pop	Prison-Adjusted Count	Prison-Adjusted Deviation	% Prison-Adjusted Deviation	2010 Prison Population	PA NH BCVAP*	PA LCVAP*	PA NH WCVAP*
5	23,000	22,292	-1,378	-5.82%	1,095	54.4%	17.4%	25.4%
37	23,310	21,346	-2,324	-9.82%	2,014	1.6%	3.1%	90.1%
42	23,663	22,245	-1,425	-6.02%	1,511	2.6%	5.2%	83.6%
52	23,531	21,255	-2,415	-10.20%	2,339	0.8%	2.3%	94.4%
59	24,314	20,990	-2,680	-11.32%	3,374	3.3%	3.9%	90.9%
61	23,448	21,352	-2,318	-9.79%	2,137	2.9%	4.2%	89.3%
103	23,005	20,943	-2,727	-11.52%	2,103	1.3%	2.4%	90.7%
106	22,971	22,395	-1,275	-5.39%	608	0.5%	4.5%	92.5%
108	23,531	22,251	-1,419	-5.99%	1,339	0.8%	5.2%	91.2%

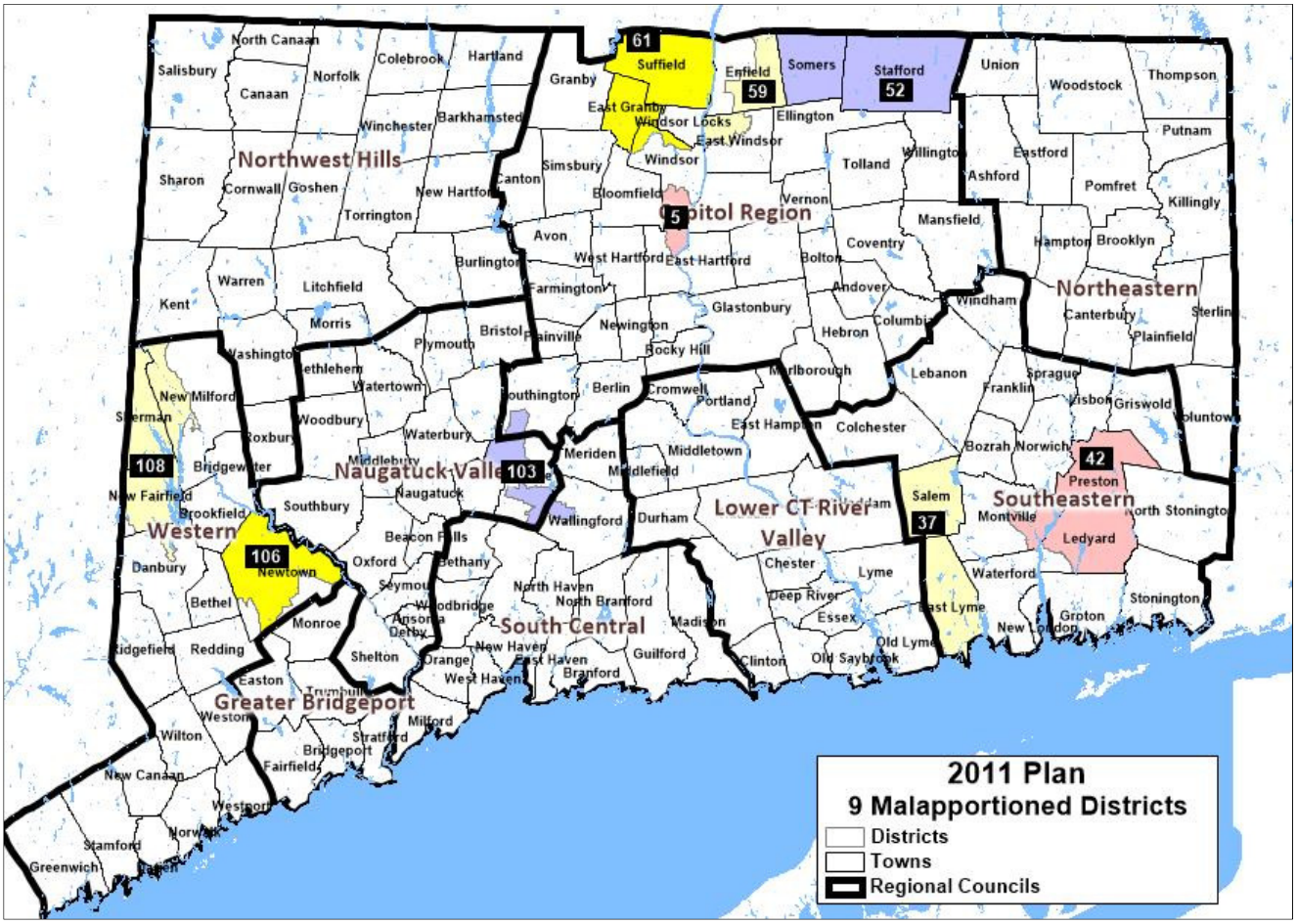
*Based on disaggregated 2013-2017 ACS Special Tabulation.

47. As shown in the rightmost column of **Figure 10**, eight of the nine underpopulated districts encompass predominantly White communities. Voters in these eight underpopulated districts have disproportionate voting power vis-à-vis the rest of the state.

[4] Additional maps and related data prepared by the Prison Policy Initiative are available online at: https://www.prisonersofthecensus.org/connecticut.html

48. The statewide map in **Figure 11** depicts the nine malapportioned prison districts.

Figure 11
Malapportioned Districts in the 2011 Plan



49. Four districts are in the north – HD 5, 52, 59 and 61, two in the southeast – HD 37 and 42, and three in in the southwest – HD 103, 106, and 108. The most underpopulated district in the state is HD 103 (-11.52%), encompassing the Cheshire and Manson facilities.

50. **Exhibit H-1** contains population data and deviation for the 151 house districts before adjusting for the prison population, according to the 2010 Census –

with minority CVAP estimates from the 2013-2017 ACS. **Exhibit H-2** contains the same information based on the prison-adjusted count.

51. As can be determined from the summary data in **Exhibit H-2**, based on the prison-adjusted count, 35 of the 151 districts in the 2011 Plan exceed the +/-3% deviation range established by the Legislature during the 2011 redistricting process. There are 24 overpopulated districts between 3% and 4.59% and 11 underpopulated districts between -3% and -11.52%.

52. The table in **Figure 12** compares the 2010 Census deviation statistics for the 2011 Plan with the prison-adjusted deviation. The maximum deviation jumps from 5.99%, based on the 2010 Census, to a prison-adjusted deviation of 16.12%.

Figure 12
Deviation Comparisons – 2011 House Plan

2011 House Plan	2010 Census	2010 Prison-Adjusted
Total Population:	3,574,097	3,574,097
Ideal District Size	23,670	23,670
Negative Deviation	-3.0%	-11.52%
Positive Deviation	2.99%	4.59%
Maximum deviation	5.99%	16.12%

53. As a group, three districts in towns along the Massachusetts border are the most underpopulated in the 2011 Plan. HD 59 in Enfield has a deviation of -11.32%, followed by neighboring HD 52 in Somers and Stafford (-10.20%). A third

northern district HD 61 (-9.79%) in East Granby, Suffield and Windsor is in a virtual tie with HD 37 in East Lyme and Salem (-9.82%) in the southeast.

54. The disproportionate voting power concentrated in the underpopulated northern tier districts is amplified because many voters in HD 52, 59, and 61 also vote in SD 7,which is one of the least populated Senate districts with a prison adjusted deviation of -4.3%. About half of the CVAP in SD 7 is comprised of HD 52, 59, and 61. For background reference, statistics for the 2011 Senate Plan are reported in **Exhibit I-1** (2010 Census) and **Exhibit I-2** (prison-adjusted).

55. As shown in **Figure 13**, four of the five most overpopulated districts in the 2011 House Plan have minority CVAP percentages above 55% – a reflection of the high numbers of persons from minority communities who are absent and incarcerated in state facilities.

Figure 13
Five Most Populated Districts in 2011 House Plan (Prison-Adjusted)

District	2010 Pop	2010 Prison-Adjusted Count	Prison-Adjusted Deviation	% Prison-Adjusted Deviation	2010 Reassigned State Prisoners*	PA NH BCVAP**	PA LCVAP**	PA NH WCVAP**
92	24,195	24,607	937	3.96%	395	42.6%	14.7%	36.8%
94	24,376	24,637	967	4.09%	244	48.3%	12.8%	32.0%
95	24,328	24,757	1087	4.59%	412	28.0%	51.9%	17.2%
96	24,371	24,632	962	4.06%	244	11.9%	11.8%	68.0%
97	24,372	24,726	1056	4.46%	337	22.1%	30.9%	44.4%

* The reassigned count in this table does not include federal, out-of-state, and persons with unknown residences.
**Based on 2013-2017 ACS.

56. All five of the most populated House districts are in the south and clustered in New Haven (HDs 92, 94, 95, 96, and 97).

57. Votes cast in minority-majority HD 95 carry significantly less weight than votes cast in underpopulated majority-White HD 103. HD 95 has a prison-adjusted count of 24,757, which is 3,814 (18.21%) more persons than the prison-adjusted 20,943 count for HD 103. Put differently, it only takes 82 persons in HD 103 to match the representation of 100 persons in HD 95.

58. There is a similar double-digit representational disadvantage for the remainder of the five most-populated districts. **Figure 14** illustrates the impact by measuring each in sequential order against the five most underpopulated districts (shaded green).

Figure 14
Disparate Impact of the 2011 Plan

Under-Populated Districts	2010 Prison-Adjusted Count	PA Minority CVAP	Most Populated District	2010 Prison-Adjusted Count	Minority CVAP	Population Difference	Representational Disadvantage
103	20,943	9.3%	95	24,757	82.80%	3,814	-18.21%
59	20,990	9.1%	97	24,726	55.60%	3,736	-17.80%
52	21,255	5.6%	94	24,637	68.00%	3,382	-15.91%
37	21,346	9.9%	96	24,632	32.00%	3,286	-15.39%
61	21,352	10.7%	92	24,607	63.20%	3,255	-15.24%

59. The representational disadvantage shown in **Figure 14** also reveals a racially disparate impact. All five of the most underpopulated districts are about 90% White, while four of the five most populated districts are majority-minority.

V. DEMONSTRATIVE PLAN A

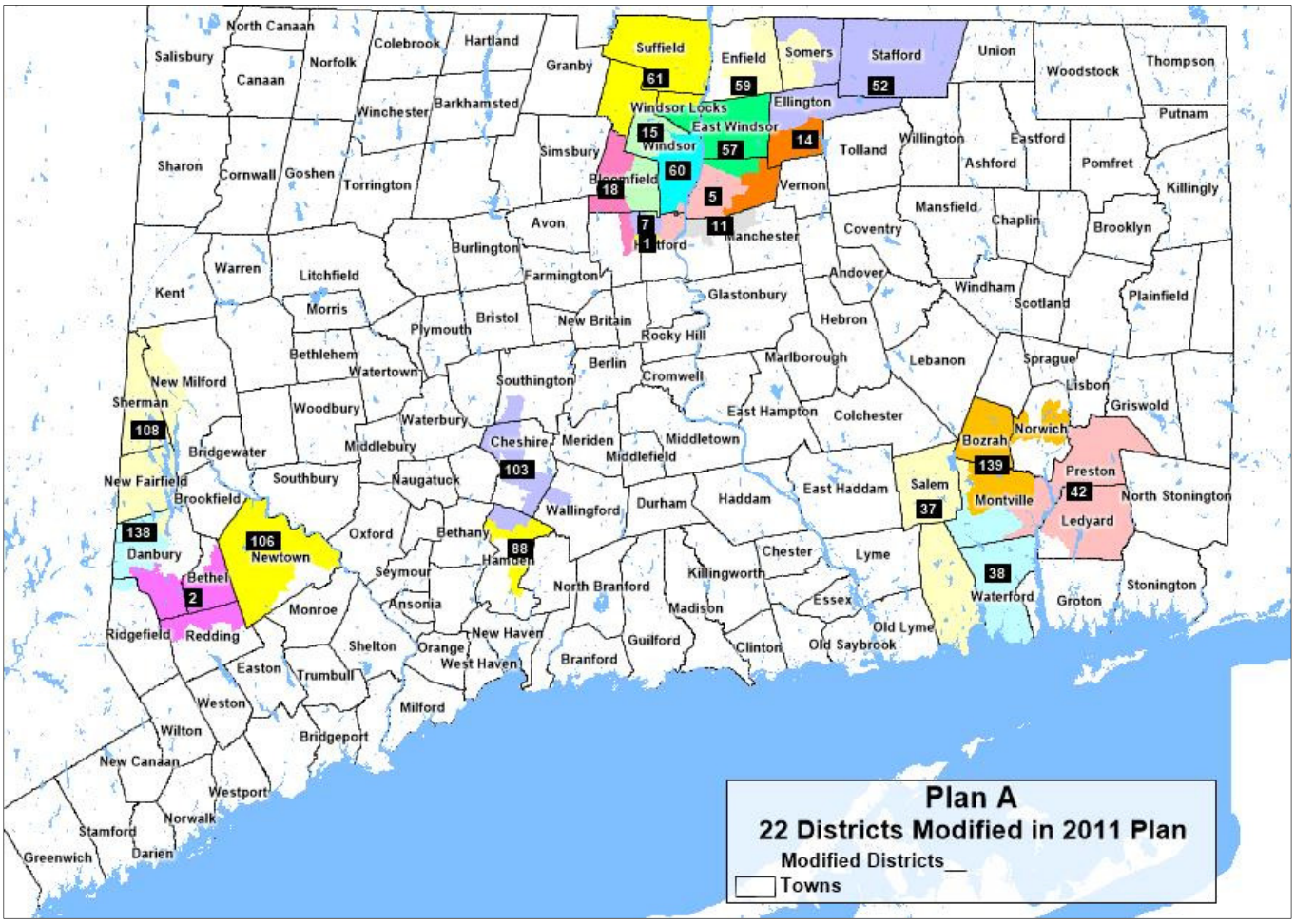
A. Statewide Changes

60. The plan described below (Plan A) modifies the 2011 House Plan so that all districts are within +/- 5% deviation, after adjusting for the prison population. The overall prison-adjusted deviation in Plan A is 9.32%.

61. More than 60 House districts would have to change to bring the maximum deviation into a range of +/-3%. I therefore sought to minimize the number of modified districts when making revisions by adhering to a +/- 5% deviation schema.

62. Plan A realigns just 22 districts – nine changes remedy the underpopulated, malapportioned districts in the 2011 Plan. Thirteen are "ripple effect" modifications to adjacent districts. The map in **Figure 15** (on the next page) shows the 22 modified districts on a statewide map. Districts in the unshaded areas of the map are unchanged.

Figure 15
Plan A – 22 Modified Districts



63. According to the 2010 Census, 109,329 non-incarcerated persons are moved into a different House district under Plan A. Of the population moved to a different district, about 86,000 are citizens of voting age, according to the 2013-2017 ACS. **Exhibit J-1** is a higher resolution version of the **Figure 15** map. **Exhibit J-2** reports prison-adjusted population statistics for all 151 House districts under Plan A. **Exhibit J-3** contains a series of maps zooming on each of the 22

modified districts, displaying only the modified districts. For comparison, maps in **Exhibit J-4** show the 22 districts as drawn under the 2011 Plan.

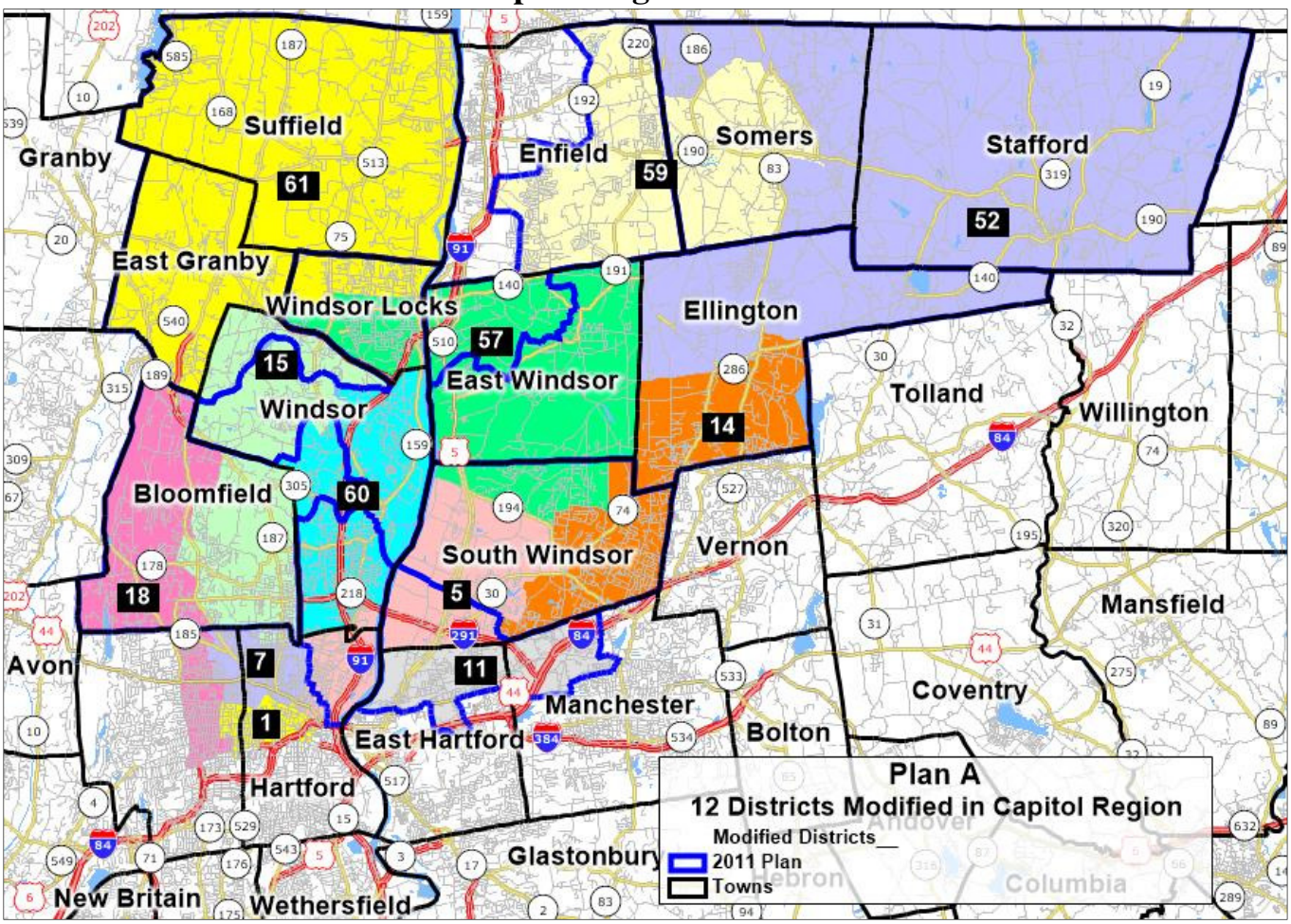
64. Compared to the 2011 House Plan, district boundaries change in 14 towns under Plan A: *North* (*Capitol Region*) – Bloomfield, East Windsor, Ellington, Hartford, Somers, South Windsor, West Windsor, Windsor, and Windsor Locks; *South* – Montville, Danbury, Hamden, New Fairfield, and Newtown.

B. <u>Capitol Region Changes</u>

65. The population placed into a different district under Plan A is largely confined to nine municipalities in north Connecticut – Bloomfield, East Windsor, Ellington, Hartford, Somers, South Windsor, West Hartford, Windsor, and Windsor Locks. About 93% of the non-incarcerated CVAP that is moved to another district under Plan A resides in these nine municipalities.

66. **Figure 16** (on the next page) displays the 12 modified districts in the Capitol Region. Blue lines identify district boundaries under the 2011 Plan.

Figure 16
Plan A Districts – Capitol Region Modifications



C. Minority-Majority District 60

67. Plan A creates a new minority-opportunity district – District 60 (50.19% minority CVAP, compared to 21.2% under the 2011 Plan). District 60 is entirely in Windsor and lies between the northern prison complex area in Suffield, Somers, and Enfield (7,850 incarcerated combined) and the smaller Hartford facility (1,095 incarcerated) to the south

68. Windsor has a minority population of 48.84% (2010 Census), with a minority CVAP of 45.49% (2013-2017 ACS). **Exhibit K** contains a socioeconomic profile of Windsor by race and ethnicity, as reported in the 2013-2017 ACS.

69. According to the 2013-2017 ACS, there are 8,600 non-incarcerated minority citizens of voting age in District 60 under Plan A. This represents an increase of nearly 5,000 non-incarcerated minority citizens of voting age compared to HD 60 under the 2011 Plan. (HD 60 is located in Windsor and Windsor Locks).

D. Additional Statewide Information for Plan A

70. There are no incumbent conflicts under Plan A, i.e. no incumbents are paired in the same district.

71. Prison facilities are in the same districts as the 2011 Plan.

72. Plan A splits 24 municipalities into two or more districts in the modified area, as compared to 22 splits under the 2011 Plan.

73. District boundaries are changed in 14 towns – but in one of the 14 (East Windsor) a split is eliminated. The maps in **Exhibit L-1** zoom on each of these 14 towns, displaying only towns and districts where there are changes. Blue lines show the district boundaries under the 2011 Plan. **Exhibit L-2** is a table showing district changes in the 14 towns, with the associated non-incarcerated CVAP (80,785 persons) moved into another district.

74. The modified districts in Plan A are reasonably shaped and compact. **Exhibit M-1** (Reock[5]) and **Exhibit M-2** (Polsby-Popper[6]) report district-by-district compactness scores generated by Maptitude.

75. The table in **Figure 17** summarizes the Reock and Polsby-Popper scores for Plan A, alongside scores for the 2011 Plan – after isolating only the 22 districts that are modified in Plan A. There is very little difference between the two plans. Overall, the 2011 Plan scores .02 higher than Plan A on the Reock mean average and .01 higher on the Polsby- Popper mean average.

Figure 17
Compactness Scores – 2011 Plan and Plan A

	Reock				Polsby-Popper		
		Low	High			Low	High
2011 Plan (22 districts)							
All Districts (mean avg.)	.40	.24	.58		.36	.18	.68
Plan A (22 districts)							
All Districts (mean avg.)	.38	.21	.57		.35	.15	.55

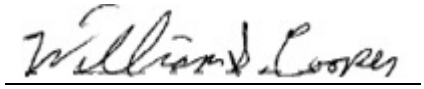
[5] "The Reock test is an area-based measure that compares each district to a circle, which is considered to be the most compact shape possible. For each district, the Reock test computes the ratio of the area of the district to the area of the minimum enclosing circle for the district. The measure is 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).

[6] The Polsby-Popper test computes the ratio of the district area to the area of a circle with the same perimeter: 4pArea/ (Perimeter2). 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).

# # #

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

Executed on: **December 31, 2019**



WILLIAM S. COOPER