

IN THE UNITED STATES DISTRICT COURT FOR  
THE EASTERN DISTRICT OF VIRGINIA  
Richmond Division

GOLDEN BETHUNE-HILL, *et al.*,

Plaintiffs,

v.

VIRGINIA STATE BOARD OF ELECTIONS, *et al.*,

Defendants.

Civil Action No. 3:14cv852

THIRD ADDENDUM TO THE REPORT OF THE SPECIAL MASTER

January 4, 2019

Bernard Grofman\*  
Special Master

\*Bernard Grofman is Distinguished Professor of Political Science and Jack W. Peltason Endowed Chair of Democracy Studies at the University of California, Irvine, and former Director of the UCI Center for the Study of Democracy.

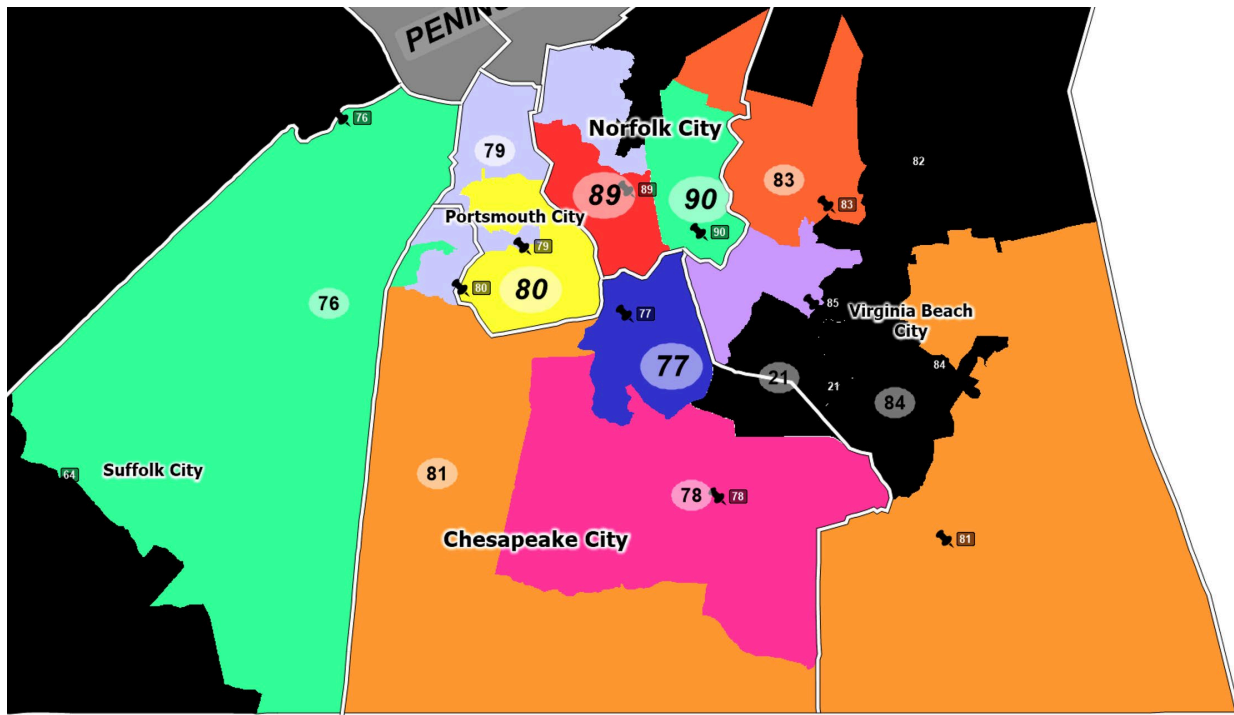
1. As noted in the December 7, 2018 Report of the Special Master there were population errors in the data reported for the illustrative modules in that Report that I did not have time to correct before the filing deadline. I had missed including in the map a zero population census block, and there were some problems in properly converting files from Maptitude to ArcGis in the absence of a block equivalency file. These problems did not get detected by me until the day of filing, and were corrected on the next business day. These data issues required only completely trivial technical corrections in Norfolk Illustrative Modules 1A and 1B, but somewhat more substantial population shifts that primarily affected districts 85 and 90 in Norfolk Illustrative Modules 1C (see table below). In Norfolk Illustrative Modules 1A and 1B three districts needed to be adjusted, but never more than 110 shifted in any district. In Norfolk Illustrative Module 1C four districts needed to be adjusted; here the largest change was closer to 2,000 voters.

2. To the best of my knowledge, population deviations outside the intended range affected only the Norfolk area illustrative modules. I believe that all data and maps reported in my Report of December 7 for the illustrative modules in the other geographic regions of the state remain unchanged. The changes made in the illustrative Norfolk modules were required to adjust population deviations, and were done solely for population purposes and not done to adjust racial percentages, though changes had that effect in district 90. However, in both the original and the corrected configurations, district 90 was an African-American opportunity district; nonetheless, that initial configuration needed to be redone to address the higher than desired population deviations in districts 85 and 90. These corrections involved adding population to district 90 and removing population from district 85, though achieving these population adjustments required moving population across four districts. I apologize to the Court and to the parties for these errors. None of these errors affected my conclusion that, were one of these illustrative modules to be adopted by the court as a foundational element of a final plan - subject of course to any needed corrections or emendations (such as removing unduly large population deviations)—each of these modules illustrated a possible way in which the unconstitutionality of the Norfolk area districts found to be unconstitutional could be cured.

	<b>December 7 Reported</b>	<b>Corrected</b>	<b>Difference</b>
<i>Norfolk 1A- district 83</i>	80,857	80,805	-52
<i>Norfolk 1A- district 85</i>	80,842	80,787	-55
<i>Norfolk 1A- district 90</i>	79,505	79,612	107
<i>Norfolk 1B- district 83</i>	80,857	80,805	-52
<i>Norfolk 1B- district 85</i>	80,842	80,787	-55
<i>Norfolk 1B- district 90</i>	79,505	79,612	107
<i>Norfolk 1C- district 79</i>	80,050	79,972	-78
<i>Norfolk 1C- district 85</i>	82,668	80,721	-1,947
<i>Norfolk 1C- district 89</i>	80,481	80,780	299
<i>Norfolk 1C- district 90</i>	78,998	80,724	1,726

3. Pursuant to the Court Order of January 4, 2019, I report below the corrected data tables for the three Norfolk illustrative modules, and the corresponding maps for the districts in their corrected form –in the same format as used in my December 7 Report. In the tables below, red refers to unconstitutional districts, green to districts adjacent to the unconstitutional districts that were not themselves unconstitutional but which have been changed in the process of remedying constitutional infirmities, and black refers to districts that were not changed. In the maps, different districts are represented by different colors, and white boundary lines show county boundaries.

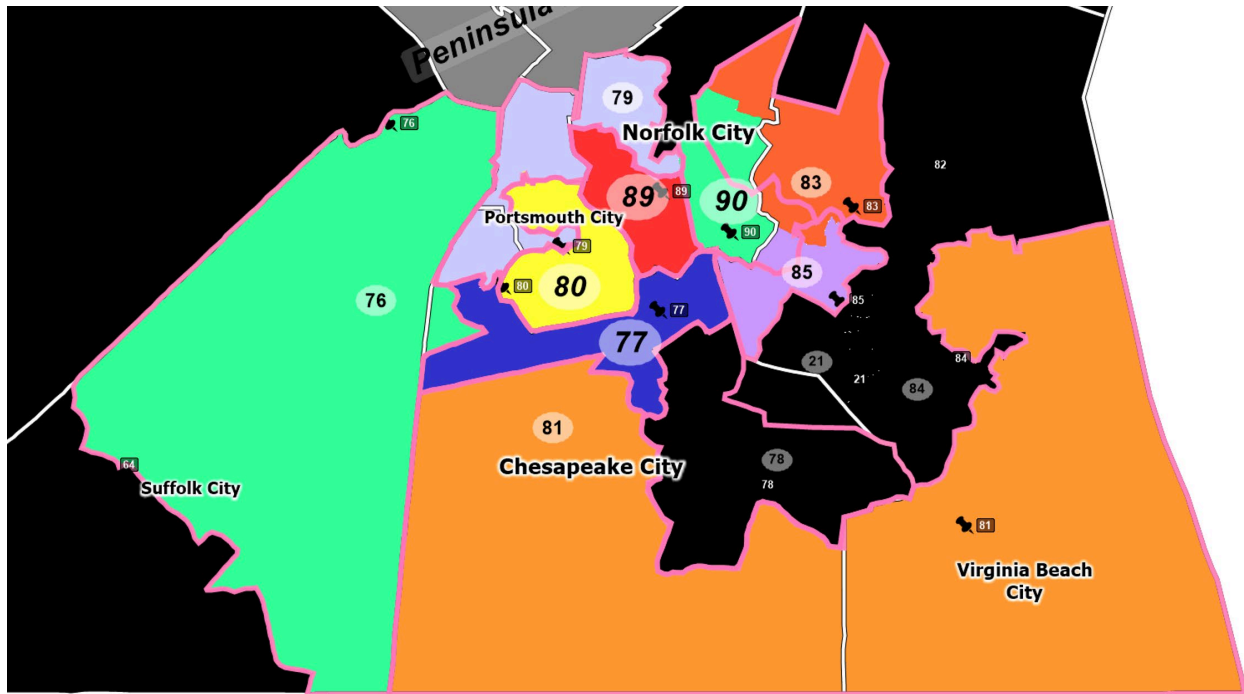
NORFOLK1A



District	District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby-Popper
	21	79,608	-0.50%	23.86%	64.66%	52.43%	0.42	0.31
	76	79,795	-0.27%	42.89%	68.81%	57.60%	0.44	0.45
	77	79,810	-0.25%	40.23%	73.03%	63.53%	0.55	0.52
	78	80,703	0.87%	16.85%	64.96%	36.04%	0.49	0.42
	79	79,895	-0.14%	31.46%	51.27%	59.38%	0.27	0.11
	80	79,340	-0.84%	51.38%	57.45%	70.67%	0.55	0.36
	81	79,950	-0.08%	25.34%	69.21%	49.65%	0.32	0.20
	83	80,805	0.99%	23.10%	52.46%	52.86%	0.50	0.29
	84	80,281	0.34%	20.45%	56.13%	49.57%	0.44	0.26
	85	80,787	0.97%	21.29%	59.80%	51.13%	0.39	0.30
	89	80,481	0.59%	54.92%	51.64%	82.47%	0.38	0.48
	90	79,612	-0.50%	41.93%	59.53%	69.71%	0.42	0.52
	<b>**MEAN**</b>	<b>80,089</b>	<b>0.10%</b>	<b>32.81%</b>	<b>60.75%</b>	<b>57.92%</b>	<b>0.43</b>	<b>0.35</b>

District data corrected from December 7 Report of the Special Master: 83 (80,857), 85 (80,842), 90 (79,505), with numbers in parentheses representing the population figures reported in that December 7 Report.

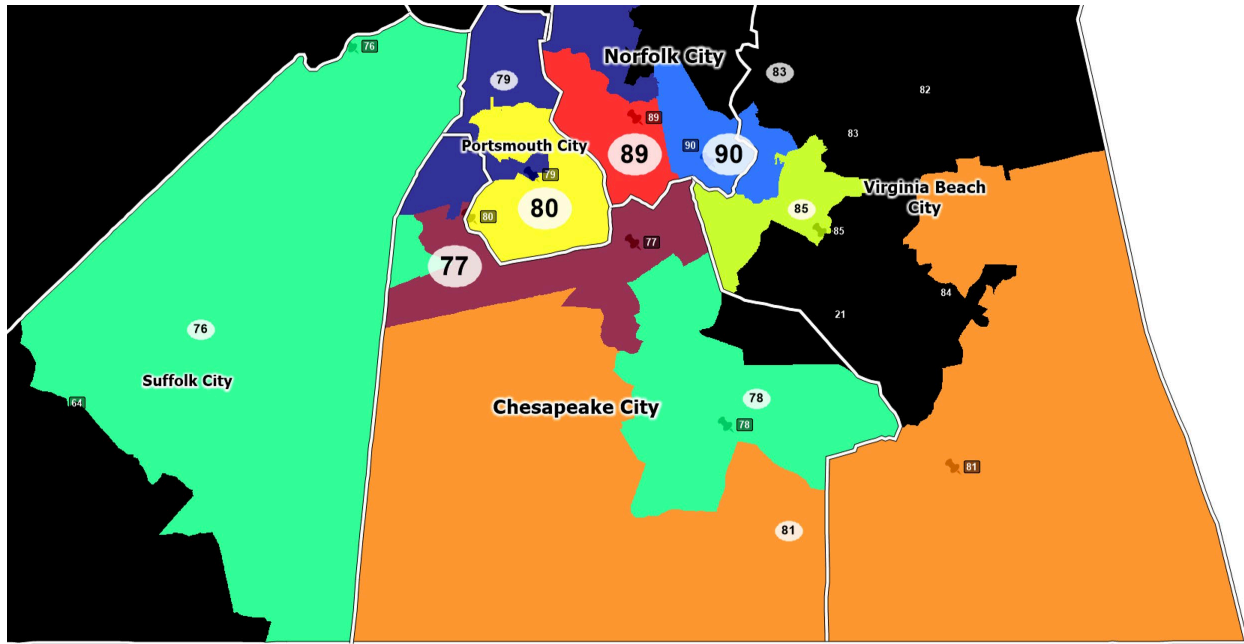
NORFOLK1B



District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby-Popper
21	79,608	-0.50%	23.86%	64.66%	52.43%	0.42	0.31
76	79,530	-0.60%	42.40%	68.63%	56.97%	0.45	0.47
77	79,363	-0.81%	47.03%	78.31%	67.86%	0.24	0.18
78	80,475	0.58%	17.14%	64.46%	38.82%	0.46	0.35
79	80,050	0.05%	31.98%	51.65%	60.38%	0.26	0.13
80	79,340	-0.84%	51.38%	57.45%	70.67%	0.55	0.36
81	80,735	0.91%	19.05%	58.62%	42.43%	0.37	0.27
83	80,805	0.99%	23.10%	52.46%	52.86%	0.50	0.29
84	80,281	0.34%	20.45%	56.13%	49.57%	0.44	0.26
85	80,787	0.97%	21.29%	59.80%	51.13%	0.39	0.30
89	80,481	0.59%	54.92%	51.64%	82.47%	0.38	0.48
90	79,612	-0.50%	41.93%	59.53%	69.71%	0.42	0.52
<b>**MEAN**</b>	<b>80,089</b>	<b>0.10%</b>	<b>32.88%</b>	<b>60.28%</b>	<b>57.94%</b>	<b>0.41</b>	<b>0.33</b>

District data corrected from December 7 Report of the Special Master: 83 (80,857), 85 (80,842), 90 (79,505), with numbers in parentheses representing the population figures reported in that December 7 Report.

NORFOLK1C



District	District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby-Popper
	21	79,608	-0.50%	23.86%	64.66%	52.43%	0.42	0.31
	76	79,530	-0.60%	42.40%	68.63%	56.97%	0.45	0.47
	77	79,363	-0.81%	47.03%	78.31%	67.86%	0.24	0.18
	78	80,475	0.58%	17.14%	64.46%	38.82%	0.46	0.35
	79	79,972	-0.05%	32.00%	51.67%	60.34%	0.26	0.13
	80	79,340	-0.84%	51.38%	57.45%	70.67%	0.55	0.36
	81	80,735	0.91%	19.05%	58.62%	42.43%	0.37	0.27
	83	79,538	-0.59%	15.12%	46.02%	46.69%	0.52	0.34
	84	80,281	0.34%	20.45%	56.13%	49.57%	0.44	0.26
	85	80,721	0.89%	22.32%	61.50%	52.23%	0.36	0.25
	89	80,780	0.96%	54.98%	51.67%	82.48%	0.38	0.49
	90	80,724	0.89%	48.44%	65.76%	75.02%	0.40	0.40
	<b>**MEAN**</b>	<b>80,089</b>	<b>0.10%</b>	<b>32.85%</b>	<b>60.41%</b>	<b>57.96%</b>	<b>0.40</b>	<b>0.32</b>

District data corrected from December 7 Report of the Special Master: 79 (80,050), 85 (82,668), 89 (80,481), 90 (78,998), with numbers in parentheses representing the population figures reported in that December 7 Report.