

Exhibit 18
(1 of 2)

Third Affidavit of Dan Frey

STATE OF NORTH CAROLINA

IN THE GENERAL COURT OF JUSTICE
SUPERIOR COURT DIVISION

COUNTY OF WAKE

MARGARET DICKSON; *et al.*,

Plaintiffs,

v.

ROBERT RUCHO, *et al.*,

Defendants.

11 CVS 16896

NORTH CAROLINA STATE CONFERENCE
OF BRANCHES OF THE NAACP, *et al.*,

Plaintiffs,

v.

THE STATE OF NORTH CAROLINA, *et al.*,

Defendants.

11 CVS 16940

(Consolidated)

THIRD AFFIDAVIT OF DAN FREY

1. On January 19, 2012, I provided an initial Affidavit for this case (“First Frey Affidavit”). On December 6, 2012, I signed a second affidavit (“Second Frey Affidavit”). The testimony and exhibits included in the First and Second Frey Affidavits are hereby incorporated by reference.

2. I have reviewed the House and Senate Exemplar Plans (“Exemplar Plans” or “Exemplar House Plan” or “Exemplar Senate Plan”) prepared by Dr. Thomas Hofeller and submitted by him as exhibits to his third affidavit. I have amplified the Exemplar Plans to add outlines of the county groupings used in the enacted 2011 House and Senate Plans and the residences for 2010 incumbents. A map of “Hofeller House Exemplar”, with county groupings and incumbents, is attached as exhibit 68A. A map of the “Hofeller Senate Exemplar”, with

county groupings and incumbents, is attached as exhibit 73A. The information I have added to the Exemplar Plans was available to members of the General Assembly prior to the enactment of the 2011 legislative plans.

3. Attached as Exhibit 68B is an overview of the Exemplar House Plan showing the location of all of the exemplar House districts. I have also added the county groupings used in the enacted 2011 House plan. These are shown by dark blue lines.

4. A careful review of the geography shows that Exemplar House Districts 5 and 31 would place portions of these districts in two different enacted plan county groups. Exemplar House Districts 7, 12, 18, 24, and 32 would place portions of those districts in three different enacted plan county groups. Though it is difficult to see at the scale of the overview map, district 12 crosses into Pitt County. Exemplar House Districts 23 and 27 would place portions of these districts in four different enacted plan county groups.

5. If the General Assembly had enacted the Exemplar House districts, it would have been required to substantially modify the county groupings used in the enacted House Plan for the districts cited in paragraph 4.

6. Attached as Exhibit 69 is a Northeast Region area map of Exemplar House Districts 5, 7, 23, 24, 27, 29, 31, 32, 33, and 38. This map also shows the residence of 2010 House incumbents in this area of the State. Under the Exemplar House Plan, Rep. Annie Mobley and Rep. Timothy Spear would have been placed in Exemplar House District 27, Rep. Angela Bryant and Rep. Jeff Collins would have been placed in Exemplar House District 7, and Rep. Larry Hall and Rep. Mickey Michaux would have been placed in Exemplar House District 29.

7. Attached as Exhibit 70 is a South Central Region area map of the Exemplar House Districts. This exhibit shows that the 2010 incumbent for House District 12 (William

Wainwright) would have been drawn out of his district if the General Assembly had enacted Exemplar House District 12. In addition, the 2010 incumbents for House District 42 (Rep. Marvin Lucas) and House District 43 (Rep. Elmer Floyd) would have been placed in the same House District (Exemplar House District 43).

8. Attached as Exhibit 71 is a Triad Region area map of the Exemplar House Plan. This map includes Exemplar House Districts 57, 58, 60, 71, and 72. Under the Exemplar House Plan, the 2010 incumbents for House District 58 (Rep. Alma Adams) and House District 60 (Rep. Marcus Brandon) were both drawn into single incumbent districts with the same district number. The 2010 incumbents for House District 71 (Rep. Larry Womble) and House District 72 (Rep. Earline Parmon) swapped district numbers under the Exemplar House plan, but were otherwise drawn into single incumbent districts in the same general area of central Forsyth County. District 57 in the Exemplar House Plan had no incumbent..

9. Attached as Exhibit 72 is a Mecklenburg County area map of the Exemplar House Plan. Under these exemplar districts, incumbents for 2010 House District 101 (Rep. Beverly Earle) and House District 107 (Rep. Kelly Alexander) would have both been placed in Exemplar House District 106.

10. Attached as Exhibit 73B is an overview of the Exemplar Senate Plan. The county groupings used in the enacted 2011 Senate Plan are shown by dark blue lines.

11. A careful review of the geography shows that Exemplar Senate Districts 20 and 32 would place portions of each district in two enacted plan county groups. Exemplar Senate Districts 5 and 21 would place portions of each district in three enacted plan county groups. Though it is difficult to see at the scale of the overview map, district 21 crosses into Harnett

County. Exemplar Districts 3, 4 and 13 would place portions of each district in four different enacted plan county groups .

12. If the General Assembly had enacted the Exemplar Senate Districts, it would have been required to substantially modify the county groups used in the enacted Senate Plan for the districts cited in paragraph 11.

13. Attached as exhibits 74, 75, and 76 are area maps of the Exemplar Senate Plan for the Northeastern Region, the Triad Region, and the South Central Region. Under the Exemplar Senate District Plan, the 2010 incumbents for Senate District 38 (Sen. Charles Dannelly) and Senate District 40 (Sen. Malcolm Graham) would have been placed in Exemplar Senate District 38 (Ex. 76).

14. Attached as Exhibit 77 is a chart I have prepared comparing the Total Black Voting Age Population (TBVAP) of enacted 2011 House Districts versus alternative districts from the 'SCSJ House' Plan, the 'House Fair and Legal' Plan, and/or the 'Possible House Districts'/Legislative Black Caucus House Plan. The chart includes all districts where the enacted 2011 House District and the corresponding districts in at least two of the alternative plans all have TBVAPs of 38% or greater. Each of the enacted districts is compared to the corresponding alternative plan district or districts that have the highest proposed TBVAP.

15. Attached as Exhibit 78 is a chart I have prepared comparing the TBVAP of enacted 2011 Senate districts versus alternative districts from the 'SCSJ Senate' Plan, the 'Senate Fair and Legal' Plan, and/or the 'Possible Senate Districts'/Legislative Black Caucus Senate Plan. The chart includes all districts where the enacted 2011 Senate District and the corresponding districts in at least two of the alternative plans all have TBVAPs of 38% or

greater. Each of the enacted districts is compared to the corresponding alternative plan district that has the highest proposed TBVAP.

16. I have reviewed the State's reports for divided voting tabulation districts ("VTDs") under the 2001 Congressional Plan and the 2011 Congressional Plan. These reports indicate that the 2001 version of the Thirteenth Congressional District included thirteen divided VTDs and the 2011 version of the Fourth Congressional District includes fourteen divided VTDs.

17. Attached as Exhibit 79 is a Maptitude User Guide explaining the eight different mathematical compactness tests that were included in the 'Maptitude for Redistricting' software program used by the General Assembly during the 2011 redistricting process.

18. Attached as Exhibit 80 is a district compactness report I prepared using a General Assembly copy of the Maptitude software program on the 2001 Congressional Plan ("Congress ZeroDeviation").

19. Attached as Exhibit 81 is a district compactness report I prepared using a General Assembly copy of the Maptitude software program on the First Congressional map released by the Redistricting Chairs, Sen. Rucho and Rep. Lewis ("Rucho-Lewis Congress 1").

20. Attached as Exhibit 82 is a district compactness report I prepared using a General Assembly copy of the Maptitude software program on the enacted 2011 Congressional Plan ("Rucho-Lewis Congress 3").

21. Attached as Exhibit 83 is a report I prepared showing the amount and percentage of population from the 2001 version of the First Congressional District that was included in the 'Rucho-Lewis Congress 1' version of the First Congressional District. This chart also shows the

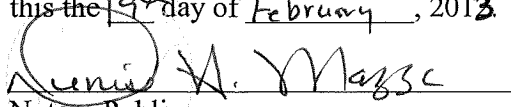
amount and percentage of population in the 'Rucho-Lewis Congress 1' version of the First Congressional District that came from the 2001 version of the First Congressional District.

22. Attached as Exhibit 84 is a copy of a congressional redistricting plan enacted by the General Assembly in 1991 called '1991 Congressional Base Plan #6'. Attached to Exhibit 84 is a statewide map showing all of the congressional districts in this plan, as well as an area map showing the First Congressional District enacted by this plan. In both maps, the 1991 First Congressional District is shaded in blue.

23. Attached as Exhibit 85 is a chart I prepared labeled "2011 Enacted and Alternative District Plans – County Traverses and Groupings." I based this chart on my analysis of the 2011 enacted legislative maps and the 2011 alternative legislative maps. The number of counties divided into different districts excludes counties with multiple districts drawn solely within a single county. My method for counting county traversals is explained in a table included with Exhibit 85.

This the 19 day of February, 2013.


Dan Frey

Sworn and subscribed before me
this the 19th day of February, 2013^{dhm}

Notary Public
Denise H. Mazza
My commission expires: 2/9/16

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