Exhibit 27

First Declaration of Dan Frey
NOW COMES Dan Frey, who deposes and says:

1. I am over 18 years of age, legally competent to give this declaration and have personal knowledge of the facts set forth in it.

2. I am currently employed by the North Carolina General Assembly as a Geographic Information Systems (“GIS”) Analyst/Programmer. I have been employed by the General Assembly with a similar job focus since August 1995.

3. I have primary responsibility for creating and maintaining the redistricting section of the North Carolina General Assembly’s web site, located at www.ncleg.net. With the exception of information relating to the 1991 North Carolina House of Representative and North Carolina Senate district plans, all of the following exhibits are copies of maps and reports available under that redistricting section. The information on the 1991 plans was copied from United States Department of Justice submission documents stored in the Legislative Library. The exhibits include North Carolina’s
enacted House and Senate plans from 1991 through 2011. From the 2011 redistricting process, they also include preliminary and alternative plans offered.

**Book 1: Historical NC House Maps 1991-2011**

3. Exhibit 1 includes a map of the enacted 1991 NC House Plan ("1991 House Base Plan #3"). It also includes reports showing population deviations from the calculated ideal, total population by race, and voter registration by race and party. The total population counts in these reports are based on the 1990 Census Redistricting Data Summary File (Public Law 94-171). One such file is released following each decennial census. As that is the only census dataset that we have incorporated into our redistricting systems, I refer to that dataset throughout this document as simply "the 1990 census," or the corresponding decade. In the 1990 census, there was no multi-race category, so the "Total Black” category in the report refers to single-race black. All race categories are without regard to ethnicity, and therefore include people who are Hispanic or Latino.

4. Exhibit 2 includes a map of the enacted 1992 NC House Plan ("1992 House Base Plan 5"). It also includes reports showing population deviations from the calculated ideal, total population by race, voting age population by race, voter registration by race and party, and selected election results. Total and voting age population count information in these reports is based on the 1990 census. In the 1990 census, there was no multi-race category, so the “Total Black” category refers to single-race black. All race categories are without regard to ethnicity, and therefore include people who are Hispanic or Latino.
5. Exhibit 3 includes a map of “Sutton House Plan 3,” enacted in November, 2001. It also includes reports showing population deviations from the calculated ideal, total population by race and ethnicity, voting age population by race and ethnicity, selected election results, and voter registration by age, gender, and party. Total and voting age population information in these reports is based on the 2000 census. The 2000 census redistricting dataset included multi-race information. Our standard reports in 2001 contained a “Multi-Race” category which included anyone who indicated more than one race. The “Black” category included only single-race black—i.e., only those who listed their only race as “Black.” There are separate ethnicity reports included, but the “by race” reports show race without regard to ethnicity, and therefore include people who are Hispanic or Latino.

6. Exhibit 4 includes a map of “Proposed House Plan—Sutton 5,” enacted in May, 2002 (referred to on the map and reports as “House Plan—Sutton 5” and “Sutton5corrected,” respectively). The exhibit includes reports showing population deviations from the calculated ideal, total population by race and ethnicity, voting age population by race and ethnicity, selected election results, and voter registration by age, gender, and party. Total and voting age population information in these reports is based on the 2000 census. Our standard reports in 2002 contained a “Multi-Race” category which included anyone who indicated more than one race. The “Black” category included only single-race black. There are separate ethnicity reports included, but the “by race” reports show race without regard to ethnicity, and therefore include people who are Hispanic or Latino.
7. Exhibit 5 includes a map of the “Interim House Redistricting Plan for NC 2002 Elections,” adopted by the North Carolina Superior Court of Johnston County in May of 2002 (referred to in the reports as simply “Interim House Plan”). The exhibit includes reports showing population deviations from the calculated ideal, total population by race and ethnicity, voting age population by race and ethnicity, selected election results, and voter registration by age, gender, and party. Total and voting age population information in these reports is based on the 2000 census. Our standard reports in 2002 contained a “Multi-Race” category which included anyone who indicated more than one race. The “Black” category included only single-race black. There are separate ethnicity reports included, but the “by race” reports show race without regard to ethnicity, and therefore include people who are Hispanic or Latino.

8. Exhibit 6 includes a map of the 2003 North Carolina House Plan (“House Redistricting Plan”), enacted in November, 2003. It also includes reports showing population deviations from the calculated ideal, total population by race and ethnicity, voting age population by race and ethnicity, selected election results, and voter registration by gender, age, party, and race. Total and voting age population information in these reports is based on the 2000 census. Starting in 2003, our standard census-based reports include columns for “Black” (single-race black), “MR Black” (multi-race, where one of the reported component races was black), and “Total Black” (single-race + multi-race black), sometimes referred to as “any part black.” There is a separate Hispanic column, but all of the race categories are without regard to ethnicity, and therefore
include people who are Hispanic or Latino. All voter registration race categories are single race and without regard to ethnicity.

9. Exhibit 7 includes a map of the 2003 North Carolina House Plan as modified by 2009 Session Law 78 in June, 2009 (referred to on the reports as “House Bill 1621”). This exhibit includes reports showing population deviations from the calculated ideal, total population by race and ethnicity, voting age population by race and ethnicity, selected election results, and voter registration by gender, age, party, and race. Total and voting age population information in these reports is based on the 2000 census. As with the previous exhibit, this exhibit contains 2003-format reports, where there are columns in the census-based reports for single-race black, multi-race black, and total black. All of the race categories are without regard to ethnicity, and therefore include people who are Hispanic or Latino. All voter registration race categories are single-race and without regard to ethnicity.

Exhibit 7A includes a report that I originally prepared as an exhibit for the *Dickson v. Rucho* case. It contains information on the 2003 North Carolina House Plan as modified by 2009 Session Law 78 in June, 2009. The report shows the “Non-Hispanic White” population by district, using population counts from the 2000 census. It includes one section for population of all ages and another section for voting age only. The General Assembly’s 2003 redistricting database, which was the active database in 2009, contained this information. The non-Hispanic white population was not, however, broken out in our standard report series at that time. This report includes all districts where the non-Hispanic white voting age population, based on the 2010 census, is below 50%.
10. All of the remaining North Carolina House district plan exhibits contain the standard "stat pack" report from the 2011 round of redistricting. The stat pack includes reports showing population deviations from the calculated ideal, total population by race and ethnicity, voting age population by race and ethnicity, selected election results, and voter registration by race, party, gender, age, and ethnicity. Total and voting age population reports are based on the 2010 census. They once again include columns for single-race black, multi-race black, and total black. In addition, a column was added for non-Hispanic white, titled "White Non Hisp." Otherwise, all race categories are without regard to ethnicity, and include people who are Hispanic or Latino. The 2011 voter registration data included a multi-race category, but did not include detail on component races. It was therefore not possible to construct a "total black" registration category. The 2011 voter registration reports added a stand-alone ethnicity section, but all race categories continue to be without regard to ethnicity.

Exhibit 8 repeats the "Session Law 2009-78" district plan. It was the plan in place at the time the 2010 census data was received, and became the benchmark plan. A duplicate map is included here, along with updated numbers in the form of a 2011 stat pack for the plan.

11. Exhibit 9 includes a map of a district plan proposed by the Southern Coalition for Social Justice in June of 2011, called "SCSJ House." Also included is a 2011 stat pack for that plan.

12. Exhibit 10 includes a map of the first statewide district plan released by the chairs of the House Redistricting Committee, titled "Lewis-Dollar-Dockham 1."
plan was released on July 12, 2011. Included in the exhibit is a 2011 stat pack for the plan.

13. Exhibit 11 includes a map of the second statewide district plan released by the chairs of the House Redistricting Committee, titled “Lewis-Dollar-Dockham 2.” This plan was released on July 20, 2011. Included in the exhibit is a 2011 stat pack for the plan.

14. Exhibit 12 includes a map of a district plan proposed by Representative Grier Martin on July 25, 2011, titled “House Fair and Legal.” Included is a 2011 stat pack for the plan.

15. Exhibit 13 includes a map of a district plan proposed by Representative Kelly Alexander on July 25, 2011, titled “Possible House Districts.” Included is a 2011 stat pack for the plan.

16. Exhibit 14 includes a map of the third statewide district plan released by the chairs of the House Redistricting Committee, titled “Lewis-Dollar-Dockham 3.” The plan was released on July 26, 2011. Included is a 2011 stat pack for the plan.

17. Exhibit 15 includes a map of the final district plan, enacted on July 28, 2011, and titled “Lewis-Dollar-Dockham 4.” Included is a 2011 stat pack for the plan.

**Book 2: Historical NC Senate Maps 1991-2011**

18. Exhibit 16 includes a map of the enacted 1991 North Carolina Senate Plan (“1991 Senate Base #3”). It also includes reports showing population deviations from the calculated ideal, total population by race, and voter registration by race and party. The total population count information in these reports is based on the 1990 census. In the
1990 census, there was no multi-race category, so the “Total Black” category refers to single-race black. All race categories are without regard to ethnicity, and therefore include people who are Hispanic or Latino.

19. Exhibit 17 includes a map of the enacted 1992 North Carolina Senate Plan (“1992 Senate Base Plan #6”). It also includes reports showing population deviations from the calculated ideal, total population by race, voting age population by race, voter registration by race and party, and selected election results. Total and voting age population counts in these reports are based on the 1990 census. In the 1990 census, there was no multi-race category, so the “Total Black” category refers to single-race black. All race categories are without regard to ethnicity, and therefore include people who are Hispanic or Latino.

20. Exhibit 18 includes a map of “NC Senate Plan 1C,” enacted in November, 2001. The exhibit includes reports showing population deviations from the calculated ideal, total population by race and ethnicity, voting age population by race and ethnicity, selected election results, and voter registration by age, gender, and party. Total and voting age population information in these reports is based on the 2000 census. There was multi-race information included in the 2000 census dataset. Our standard reports in 2001 contained a ‘Multi-Race’ category which included anyone who indicated more than one race. The ‘Black’ category included only single-race black. There are separate ethnicity reports included, but the ‘by race’ reports show race without regard to ethnicity, and therefore include people who are Hispanic or Latino.
21. Exhibit 19 includes a map of a North Carolina Senate plan entitled “Fewer Divided Counties,” enacted in May, 2002. It also includes reports showing population deviations from the calculated ideal, total population by race and ethnicity, voting age population by race and ethnicity, selected election results, and voter registration by age, gender, and party. Total and voting age population information in these reports is based on the 2000 census. Our standard reports in 2002 contained a “Multi-Race” category which reflected anyone who indicated more than one race. The “Black” category included only single-race black. There are separate ethnicity reports included, but the “by race” reports show race without regard to ethnicity, and therefore include people who are Hispanic or Latino.

22. Exhibit 20 includes a map of the “Interim Senate Redistricting Plan for NC 2002 Elections” (also referred to as simply the “Interim Senate Plan”), adopted by the North Carolina Superior Court of Johnston County in May, 2002. It also includes reports showing population deviations from the calculated ideal, total population by race and ethnicity, voting age population by race and ethnicity, selected election results, and voter registration by age, gender, and party. Total and voting age population information in these reports is based on the 2000 census. Our standard reports in 2002 contained a “Multi-Race” category which included anyone who indicated more than one race. The “Black” category included only single-race black. There are separate ethnicity reports included, but the “by race” reports show race without regard to ethnicity, and therefore include people who are Hispanic or Latino.
23. Exhibit 21 includes a map of the “2003 Senate Redistricting Plan,” enacted in November, 2003. The exhibit includes reports showing population deviations from the calculated ideal, total population by race and ethnicity, voting age population by race and ethnicity, selected election results, and voter registration by gender, age, party, and race. Total and voting age population information in these reports is based on the 2000 census. Starting in 2003, our standard census-based reports include columns for “Black” (single-race black), “MR Black” (multi-race, where one of the reported component races was black), and “Total Black” (single-race + multi-race black), sometimes referred to as “any part black.” There is a separate Hispanic column, but all of the race categories are without regard to ethnicity, and therefore include people who are Hispanic or Latino. All voter registration race categories are single race and without regard to ethnicity.

Exhibit 21A includes a report which I originally prepared as an exhibit for the *Dickson v. Ruch* case. It shows the “Non-Hispanic White” population by district for the 2003 Senate Redistricting Plan, using population counts from the 2000 census. It includes one section for population of all ages and another section for voting age only. The General Assembly’s 2003 redistricting database contained this information, but it had not yet been broken out in our standard report series. This report includes all districts where the non-Hispanic white voting age population, based on the 2010 census, is below 50%.

24. All of the remaining North Carolina Senate district plan exhibits contain the standard “stat pack” report from the 2011 redistricting process. The stat pack includes reports showing population deviations from the calculated ideal, total population by race and ethnicity, voting age population by race and ethnicity, selected election results, and
voter registration by race, party, gender, age, and ethnicity. Total and voting age population reports are based on the 2010 census. They once again include columns for single-race black, multi-race black, and total black. In addition, a column was added for non-Hispanic white, titled “White Non Hisp.” Otherwise, all race categories are without regard to ethnicity, and include people who are Hispanic or Latino. The 2011 voter registration data included a multi-race category, but did not include detail on component races. It was therefore not possible to construct a “total black” registration category. The 2011 voter registration reports added a stand-alone ethnicity section. All voter registration race categories are without regard to ethnicity.

Exhibit 22 repeats the “2003 Senate Redistricting Plan.” It was the plan in place at the time the 2010 census data was received, and became the benchmark plan. A duplicate map is included here, along with updated numbers in the form of a 2011 stat pack for the plan.

25. Exhibit 23 includes a map of a district plan proposed by the Southern Coalition for Social Justice in June, 2011, called “SCSJ Senate.” Included is a 2011 stat pack for the plan.

26. Exhibit 24 includes a map of the first statewide district plan released by the chair of the Senate Redistricting Committee, titled “Rucho Senate 1.” It was released on July 12, 2011. Included is a 2011 stat pack for the plan.

27. Exhibit 25 includes a map of the second statewide district plan released by the chair of the Senate Redistricting Committee, titled “Rucho Senate 2.” It was released
on July 20, 2011. Included is a 2011 stat pack for the plan. This plan was ultimately enacted on July 27.

28. Exhibit 26 includes a map of a district plan proposed by Senator Martin Nesbitt on July 25, 2011, titled "Senate Fair and Legal." Also included is a 2011 stat pack for the plan.

29. Exhibit 27 includes a map of a district plan proposed by Senator Floyd McKissick on July 25, 2011, titled "Possible Senate Districts." Also included is a 2011 stat pack for the plan.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed this 9th day of November, 2015.

[Signature]
Dan Frey