Exhibit B

Declaration of Dr. Jowei Chen

July 11, 2018

In connection with my March 1, 2017 expert report in this litigation, I turned over all data concerning 1,000 North Carolina congressional maps created as Simulation Set 1, produced using a computer simulation process following only the non-partisan portions of the Adopted Criteria used for the 2016 Plan. I also turned over all data concerning 1,000 additional congressional maps created as Simulation Set 2, produced using a simulation process following the non-partisan portions of the Adopted Criteria and avoiding the pairing of any incumbents.

On July 4, 2018, Counsel for Common Cause plaintiffs gave to me a list of the fifteen individual plaintiffs in this litigation and their respective residential addresses. I geocoded these addresses, determining the latitude and longitude coordinates of each plaintiff's residence.

I used these geocoded addresses in the following ways. For each plaintiff, I first identified the district from the enacted 2016 Plan (SB 2) in which the plaintiff was placed. Next, I identified the district from each of the 1,000 plans in Simulation Set 1 and each of the 1,000 plans in Simulation Set 2 in which each plaintiff is located. I then compared the partisan composition of the enacted district and the 2,000 computer-simulated districts in which each plaintiff resides. I describe these comparisons below.

Figure 1 compares the partisanship of each plaintiff's district in the enacted 2016 Plan to the partisanship of the plaintiff's district in each of the 1,000 plans in Simulation Set 1. In this Figure, the partisanship of each district is measured as the Republican vote share of all votes cast in North Carolina's 20 statewide elections held during 2008-2014 (the elections specified by the Adopted Criteria). This Figure contains a separate row for each plaintiff; Plaintiffs Richard and Cheryl Lee Taft are listed on the same row because they reside at the same address. Within each row, the red star denotes the partisanship of the plaintiffs' district in the enacted 2016 Plan, while the 1,000 gray circles depict the partisanship of plaintiff's district in each of the 1,000 plans in Simulation Set 1. Hence, for example, the bottom row in Figure 1 illustrates that in the enacted 2016 Plan, Plaintiff Larry Hall resides in a district with a Republican vote share of 29.2%; by contrast, most of the Simulation Set 1 plans would have placed this plaintiff into a district with a Republican vote share of 35% to 40%.

Figure 2 also compares the partisanship of each plaintiff's enacted plan district to the partisanship of the plaintiff's district in each of the 1,000 Simulation Set 1 plans. However,

Figure 2 measures the partisanship of each district using Dr. Thomas Hofeller's seven-election formula (the "Hofeller formula"), which calculates the Republican share of votes cast in seven statewide elections held during 2008-2014.

Next, Figure 3 compares the partisanship of each plaintiff's district in the enacted 2016 Plan to the partisanship of the plaintiff's district in each of the 1,000 plans in Simulation Set 2, with district partisanship measured as the Republican vote share of all votes cast in North Carolina's 20 statewide elections held during 2008-2014. Finally, Figure 4 again compares the partisanship of each plaintiff's enacted plan district to the partisanship of the plaintiff's district in each of the 1,000 Simulation Set 2 plans. However, Figure 4 measures the partisanship of each district using the Hofeller formula.

Figure 1:

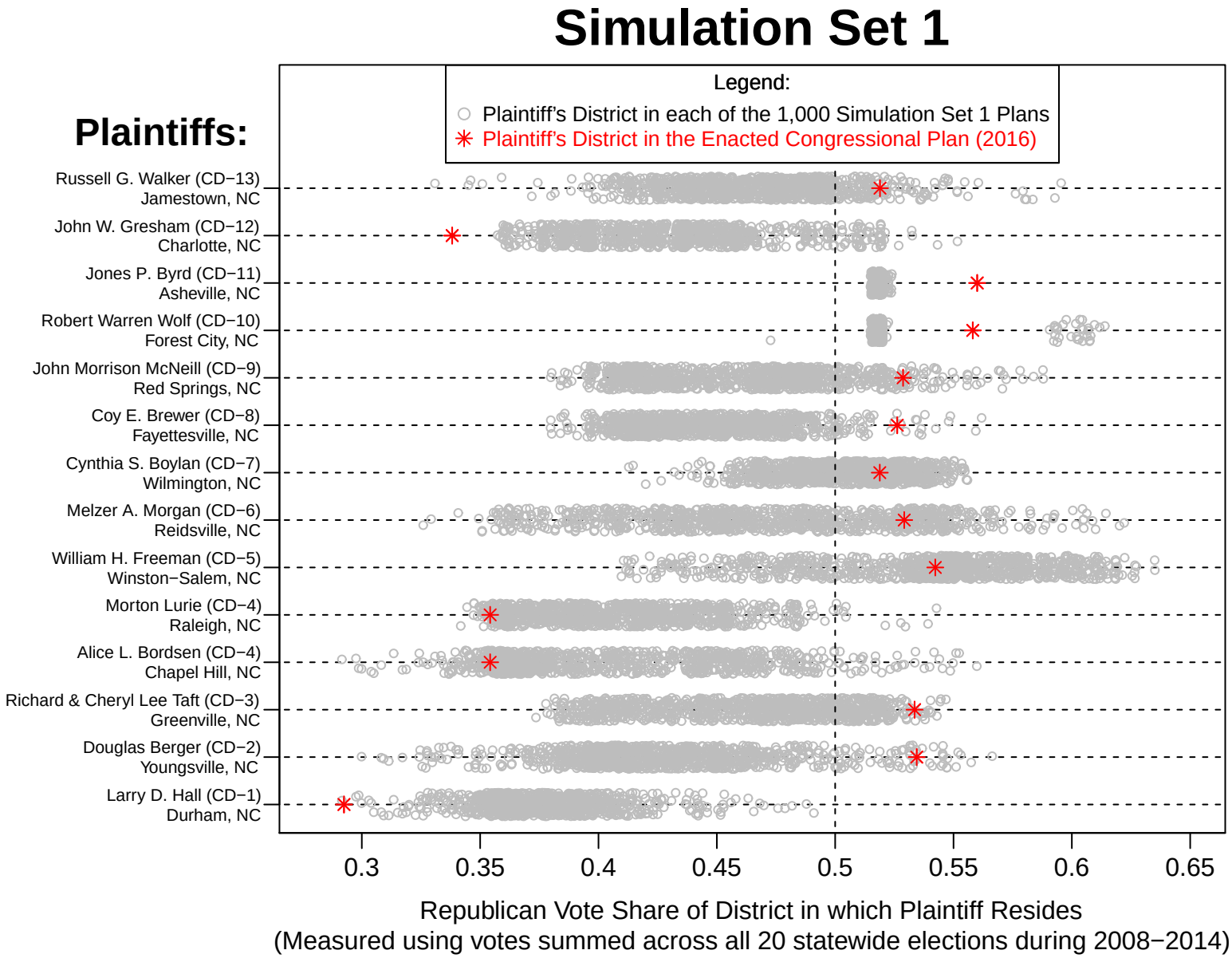
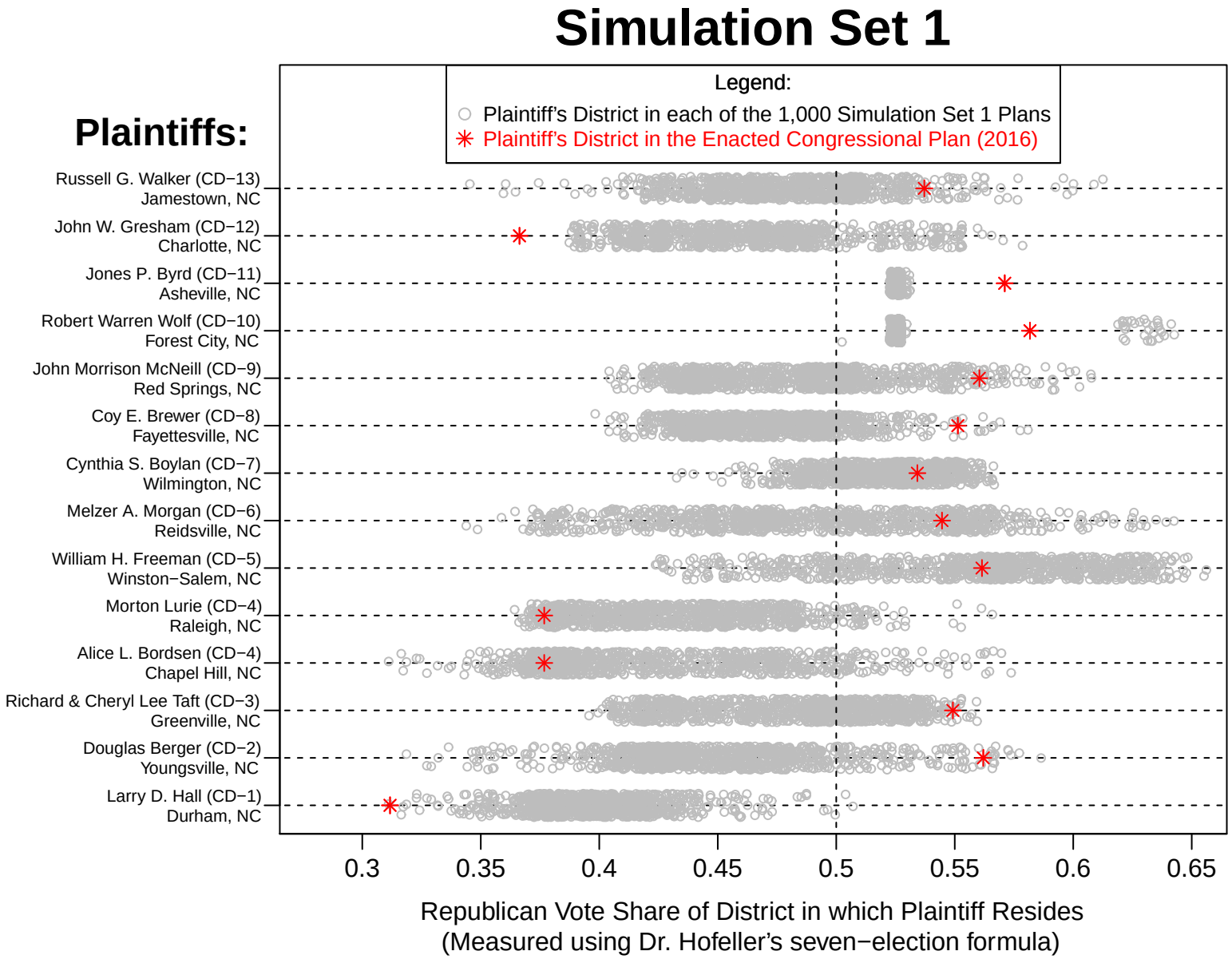

Simulation Set 1
Legend:
Plaintiff's District in each of the 1,000 Simulation Set 1 Plans
Plaintiff's District in the Enacted Congressional Plan (2016)
Plaintiffs:
Russell G. Walker (CD−13)
Jamestown, NC
John W. Gresham (CD−12)
Charlotte, NC
Jones P. Byrd (CD−11)
Asheville, NC
Robert Warren Wolf (CD−10)
Forest City, NC
John Morrison McNeill (CD−9)
Red Springs, NC
Coy E. Brewer (CD−8)
Fayettesville, NC
Cynthia S. Boylan (CD−7)
Wilmington, NC
Melzer A. Morgan (CD−6)
Reidsville, NC
William H. Freeman (CD−5)
Winston−Salem, NC
Morton Lurie (CD−4)
Raleigh, NC
Alice L. Bordsen (CD−4)
Chapel Hill, NC
Richard & Cheryl Lee Taft (CD−3)
Greenville, NC
Douglas Berger (CD−2)
Youngsville, NC
Larry D. Hall (CD−1)
Durham, NC
0.3
0.35
0.4
0.45
0.5
0.55
0.6
0.65
Republican Vote Share of District in which Plaintiff Resides
(Measured using votes summed across all 20 statewide elections during 2008−2014)

Figure 2:


Simulation Set 1
Legend:
Plaintiff's District in each of the 1,000 Simulation Set 1 Plans
Plaintiff's District in the Enacted Congressional Plan (2016)
Plaintiffs:
Russell G. Walker (CD−13)
Jamestown, NC
John W. Gresham (CD−12)
Charlotte, NC
Jones P. Byrd (CD−11)
Asheville, NC
Robert Warren Wolf (CD−10)
Forest City, NC
John Morrison McNeill (CD−9)
Red Springs, NC
Coy E. Brewer (CD−8)
Fayettesville, NC
Cynthia S. Boylan (CD−7)
Wilmington, NC
Melzer A. Morgan (CD−6)
Reidsville, NC
William H. Freeman (CD−5)
Winston−Salem, NC
Morton Lurie (CD−4)
Raleigh, NC
Alice L. Bordsen (CD−4)
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Richard & Cheryl Lee Taft (CD−3)
Greenville, NC
Douglas Berger (CD−2)
Youngsville, NC
Larry D. Hall (CD−1)
Durham, NC
0.3
0.35
0.4
0.45
0.5
0.55
0.6
0.65
Republican Vote Share of District in which Plaintiff Resides
(Measured using Dr. Hofeller's seven−election formula)

Figure 3:

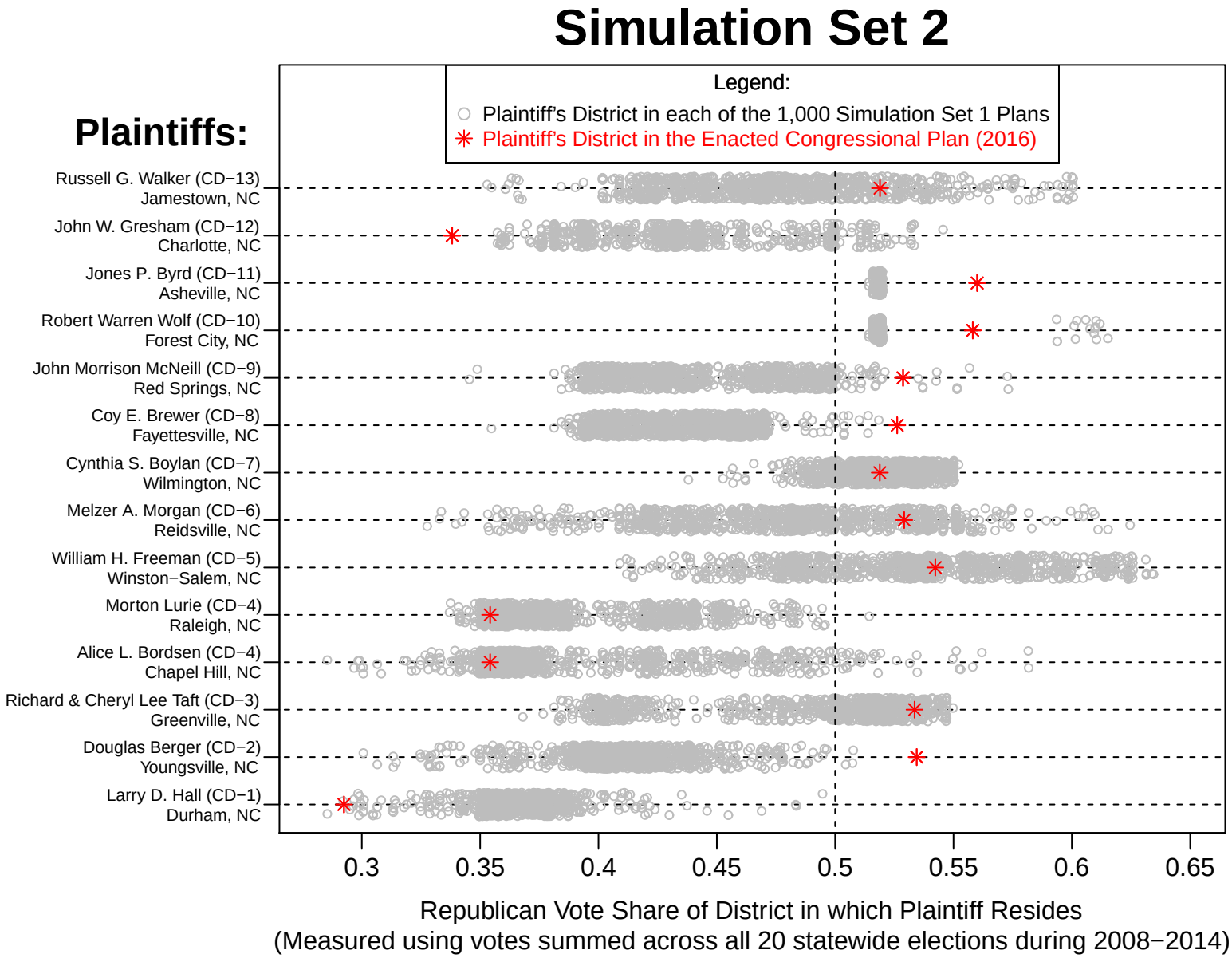
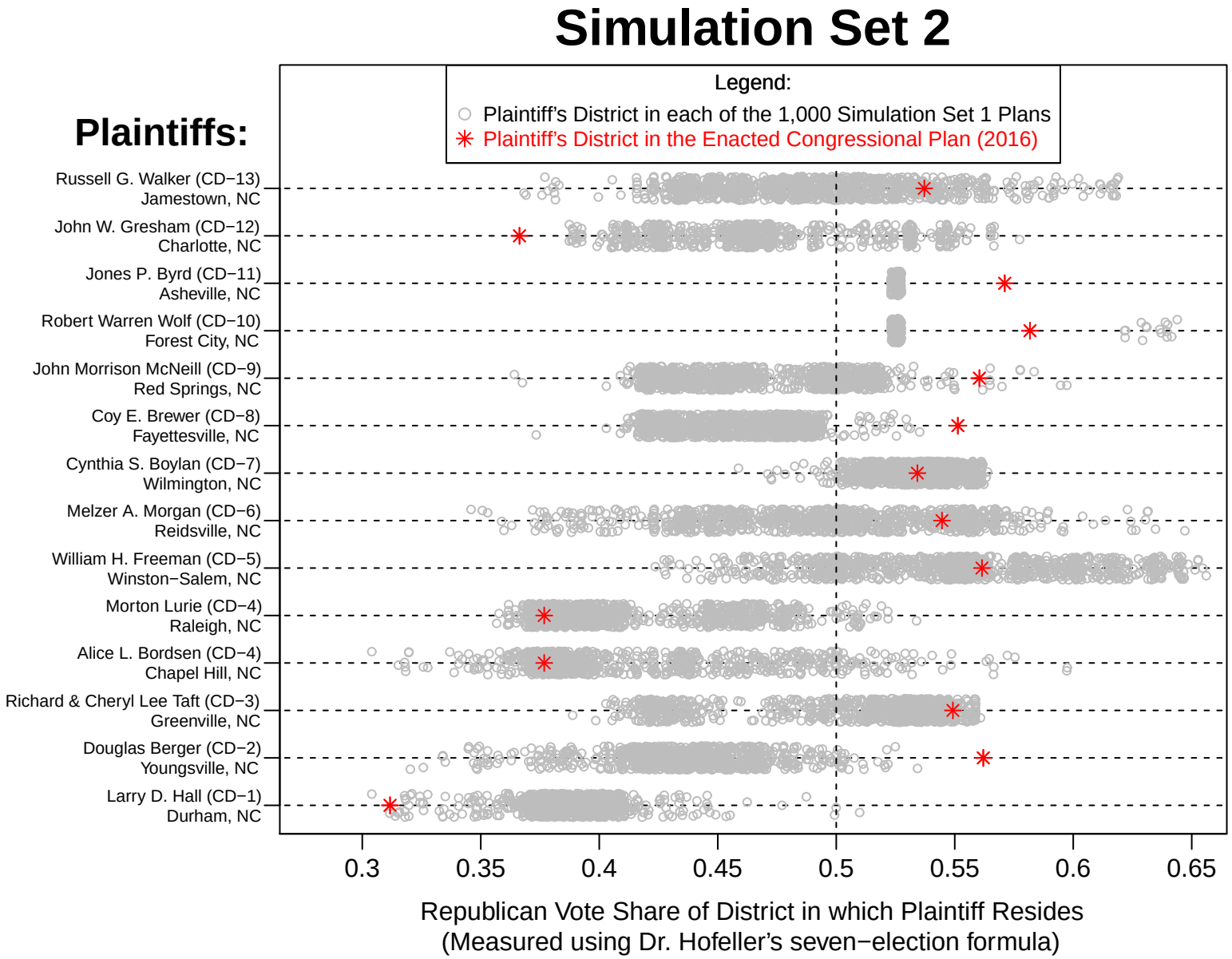

Simulation Set 2
Legend:
Plaintiff's District in each of the 1,000 Simulation Set 1 Plans
Plaintiff's District in the Enacted Congressional Plan (2016)
Plaintiffs:
Russell G. Walker (CD−13)
Jamestown, NC
John W. Gresham (CD−12)
Charlotte, NC
Jones P. Byrd (CD−11)
Asheville, NC
Robert Warren Wolf (CD−10)
Forest City, NC
John Morrison McNeill (CD−9)
Red Springs, NC
Coy E. Brewer (CD−8)
Fayettesville, NC
Cynthia S. Boylan (CD−7)
Wilmington, NC
Melzer A. Morgan (CD−6)
Reidsville, NC
William H. Freeman (CD−5)
Winston−Salem, NC
Morton Lurie (CD−4)
Raleigh, NC
Alice L. Bordsen (CD−4)
Chapel Hill, NC
Richard & Cheryl Lee Taft (CD−3)
Greenville, NC
Douglas Berger (CD−2)
Youngsville, NC
Larry D. Hall (CD−1)
Durham, NC
0.3
0.35
0.4
0.45
0.5
0.55
0.6
0.65
Republican Vote Share of District in which Plaintiff Resides
(Measured using votes summed across all 20 statewide elections during 2008−2014)

Figure 4:


Simulation Set 2
Legend:
Plaintiff's District in each of the 1,000 Simulation Set 1 Plans
Plaintiff's District in the Enacted Congressional Plan (2016)
Plaintiffs:
Russell G. Walker (CD−13)
Jamestown, NC
John W. Gresham (CD−12)
Charlotte, NC
Jones P. Byrd (CD−11)
Asheville, NC
Robert Warren Wolf (CD−10)
Forest City, NC
John Morrison McNeill (CD−9)
Red Springs, NC
Coy E. Brewer (CD−8)
Fayettesville, NC
Cynthia S. Boylan (CD−7)
Wilmington, NC
Melzer A. Morgan (CD−6)
Reidsville, NC
William H. Freeman (CD−5)
Winston−Salem, NC
Morton Lurie (CD−4)
Raleigh, NC
Alice L. Bordsen (CD−4)
Chapel Hill, NC
Richard & Cheryl Lee Taft (CD−3)
Greenville, NC
Douglas Berger (CD−2)
Youngsville, NC
Larry D. Hall (CD−1)
Durham, NC
0.3
0.35
0.4
0.45
0.5
0.55
0.6
0.65
Republican Vote Share of District in which Plaintiff Resides
(Measured using Dr. Hofeller's seven−election formula)

Comparison of Enacted and Simulated Districts for Individual Plaintiffs:

Plaintiff Larry Hall resides in Congressional District 1 of the Enacted 2016 Plan, and this enacted district has a 31.2% Republican vote share, as measured by the Hofeller formula. In Simulation Set 1, 999 of 1,000 simulated plans (99.9%) placed this plaintiff into a less Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, 998 of 1,000 simulated plans (99.8%) placed this plaintiff into a less Democratic-leaning district, as measured by the Hofeller formula.

Plaintiff Douglas Berger resides in Congressional District 2 of the Enacted 2016 Plan, and this enacted district has a 56.2% Republican vote share, as measured by the Hofeller formula. In Simulation Set 1, 986 of 1,000 simulated plans (98.6%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, all 1,000 simulated plans (100%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula.

Plaintiffs Richard and Cheryl Taft reside in Congressional District 3 of the Enacted 2016 Plan, and this enacted district has a 54.9% Republican vote share, as measured by the Hofeller formula. In Simulation Set 1, 988 of 1,000 simulated plans (98.8%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, 938 of 1,000 simulated plans (93.8%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula.

Plaintiff Alice Bordsen resides in Congressional District 4 of the Enacted 2016 Plan, and this enacted district has a 37.7% Republican vote share, as measured by the Hofeller formula. In Simulation Set 1, 829 of 1,000 simulated plans (82.9%) placed this plaintiff into a less Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, 770 of 1,000 simulated plans (77.0%) placed this plaintiff into a less Democratic-leaning district, as measured by the Hofeller formula.

Plaintiff Morton Lurie resides in Congressional District 4 of the Enacted 2016 Plan, and this enacted district has a 37.7% Republican vote share, as measured by the Hofeller formula. In Simulation Set 1, 959 of 1,000 simulated plans (95.9%) placed this plaintiff into a less Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, 864 of 1,000 simulated plans (86.4%) placed this plaintiff into a less Democratic-leaning district, as measured by the Hofeller formula.

Plaintiff William Freeman resides in Congressional District 5 of the Enacted 2016 Plan, and this enacted district has a 56.1% Republican vote share, as measured by the Hofeller formula. In Simulation Set 1, 425 of 1,000 simulated plans (42.5%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, 606 of 1,000 simulated plans (60.6%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula.

Plaintiff Melzer Morgan resides in Congressional District 6 of the Enacted 2016 Plan, and this enacted district has a 54.5% Republican vote share, as measured by the Hofeller formula. In Simulation Set 1, 768 of 1,000 simulated plans (76.8%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, 790 of 1,000 simulated plans (79.0%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula.

Plaintiff Cynthia Boylan resides in Congressional District 7 of the Enacted 2016 Plan, and this enacted district has a 53.4% Republican vote share, as measured by the Hofeller formula. In Simulation Set 1, 765 of 1,000 simulated plans (76.5%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, 514 of 1,000 simulated plans (51.4%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula.

Plaintiff Coy Brewer resides in Congressional District 8 of the Enacted 2016 Plan, and this enacted district has a 55.1% Republican vote share, as measured by the Hofeller formula. In Simulation Set 1, 989 of 1,000 simulated plans (98.9%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, 1,000 of 1,000 simulated plans (100%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula.

Plaintiff John McNeill resides in Congressional District 9 of the Enacted 2016 Plan, and this enacted district has a 56.0% Republican vote share, as measured by the Hofeller formula. In Simulation Set 1, 959 of 1,000 simulated plans (95.9%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, 990 of 1,000 simulated plans (99.0%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula.

Plaintiff Robert Wolf resides in Congressional District 10 of the Enacted 2016 Plan, and this enacted district has a 58.2% Republican vote share, as measured by the Hofeller formula. In

Simulation Set 1, 970 of 1,000 simulated plans (97.0%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, 985 of 1,000 simulated plans (98.5%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula.

Plaintiff Jones Byrd resides in Congressional District 11 of the Enacted 2016 Plan, and this enacted district has a 57.1% Republican vote share, as measured by the Hofeller formula. In Simulation Set 1, 1,000 of 1,000 simulated plans (100%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, 1,000 of 1,000 simulated plans (100%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula.

Plaintiff John Gresham resides in Congressional District 12 of the Enacted 2016 Plan, and this enacted district has a 36.6% Republican vote share, as measured by the Hofeller formula. In Simulation Set 1, 1,000 of 1,000 simulated plans (98.6%) placed this plaintiff into a less Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, 1,000 of 1,000 simulated plans (100%) placed this plaintiff into a less Democratic-leaning district, as measured by the Hofeller formula.

Plaintiff Russell Walker resides in Congressional District 3 of the Enacted 2016 Plan, and this enacted district has a 53.7% Republican vote share, as measured by the Hofeller formula. In Simulation Set 1, 1,000 of 1,000 simulated plans (100%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula. In Simulation Set 2, 1,000 of 1,000 simulated plans (100%) placed this plaintiff into a more Democratic-leaning district, as measured by the Hofeller formula.

Partisanship of Plaintiffs' Districts in Plan 297 of Simulation Set 2:

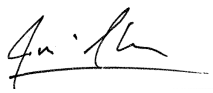
At the instruction of counsel for the Common Cause plaintiffs, I report in Table 1 below the partisanship of the districts from Plan 297 of Simulation Set 2 in which each of the 15 Common Cause plaintiffs reside. Table 1 contains one row for each plaintiff. The fifth column of this table reports the partisanship of the Plan 297 district in which each plaintiff resides. The third column of this table reports the partisanship of the district in the Enacted 2016 Plan in which each plaintiff resides. As before, district partisanship is measured in this table using the Hofeller formula.

Table 1: Partisanship of Plaintiffs' Districts in Plan 2-297 and in the Enacted Plan

Plaintiff:	Plaintiff's District in Enacted Plan (SB 2):	Republican Vote Share of Plaintiff's District in Enacted Plan (Hofeller Formula):	Plaintiff's District in Plan 297 of Simulation Set 2:	Republican Vote Share of Plaintiff's District in Plan 297 of Simulation Set 2 (Hofeller Formula):
Larry D. Hall	1	31.17%	11	36.78%
Douglas Berger	2	56.20%	12	40.84%
Richard & Cheryl Lee Taft	3	54.92%	13	54.43%
Alice L. Bordsen	4	37.68%	11	36.78%
Morton Lurie	4	37.68%	11	36.78%
William H. Freeman	5	56.15%	6	49.30%
Melzer A. Morgan	6	54.46%	7	51.49%
Cynthia S. Boylan	7	53.42%	9	52.18%
Coy E. Brewer	8	55.13%	8	46.43%
John Morrison McNeill	9	56.04%	8	46.43%
Robert Warren Wolf	10	58.17%	1	52.62%
Jones P. Byrd	11	57.11%	1	52.62%
John W. Gresham	12	36.63%	3	45.82%
Russell G. Walker	13	53.71%	6	49.30%

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct to the best of my knowledge.

This 11th day of July, 2018.



Jowei Chen