

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

DAN MCCONCHIE, in his official capacity as
Minority Leader of the Illinois Senate and individually
as a registered voter, JIM DURKIN, in his official
capacity as Minority Leader of the Illinois House of
Representatives and individually as a registered voter,
the REPUBLICAN CAUCUS OF THE ILLINOIS
SENATE, the REPUBLICAN CAUCUS OF THE
ILLINOIS HOUSE OF REPRESENTATIVES, and
the ILLINOIS REPUBLICAN PARTY,

Plaintiffs,

vs.

CHARLES W. SCHOLZ, IAN K. LINNABARY,
WILLIAM M. MCGUFFAGE, WILLIAM J.
CADIGAN, KATHERINE S. O'BRIEN, LAURA K.
DONAHUE, CASANDRA B. WATSON, and
WILLIAM R. HAINE, in their official capacities as
members of the Illinois State Board of Elections,
EMANUEL CHRISTOPHER WELCH, in his official
capacity as Speaker of the Illinois House of
Representatives, the OFFICE OF SPEAKER OF THE
ILLINOIS HOUSE OF REPRESENTATIVES, DON
HARMON, in his official capacity as President of the
Illinois Senate, and the OFFICE OF THE
PRESIDENT OF THE ILLINOIS SENATE,

Defendants.

Case No. 1:21-cv-03091

Circuit Judge Michael B. Brennan
Chief District Judge Jon E. DeGuilio
District Judge Robert M. Dow, Jr.

Three-Judge Court
Pursuant to 28 U.S.C. § 2284(a)

**PLAINTIFFS' LOCAL RULE 56.1
STATEMENT OF MATERIAL FACTS**

Plaintiffs DAN MCCONCHIE, in his official capacity as Minority Leader of the Illinois Senate and individually as a registered voter, JIM DURKIN, in his official capacity as Minority Leader of the Illinois House of Representatives and individually as a registered voter, the REPUBLICAN CAUCUS OF THE ILLINOIS SENATE, the REPUBLICAN CAUCUS OF THE ILLINOIS HOUSE OF REPRESENTATIVES, and the ILLINOIS REPUBLICAN PARTY

(collectively, “Plaintiffs”), by and through their attorneys, hereby submit the following Statement of Material Facts, pursuant to Northern District of Illinois Local Rule 56.1(a)(2) and 56.1(d), in support of their concurrently filed Motion for Summary Judgment and Memorandum of Law.

The Parties

A. Plaintiffs

1. Plaintiff DAN MCCONCHIE is a state senator from Illinois’ 26th Senate District, a citizen of the United States and the State of Illinois, and a duly registered voter residing in Lake County, Illinois. Mr. McConchie is also the Minority Leader of the Illinois Senate, vested by Article IV, Section 6(c) of the Illinois Constitution with the duty to promote and express the views, ideas, and principles of the Senate Republican caucus in the 102nd General Assembly and of Republicans in every Senate District throughout the State of Illinois. Mr. McConchie is also the leader of the Plaintiff Republican Caucus of the Illinois Senate, having been elected its leader pursuant to Article IV, Section 6(c) of the Illinois Constitution and Rule 2-3 of the Illinois Senate.¹

2. Plaintiff JIM DURKIN is a state representative from Illinois’ 82nd Representative District, a citizen of the United States and the State of Illinois, and a duly registered voter residing in Cook County, Illinois. Mr. Durkin is also the Minority Leader of the Illinois House of Representatives, vested by Article IV, Section 6(c) of the Illinois Constitution with the duty to promote and express the views, ideas, and principles of the House Minority Republican caucus in the 102nd General Assembly and of Republicans in every Representative District throughout Illinois. Mr. Durkin is also the leader of the Plaintiff Republican Caucus of the Illinois House of

¹ Senator Dan McConchie Biography, Illinois General Assembly (<https://www.ilga.gov/senate/Senator.asp?MemberID=2672>).

Representatives, having been elected its leader pursuant to Article IV, Section 6(c) of the Illinois Constitution and Rule 2 of the Illinois House of Representatives.²

3. Plaintiff REPUBLICAN CAUCUS OF THE ILLINOIS SENATE is an association consisting of 18 elected members of the Illinois Senate belonging to the Republican Party. The Republican Caucus of the Illinois Senate is comprised of members who reside and vote in various Senate Districts throughout the State of Illinois and represent their respective Senate Districts and constituent voters in the General Assembly. The Republican Caucus of the Illinois Senate is currently comprised of members representing Illinois Senate Districts 26, 32, 33, 35, 36, 37, 38, 41, 44, 45, 47, 50, 51, 53, 54, 55, 58, and 59.³

4. Plaintiff REPUBLICAN CAUCUS OF THE ILLINOIS HOUSE OF REPRESENTATIVES is an association consisting of 45 elected members of the Illinois House of Representatives belonging to the Republican Party. The Republican Caucus of the Illinois House of Representatives is comprised of members who reside and vote in various Representative Districts throughout the State of Illinois and represent their respective Representative Districts and constituent voters in the General Assembly. The Republican Caucus of the Illinois House of Representatives is currently comprised of members representing Illinois House Districts: 20, 37, 42, 45, 47, 50, 51, 52, 54, 63, 64, 65, 69, 70, 71, 73, 74, 75, 79, 82, 87, 88, 89, 90, 91, 93, 94, 95, 97, 99, 100, 101, 102, 104, 105, 106, 107, 108, 109, 110, 111, 115, 116, 117, and 118.⁴

² Representative Jim Durkin Biography, Illinois General Assembly (<https://www.ilga.gov/house/rep.asp?MemberID=2810>).

³ Current Illinois Senate Members (<https://www.ilga.gov/senate/default.asp?sortby=Party&sortbyformer=&sortbyGA=102>).

⁴ Current Illinois House Members (<https://www.ilga.gov/house/default.asp?sortby=Party&sortbyformer=&sortbyGA=102>).

5. Plaintiff ILLINOIS REPUBLICAN PARTY is an established political party in the State of Illinois, organized and existing under the election laws of the State of Illinois. The Illinois Republican Party is comprised of hundreds of thousands of members and voters who reside in every Senate District and Representative District in the State of Illinois.⁵

B. Defendants

6. The Illinois State Board of Elections is the entity responsible for overseeing and regulating public elections in Illinois as provided by Article III, Section 5 of the Illinois Constitution and 10 ILCS 5/1A-1, *et seq.* The Board has eight members, who are named as Defendants in this action (collectively the “Individual Board Member Defendants”).⁶

7. Defendant CHARLES W. SCHOLZ is the Chairman of the Illinois State Board of Elections.⁷

8. Defendant IAN K. LINNABARY is the Vice Chairman of the Illinois State Board of Elections.⁸

9. Defendant WILLIAM M. MCGUFFAGE is a member of the Illinois State Board of Elections.⁹

⁵ 10 ILCS 5/1-1, *et seq.*

⁶ Ill. Const. 1970, art. III, § 5; 10 ILCS 5/1A-1, *et seq.*

⁷ Board Member Scholz, Illinois State Board of Elections (<https://www.elections.il.gov/abouttheboard/MemScholz.aspx>).

⁸ Board Member Linnabary, Illinois State Board of Elections (<https://elections.il.gov/AbouttheBoard/MemLinnabary.aspx>).

⁹ Board Member McGuffage, Illinois State Board of Elections (<https://www.elections.il.gov/abouttheboard/MemMcGuffage.aspx>).

10. Defendant WILLIAM J. CADIGAN is a member of the Illinois State Board of Elections.¹⁰

11. Defendant KATHERINE S. O'BRIEN is a member of the Illinois State Board of Elections.¹¹

12. Defendant LAURA K. DONAHUE is a member of the Illinois State Board of Elections.¹²

13. Defendant CASANDRA B. WATSON is a member of the Illinois State Board of Elections.¹³

14. Defendant WILLIAM R. HAINE is a member of the Illinois State Board of Elections.¹⁴

15. Defendant EMANUEL CHRISTOPHER WELCH is a state representative from Illinois' 7th Representative District.¹⁵

¹⁰ Board Member Cadigan, Illinois State Board of Elections (<https://www.elections.il.gov/abouttheboard/MemCadigan.aspx>).

¹¹ Board Member O'Brien, Illinois State Board of Elections (<https://www.elections.il.gov/abouttheboard/MemOBrien.aspx>).

¹² Board Member Donahue, Illinois State Board of Elections (<https://elections.il.gov/AbouttheBoard/MemDonahue.aspx>).

¹³ Board Member Watson, Illinois State Board of Elections (<https://www.elections.il.gov/abouttheboard/MemWatson.aspx>).

¹⁴ Board Member Haine, Illinois State Board of Elections (<https://www.elections.il.gov/AbouttheBoard/MemHaine.aspx>).

¹⁵ Representative Emanuel Chris Welch Biograph (<https://www.ilga.gov/house/rep.asp?MemberID=2419>).

16. Defendant the OFFICE OF THE SPEAKER OF THE ILLINOIS HOUSE OF REPRESENTATIVES is the office of the presiding officer of the Illinois House of Representatives, as designated by Article IV, Section 6(b) of the Illinois Constitution.¹⁶

17. Defendant DON HARMON is a state senator from the 39th Senate District.¹⁷

18. Defendant OFFICE OF THE PRESIDENT OF THE ILLINOIS SENATE is the office of the presiding officer of the Illinois Senate, as designated by Article IV, Section 6(b) of the Illinois Constitution.¹⁸

The General Assembly's Redistricting Plan

19. To enable state officials to draw legislative districts of substantially equal population, the U.S. Census Bureau (the "Bureau") generally provides states with the official census population counts per Public Law 94-171 (the "PL 94-171 Data") within one year of the April 1st census date.¹⁹

20. The most recent census date was April 1, 2020, so the date for the Bureau to release the PL 94-171 Data to the states was March 31, 2021. However, the Bureau was unable to release the data by that date. Instead, in March 2021, the Bureau announced that it would provide the PL 94-171 Data to the states by mid-August of 2021.²⁰

¹⁶ Ill. Const. 1970, art. IV, § 6(b).

¹⁷ Senator Don Harmon Biography (<https://www.ilga.gov/senate/Senator.asp?MemberID=2125>).

¹⁸ Ill. Const. 1970, art. IV, § 6(b).

¹⁹ 13 U.S.C. § 141(c).

²⁰ U.S. Census Bureau Statement on Release of Legacy Format Summary Redistricting Data File, Census.gov (Mar. 15, 2021) (<https://www.census.gov/newsroom/press-releases/2021/statement-legacy-format-redistricting.html>).

21. On May 28, 2021, despite lacking the PL 94-171 Data, the Illinois General Assembly passed, on a purely partisan roll call, a state legislative redistricting plan (the “Redistricting Plan” or “Plan”), which includes a legislative map setting forth districts for the Illinois House of Representatives (“House Districts”) and the Illinois Senate (“Senate Districts”).²¹

22. On June 4, 2021, Governor Pritzker approved the Redistricting Plan.²²

23. In passing the Redistricting Plan, the General Assembly acknowledged that the Bureau had not yet provided the PL 94-171 Data and therefore the General Assembly could not use the data to draw the legislative map.²³

24. Instead, the General Assembly stated that it drew the map using population estimates derived from the 2015-2019 five-year responses to the American Community Survey (“ACS”), along with certain unspecified “election data” and “public input.”²⁴

25. The General Assembly did not acknowledge, let alone attempt to justify, any population deviations between the districts in the Plan. Instead, it incorrectly claimed that “each

²¹ Public Act 102-0010 (<https://www.ilga.gov/legislation/publicacts/102/PDF/102-0010.pdf>) (“Pub. Act 102-0010”); Bill Status of HB2777, Illinois General Assembly (<https://www.ilga.gov/legislation/billstatus.asp?DocNum=2777&GAID=16&GA=102&DocTypeID=HB&LegID=131631&SessionID=110>) (“Bill Status HB2777”); House Roll Call for HB2777 (https://www.ilga.gov/legislation/votehistory/102/house/10200HB2777sam001_05282021_008000C.pdf); Senate Roll Call HB2777 (https://www.ilga.gov/legislation/votehistory/102/senate/10200HB2777_05282021_023000T.pdf).

²² Bill Status HB2777.

²³ Pub. Act 102-0010 § 5(b)-(c).

²⁴ House Resolution 359 (“HR0359”), at p. 5 (<https://www.ilga.gov/legislation/102/HR/PDF/10200HR0359lv.pdf>); Senate Resolution No. 326 (“SR326”), at p. 5 (<https://www.ilga.gov/legislation/102/SR/PDF/10200SR0326enr.pdf>).

of the Districts contained in the 2021 General Assembly Redistricting Plan was drawn to be substantially equal in population.”²⁵

26. The House of Representative asserted that the “largest deviation [with respect to House Districts is] 0.37%, or 398 people, under the target population.”²⁶

27. The Senate similarly asserted that the “largest deviation [with respect to Senate Districts is] +0.2%/-0.17%, or +422/-368 people, from the target population.”²⁷

Dr. Chen’s Analysis of the Maximum Population Deviations in the Redistricting Plan

28. On August 12, 2021, the Census Bureau released the PL 94-171 Data in “legacy” format.²⁸

29. Plaintiffs’ expert, Dr. Jowei Chen, then used the PL 94-171 Data to calculate the populations in each House and Senate District in the Redistricting Plan.²⁹

30. Dr. Chen is an associate professor in the Department of Political Science at the University of Michigan, has extensive academic publications and experience regarding legislative districting and political geography, and has testified at deposition or trial in a number of redistricting cases.³⁰

31. Within an hour of its release, Dr. Chen was able to analyze that data and calculate the populations of the House and Senate Districts in the General Assembly’s Redistricting Plan.³¹

²⁵ Pub. Act 102-0010 § 5(e)(1).

²⁶ HR039 at p. 6.

²⁷ SR326 at p. 6.

²⁸ Affidavit of Dr. Jowei Chen, attached as **Exhibit A** (“Chen Aff.”) ¶ 10.

²⁹ Chen Aff. ¶¶ 11-12.

³⁰ Chen Aff. ¶¶ 1-3.

³¹ Chen Aff. ¶¶ 13-14.

32. To calculate the populations of the House and Senate Districts in the Plan, Dr. Chen identified the districts to which each 2020 Census block is assigned and overlaid the appropriate Census block shapefiles provided by Defendants Emanuel Christopher Welch, in his official capacity as Speaker of the Illinois House of Representatives, the Office of Speaker of the Illinois House of Representatives, Don Harmon, in his official capacity as President of the Illinois Senate, and the Office of the President of the Illinois Senate (collectively, “the Leadership Defendants”) onto the districts. Dr. Chen then used the PL 94-171 Data files to calculate the population of each House and Senate District in the Plan.³²

33. With respect to House Districts, Dr. Chen calculated that the ideal population of each of the 118 House Districts is 108,580.6. This number is based on the total Illinois population of 12,812,508, as reflected in the PL 94-171 Data.³³

34. Dr. Chen calculated that the lowest-populated district is House District 83, whose population is 14.91% below the ideal population, and the highest-populated district is House District 5, whose population is 14.97% above the ideal population. Therefore, the maximum population deviation of the House Districts in the Plan is **29.88%**, the sum of the percentage deviations of House Districts 5 and 83.³⁴

35. With respect to Senate Districts, Dr. Chen calculated that the ideal population of each of the 59 Senate Districts is 217,161.2, which again is based on the total Illinois population of 12,812,508.³⁵

³² Chen Aff. ¶ 11.

³³ Chen Aff. ¶ 15.

³⁴ Chen Aff. ¶ 16.

³⁵ Chen Aff. ¶ 17.

36. Dr. Chen calculated that the lowest-populated district is Senate District 42, whose population is 7.94% below the ideal population, and the highest-populated district is House District 3, whose population is 12.31% above the ideal population. Therefore, the maximum population deviation of the Senate Districts in the Plan is **20.25%**, the sum of the percentage deviations exhibited by Senate Districts 3 and 42.³⁶

Dated: August 19, 2021

Respectfully submitted,

/s/ Phillip A. Luetkehans

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³⁶ Chen Aff. ¶ 18.

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CERTIFICATE OF SERVICE

The undersigned certifies that on August 19, 2021, the foregoing document was electronically filed with the Clerk of the Court using the CM/ECF system, which will provide notice to all counsel of record in this matter.

/s/ Charles E. Harris, II
Charles E. Harris, II

EXHIBIT A

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

DAN MCCONCHIE, in his official capacity as
Minority Leader of the Illinois Senate and individually
as a registered voter, JIM DURKIN, in his official
capacity as Minority Leader of the Illinois House of
Representatives and individually as a registered voter,
the REPUBLICAN CAUCUS OF THE ILLINOIS
SENATE, the REPUBLICAN CAUCUS OF THE
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Defendants.

Case No. 1:21-cv-03091

Circuit Judge Michael B. Brennan
Chief District Judge Jon E. DeGuilio
District Judge Robert M. Dow, Jr.

Three-Judge Court
Pursuant to 28 U.S.C. § 2284(a)

AFFIDAVIT OF DR. JOWEI CHEN

I, Dr. Jowei Chen, upon my oath, declare and say as follows:

1. I am an associate professor in the Department of Political Science at the University of Michigan, a research associate professor at the Center for Political Studies of the Institute for Social Research at the University of Michigan, and a research associate at the Spatial Social Science Laboratory at Stanford University. In 2004, I received a Bachelor of Arts degree

in Ethics, Politics, and Economics from Yale University. In 2007, I received a Master of Science degree in Statistics from Stanford University, and in 2009, I received a Doctor of Philosophy degree in Political Science from Stanford University.

2. I have published academic papers on legislative districting and political geography in several political science journals, including the American Journal of Political Science, American Political Science Review, and Election Law Journal. My academic experience includes redistricting, political geography, legislative elections, legislatures, racial politics, spatial statistics and geographic information systems (or GIS) data. I use computer simulations for legislative districting and have often analyzed political geography, elections, and redistricting. Of note, I have developed computer simulations of the redistricting process to analyze “one person one vote” malapportionment claims and minority representation.

3. In the past four years, I have testified at deposition or at trial in the following cases: *Common Cause v. Rucho*, No. 16-cv-01026 (M.D.N.C. filed Aug. 5, 2016); *City of Greensboro v. Guilford Cty. Bd. of Elections*, No. 15-cv-00559 (M.D.N.C. filed July 13, 2015); *League of Women Voters v. Commonwealth*, No. 261. MD 2017 (Pa. Commw. Ct. filed June 15, 2017); *Georgia State Conference of the NAACP v. Georgia*, No. 17-cv-01397 (N.D. Ga. filed Apr. 20, 2017); *League of Women Voters of Michigan v. Johnson*, No. 17-cv-14148 (E.D. Mich. filed Dec. 22, 2017); *Whitford v. Gill*, No. 15-cv-421 (W.D. Wis. filed July 8, 2015); *Common Cause v. Lewis*, 18-CVS-014001 (N.C. Sup. Ct. filed Nov. 13, 2018); *Baroody v. City of Quincy*, No. 20-cv-00217 (N.D. Fla. filed Apr. 28, 2020).

4. In this affidavit, I present the maximum population deviation for the Illinois legislative districting plan (Public Act 102-0010) enacted on June 4, 2021 (the “2021 Enacted Plans”), following the formula established by the US Supreme Court. It has stated: “Maximum

population deviation is the sum of the percentage deviations from perfect population equality of the most- and least-populated districts. For example, if the largest district is 4.5% overpopulated, and the smallest district is 2.3% underpopulated, the map's maximum population deviation is 6.8%.” *Evenwel v. Abbott*, 136 S. Ct. 1120, 1124 n. 2 (2016).

5. As explained later in this affidavit, I find that the maximum population deviation of the 2021 Enacted House Plan is **29.88%**, and the maximum population deviation of the 2021 Enacted Senate Plan is **20.25%**.

6. The only data I relied upon for calculating the population deviations of the 2021 Enacted Plans were: (1) publicly available data; and (2) shapefiles of the 2021 Enacted Plans provided by the Leadership Defendants.

7. Before showing how I calculated the maximum population deviation of the 2021 Enacted Plans, it is useful to explain the following basic concepts and terms relating to the US Census Bureau (the “Bureau”) population data and geography:

8. **Census Blocks:** “Census blocks” are the lowest level of geography for which the Bureau reports decennial Census population counts. As of the 2010 Census, Illinois was divided into 451,554 Census blocks, whose boundaries generally adhere to streets, railroad tracks, bodies of water, political boundaries, and other geography. For the 2020 Census, Illinois is divided into 369,978 Census blocks. -

9. **Decennial Census P.L. 94-171 Redistricting Data:** After each decade's Census, the Bureau releases redistricting data summary files per Public Law (PL) 94-171 (the “PL 94-171 redistricting data”). These data files report each Census block's population count, and various racial and ethnic breakdowns of each block's population. The PL 94-171 redistricting data count

the *population size* of various geographies and are used to calculate district populations in each state's redistricting processes.

10. **“Legacy” Format Data:** The 2020 decennial Census PL 94-171 redistricting data were released in “legacy” format on August 12, 2021 (the “legacy format data”). Legacy format data files are standard data files, with a “.pl” file extension, that the Bureau’s redistricting data program ordinarily releases after each decennial Census to report the population and racial and ethnic breakdown of each Census block in Illinois. The Bureau has identified this file format as the legacy format data to indicate that these files are released in a format substantially similar to what the Bureau used in previous decades (e.g., the 2010 decennial Census redistricting files released in 2011). Across the country, redistricting experts and jurisdictions engaged in redistricting normally rely on these legacy format data files to calculate the populations of districting plans. Earlier this year, the Bureau began using the term legacy format data to distinguish these files from the new online web tools the Bureau plans to create by September 30. These new online Census tools will provide the same redistricting data reported in the legacy format data files, but in a more user-friendly format accessible to non-experts.

A. Calculating the Populations of the 2021 Enacted Plan

11. To calculate the 2020 Census populations for the 2021 Enacted Plan districts, I first identified the House and Senate Districts to which each 2020 Census block is assigned. This process is commonly known as creating a “block assignment file” or a “block equivalency file.” I began by analyzing a shapefile provided by Leadership Defendants that describes the geographic boundaries of the 118 House Districts in the 2021 Enacted Plan (“HB 2777 (PA 102-0010).shp”).

I then overlaid Illinois' 2020 Census block shapefile¹ onto the 2021 Enacted House Plan districts, which allowed me to identify the House District that each Census block is assigned to. I performed a similar overlay calculation on a shapefile provided by Leadership Defendants that describes the geographic boundaries of the 59 Senate Districts in the 2021 Enacted Plan ("PA 102-0010 Senate Plan.shp"). This overlay allowed me to identify the 2021 Senate District that each Census block is assigned to.

12. To illustrate the general layout of this block assignment file, Table 1 lists only the first 25 of Illinois' 369,978 Census blocks, and their House and Senate District assignments. The first column of Table 1 lists the geographic identifier ("GEOID") of each of these 25 Census blocks. The second column lists the House District that the block was assigned to, and the third column lists the Senate District that the block was assigned to.

¹ Obtained from the Census Bureau FTP site at:
https://www2.census.gov/geo/tiger/TIGER2020/TABBLOCK20/tl_2020_17_tabblock20.zip

Table 1: First 25 Rows of the Block Assignment File

Census Block GEOID:	2021 Plan House District:	2021 Plan Senate District:
171699701001097	94	47
171699703002156	94	47
170039578002059	118	59
170579539003025	94	47
170579538001047	94	47
170579539002009	94	47
170579538003019	94	47
170579536001009	93	47
170579528003007	93	47
170579532002042	94	47
171699702003023	94	47
171030008002037	74	37
170519506001069	107	54
170519507003111	109	55
170519506001109	107	54
170519507003053	107	54
171290101001130	88	44
171290103001103	94	47
171290101001022	94	47
170219583004019	95	48
170219583002020	95	48
171290101001026	88	44
170259719001030	110	55
171290101002038	94	47
171290102002028	94	47

B. 2020 Census Populations of Districts in the 2021 Enacted House Plan

13. I next used the 2020 Census legacy format data files to calculate the population of each House and Senate District. The legacy data files report each block's population, so I calculated the sum of the block-level populations of all blocks assigned to each district.

14. This calculation could be performed quickly. The legacy format data files were released by the Bureau at approximately 1:00pm Eastern Daylight Time on August 12, 2021. I had completed this calculation within less than one hour after that release.

15. Because Illinois' 2020 Census population is 12,812,508, each of the state's 118 House Districts has an ideal population of 108,580.6. In Table 2 below, the second column reports the 2020 Census population of each of the 118 House Districts in the 2021 Enacted Plan. The third column reports the numerical difference between each district's actual Census population and its ideal population. The fourth column reports this deviation as a percentage of the ideal district population.

16. Table 2 reveals that the lowest-populated district is House District 83, whose population is -14.91% below the ideal population, and the highest-populated district is House District 5, whose population is +14.97% above the ideal population. Therefore, the maximum population deviation of the 2021 Enacted House Plan is **29.88%**, the sum of the percentage deviations of House Districts 5 and 83.

Table 2.**2020 Census Populations of Districts in the 2021 Enacted House Plan**

Deviation from Ideal Population* of 108,580.6:				
	District:	2020 Census Total Population:	Difference:	Percent:
	1	113,224	+4,643	+4.28%
	2	112,075	+3,494	+3.22%
	3	105,132	-3,449	-3.18%
	4	109,899	+1,318	+1.21%
	5	124,836	+16,255	+14.97%
	6	119,058	+10,477	+9.65%
	7	110,409	+1,828	+1.68%
	8	110,811	+2,230	+2.05%
	9	114,253	+5,672	+5.22%
	10	116,532	+7,951	+7.32%
	11	108,644	+63	+0.06%
	12	111,326	+2,745	+2.53%
	13	103,708	-4,873	-4.49%
	14	107,823	-758	-0.70%
	15	109,721	+1,140	+1.05%
	16	109,891	+1,310	+1.21%
	17	112,775	+4,194	+3.86%
	18	112,497	+3,916	+3.61%
	19	106,275	-2,306	-2.12%
	20	111,497	+2,916	+2.69%
	21	110,895	+2,314	+2.13%
	22	108,518	-63	-0.06%
	23	109,696	+1,115	+1.03%
	24	107,419	-1,162	-1.07%
	25	108,487	-94	-0.09%
	26	113,480	+4,899	+4.51%
	27	107,878	-703	-0.65%
	28	103,205	-5,376	-4.95%
	29	106,616	-1,965	-1.81%
	30	101,719	-6,862	-6.32%
	31	109,821	+1,240	+1.14%
	32	108,187	-394	-0.36%
	33	107,444	-1,137	-1.05%
	34	106,970	-1,611	-1.48%
	35	107,085	-1,496	-1.38%
	36	110,606	+2,025	+1.87%
	37	109,448	+867	+0.80%
	38	106,369	-2,212	-2.04%
	39	109,336	+755	+0.70%
	40	102,621	-5,960	-5.49%

* The ideal district population of 108,580.6 is based on Illinois' 2020 Census population of 12,812,508, divided by 118 districts.

Table 2 (continued).**2020 Census Populations of Districts in the 2021 Enacted House Plan**

Deviation from Ideal Population* of 108,580.6:				
	District:	2020 Census Total Population:	Difference:	Percent:
	41	106,170	-2,411	-2.22%
	42	110,931	+2,350	+2.16%
	43	110,756	+2,175	+2.00%
	44	107,147	-1,434	-1.32%
	45	105,586	-2,995	-2.76%
	46	109,507	+926	+0.85%
	47	110,442	+1,861	+1.71%
	48	106,344	-2,237	-2.06%
	49	108,422	-159	-0.15%
	50	107,156	-1,425	-1.31%
	51	110,139	+1,558	+1.44%
	52	109,755	+1,174	+1.08%
	53	112,157	+3,576	+3.29%
	54	109,297	+716	+0.66%
	55	111,230	+2,649	+2.44%
	56	113,450	+4,869	+4.48%
	57	109,687	+1,106	+1.02%
	58	109,916	+1,335	+1.23%
	59	113,036	+4,455	+4.10%
	60	108,705	+124	+0.11%
	61	109,579	+998	+0.92%
	62	110,217	+1,636	+1.51%
	63	112,120	+3,539	+3.26%
	64	109,063	+482	+0.44%
	65	110,625	+2,044	+1.88%
	66	106,732	-1,849	-1.70%
	67	107,492	-1,089	-1.00%
	68	108,426	-155	-0.14%
	69	107,484	-1,097	-1.01%
	70	111,087	+2,506	+2.31%
	71	105,383	-3,198	-2.94%
	72	108,840	+259	+0.24%
	73	108,973	+392	+0.36%
	74	106,987	-1,594	-1.47%
	75	111,471	+2,890	+2.66%
	76	107,563	-1,018	-0.94%
	77	108,809	+228	+0.21%
	78	114,451	+5,870	+5.41%
	79	105,113	-3,468	-3.19%
	80	108,265	-316	-0.29%

* The ideal district population of 108,580.6 is based on Illinois' 2020 Census population of 12,812,508, divided by 118 districts.

Table 2 (continued).**2020 Census Populations of Districts in the 2021 Enacted House Plan**

Deviation from Ideal Population* of 108,580.6:				
	District:	2020 Census Total Population:	Difference:	Percent:
	81	109,499	+918	+0.85%
	82	109,791	+1,210	+1.11%
	83	92,390	-16,191	-14.91%
	84	107,522	-1,059	-0.97%
	85	107,703	-878	-0.81%
	86	108,289	-292	-0.27%
	87	108,750	+169	+0.16%
	88	106,648	-1,933	-1.78%
	89	109,988	+1,407	+1.30%
	90	109,678	+1,097	+1.01%
	91	105,668	-2,913	-2.68%
	92	103,890	-4,691	-4.32%
	93	109,437	+856	+0.79%
	94	106,344	-2,237	-2.06%
	95	110,054	+1,473	+1.36%
	96	104,264	-4,317	-3.98%
	97	113,482	+4,901	+4.51%
	98	107,650	-931	-0.86%
	99	106,843	-1,738	-1.60%
	100	105,106	-3,475	-3.20%
	101	104,689	-3,892	-3.58%
	102	105,283	-3,298	-3.04%
	103	106,450	-2,131	-1.96%
	104	103,519	-5,062	-4.66%
	105	106,399	-2,182	-2.01%
	106	105,924	-2,657	-2.45%
	107	108,108	-473	-0.44%
	108	108,549	-32	-0.03%
	109	111,147	+2,566	+2.36%
	110	106,266	-2,315	-2.13%
	111	104,424	-4,157	-3.83%
	112	113,336	+4,755	+4.38%
	113	108,460	-121	-0.11%
	114	99,346	-9,235	-8.50%
	115	105,955	-2,626	-2.42%
	116	106,482	-2,099	-1.93%
	117	107,649	-932	-0.86%
	118	102,827	-5,754	-5.30%

Deviation of Largest District: +14.97%
 Deviation of Smallest District: -14.91%
 Maximum Population Deviation: 29.88%

* The ideal district population of 108,580.6 is based on Illinois' 2020 Census population of 12,812,508, divided by 118 districts.

C. 2020 Census Populations of Districts in the 2021 Enacted Senate Plan

17. Illinois' 2020 Census population is 12,812,508, so each of Illinois' 59 Senate Districts has an ideal population of 217,161.2. In Table 3 below, the second column reports the 2020 Census population of each of the 59 Senate Districts in the 2021 Enacted Plan. The third column reports the numerical difference between each district's actual Census population and its ideal population. The fourth column reports this deviation as a percentage of the ideal district population..

18. Table 3 reveals that the lowest-populated district is Senate District 42, whose population is -7.94% below the ideal population, and the highest-populated district is House District 3, whose population is +12.31% above the ideal population. Therefore, the maximum population deviation of the 2021 Enacted Senate Plan is **20.25%**, the sum of the percentage deviations exhibited by Senate Districts 3 and 42.

Table 3:**2020 Census Populations of Districts in the 2021 Enacted Senate Plan**

Deviation from Ideal Population* of 217,161.2:				
	District:	2020 Census Total Population:	Difference:	Percent:
	1	225,299	+8,138	+3.75%
	2	215,031	-2,130	-0.98%
	3	243,894	+26,733	+12.31%
	4	221,220	+4,059	+1.87%
	5	230,785	+13,624	+6.27%
	6	219,970	+2,809	+1.29%
	7	211,531	-5,630	-2.59%
	8	219,612	+2,451	+1.13%
	9	225,272	+8,111	+3.73%
	10	217,772	+611	+0.28%
	11	219,413	+2,252	+1.04%
	12	217,115	-46	-0.02%
	13	221,967	+4,806	+2.21%
	14	211,083	-6,078	-2.80%
	15	208,335	-8,826	-4.06%
	16	218,008	+847	+0.39%
	17	214,414	-2,747	-1.27%
	18	217,691	+530	+0.24%
	19	215,817	-1,344	-0.62%
	20	211,957	-5,204	-2.40%
	21	217,101	-60	-0.03%
	22	217,903	+742	+0.34%
	23	215,093	-2,068	-0.95%
	24	216,786	-375	-0.17%
	25	215,578	-1,583	-0.73%
	26	219,894	+2,733	+1.26%
	27	221,454	+4,293	+1.98%
	28	224,680	+7,519	+3.46%
	29	219,603	+2,442	+1.12%
	30	221,741	+4,580	+2.11%
	31	219,796	+2,635	+1.21%
	32	221,183	+4,022	+1.85%
	33	217,357	+196	+0.09%
	34	215,918	-1,243	-0.57%
	35	218,571	+1,410	+0.65%
	36	214,223	-2,938	-1.35%
	37	215,960	-1,201	-0.55%
	38	219,034	+1,873	+0.86%
	39	223,260	+6,099	+2.81%
	40	213,378	-3,783	-1.74%

* The ideal district population of 217,161.2 is based on Illinois' 2020 Census population of 12,812,508, divided by 59 districts.


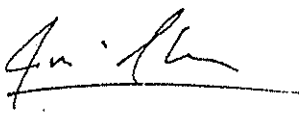
Table 3 (continued).**2020 Census Populations of Districts in the 2021 Enacted Senate Plan**

Deviation from Ideal Population* of 217,161.2:				
	District:	2020 Census Total Population:	Difference:	Percent:
	41	219,290	+2,129	+0.98%
	42	199,912	-17,249	-7.94%
	43	215,992	-1,169	-0.54%
	44	215,398	-1,763	-0.81%
	45	219,666	+2,505	+1.15%
	46	209,558	-7,603	-3.50%
	47	215,781	-1,380	-0.64%
	48	214,318	-2,843	-1.31%
	49	221,132	+3,971	+1.83%
	50	211,949	-5,212	-2.40%
	51	209,972	-7,189	-3.31%
	52	209,969	-7,192	-3.31%
	53	212,323	-4,838	-2.23%
	54	216,657	-504	-0.23%
	55	217,413	+252	+0.12%
	56	217,760	+599	+0.28%
	57	207,806	-9,355	-4.31%
	58	212,437	-4,724	-2.18%
	59	210,476	-6,685	-3.08%

Deviation of Largest District: +12.31%
 Deviation of Smallest District: -7.94%
 Maximum Population Deviation: 20.25%

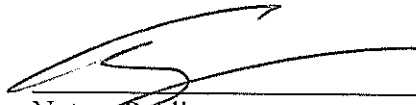
* The ideal district population of 217,161.2 is based on Illinois' 2020 Census population of 12,812,508, divided by 59 districts.

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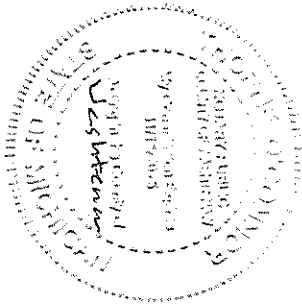
Dr. Jowei Chen

Subscribed and sworn before me on this 18th day
of August 2021.



Notary Public

My commission expires 11-15-2025.



THORNE O'CONNOR
NOTARY PUBLIC - MICHIGAN
WASHTENAW COUNTY
MY COMMISSION EXPIRES 11/15/2025
ACTING IN WASHTENAW COUNTY