

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

EQUAL VOTE AMERICA CORP., LEWIS Y. LIU

Plaintiffs,

Case No.: 19-cv-00311 (CM)

-against-

CONGRESS;
NANCY PELOSI, in her official capacity
as the Speaker of the House of the Representatives;
KEVIN McCARTHY, in his official capacity as the
Minority Leader of the House;
MITCH McCONNELL, in his official capacity
as the Senate Majority Leader; and
CHARLES SCHUMER, in his official capacity as
the Senate Minority Leader,

Defendants.

**PLAINTIFFS' DECLARATION IN
OPPOSITION TO DEFENDENTS'
MOTION TO DISMISS**

The captioned Plaintiffs hereby respectfully submit the within Declaration in opposition to Defendants' motions to dismiss as follows:

1. The first Plaintiff is a Not-for-Profit Corporation with the mission of educating the general public on voting rights, and promoting voter participation in the election process without supporting any particular political party or candidate. In this case, Equal Vote America Corp. represents a group of eligible voters (a separate motion has been filed on July 8th 2019 to add 223 individuals across 40 states as co-plaintiffs), led by Lewis Y. LIU, who is a registered voter in the state of New York.
2. Since 1929 Congress has collectively failed to reapportion the house seats in accordance with the (1) the "Great Compromise" of bicameral legislature agreed upon by the Founding Fathers, and (2) the Constitution Article I, § 2 and the Fourteenth Amendment § 2 which mandate allocation of house seats to be proportional to each state's population.
3. The lead Plaintiff therefore comes before the court to declare on behalf of all Co-Plaintiffs that Defendants have not only violated the principle of "No Taxation without Representation", but also infringed the right to Equal Representation guaranteed by Article I § 2 and by the 14th Amendment § 2. In addition, the significant under-representation in the House of Representatives has gravely...
 - (1) diluted Plaintiffs' right to vote in presidential elections guaranteed by Article II, § 1;
 - (2) demeaned Plaintiffs' Citizen Privileges guaranteed by Article IV, § 2;
 - (3) debased Plaintiffs' Freedom of Speech guaranteed by the First Amendment;
 - (4) violated Plaintiffs' Due Process guaranteed by the Fifth Amendment;
 - (5) infringed Plaintiffs' Citizen Privileges, Due Process and Equal Protection rights under the Fourteenth Amendment § 1;
 - (6) diluted Plaintiffs' right to equal vote and to be counted in whole number under the Fourteenth Amendment § 2.
4. The redress Plaintiff is seeking is for the Court to review and declare the existing apportionment laws governing the current cap and allocation of house seats unconstitutional.

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JURISDICTION

The lead Plaintiff is a resident and registered voter in the State of New York, and the Complaint concerns a constitutional question. This Court has jurisdiction under 28 U.S.C. § 2403(a) with respect to a constitutional question.

CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

U.S. Const. Article I, § 2 Clause 1 (the House by People clause) provides in pertinent part:

- The House of Representatives shall be composed of Members chosen every second Year by the People of the several States.

U.S. Const. Article I, § 2 Clause 3 (the Equal Representation clause) provides in pertinent part:

- Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other Persons.

U.S. Const. Article I, § 3 Clause 1 (the Senate clause) provides in pertinent part:

- The Senate of the United States shall be composed of two Senators from each State.

U.S. Const. Article I, § 4 Clause 1 provides in pertinent part:

- The Times, Places and Manner of holding Elections for Senators and Representatives, shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by Law make or alter such Regulations.

U.S. Const. Article II, § 1 (the Electoral College clause) provides in pertinent part:

- Each State shall appoint, in such Manner as the Legislature thereof may direct, a Number of Electors, equal to the whole Number of Senators and Representatives to which the State may be entitled in the Congress.

U.S. Const. Article III, § 1 provides in pertinent part:

- The judicial Power of the United States shall be vested in one supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish.

U.S. Const. Article III, § 2 provides in pertinent part:

- The judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States... to Controversies to which the United States shall be a Party.

U.S. Const. Article IV, § 2 (the Privilege & Immunity clause) provides in pertinent part:

- The Citizens of each State shall be entitled to all Privileges and Immunities of Citizens in the several States.

U.S. Const. Amend. I. provides in pertinent part:

- Congress shall make no law ... or abridging the freedom of speech ... or the right of people ... and to petition the Government for a redress of grievances.

U.S. Const. Amend. V. provides in pertinent part:

- No person shall be ... nor be deprived of life, liberty, or property, without due process of law.

U.S. Const. Amend. XIV. § 1. provides in pertinent part:

- No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States;
- ...nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

U.S. Const. Amend. XIV. § 2. provides in pertinent part:

- Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed.
- But when the right to vote at any election for the choice of electors for President and Vice President of the United States, Representatives in Congress... or in any way abridged.

U.S. Const. Amend. XIV. § 5. provides in pertinent part:

- The Congress shall have the power to enforce, by appropriate legislation, the provisions of this article.

STAMENT OF FACTS

A. The Root Cause of American Revolution

1. The principle of “No Taxation without Representation” could be found as early as in [the English Bill of Rights 1689](#) which had forbidden the imposition of taxes without the consent of Parliament.

Without representation in Parliament, the colonists considered taxes as violation of the guaranteed Rights of Englishmen.

2. In the [Resolutions of the Continental Congress October 19, 1765](#), the colonists declared as follows:

“That it is inseparably essential to the freedom of a people, and the undoubted right of Englishmen, that no taxes be imposed on them, but with their own consent, given personally, or by their representatives.”

3. Endorsed by every other Colony, the Virginia House of Burgesses drafted the [1768 Petition, Memorial, and Remonstrance](#) objecting to taxation without representation, sent it to the Parliament:

“that no Power on Earth has a Right to impose Taxes upon the People or to take the smallest Portion of their Property without their Consent, given by their Representatives in Parliament.”

4. On July 4, 1776, our founding fathers in [Declaration of Independence](#) denounced the British monarch’s repeated injuries and usurpations, one of which was none other than:

“For imposing Taxes on us without our Consent.”

B. The Great Compromise

1. At the Constitutional Convention 1787, James Madison proposed the Virginia Plan which included a bicameral legislature. The population was to elect the members of the lower house which in turn would elect the representatives in the upper house.
2. However, William Patterson put forward a counter proposal, the New Jersey Plan, which called for equal representation of each state in a unicameral legislature. The convention fell into a deadlock until Roger Sherman from Connecticut proposed a compromise.

3. It was abundantly clear that without [the Great Compromise](#), there would have been no Union. Writing for the Supreme Court decision in [Wesberry v. Sanders, 376 U.S. 1 \(1964\)](#), Justice Black recounted this founding chapter of our country in details as follows:

The question of how the legislature should be constituted precipitated the most bitter controversy of the Convention.

.....

The dispute came near ending the Convention without a Constitution. Both sides seemed for a time to be hopelessly obstinate. Some delegations threatened to withdraw from the Convention if they did not get their way. Seeing the controversy growing sharper and emotions rising, the wise and highly respected Benjamin Franklin arose and pleaded with the delegates on both sides to "part with some of their demands, in order that they may join in some accommodating proposition."

.....

The deadlock was finally broken when a majority of the States agreed to what has been called the Great Compromise, based on a proposal which had been repeatedly advanced by Roger Sherman and other delegates from Connecticut.

C. The Founding Agreement of the Union

1. To balance the interest between the more populous states and the less populous states, the Founding Fathers reached the Great Compromise, which was literally the founding agreement for the Union. It established the bicameral national legislature with Equal Representation on both accounts where the populace was equally represented in the House of Representatives, while the States were equally represented in the Senate regardless.
2. As William Johnson of Connecticut said, "in *one* branch, the *people* ought to be represented; in the *other*, the *States*." According to the Great Compromise/the Founding Agreement, [the Constitution](#) provides:
 - (1) Article I, § 2 Clause 1: the House of Representatives shall be elected by the People;
 - (2) Article I, § 2 Clause 3: **Representatives and direct Taxes** shall be apportioned by each state's population;
 - (3) Article I, § 3 Clause 1: each state shall have 2 senators in the Senate regardless of population.

D. The First Presidential Veto

1. On April 5, 1792, Washington, convinced by Jefferson, exercised [the very first presidential veto](#) in the U.S. history to reject a Congressional bill that introduced a new plan for allocating house seats among states on the ground that it was unconstitutional and liable to be abused in the future. [Jefferson said](#), “If the [ratio of] representation [is] obtained by any process not prescribed in the Constitution, it [then] becomes arbitrary and inadmissible” and suggested apportionment instead be derived from “arithmetical operation, about which no two men can ever possibly differ.” Washington’s veto sent the bill back to Congress, which in turn drafted a new bill that apportioned representatives at “the ratio of one for every thirty-three thousand persons in the respective States.”
2. As a result, [the Apportionment Act of 1792](#) was passed by Congress on April 10, 1792, and signed into law by Washington on April 14, 1792. The law set the number of House Representatives at 105, effective with the 3rd Congress on March 4, 1793, which would be allotted to each state based upon the 1790 Census. During the subsequent decades Congress updated the number of house seats and allocation to reflect the population growth and shift among states.

E. The Original First Amendment

1. Madison proposed [the original first amendment](#) which was ratified by eight states, only one state short to be fully ratified:

"After the first enumeration required by the first article of the Constitution, there shall be one Representative for every thirty thousand, until the number shall amount to one hundred, after which the proportion shall be so regulated by Congress, that there shall be not less than one hundred Representatives, nor less than one Representative for every forty thousand persons, until the number of Representatives shall amount to two hundred; after which the proportion shall be so regulated by Congress, that there shall not be less than two hundred Representatives, nor more than one Representative for every fifty thousand persons."
2. It was obvious that Madison anticipated the number of the house seats would increase proportionally - without a cap - as the national population grows.

F. The Intent of the Founding Fathers

1. Based on the above historical facts, writing in *Wesberry v. Sanders* (1964), Justice Black narrated the clear and precise intent of our Founding Fathers as follows:

The debates at the Convention make at least one fact abundantly clear: that, when the delegates agreed that the House should represent "people," they intended that, in allocating Congressmen, the number assigned to each State should be determined solely by the number of the State's inhabitants.

The Constitution embodied Edmund Randolph's proposal for a periodic census to ensure "fair representation of the people," an idea endorsed by Mason as assuring that "numbers of inhabitants" should always be the measure of representation in the House of Representatives.

The Convention also overwhelmingly agreed to a resolution offered by Randolph to base future apportionment squarely on numbers and to delete any reference to wealth. And the delegates defeated a motion made by Elbridge Gerry to limit the number of Representatives from newer Western States so that it would never exceed the number from the original States.

2. After the Constitution was adopted and ratified, James Wilson of Pennsylvania, as one of the most active members at the Convention and then an Associate Justice of this Court, reaffirmed:

All elections ought to be equal. Elections are equal when a given number of citizens in one part of the state choose as many representatives as are chosen by the same number of citizens in any other part of the state. In this manner, the proportion of the representatives and of the constituents will remain invariably the same.

3. The founding fathers clearly agreed and demanded that these three constitutional provisions - Article I, § 2 Clause 1 & Clause 3, and Article I, § 3 Clause 1 - shall and must be honored and enforced simultaneously. In another word, within the two sides of the founding agreement, if the House side is not honored, the Senate side shall become illegitimate too.

G. The Reapportionment Until 1911

1. Since [the Apportionment Act of 1792](#), and with one exception, the Apportionment Act of 1842, Congress enlarged the House of Representatives following each subsequent census until 1913. From the 1790s through the early 19th century, the seats were apportioned among the states using Jefferson's method.

2. Following the Fourteenth Amendment which abolished the infamous Three-Fifths clause, the reapportionment of 1872 created a house size of 292. No particular apportionment method was used during the period 1850 to 1890, but from 1890 through 1910, the increasing membership of the House was calculated in such a way as to ensure that no state lost a seat due to shifts in apportionment population. In 1881, a provision for equally populated contiguous and compact single member districts was added to the reapportionment law, and this was echoed in all decennial reapportionment acts through to 1911.
3. The [1911 Apportionment Act](#) set the number of house seats at 435. The Apportionment Act of 1911 returned to the Webster method of apportionment of U.S. Representatives.

H. The Reapportionment Act of 1929

1. Following the 1920 Election, the Republicans took control of both chambers of Congress. Due to increased immigration and a large rural-to-urban shift in population from 1910 to 1920, the new Republican Congress refused to reapportion the House of Representatives with the traditional contiguous, single-member districts stipulations because such a reapportionment would have redistricted many House members out of their districts. A reapportionment in 1921 in the traditional fashion would have increased the size of the House to 483 seats, but many members would have lost their seats due to the population shifts.
2. The [Reapportionment Act of 1929](#) established a permanent method for reallocating the 435 seats among the states. The [Apportionment Act of 1941](#) made the apportionment process self-executing after each decennial census. Congress has used the following [Apportionment Formulas](#) to determine which state gets the next available seat.

The formula for determining the priority of a state to be apportioned the next available seat defined by the method of equal proportions is

$$A_n = \frac{P}{\sqrt{n(n+1)}}$$

where P is the population of the state, and n is the number of seats it currently holds before the possible allocation of the next seat. An equivalent, recursive definition is

$$A_{n+1} = \sqrt{\frac{n}{n+2}} A_n$$

where n is still the number of seats the state has before allocation of the next, and for $n = 1$, the initial A_1 is explicitly defined as

$$A_1 = \frac{P}{\sqrt{2}}$$

3. These so-called “Equal Proportional” formulas assign “higher priority value” to some states, and “lower priority values” to other states. Essentially, it has turned the reapportionment process into a dog-eat-dog fight among the 49 states while the least populous state (Wyoming) enjoys the fully protected privilege. The following comparison shows the allocation of house seats for Wyoming, Florida, Illinois, New York and Florida since 1900.

Year	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010
Wyoming Population	92,531	145,965	194,402	225,565	250,742	292,000	338,000	332,416	469,557	453,588	493,782	563,626
# of House Seats Allocated	1	1	1	1	1	1	1	1	1	1	1	1
Year	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010
Florida Population	528,542	752,619	968,470	1,468,211	1,897,414	2,821,000	4,951,560	6,789,443	9,746,324	12,937,926	15,982,378	18,801,310
# of House Seats Allocated	3	4	4	5	6	8	12	15	19	23	25	27
Population per Seat	176,181	188,155	242,118	293,642	316,236	352,625	412,630	452,630	512,964	562,519	639,295	696,345
Year	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010
New York Population	7,268,894	9,113,614	10,385,227	12,588,066	13,479,142	14,830,192	16,827,000	18,241,266	17,558,072	17,990,455	18,976,457	19,378,102
# of House Seats Allocated	37	43	43	45	45	43	41	39	34	31	29	27
Population per Seat	196,457	211,945	241,517	279,735	299,536	344,888	410,415	467,725	516,414	580,337	654,361	717,707
Year	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010
Illinois Population	4,821,550	5,638,591	6,485,280	7,630,654	7,897,241	8,712,176	10,113,000	11,113,976	11,426,518	11,430,602	12,419,293	12,830,632
# of House Seats Allocated	25	27	27	27	26	25	24	24	22	20	19	18
Population per Seat	192,862	208,837	240,196	282,617	303,740	348,487	421,375	463,082	519,387	571,530	653,647	712,813
Year	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010
Texas Population	3,048,710	3,896,542	4,663,228	5,824,715	6,414,824	7,748,000	9,617,000	11,196,730	14,229,191	16,986,510	20,851,820	25,145,561
# of House Seats Allocated	16	18	18	21	21	22	23	24	27	30	32	36
Population per Seat	190,544	216,475	259,068	277,367	305,468	352,182	418,130	466,530	527,007	566,217	651,619	698,488

- 1) Wyomingites have always enjoyed 100% representation during this 110-year period.
- 2) Residents in Florida, Illinois, New York and Texas were under-represented during this period.
- 3) However, before the “Equal Proportional Formulas” took effect in 1950, Florida, Illinois, New York, and Texas gained seats independently.
- 4) Since the “Equal Proportional Formulas” took effect in 1950, Florida has gained 21 seats (27-6), Texas 14 seats (36-22), while Illinois has lost 7 seats (25-18), New York 18 seats (45-27), even though population increased in all these four states during the same period. This is the direct

result from the fact that Floridians and Texans have consistently been assigned “higher priority value” while Illinoisans and New Yorkers have been condemned to “low priority value” in the reapportionment process.

I. The Unequal Representation Since 1941

- Under the existing apportionment laws and based on the 2010 Census Data, the following table illustrates the extend of unequal representation among the 50 states. See Appendix A for full details.

2010	Total	308,745,538	435	709,760	546.7	111.7	245,177,310	63,041,190		296,020,412
	Total %							20.4%		95.9%
	Count									39
Index	State	Population 2010	# of House Seats Allocated	Population per House Seat Allocated	# of House Seats Entitled Based on WY Population	# of House Seats Deprived	Population Represented by the Seats Allocated based on WY Population	Population Taxed w/o Representation	Population Tw/oR %	States Under-represented by at least 0.5 seat
1	California	37,253,956	53	702,905	66.1	13.1	29,872,178	7,381,778	19.8%	37,253,956
2	Texas	25,145,561	36	698,488	44.6	8.6	20,290,536	4,855,025	19.3%	25,145,561
3	New York	19,378,102	27	717,707	34.4	7.4	15,217,902	4,160,200	21.5%	19,378,102
4	Florida	18,801,310	27	696,345	33.4	6.4	15,217,902	3,583,408	19.1%	18,801,310
43	Rhode Island	1,052,567	2	526,284	1.9	-0.1	1,127,252	(74,685)	-7.1%	-
44	Montana	989,415	1	989,415	1.8	0.8	563,626	425,789	43.0%	989,415
50	Wyoming	563,626	1	563,626	1.0	0.0	563,626	-	0%	-

- Wyoming’s pop. of 563,626 gets 1 house seat, always fully represented;
- The population per house seat for the top four states CA, TX, NY and FL ranges from 698,488 to 717,707, hence these four states have been deprived of 13.1, 8.6, 7.4 and 6.4 house seats, respectively, which means 19.8%, 19.3%, 21.5% and 19.1% of respective state populations have been taxed without representation (Tw/oR);
- Montana’s pop. of 989,415 gets only 1 house seat, the worst among all 50 states, which means 43% of Montanans have been Tw/oR;
- Rhode Island’s pop. of 1,052,567 gets 2 house seats, 1 house seat per 526,284 persons, $1,052,567 / 563,626 = 1.9$ rounded to 2.0, the best among all 50 states, over-represented by 7.1%.
- Nationwide, 20.4% ($=63,041,190/308,745,538$) of national population, have been Tw/oR.

6) 39 of the 50 states, or 95.9% of national population were under-represented by at least 0.5 seat, in a total of 111.7 seats in the House of Representatives.

2. Under the existing apportionment laws and based on the 2000 Census Data, the following table illustrates the extend of unequal representation among the 50 states. See Appendix B for full details.

2000	Total	281,421,906	435	646,947	568.8	133.8	214,795,170	66,054,677		274,506,987
	Total %							23.5%		97.5%
	Count									43
Index	State	Population 2000	# of House Seats Allocated	Population per House Seat Allocated	# of House Seats Entitled Based on WY Population	# of House Seats Deprived	Population Represented by the Seats Allocated based on WY Population	Population Taxed w/o Representation	Population Tw/oR %	States Under-represented by at least 0.5 seat
1	California	33,871,648	53	639,088	68.6	15.6	26,170,446	7,701,202	22.7%	33,871,648
2	Texas	20,851,820	32	651,619	42.2	10.2	15,801,024	5,050,796	24.2%	20,851,820
3	New York	18,976,457	29	654,361	38.4	9.4	14,319,678	4,656,779	24.5%	18,976,457
4	Florida	15,982,378	25	639,295	32.4	7.4	12,344,550	3,637,828	22.8%	15,982,378
43	Rhode Island	1,048,319	2	524,160	2.1	0.1	987,564	60,755	5.8%	-
44	Montana	902,195	1	902,195	1.8	0.8	493,782	408,413	45.3%	902,195
50	Wyoming	493,782	1	493,782	1.0	0.0	493,782	-	0%	-

- 1) Wyoming’s pop. of 493,782 gets 1 house seat, always fully represented;
- 2) Other than Wyoming, all 49 states are under-represented between 5.8% (Rhode Island) and 45.3% (Montana).
- 3) Nationwide, 23.5% of Americans (66,054,677 of 281,421,906) were taxed without representation.
- 4) 43 of the 50 states, or 97.5% of national population were under-represented by at least 0.5 seat, in a total of 133.8 seats in the House of Representatives.
- 5) The top 4 states - CA, TX, NY & FL - were under-represented by 15.6, 10.2, 9.4, and 7.4 seats, respectively, which means 22.7%, 24.2%, 24.5%, and 22.8% of respective state populations have been taxed without representation (Tw/oR);

3. Under the existing apportionment laws and based on the 1990 Census Data, the following table illustrates the extent of unequal representation among the 50 states. See Appendix C for full details.

1990	Total	248,709,873	435	571,747	547.0	112.0	197,310,780	50,792,193		239,023,269
	Total %							20.4%		96.1%
	Count									41
Index	State	Population 1990	# of House Seats Allocated	Population per House Seat Allocated	# of House Seats Entitled Based on WY Population	# of House Seats Deprived	Population Represented by the Seats Allocated based on WY Population	Population Taxed w/o Representation	Population Tw/oR %	States Under-represented by at least 0.5 seat
1	California	29,760,021	52	572,308	65.6	13.6	23,586,576	6,173,445	20.7%	29,760,021
2	New York	17,990,455	31	580,337	39.7	8.7	14,061,228	3,929,227	21.8%	17,990,455
3	Texas	16,986,510	30	566,217	37.4	7.4	13,607,640	3,378,870	19.9%	16,986,510
4	Florida	12,937,926	23	562,519	28.5	5.5	10,432,524	2,505,402	19.4%	12,937,926
43	Rhode Island	1,003,464	2	501,732	2.2	0.2	907,176	96,288	9.6%	-
44	Montana	799,065	1	799,065	1.8	0.8	453,588	345,477	43.2%	799,065
50	Wyoming	453,588	1	453,588	1.0	0.0	453,588	-	0%	-

- 1) Other than Wyoming, 49 states are under-represented between 9.6% (Rhode Island) and 43.2% (Montana).
- 2) Nationwide, 20.4% of Americans (50,792,193 of 248,709,873) were taxed without representation.
- 3) 41 of the 50 states, or 96.1% of national population were under-represented by at least 0.5 seat, in a total of 112 seats in the House of Representatives.
- 4) Among the 39 states, the top 4 states - CA, TX, NY & FL - were under-represented by 13.6, 8.7, 7.4, and 5.5 seats, respectively.

J. How the U.S. Compared to the other Developed Democracy

1. As of 2017 the compensation for most congressional members is \$174,000, the Speaker of the House receives \$223,500, and the majority and minority leaders in the House receive \$193,000. As of June 2017, the average [Members' Representational Allowance](#) (MRA) was \$1,315,523 per representative
2. Plaintiff surveyed 16 developed democratic countries based on Wikipedia, and found the U.S. has by far the highest population per lower house seat among these countries, almost 3 times as much as Japan, the second on the list (see table below).
3. In particular, Japan, Germany, France, and the U.K. have more lower House Representatives than the U.S. does despite far less population. For example, the U.K. population is only 20% of the U.S.

population, but its House of Commons has 650 members, averaging only 101,569 persons per one seat vs. 748,736 persons per one seat in the U.S. In fact, when the Apportionment Act 1911 capped the number of house seats at 435, [the population per seat was c.a. 210, 000](#), much closer to the other 15 surveyed countries.

4. Besides having by far the highest population per seat, the U.S. is also much larger in geographical size than the other 14 countries except Canada, it is impossible for the U.S. House Representatives to serve their constituents as effectively as their counterparts in the other 15 developed democracies. When on average a representative has to serve 748,736 constituents, it invariably means he/she becomes inaccessible or even unaccountable to most constituents.

Ranking of Developed Democratic Countries by Representation of Population at the Lower House						
Source:	https://en.wikipedia.org/wiki/					
Ranked by Population per House Seat	Country	Population as of 2017 (millions)	Population as % of the U.S.	# of House Seats	Population per House Seat	Population per House Seat as % of the U.S.
1	USA	325.70	100%	435	748,736	100%
2	Japan	126.80	39%	465	272,688	36%
3	Australia	24.60	8%	150	164,000	22%
4	Germany	82.79	25%	709	116,770	16%
5	France	67.12	21%	577	116,326	16%
6	Netherlands	17.08	5%	150	113,867	15%
7	Canada	36.71	11%	338	108,609	15%
8	UK	66.02	20%	650	101,569	14%
9	Belgium	11.35	3%	150	75,667	10%
10	Austria	8.77	3%	183	47,940	6%
11	Switzerland	8.42	3%	200	42,100	6%
12	New Zealand	4.79	1%	120	39,950	5%
13	Denmark	5.77	2%	179	32,235	4%
14	Norway	5.26	2%	169	31,112	4%
15	Sweden	10.00	3%	349	28,639	4%
16	Finland	5.50	2%	200	27,515	4%

CONGRESS HAS DISHONORED THE FOUNDING AGREEMENT

1. As aforementioned, there is a huge disparity per Senate seat among states. For example, a New Yorker is weighted as only 2.2% / 2.6% / 2.9% of a Wyomingite based on 1990 / 2000 / 2010 Census, respectively. The Great Compromise, the very first contractual agreement reached by our founding fathers, was supposed to balance such enormous inequality in favor of the less populous states in the Senate with the allocation of the House seats proportional to each state's population.
2. However, Congress since 1911 has collectively failed to (1) honor the Great Compromise reached by the founding fathers, foremostly Washington, Adams, Jefferson, and Madison; and (2) comply with the Constitution Article I, § 2 Clauses 1 & 3, which mandate House Representatives to be elected by the People and allocated among states based on each state's population.
3. Writing for the Court in *Wesberry v. Sanders* (1964), Justice Black declared emphatically:

We hold that, construed in its historical context, the command of Article I, § 2 that Representatives be chosen "by the People of the several States" means that, as nearly as is practicable, one man's vote in a congressional election is to be worth as much as another's. ...

We do not believe that the Framers of the Constitution intended to permit the same vote-diluting discrimination to be accomplished through the device of districts containing widely varied numbers of inhabitants. To say that a vote is worth more in one district than in another would not only run counter to our fundamental ideas of democratic government, it would cast aside the principle of a House of Representatives elected "by the People," a principle tenaciously fought for and established at the Constitutional Convention. The history of the Constitution, particularly that part of it relating to the adoption of Article I, § 2, reveals that those who framed the Constitution meant that, no matter what the mechanics of an election, whether statewide or by districts, it was population which was to be the basis of the House of Representatives.

4. *Planned Parenthood of Southeastern Pa. v. Casey*, 505 U.S. 833 (1992) reminded us that each generation of Americans including each Congress have the duty to uphold the Constitution:

Our Constitution is a covenant running from the first generation of Americans to us and then the future generations. It is a coherent succession. Each generation must learn anew that the Constitution's written terms embody ideas and aspirations that must survive more ages than one.

5. While *Wesberry v. Sanders* (1964) concerned the rights to equal representation in the House and equal vote in electing representatives among residents of different congressional districts within one state, the same constitutional principle and legal reasoning shall certainly apply to the same rights

among residents of different states, which is the core issue raised by Plaintiff.

6. What has transpired since 1929 is exactly what our two most important founding fathers, Washington and Jefferson, clearly rejected in 1792: the current cap and allocation mechanism have produced arbitrary and inadmissible unequal representation that are not derived from arithmetical operation.
7. There is absolutely no constitutional provision for – and our founding fathers would have been outraged by - **the Apportionment Formulas** which assign priority to some states for the next seat while condemning residents of other states as “lower priority” for at least a decade, if not decades.
8. Furthermore, the founding agreement consists of two sides: the House by population and the Senate by states. By defrauding the House side of the founding agreement for more than 100 years and counting, Congress has simultaneously delegitimized the Senate which has become a lopsided oppressive body in favor of less than 5% of population at the expense of over 95% of Americans. Without equal representation of population in the House, the Senate has become unconstitutional too.
9. By capping the number of house seats to 435, Congress has ignored (1) the fact that delegates defeated the motion to put a limit on the number of house seats for the western states, and (2) the warning of “vicious representation” by Madison, widely considered the Father of the Constitution.
10. Writing for the Court in *Wesberry v. Sanders* (1964), Justice Black reminded us that:

It would defeat the principle solemnly embodied in the Great Compromise -- equal representation in the House for equal numbers of people -- for us to hold that, within the States, legislatures may draw the lines of congressional districts in such a way as to give some voters a greater voice in choosing a Congressman than others. The House of Representatives, the Convention agreed, was to represent the people as individuals, and on a basis of complete equality for each voter. The delegates were quite aware of what Madison called the "vicious representation" in Great Britain whereby "rotten boroughs" with few inhabitants were represented in Parliament on or almost on a par with cities of greater population.

...

The delegates referred to rotten borough apportionments in some of the state legislatures as the kind of objectionable governmental action that the Constitution should not tolerate in the election of congressional representatives. ... Speakers at the ratifying conventions emphasized that the House of Representatives was meant to be free of the malapportionment then existing in some of the state legislatures -- such as those of Connecticut, Rhode Island, and South Carolina -- and argued that the power given Congress in Article I, § 4, as meant to be used to vindicate the people's right to equality of representation in the House. Congress' power, said John Steele at the North Carolina convention, was not to be used to allow Congress to create rotten boroughs.

CONGRESS HAS VIOLATED PLAINTIFFS' CONSTITUTIONAL RIGHTS

1. America was founded upon a set of ideals enshrined by the [Declaration of Independence](#):
 - (1) *Liberty & Equality*: “All men are created equal with certain unalienable rights”;
 - (2) *Republic*: “That to secure these rights, Governments are instituted among Men”;
 - (3) *Democracy*: “Deriving their just powers from the consent of the governed”.
2. The Constitution starts with “We the People”. For the principle of “all men are created equal” to hold true, there must be equal respect of human dignity. And nothing manifests human dignity more than a free person’s sacred vote. By causing significant unequal representation in the House and diluting vote value in electing representatives for over 95% of Americans due to state residence, Congress has violated the aforementioned founding principles and the following constitutional provisions.
3. **Article I, § 2 Clauses 1 & 3** mandate the House Representatives are chosen by the People based on population, hence guaranteeing every American’s right to equal representation in the House. The significant unequal representation represents a gross betrayal of the founding agreement and union spirit, causing over 95% of Americans double-disadvantaged in both the House and the Senate.
4. **Article II, § 1** mandates that each state’s electoral votes for presidential elections are equal to the number of representatives and senators. Hence the significant under-representation in the House has further inflicted a **Triple-Injustice** upon over 95% of Americans with respect to the House, the Senate and the presidential elections.
5. **Article IV, § 2** mandates that Citizens of all state shall be entitled to the same Privileges and Immunities. Equal representation in the House is one of such privileges for all Americans guaranteed by the Constitution. Since 1911 Congress has collectively violated such fundamental privilege. More despicably, **the Apportionment Formulas** have discriminated against some states while favoring the other states. In fact, from 1990 to 2010 NY lost 4 seats despite its population grew by 1.4 million, while TX and FL gained 6 and 4 seats, respectively, and Wyoming is always guaranteed 1 seat. Among all fellow Americans, New Yorkers have been ranked the lowest and deprived of the most.

6. **The First Amendment** prohibits any law that abridges the freedom of speech. Residents of each state elect their representatives to the House who in turn speak and vote on behalf of their constituents on various issues that affect their daily life. By diluting the right to equal representation in the House, Congress has undermined Plaintiffs' and overwhelming majority of Americans' voice and expression, hence violating our freedom of speech.
7. **The Fifth Amendment** guarantees NO American shall be deprived of life, liberty, or property without due process of law. The guaranty of due process demands laws shall not be unreasonable, arbitrary or capricious. The Exhibit A shows the current allocation method results in a wide gap of representation among states, from over-representation of 7% enjoyed by Rhode Island to under-representation of 43% suffered by Montana. There is no justification for some Americans enjoying over-representation while 95% being condemned to under-representation due to state residence. Such arbitrary and capricious malapportionment illustrates **the first violation of the Fifth Amendment**.
8. Secondly, assuming Jack and Jill are brother and sister, if Jack moves from Rhode Island (1,052,567 given 2 seats) to Montana (989,415 given 1 seat), his right to be represented decreases by half; and if Jill moves from Montana to Rhode Island, her right to be represented doubles. In fact, people who do not move at all will also find the value of their vote fluctuated because someone else move. No American shall be punished for exercising their freedom to choose where to live (liberty). This demonstrates **the second violation of the Fifth Amendment**.
9. Furthermore, if any suspect must be informed of his/her Miranda right under the Fifth Amendment, all law-binding citizens certainly must be informed of their fundamental rights before being gravely violated. Congress has never informed the general public of (1) such significant under-representation for the overwhelming majority of Americans, and (2) the fact that such unequal representation has violated the founding agreement reached by the framers. Even *New York Times* failed in its [11/09/2018 Editorial](#) to point out the founding agreement has been dishonored and the Constitution violated. The absence of public knowledge and debate on this gross violation of the founding

agreement and the Constitution indicates **violation of procedural Due Process**. Finally, the 1941 Apportionment Act deprived all future generations of the Due Process to review and update the cap and allocation of house seats based on the ever-changing population among the 50 states.

10. **The Fourteenth Amendment § 1** guarantees every citizen's equal privileges or immunities, every person's life, liberty, or property with due process of law and equal protection of the laws. In this case, it is Congress who enacted the Apportionment Acts that have caused over 95% Americans to be under-represented in the House. Furthermore, **the Apportionment Formulas** have assigned priority to some states for the next house seat while condemning residents of other states as "low priority". Therefore, Congress has violated the Due Process and Equal Protection for all Americans with respect to the fundamental right to equal representation in the House. It would be a mockery if one argues the Fourteenth Amendment does not apply to Congress.
11. **The Fourteenth Amendment § 2** reaffirms apportionment based on population, and abolished the infamous Three-Fifths clause, declaring counting a person less than a whole number unconstitutional. Under the current allocation of house seats, a New Yorker is weighted as 79% of a Wyomingite, residents in Montana are weighted only 57% of a Wyomingite, and over 95% of Americans are counted less than a whole number in terms of each house seat allocated.
12. **The Fourteenth Amendment § 2** further mandates the right to vote at any election including "Representatives in Congress" shall not be abridged in any way. Diluting overwhelming majority of Americans' vote in electing the House Representatives is the exact definition of abridging.
13. Writing for the Court in *Wesberry v. Sanders* (1964), Justice Black reminded us unequivocally:

It is in the light of such history that we must construe Article I, § 2, of the Constitution, which, carrying out the ideas of Madison and those of like views, provides that Representatives shall be chosen "by the People of the several States," and shall be "apportioned among the several States . . . according to their respective Numbers."

Madison said in No. 57 of The Federalist: "Who are to be the electors of the Federal Representatives? Not the rich more than the poor; not the learned more than the ignorant; not the haughty heirs of distinguished names more than the humble sons of obscure and unpropitious fortune. The electors are to be the great body of the people of the United States."

An Arithmetical Solution That Honors the Founding Fathers' Agreement and Criteria

1. Since the Constitution guarantees at least one house seat for each state, the population of the least populous state shall be the basis for allocating the house seats among states through an arithmetical operation insisted by Jefferson, which can be easily understood by the general public.
2. The first possible proposal is “**The Nearest Integer**” (a.k.a. the Wyoming Rule) which calculates the number of house seats for each of the 50 states as follows (based on 2017 Census estimates):
 - (1) Wyoming has the least population, hence 579,315 should be the base denominator. For example, NY population $(19,849,399)/(579,315)=34.3$, rounded the nearest integer, 34. Hence NY's number of seats would increase from 27 to 34, reducing its under-representation from 21.2% to 0.8%.
 - (2) This "Nearest Integer" approach will add 126 additional seats to a total of 561, and reduce under-representation to less than 5% for the top 29 populous states. However, representation for less populous states remains unfair. For example, North Dakota remain under-represented by 23.3% while South Dakota over-represented by 33.2%.
 - (3) Under this proposal, variances in representation range from under-represented 23% to over-represented 33%, clearly neither equitable nor constitutional. See details in Exhibit D.
3. The second possible proposal is “**The Nearest Tenth Digit**” which takes the above proposal one step further by rounding all the quotients to the nearest tenth digit:
 - (1) Wyoming has the least population of 579,315. Hence, NY population $(19,849,399) / (579,315) = 34.26$, rounded to the nearest tenth digit, 34.3. NY's number of seats increases from 27 to 34.3, i.e. 33 members have 1 vote each, the 34th member has a vote of 1.3 for a larger district.
 - (2) There are two distinct but related concepts under this proposal: **members vs. votes**. The current 435-body house will increase by 107 to 542, among which 497 regular members have 1 vote each, and 45 special members have a vote of 1.1 to 1.9, each representing a more populous district

in each state. The total house votes would increase to 561.1 with 280.6 being the simple majority.

The number of votes is the ultimate measure of equal representation guaranteed for all Americans by the founding agreement and the Constitution.

(3) Under this proposal, all aforementioned unfair representations in the first proposal are practically resolved: North Dakota and South Dakota would be under-represented by only 0.3% and 0.1%, respectively. The variance of representation ranges from under 1.6% to over 2.4%. See details in Exhibit E.

(4) Most importantly, all Americans of all states will be guaranteed equal presentation at the same time, there will be no American of any state ranked as “lower priority” any more.

(5) Applying the same arithmetical operation to the three previous censuses, the variance of representations ranges from under 3.1% to over 3.2% for 2010, from under 2.7% to over 2.4% for 2000, and from under 3.3% to over 2.2% for 1990. Hence all are well within +/-4%.

4. Obviously rounding to the nearest hundredth digit would further improve precision. However, the “Nearest Tenth Digit” proposal produces a near precision within +/-4%, and is free of any manipulation that condemns many states as “lower priority”. Therefore, **this is an Arithmetical Solution that shall honor our founding fathers’ agreement and satisfy their criteria.**

5. As aforementioned, the total cost for one house representative is approximately \$1.5 million/year. Adding 107 house members with 126.1 votes would entail a total additional cost approximately \$189.4 million/year (1.5 x 126.1 votes). The 2017 Census estimates the U.S. population at 325.7 million, hence it would cost only \$0.58 (\$189.4/325.7) per person per year.

6. In addition, the Federal Budget for 2017 Fiscal Year included \$3.98 trillion expenditures. The additional \$189.4 million would account less than 0.005% of the total federal expenditures. By the way, one F-22 Raptor fighter aircraft alone costs \$150 million in 2009 or \$180 million in 2018.

7. After adding the 107 members to a total of 542 as shown below, the U.S. still by far has the highest ratio of population per house seat. As long as both the national population and the least state

population move at a similar pace, the total number of house seats will range from 500 to 600. If the least populous state's population grows faster than the national population, the total number of house seats would decrease.

Ranking of Developed Democratic Countries by Representation of Population at the Lower House						
Source:	https://en.wikipedia.org/wiki/					
Ranked by Population per House Seat	Country	Population as of 2017 (millions)	Population as % of the U.S.	# of House Seats	Population per House Seat	Population per House Seat as % of
1	USA - Rectified	325.70	100%	542	600,923	100%
2	Japan	126.80	39%	465	272,688	45%
3	Australia	24.60	8%	150	164,000	27%
4	Germany	82.79	25%	709	116,770	19%
5	France	67.12	21%	577	116,326	19%
6	Netherlands	17.08	5%	150	113,867	19%
7	Canada	36.71	11%	338	108,609	18%
8	UK	66.02	20%	650	101,569	17%
9	Belgium	11.35	3%	150	75,667	13%
10	Austria	8.77	3%	183	47,940	8%
11	Switzerland	8.42	3%	200	42,100	7%
12	New Zealand	4.79	1%	120	39,950	7%
13	Denmark	5.77	2%	179	32,235	5%
14	Norway	5.26	2%	169	31,112	5%
15	Sweden	10.00	3%	349	28,639	5%
16	Finland	5.50	2%	200	27,515	5%

8. Time is of the essence. There is no justification to prolong the current **Triple-Injustice** until after the 2020 Census. Congress has the duty and power to immediately pass **the Apportionment for Equal Representation of Act 2019** effective for the upcoming 2020 Elections that will ...

- (1) increase the number of House Representatives to 542, among which 497 regular members have 1 vote each, and 45 special members have vote of 1.1 to 1.9, as described above;
- (2) require each state to redraw its congressional districts with variance in population within +/- 5% by an independent non-partisan commission, or designate the added members/votes at-large;
- (3) increase the total electoral votes from currently 538 to 664.1 (100+561.1+3 for DC), so that every state will finally receive its fair share of electoral votes, e.g. 36.3 (2+34.3) electoral votes for NY, rather than 29 (2+27), the candidate who gets 332.1 electoral votes wins the White House;
- (4) Following the 2020 Census, further adjustments can be easily made for the 2022 House Election. Thereafter, similar adjustments shall be made once after each decennial census.

CONCLUSION

1. At George Orwell's *Animal Farm*, "*All animals are equal, but some animals are more equal than others.*" The underlying question for Defendants and all Americans in this case is, "*All Americans are equal, but are some Americans more equal than others?*"
2. Our founding fathers clearly said NO to such question, and were they alive today, they would certainly be horrified and outraged by what the existing reapportionment laws have done for 90 years and counting, Washington and Jefferson would have vetoed all of them without any hesitation.
3. Writing for the Supreme Court in *Wesberry v. Sanders*, (1964), Justice Black declared forcefully:

While it may not be possible to draw congressional districts with mathematical precision, that is no excuse for ignoring our Constitution's plain objective of making equal representation for equal numbers of people the fundamental goal for the House of Representatives. That is the high standard of justice and common sense which the Founders set for us.

4. In conclusion:
 - (1) the Court has the power and the duty to review and declare the existing reapportionment laws unconstitutional;
 - (2) the 116th Congress has the power, the duty and a historic opportunity to immediately rectify its collective failure since 1929 by enacting **the Reapportionment for Equal Representation Act of 2019** that will not only restore honor with the Great Compromise and our founding fathers, but also uphold all Americans' fundamental rights to equal representation in the House and equal vote in electing House Representatives with respect to Article I § 2, Article IV § 2, the First, the Fifth and the Fourteenth Amendments;
 - (3) the "Nearest Tenth Digit" arithmetical operation will allocate the house seats/votes to all states with a variance within +/-4%, which represents a near precision that shall satisfy Washington, Jefferson, Madison and other founding fathers who can again rest in peace on this account.
 - (4) if Congress refuses to rectify its own collective failure, it shall be held in Contempt of Court and of the Constitution, and the Senate shall lose its legitimacy and be declared unconstitutional.

Dated: July 8, 2019

Respectfully submitted,

/s/ Lewis Y. LIU
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Lead Plaintiff
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Appendix A

State-by-State Under-representation in the House of Representatives and Disparity per Senate Seat 2010 Census Data

https://en.wikipedia.org/wiki/2010_United_States_Census

	Total	308,745,538	435	709,760	546.7	111.7	245,177,310	63,041,190		296,020,412			
	Total %							20.4%		95.9%			
	Count									39			
	Max.			989,415	66.1	13.1	29,872,178		43.0%		107.1%	18,626,978	100.0%
	Min.			526,284	1.0	-0.1	0		-7.1%		57.0%	281,813	1.5%
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Index	State	Population 2010	# of House Seats Allocated	Population per House Seat Allocated	# of House Seats Entitled Based on WY Population	# of House Seats Deprived	Population Represented by the Seats Allocated based on WY Population	Population Taxed w/o Representation	Population Tw/oR %	States Under-represented by at least 0.5 seat	Vote Value per House Seat as % of WY	Population per Senate Seat	Disparity per Senate Seat
1	California	37,253,956	53	702,905	66.1	13.1	29,872,178	7,381,778	19.8%	37,253,956	80.2%	18,626,978	1.5%
2	Texas	25,145,561	36	698,488	44.6	8.6	20,290,536	4,855,025	19.3%	25,145,561	80.7%	12,572,781	2.2%
3	New York	19,378,102	27	717,707	34.4	7.4	15,217,902	4,160,200	21.5%	19,378,102	78.5%	9,689,051	2.9%
4	Florida	18,801,310	27	696,345	33.4	6.4	15,217,902	3,583,408	19.1%	18,801,310	80.9%	9,400,655	3.0%
5	Illinois	12,830,632	18	712,813	22.8	4.8	10,145,268	2,685,364	20.9%	12,830,632	79.1%	6,415,316	4.4%
6	Pennsylvania	12,702,379	18	705,688	22.5	4.5	10,145,268	2,557,111	20.1%	12,702,379	79.9%	6,351,190	4.4%
7	Ohio	11,536,504	16	721,032	20.5	4.5	9,018,016	2,518,488	21.8%	11,536,504	78.2%	5,768,252	4.9%
8	Michigan	9,883,640	14	705,974	17.5	3.5	7,890,764	1,992,876	20.2%	9,883,640	79.8%	4,941,820	5.7%
9	Georgia	9,687,653	13	745,204	17.2	4.2	7,327,138	2,360,515	24.4%	9,687,653	75.6%	4,843,827	5.8%
10	North Carolina	9,535,483	14	681,106	16.9	2.9	7,890,764	1,644,719	17.2%	9,535,483	82.8%	4,767,742	5.9%
11	New Jersey	8,791,894	12	732,658	15.6	3.6	6,763,512	2,028,382	23.1%	8,791,894	76.9%	4,395,947	6.4%
12	Virginia	8,001,024	11	727,366	14.2	3.2	6,199,886	1,801,138	22.5%	8,001,024	77.5%	4,000,512	7.0%
13	Washington	6,724,540	10	672,454	11.9	1.9	5,636,260	1,088,280	16.2%	6,724,540	83.8%	3,362,270	8.4%
14	Massachusetts	6,547,629	9	727,514	11.6	2.6	5,072,634	1,474,995	22.5%	6,547,629	77.5%	3,273,815	8.6%
15	Indiana	6,483,802	9	720,422	11.5	2.5	5,072,634	1,411,168	21.8%	6,483,802	78.2%	3,241,901	8.7%
16	Arizona	6,392,017	9	710,224	11.3	2.3	5,072,634	1,319,383	20.6%	6,392,017	79.4%	3,196,009	8.8%
17	Tennessee	6,346,105	9	705,123	11.3	2.3	5,072,634	1,273,471	20.1%	6,346,105	79.9%	3,173,053	8.9%
18	Missouri	5,988,927	8	748,616	10.6	2.6	4,509,008	1,479,919	24.7%	5,988,927	75.3%	2,994,464	9.4%
19	Maryland	5,773,552	8	721,694	10.2	2.2	4,509,008	1,264,544	21.9%	5,773,552	78.1%	2,886,776	9.8%
20	Wisconsin	5,686,986	8	710,873	10.1	2.1	4,509,008	1,177,978	20.7%	5,686,986	79.3%	2,843,493	9.9%
21	Minnesota	5,303,925	8	662,991	9.4	1.4	4,509,008	794,917	15.0%	5,303,925	85.0%	2,651,963	10.6%
22	Colorado	5,029,196	7	718,457	8.9	1.9	3,945,382	1,083,814	21.6%	5,029,196	78.4%	2,514,598	11.2%
23	Alabama	4,779,736	7	682,819	8.5	1.5	3,945,382	834,354	17.5%	4,779,736	82.5%	2,389,868	11.8%
24	South Carolina	4,625,364	7	660,766	8.2	1.2	3,945,382	679,982	14.7%	4,625,364	85.3%	2,312,682	12.2%
25	Louisiana	4,533,372	6	755,562	8.0	2.0	3,381,756	1,151,616	25.4%	4,533,372	74.6%	2,266,686	12.4%
26	Kentucky	4,339,367	6	723,228	7.7	1.7	3,381,756	957,611	22.1%	4,339,367	77.9%	2,169,684	13.0%
27	Oregon	3,831,074	5	766,215	6.8	1.8	2,818,130	1,012,944	26.4%	3,831,074	73.6%	1,915,537	14.7%
28	Oklahoma	3,751,351	5	750,270	6.7	1.7	2,818,130	933,221	24.9%	3,751,351	75.1%	1,875,676	15.0%
29	Connecticut	3,574,097	5	714,819	6.3	1.3	2,818,130	755,967	21.2%	3,574,097	78.8%	1,787,049	15.8%
30	Iowa	3,046,355	4	761,589	5.4	1.4	2,254,504	791,851	26.0%	3,046,355	74.0%	1,523,178	18.5%
31	Mississippi	2,967,297	4	741,824	5.3	1.3	2,254,504	712,793	24.0%	2,967,297	76.0%	1,483,649	19.0%
32	Arkansas	2,915,918	4	728,980	5.2	1.2	2,254,504	661,414	22.7%	2,915,918	77.3%	1,457,959	19.3%
33	Kansas	2,853,118	4	713,280	5.1	1.1	2,254,504	598,614	21.0%	2,853,118	79.0%	1,426,559	19.8%
34	Utah	2,763,885	4	690,971	4.9	0.9	2,254,504	509,381	18.4%	2,763,885	81.6%	1,381,943	20.4%
35	Nevada	2,700,551	4	675,138	4.8	0.8	2,254,504	446,047	16.5%	2,700,551	83.5%	1,350,276	20.9%
36	New Mexico	2,059,179	3	686,393	3.7	0.7	1,690,878	368,301	17.9%	2,059,179	82.1%	1,029,590	27.4%
37	West Virginia	1,852,994	3	617,665	3.3	0.3	1,690,878	162,116	8.7%	-	91.3%	926,497	30.4%
38	Nebraska	1,826,341	3	608,780	3.2	0.2	1,690,878	135,463	7.4%	-	92.6%	913,171	30.9%
39	Idaho	1,567,582	2	783,791	2.8	0.8	1,127,252	440,330	28.1%	1,567,582	71.9%	783,791	36.0%
40	Hawaii	1,360,301	2	680,151	2.4	0.4	1,127,252	233,049	17.1%	-	82.9%	680,151	41.4%
41	Maine	1,328,361	2	664,181	2.4	0.4	1,127,252	201,109	15.1%	-	84.9%	664,181	42.4%
42	New Hampshire	1,316,470	2	658,235	2.3	0.3	1,127,252	189,218	14.4%	-	85.6%	658,235	42.8%
43	Rhode Island	1,052,567	2	526,284	1.9	-0.1	1,127,252	(74,685)	-7.1%	-	107.1%	526,284	53.5%
44	Montana	989,415	1	989,415	1.8	0.8	563,626	425,789	43.0%	989,415	57.0%	494,708	57.0%
45	Delaware	897,934	1	897,934	1.6	0.6	563,626	334,308	37.2%	897,934	62.8%	448,967	62.8%
46	South Dakota	814,180	1	814,180	1.4	0.4	563,626	250,554	30.8%	-	69.2%	407,090	69.2%
47	Alaska	710,231	1	710,231	1.3	0.3	563,626	146,605	20.6%	-	79.4%	355,116	79.4%
48	North Dakota	672,591	1	672,591	1.2	0.2	563,626	108,965	16.2%	-	83.8%	336,296	83.8%
49	Vermont	625,741	1	625,741	1.1	0.1	563,626	62,115	9.9%	-	90.1%	312,871	90.1%
—	District of Columbia	601,723	0				0		0.0%	-			
50	Wyoming	563,626	1	563,626	1.0	0.0	563,626	-	0%	-	100.0%	281,813	100.0%

Observations & Comments:

- Other than Wyoming, 48 states are under-represented with Montana suffered the most at 43%, while Rhode Island has been over-represented by 7.1%.
- Nationwide, 20.4% of Americans (63,041,190 / 308,745,538) have been taxed without representation.
- 39 of the 50 states, or 96% of national population were under-represented by at least 0.5 seat. In total, 111.7 seats should have been added.
- Among the 39 states, the top 4 states - CA, TX, NY & FL - were under-represented by 13.1, 8.6, 7.4, and 6.4 seats, respectively.
- In the Senate, residents' voting power in the other 49 states are worth as low as 1.5% of those in Wyoming, and supposed to be compensated by the equal representation in the House.
- Hence in terms of vote value at the Senate, residents of the top 4 states - CA, TX, NY & FL - are weighted only 1.5%, 2.2%, 2.9% and 3.0% of Wyomingite, respectively.

Appendix B

State-by-State Under-representation in the House of Representatives and Disparity per Senate Seat

Census Data as of 2000

https://en.wikipedia.org/wiki/2010_United_States_Census

2000	Total	281,421,906	435	646,947	568.8	133.8	214,795,170	66,054,677		274,506,987			
	Total %							23.5%		97.5%			
	Count									43			
	Max.			902,195	68.6	15.6	26,170,446		45.3%		100.0%	16,935,824	100.0%
	Min.			493,782	1.0	0.0	493,782		0.0%		54.7%	246,891	1.5%
1	2	3	4	5	6	10	7	8	11	12	13	14	
Index	State	Population 2000	# of House Seats Allocated	Population per House Seat Allocated	# of House Seats Entitled Based on WY Population	# of House Seats Deprived	Population Represented by the Seats Allocated based on WY Population	Population Taxed w/o Representation	Population Tw/oR %	States Under-represented by at least 0.5 seat	Vote Value per House Seat as % of WY	Population per Senate Seat	Disparity per Senate Seat
1	California	33,871,648	53	639,088	68.6	15.6	26,170,446	7,701,202	22.7%	33,871,648	77.3%	16,935,824	1.5%
2	Texas	20,851,820	32	651,619	42.2	10.2	15,801,024	5,050,796	24.2%	20,851,820	75.8%	10,425,910	2.4%
3	New York	18,976,457	29	654,361	38.4	9.4	14,319,678	4,656,779	24.5%	18,976,457	75.5%	9,488,229	2.6%
4	Florida	15,982,378	25	639,295	32.4	7.4	12,344,550	3,637,828	22.8%	15,982,378	77.2%	7,991,189	3.1%
5	Illinois	12,419,293	19	653,647	25.2	6.2	9,381,858	3,037,435	24.5%	12,419,293	75.5%	6,209,647	4.0%
6	Pennsylvania	12,281,054	19	646,371	24.9	5.9	9,381,858	2,899,196	23.6%	12,281,054	76.4%	6,140,527	4.0%
7	Ohio	11,353,140	18	630,730	23.0	5.0	8,888,076	2,465,064	21.7%	11,353,140	78.3%	5,676,570	4.3%
8	Michigan	9,938,444	15	662,563	20.1	5.1	7,406,730	2,531,714	25.5%	9,938,444	74.5%	4,969,222	5.0%
9	Georgia	8,186,453	13	629,727	16.6	3.6	6,419,166	1,767,287	21.6%	8,186,453	78.4%	4,093,227	6.0%
10	North Carolina	8,049,313	13	619,178	16.3	3.3	6,419,166	1,630,147	20.3%	8,049,313	79.7%	4,024,657	6.1%
11	New Jersey	8,414,350	13	647,258	17.0	4.0	6,419,166	1,995,184	23.7%	8,414,350	76.3%	4,207,175	5.9%
12	Virginia	7,078,515	11	643,501	14.3	3.3	5,431,602	1,646,913	23.3%	7,078,515	76.7%	3,539,258	7.0%
13	Washington	5,894,121	9	654,902	11.9	2.9	4,444,038	1,450,083	24.6%	5,894,121	75.4%	2,947,061	8.4%
14	Massachusetts	6,349,097	10	634,910	12.9	2.9	4,937,820	1,411,277	22.2%	6,349,097	77.8%	3,174,549	7.8%
15	Indiana	6,080,485	9	675,609	12.3	3.3	4,444,038	1,636,447	26.9%	6,080,485	73.1%	3,040,243	8.1%
16	Arizona	5,130,632	8	641,329	10.4	2.4	3,950,256	1,180,376	23.0%	5,130,632	77.0%	2,565,316	9.6%
17	Tennessee	5,689,283	9	632,143	11.5	2.5	4,444,038	1,245,245	21.9%	5,689,283	78.1%	2,844,642	8.7%
18	Missouri	5,595,211	9	621,690	11.3	2.3	4,444,038	1,151,173	20.6%	5,595,211	79.4%	2,797,606	8.8%
19	Maryland	5,296,486	8	662,061	10.7	2.7	3,950,256	1,346,230	25.4%	5,296,486	74.6%	2,648,243	9.3%
20	Wisconsin	5,363,675	8	670,459	10.9	2.9	3,950,256	1,413,419	26.4%	5,363,675	73.6%	2,681,838	9.2%
21	Minnesota	4,919,479	8	614,935	10.0	2.0	3,950,256	969,223	19.7%	4,919,479	80.3%	2,459,740	10.0%
22	Colorado	4,301,261	7	614,466	8.7	1.7	3,456,474	844,787	19.6%	4,301,261	80.4%	2,150,631	11.5%
23	Alabama	4,447,100	7	635,300	9.0	2.0	3,456,474	990,626	22.3%	4,447,100	77.7%	2,223,550	11.1%
24	South Carolina	4,012,012	6	668,669	8.1	2.1	2,962,692	1,049,320	26.2%	4,012,012	73.8%	2,006,006	12.3%
25	Louisiana	4,468,976	7	638,425	9.1	2.1	3,456,474	1,012,502	22.7%	4,468,976	77.3%	2,234,488	11.0%
26	Kentucky	4,041,769	6	673,628	8.2	2.2	2,962,692	1,079,077	26.7%	4,041,769	73.3%	2,020,885	12.2%
27	Oregon	3,421,399	5	684,280	6.9	1.9	2,468,910	952,489	27.8%	3,421,399	72.2%	1,710,700	14.4%
28	Oklahoma	3,450,654	5	690,131	7.0	2.0	2,468,910	981,744	28.5%	3,450,654	71.5%	1,725,327	14.3%
29	Connecticut	3,405,565	5	681,113	6.9	1.9	2,468,910	936,655	27.5%	3,405,565	72.5%	1,702,783	14.5%
30	Iowa	2,926,324	5	585,265	5.9	0.9	2,468,910	457,414	15.6%	2,926,324	84.4%	1,463,162	16.9%
31	Mississippi	2,844,658	4	711,165	5.8	1.8	1,975,128	869,530	30.6%	2,844,658	69.4%	1,422,329	17.4%
32	Arkansas	2,673,400	4	668,350	5.4	1.4	1,975,128	698,272	26.1%	2,673,400	73.9%	1,336,700	18.5%
33	Kansas	2,688,418	4	672,105	5.4	1.4	1,975,128	713,290	26.5%	2,688,418	73.5%	1,344,209	18.4%
34	Utah	2,233,169	3	744,390	4.5	1.5	1,481,346	751,823	33.7%	2,233,169	66.3%	1,116,585	22.1%
35	Nevada	1,998,257	3	666,086	4.0	1.0	1,481,346	516,911	25.9%	1,998,257	74.1%	999,129	24.7%
36	New Mexico	1,819,046	3	606,349	3.7	0.7	1,481,346	337,700	18.6%	1,819,046	81.4%	909,523	27.1%
37	West Virginia	1,808,344	3	602,781	3.7	0.7	1,481,346	326,998	18.1%	1,808,344	81.9%	904,172	27.3%
38	Nebraska	1,711,263	3	570,421	3.5	0.5	1,481,346	229,917	13.4%	-	86.6%	855,632	28.9%
39	Idaho	1,293,953	2	646,977	2.6	0.6	987,564	306,389	23.7%	1,293,953	76.3%	646,977	38.2%
40	Hawaii	1,211,537	2	605,769	2.5	0.5	987,564	223,973	18.5%	-	81.5%	605,769	40.8%
41	Maine	1,274,923	2	637,462	2.6	0.6	987,564	287,359	22.5%	1,274,923	77.5%	637,462	38.7%
42	New Hampshire	1,235,786	2	617,893	2.5	0.5	987,564	248,222	20.1%	1,235,786	79.9%	617,893	40.0%
43	Rhode Island	1,048,319	2	524,160	2.1	0.1	987,564	60,755	5.8%	-	94.2%	524,160	47.1%
44	Montana	902,195	1	902,195	1.8	0.8	493,782	408,413	45.3%	902,195	54.7%	451,098	54.7%
45	Delaware	783,600	1	783,600	1.6	0.6	493,782	289,818	37.0%	783,600	63.0%	391,800	63.0%
46	South Dakota	754,844	1	754,844	1.5	0.5	493,782	261,062	34.6%	754,844	65.4%	377,422	65.4%
47	Alaska	626,932	1	626,932	1.3	0.3	493,782	133,150	21.2%	-	78.8%	313,466	78.8%
48	North Dakota	642,200	1	642,200	1.3	0.3	493,782	148,418	23.1%	-	76.9%	321,100	76.9%
49	Vermont	608,827	1	608,827	1.2	0.2	493,782	115,045	18.9%	-	81.1%	304,414	81.1%
50	District of Columbia	572,059	0										
50	Wyoming	493,782	1	493,782	1.0	0.0	493,782	-	0%	-	100.0%	246,891	100.0%

Observations & Comments:

- Other than Wyoming, 49 states are under-represented between 6% (Rhode Island) and 45% (Montana).
- Nationwide, 23.4% of Americans (66,054,677 of 281,421,906) were taxed without representation.
- 43 of the 50 states, or 97.5% of national population were under-represented by at least 0.5 seat, in a total of 133.8 seats in the House of Representatives.
- Among the 43 states, the top 4 states - CA, TX, NY & FL - were under-represented by 15.5, 10.2, 9.4 and 7.4 seats, respectively.
- In the Senate, residents' voting power in the other 49 states are worth as low as 1.5% of those in Wyoming, and supposed to be compensated by the equal representation in the House.
- Hence in terms of vote value at the Senate, residents of the top 4 states - CA, TX, NY & FL - are weighted only 1.5%, 2.4%, 2.6% and 3.1% of Wyomingite, respectively.

Appendix C

State-by-State Under-representation in the House of Representatives and Disparity per Senate Seat

Census Data as of 1990

https://en.wikipedia.org/wiki/1990_United_States_Census

1990	Total	248,709,873	435	571,747	547.0	112.0	197,310,780	50,792,193		239,023,269			
	Total %							20.4%		96.1%			
	Count									41			
	Max.			799,065	65.6	13.6	23,586,576		43.2%		100.0%	14,880,011	100.0%
	Min.			453,588	1.0	0.0	453,588		0.0%		56.8%	226,794	1.5%
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Index	State	Population 1990	# of House Seats Allocated	Population per House Seat Allocated	# of House Seats Entitled Based on WY Population	# of House Seats Deprived	Population Represented by the Seats Allocated based on WY Population	Population Taxed w/o Representation	Population Tw/oR %	States Under-represented by at least 0.5 seat	Vote Value per House Seat as % of WY	Population per Senate Seat	Disparity per Senate Seat
1	California	29,760,021	52	572,308	65.6	13.6	23,586,576	6,173,445	20.7%	29,760,021	79.3%	14,880,011	1.5%
2	New York	17,990,455	31	580,337	39.7	8.7	14,061,228	3,929,227	21.8%	17,990,455	78.2%	8,995,228	2.5%
3	Texas	16,986,510	30	566,217	37.4	7.4	13,607,640	3,378,870	19.9%	16,986,510	80.1%	8,493,255	2.7%
4	Florida	12,937,926	23	562,519	28.5	5.5	10,432,524	2,505,402	19.4%	12,937,926	80.6%	6,468,963	3.5%
5	Pennsylvania	11,881,643	21	565,793	26.2	5.2	9,525,348	2,356,295	19.8%	11,881,643	80.2%	5,940,822	3.8%
6	Illinois	11,430,602	20	571,530	25.2	5.2	9,071,760	2,358,842	20.6%	11,430,602	79.4%	5,715,301	4.0%
7	Ohio	10,847,115	19	570,901	23.9	4.9	8,618,172	2,228,943	20.5%	10,847,115	79.5%	5,423,558	4.2%
8	Michigan	9,295,297	16	580,956	20.5	4.5	7,257,408	2,037,889	21.9%	9,295,297	78.1%	4,647,649	4.9%
9	New Jersey	7,730,188	13	594,630	17.0	4.0	5,896,644	1,833,544	23.7%	7,730,188	76.3%	3,865,094	5.9%
10	North Carolina	6,626,637	12	552,386	14.6	2.6	5,443,056	1,185,581	17.9%	6,626,637	82.1%	3,314,319	6.8%
11	Georgia	6,478,216	11	588,929	14.3	3.3	4,989,468	1,488,748	23.0%	6,478,216	77.0%	3,239,108	7.0%
12	Virginia	6,187,358	11	562,487	13.6	2.6	4,989,468	1,197,890	19.4%	6,187,358	80.6%	3,093,679	7.3%
13	Massachusetts	6,016,425	10	601,643	13.3	3.3	4,535,880	1,480,545	24.6%	6,016,425	75.4%	3,008,213	7.5%
14	Indiana	5,544,159	10	554,416	12.2	2.2	4,535,880	1,008,279	18.2%	5,544,159	81.8%	2,772,080	8.2%
15	Missouri	5,117,073	9	568,564	11.3	2.3	4,082,292	1,034,781	20.2%	5,117,073	79.8%	2,558,537	8.9%
16	Wisconsin	4,891,769	9	543,530	10.8	1.8	4,082,292	809,477	16.5%	4,891,769	83.5%	2,445,885	9.3%
17	Tennessee	4,877,185	9	541,909	10.8	1.8	4,082,292	794,893	16.3%	4,877,185	83.7%	2,438,593	9.3%
18	Washington	4,866,692	9	540,744	10.7	1.7	4,082,292	784,400	16.1%	4,866,692	83.9%	2,433,346	9.3%
19	Maryland	4,781,468	8	597,684	10.5	2.5	3,628,704	1,152,764	24.1%	4,781,468	75.9%	2,390,734	9.5%
20	Minnesota	4,375,099	8	546,887	9.6	1.6	3,628,704	746,395	17.1%	4,375,099	82.9%	2,187,550	10.4%
21	Louisiana	4,219,973	7	602,853	9.3	2.3	3,175,116	1,044,857	24.8%	4,219,973	75.2%	2,109,987	10.7%
22	Alabama	4,040,587	7	577,227	8.9	1.9	3,175,116	865,471	21.4%	4,040,587	78.6%	2,020,294	11.2%
23	Kentucky	3,685,296	6	614,216	8.1	2.1	2,721,528	963,768	26.2%	3,685,296	73.8%	1,842,648	12.3%
24	Arizona	3,665,228	6	610,871	8.1	2.1	2,721,528	943,700	25.7%	3,665,228	74.3%	1,832,614	12.4%
25	South Carolina	3,486,703	6	581,117	7.7	1.7	2,721,528	765,175	21.9%	3,486,703	78.1%	1,743,352	13.0%
26	Colorado	3,294,394	6	549,066	7.3	1.3	2,721,528	572,866	17.4%	3,294,394	82.6%	1,647,197	13.8%
27	Connecticut	3,287,116	6	547,853	7.2	1.2	2,721,528	565,588	17.2%	3,287,116	82.8%	1,643,558	13.8%
28	Oklahoma	3,145,585	6	524,264	6.9	0.9	2,721,528	424,057	13.5%	3,145,585	86.5%	1,572,793	14.4%
29	Oregon	2,842,321	5	568,464	6.3	1.3	2,267,940	574,381	20.2%	2,842,321	79.8%	1,421,161	16.0%
30	Iowa	2,776,755	5	555,351	6.1	1.1	2,267,940	508,815	18.3%	2,776,755	81.7%	1,388,378	16.3%
31	Mississippi	2,573,216	5	514,643	5.7	0.7	2,267,940	305,276	11.9%	2,573,216	88.1%	1,286,608	17.6%
32	Kansas	2,477,574	4	619,394	5.5	1.5	1,814,352	663,222	26.8%	2,477,574	73.2%	1,238,787	18.3%
33	Arkansas	2,350,725	4	587,681	5.2	1.2	1,814,352	536,373	22.8%	2,350,725	77.2%	1,175,363	19.3%
34	West Virginia	1,793,477	3	597,826	4.0	1.0	1,360,764	432,713	24.1%	1,793,477	75.9%	896,739	25.3%
35	Utah	1,722,850	3	574,283	3.8	0.8	1,360,764	362,086	21.0%	1,722,850	79.0%	861,425	26.3%
36	Nebraska	1,578,385	3	526,128	3.5	0.5	1,360,764	217,621	13.8%	-	86.2%	789,193	28.7%
37	New Mexico	1,515,069	3	505,023	3.3	0.3	1,360,764	154,305	10.2%	-	89.8%	757,535	29.9%
38	Maine	1,227,928	2	613,964	2.7	0.7	907,176	320,752	26.1%	1,227,928	73.9%	613,964	36.9%
39	Nevada	1,201,833	2	600,917	2.6	0.6	907,176	294,657	24.5%	1,201,833	75.5%	600,917	37.7%
40	New Hampshire	1,109,252	2	554,626	2.4	0.4	907,176	202,076	18.2%	-	81.8%	554,626	40.9%
41	Hawaii	1,108,229	2	554,115	2.4	0.4	907,176	201,053	18.1%	-	81.9%	554,115	40.9%
42	Idaho	1,006,749	2	503,375	2.2	0.2	907,176	99,573	9.9%	-	90.1%	503,375	45.1%
43	Rhode Island	1,003,464	2	501,732	2.2	0.2	907,176	96,288	9.6%	-	90.4%	501,732	45.2%
44	Montana	799,065	1	799,065	1.8	0.8	453,588	345,477	43.2%	799,065	56.8%	399,533	56.8%
45	South Dakota	696,004	1	696,004	1.5	0.5	453,588	242,416	34.8%	696,004	65.2%	348,002	65.2%
46	Delaware	666,168	1	666,168	1.5	0.5	453,588	212,580	31.9%	-	68.1%	333,084	68.1%
47	North Dakota	638,800	1	638,800	1.4	0.4	453,588	185,212	29.0%	-	71.0%	319,400	71.0%
48	District of Columbia	606,900	0										
49	Vermont	562,758	1	562,758	1.2	0.2	453,588	109,170	19.4%	562,758	80.6%	281,379	80.6%
—	Alaska	550,043	1	550,043	1.2	0.2	453,588	96,455	17.5%	550,043	82%	275,022	82.5%
50	Wyoming	453,588	1	453,588	1.0	0.0	453,588	-	0%	-	100.0%	226,794	100.0%

Observations & Comments:

- Other than Wyoming, 49 states are under-represented between 10% (Rhode Island) and 43% (Montana).
- Nationwide, 20.4% of Americans (50,792,193 of 248,709,873) were taxed without representation.
- 41 of the 50 states, or 96.1% of national population were under-represented by at least 0.5 seat, in a total of 112 seats in the House of Representatives.
- Among the 39 states, the top 4 states - CA, TX, NY & FL - were under-represented by 13.6, 8.7, 7.4, and 5.5 seats, respectively.
- In the Senate, residents' voting power in the other 49 states are worth as low as 1.5% of those in Wyoming, and supposed to be compensated by the equal representation in the House.
- Hence in terms of vote value at the Senate, residents of the top 4 states - CA, TX, NY & FL - are weighted only 1.5%, 2.5%, 2.7% and 3.5% of Wyomingite, respectively.

Appendix D

State-by-State Allocation of Seats in House of Representatives

The Nearest Integer Proposal

Census Data as of 2017:		https://en.wikipedia.org/wiki/List_of_states_and_territories_of_the_United_States_by_population									
Index	State	Population 2017	# of House Reprs Allocated	Population / HouseRep	# of HR By Base Population	Population Tw/oR %	Rounded to the Nearest Integer	# of HR Added	Population / HouseRep	Population Under/Over Representation	Population Under/Over Representation %
	Total	325,719,178	435	744,903	579,315	44.9% -9.3%	561	126	1.1% -1.1%	3,585,339 -3,555,848	23% -33%
1	California	39,536,653	53	745,975	68.25	22.3%	68	15	581,421	143,233	0.4%
2	Texas	28,304,596	36	786,239	48.86	26.3%	49	13	577,645	(81,839)	-0.3%
3	Florida	20,984,400	27	777,200	36.22	25.5%	36	9	582,900	129,060	0.6%
4	New York	19,849,399	27	735,163	34.26	21.2%	34	7	583,806	152,689	0.8%
5	Illinois	12,802,023	18	711,224	22.10	18.5%	22	4	581,910	57,093	0.4%
6	Pennsylvania	12,805,537	18	711,419	22.10	18.6%	22	4	582,070	60,607	0.5%
7	Ohio	11,658,609	16	728,663	20.12	20.5%	20	4	582,930	72,309	0.6%
8	Georgia	10,429,379	14	744,956	18.00	22.2%	18	4	579,410	1,709	0.0%
9	North Carolina	10,273,419	13	790,263	17.73	26.7%	18	5	570,746	(154,251)	-1.5%
10	Michigan	9,962,311	14	711,594	17.20	18.6%	17	3	586,018	113,956	1.1%
11	New Jersey	9,005,644	12	750,470	15.55	22.8%	16	4	562,853	(263,396)	-2.9%
12	Virginia	8,470,020	11	770,002	14.62	24.8%	15	4	564,668	(219,705)	-2.6%
13	Washington	7,405,743	10	740,574	12.78	21.8%	13	3	569,673	(125,352)	-1.7%
14	Arizona	7,016,270	9	779,586	12.11	25.7%	12	3	584,689	64,490	0.9%
15	Massachusetts	6,859,819	9	762,202	11.84	24.0%	12	3	571,652	(91,961)	-1.3%
16	Tennessee	6,715,984	9	746,220	11.59	22.4%	12	3	559,665	(235,796)	-3.5%
17	Indiana	6,666,818	9	740,758	11.51	21.8%	12	3	555,568	(284,962)	-4.3%
18	Missouri	6,113,532	8	764,192	10.55	24.2%	11	3	555,776	(258,933)	-4.2%
19	Maryland	6,052,177	8	756,522	10.45	23.4%	10	2	605,218	259,027	4.3%
20	Wisconsin	5,795,483	8	724,435	10.00	20.0%	10	2	579,548	2,333	0.0%
21	Colorado	5,607,154	7	801,022	9.68	27.7%	10	3	560,715	(185,996)	-3.3%
22	Minnesota	5,576,606	8	697,076	9.63	16.9%	10	2	557,661	(216,544)	-3.9%
23	South Carolina	5,024,369	7	717,767	8.67	19.3%	9	2	558,263	(189,466)	-3.8%
24	Alabama	4,874,747	7	696,392	8.41	16.8%	8	1	609,343	240,227	4.9%
25	Louisiana	4,684,333	6	780,722	8.09	25.8%	8	2	585,542	49,813	1.1%
26	Kentucky	4,454,189	6	742,365	7.69	22.0%	8	2	556,774	(180,331)	-4.0%
27	Oregon	4,142,776	5	828,555	7.15	30.1%	7	2	591,825	87,571	2.1%
28	Oklahoma	3,930,864	5	786,173	6.79	26.3%	7	2	561,552	(124,341)	-3.2%
29	Connecticut	3,588,184	5	717,637	6.19	19.3%	6	1	598,031	112,294	3.1%
30	Iowa	3,145,711	4	786,428	5.43	26.3%	5	1	629,142	249,136	7.9%
31	Utah	3,101,833	4	775,458	5.35	25.3%	5	1	620,367	205,258	6.6%
32	Mississippi	2,984,100	4	746,025	5.15	22.3%	5	1	596,820	87,525	2.9%
33	Arkansas	3,004,279	4	751,070	5.19	22.9%	5	1	600,856	107,704	3.6%
34	Nevada	2,998,039	4	749,510	5.18	22.7%	5	1	599,608	101,464	3.4%
35	Kansas	2,913,123	4	728,281	5.03	20.5%	5	1	582,625	16,548	0.6%
36	New Mexico	2,088,070	3	696,023	3.60	16.8%	4	1	522,018	(229,190)	-11.0%
37	Nebraska	1,920,076	3	640,025	3.31	9.5%	3	0	640,025	182,131	9.5%
38	West Virginia	1,815,857	3	605,286	3.13	4.3%	3	0	605,286	77,912	4.3%
39	Idaho	1,716,943	2	858,472	2.96	32.5%	3	1	572,314	(21,002)	-1.2%
40	Hawaii	1,427,538	2	713,769	2.46	18.8%	2	0	713,769	268,908	18.8%
41	New Hampshire	1,342,795	2	671,398	2.32	13.7%	2	0	671,398	184,165	13.7%
42	Maine	1,335,907	2	667,954	2.31	13.3%	2	0	667,954	177,277	13.3%
43	Rhode Island	1,059,639	2	529,820	1.83	-9.3%	2	0	529,820	(98,991)	-9.3%
44	Montana	1,050,493	1	1,050,493	1.81	44.9%	2	1	525,247	(108,137)	-10.3%
45	Delaware	961,939	1	961,939	1.66	39.8%	2	1	480,970	(196,691)	-20.4%
46	South Dakota	869,666	1	869,666	1.50	33.4%	2	1	434,833	(288,964)	-33.2%
47	North Dakota	755,393	1	755,393	1.30	23.3%	1	0	755,393	176,078	23.3%
48	Alaska	739,795	1	739,795	1.28	21.7%	1	0	739,795	160,480	21.7%
49	District of Columbia	693,972									
50	Vermont	623,657	1	623,657	1.08	7.1%	1	0	623,657	44,342	7.1%
51	Wyoming	579,315	1	579,315	1.00	0.0%	1	0	579,315	-	0.0%
Comments											
1	Currently variances in representation range from under 45% to over 9%, clearly neither equitable nor constitutional.										
2	Wyoming has the least population, hence 579,315 is the divisor.										
3	Each state population divides by the divisor. For example, NY opulation (19,849,399)/(579,315)=34.26										
4	The quotient then rounds to the nearest integer. For example, NY's quotient 34.26 rounds to 34.										
5	Hence NY's number of seats would increase from 27 to 34, then its under-representation by 21.2% would be improved to 0.8%.										
6	This "Nearest Integer" approach will add 126 additional seats to a total of 561, reduce under-representation to < 5% for the top 29 populous states.										
7	However, representation for many less populous states remains unfair. For example, North Dakota still under-represented by 23.3%.										
8	Meanwhile, South Dakota goes from under-represented 33.4% to over-represented 33.2%.										
9	Also worth noted, Rhode Island remains over-represented at 9.3%, while Alaska under-represented at 21.7%.										
10	Under this proposal, nationwide 3,585,339 (1.1%) of Americans are under-represented while 3,555,848 (1.1%) over-represented.										
11	Under this proposal, variances in representation range from under 23% to over 33%, clearly still neither equitable nor constitutional.										

Appendix E

State-by-State Allocation of Seats in House of Representatives The Nearest Tenth Digit Proposal

Census Data as of 2017:		https://en.wikipedia.org/wiki/List_of_states_and_territories_of_the_United_States_by_population										
Total		325,719,178	435	744,903	579,315	44.9% -9.3%	561.1 542	497 497	64.1 45	0.1% -0.1%	311,867 -340,308	1.6% -2.4%
Index	State	Population 2017	# of House Reps Allocated	Population / HouseRep	# of HR By Base Population	Population TwioR %	Rounded to the Nearest Tenth Digit	# of Members with 1 Vote	# of Members with 1.1-1.9 Vote	Population / HouseRep	Population Under/Over Representation	Population Under/Over Representation %
1	California	39,536,653	53	745,975	68.247	22.3%	68.20	67	1.2	579,716	27,370	0.1%
2	Texas	28,304,596	36	786,239	48.859	26.3%	48.90	47	1.9	578,826	(23,908)	-0.1%
3	Florida	20,984,400	27	777,200	36.223	25.5%	36.20	35	1.2	579,680	13,197	0.1%
4	New York	19,849,399	27	735,163	34.264	21.2%	34.30	33	1.3	578,700	(21,106)	-0.1%
5	Illinois	12,802,023	18	711,224	22.099	18.5%	22.10	21	1.1	579,277	(839)	0.0%
6	Pennsylvania	12,805,537	18	711,419	22.105	18.6%	22.10	21	1.1	579,436	2,676	0.0%
7	Ohio	11,658,609	16	728,663	20.125	20.5%	20.10	19	1.1	580,030	14,378	0.1%
8	Georgia	10,429,379	14	744,956	18.003	22.2%	18.00	18	0.0	579,410	1,709	0.0%
9	North Carolina	10,273,419	13	790,263	17.734	26.7%	17.70	16	1.7	580,419	19,544	0.2%
10	Michigan	9,962,311	14	711,594	17.197	18.6%	17.20	16	1.2	579,204	(1,907)	0.0%
11	New Jersey	9,005,644	12	750,470	15.545	22.8%	15.50	14	1.5	581,009	26,262	0.3%
12	Virginia	8,470,020	11	770,002	14.621	24.8%	14.60	13	1.6	580,138	12,021	0.1%
13	Washington	7,405,743	10	740,574	12.784	21.8%	12.80	11	1.8	578,574	(9,489)	-0.1%
14	Arizona	7,016,270	9	779,586	12.111	25.7%	12.10	11	1.1	579,857	6,559	0.1%
15	Massachusetts	6,859,819	9	762,202	11.841	24.0%	11.80	10	1.8	581,341	23,902	0.3%
16	Tennessee	6,715,984	9	746,220	11.593	22.4%	11.60	10	1.6	578,964	(4,070)	-0.1%
17	Indiana	6,666,818	9	740,758	11.508	21.8%	11.50	10	1.5	579,723	4,696	0.1%
18	Missouri	6,113,532	8	764,192	10.553	24.2%	10.60	9	1.6	576,748	(27,207)	-0.4%
19	Maryland	6,052,177	8	756,522	10.447	23.4%	10.40	9	1.4	581,940	27,301	0.5%
20	Wisconsin	5,795,483	8	724,435	10.004	20.0%	10.00	10	0.0	579,548	2,333	0.0%
21	Colorado	5,607,154	7	801,022	9.679	27.7%	9.70	8	1.7	578,057	(12,202)	-0.2%
22	Minnesota	5,576,606	8	697,076	9.626	16.9%	9.60	8	1.6	580,896	15,182	0.3%
23	South Carolina	5,024,369	7	717,767	8.673	19.3%	8.70	7	1.7	577,514	(16,672)	-0.3%
24	Alabama	4,874,747	7	696,392	8.415	16.8%	8.40	7	1.4	580,327	8,501	0.2%
25	Louisiana	4,684,333	6	780,722	8.086	25.8%	8.10	7	1.1	578,313	(8,119)	-0.2%
26	Kentucky	4,454,189	6	742,365	7.689	22.0%	7.70	6	1.7	578,466	(6,537)	-0.1%
27	Oregon	4,142,776	5	828,555	7.151	30.1%	7.20	6	1.2	575,386	(28,292)	-0.7%
28	Oklahoma	3,930,864	5	786,173	6.785	26.3%	6.80	5	1.8	578,068	(8,478)	-0.2%
29	Connecticut	3,588,184	5	717,637	6.194	19.3%	6.20	5	1.2	578,739	(3,569)	-0.1%
30	Iowa	3,145,711	4	786,428	5.430	26.3%	5.40	4	1.4	582,539	17,410	0.6%
31	Utah	3,101,833	4	775,458	5.354	25.3%	5.40	4	1.4	574,414	(26,468)	-0.9%
32	Mississippi	2,984,100	4	746,025	5.151	22.3%	5.20	4	1.2	573,865	(28,338)	-0.9%
33	Arkansas	3,004,279	4	751,070	5.186	22.9%	5.20	4	1.2	577,746	(8,159)	-0.3%
34	Nevada	2,998,039	4	749,510	5.175	22.7%	5.20	4	1.2	576,546	(14,399)	-0.5%
35	Kansas	2,913,123	4	728,281	5.029	20.5%	5.00	5	0.0	582,625	16,548	0.6%
36	New Mexico	2,088,070	3	696,023	3.604	16.8%	3.60	2	1.6	580,019	2,536	0.1%
37	Nebraska	1,920,076	3	640,025	3.314	9.5%	3.30	2	1.3	581,841	8,337	0.4%
38	West Virginia	1,815,857	3	605,286	3.134	4.3%	3.10	2	1.1	585,760	19,981	1.1%
39	Idaho	1,716,943	2	858,472	2.964	32.5%	3.00	3	0.0	572,314	(21,002)	-1.2%
40	Hawaii	1,427,538	2	713,769	2.464	18.8%	2.50	1	1.5	571,015	(20,750)	-1.5%
41	New Hampshire	1,342,795	2	671,398	2.318	13.7%	2.30	1	1.3	583,824	10,371	0.8%
42	Maine	1,335,907	2	667,954	2.306	13.3%	2.30	1	1.3	580,829	3,483	0.3%
43	Rhode Island	1,059,639	2	529,820	1.829	-9.3%	1.80	0	1.8	588,688	16,872	1.6%
44	Montana	1,050,493	1	1,050,493	1.813	44.9%	1.80	0	1.8	583,607	7,726	0.7%
45	Delaware	961,939	1	961,939	1.660	39.8%	1.70	0	1.7	565,846	(22,897)	-2.4%
46	South Dakota	869,666	1	869,666	1.501	33.4%	1.50	0	1.5	579,777	694	0.1%
47	North Dakota	755,393	1	755,393	1.304	23.3%	1.30	0	1.3	581,072	2,284	0.3%
48	Alaska	739,795	1	739,795	1.277	21.7%	1.30	0	1.3	569,073	(13,315)	-1.8%
49	District of Columbia	693,972										
50	Vermont	623,657	1	623,657	1.077	7.1%	1.10	0	1.1	566,961	(13,590)	-2.2%
51	Wyoming	579,315	1	579,315	1.000	0.0%	1.00	1	0.0	579,315	-	0.0%

Comments

- 1 Wyoming has the least population, hence 579,315 is the divisor.
- 2 Each state population divides by the divisor. For example, NY population (19,849,399) / (579,315) = 34.264.
- 3 The quotient rounds to the nearest tenth digit. For example, NY's quotient 34.264 rounds to 34.3
- 4 NY's number of seats increases from currently 27 to 34.3, i.e. 33 members have 1 vote each, the 34th member has a vote of 1.3 from a larger district.
- 5 Under this proposal, all significant unequal representations remained in the first proposal are practically resolved.
- 6 Montana from under 44.9% to under 0.7%, North Dakota from under 23.3% to under 0.3%, Alaska from under 21.7% to under over 1.8%.
- 7 South Dakota from under 33.4% to over under 0.1%, while Rhode Island from over 9.3% to under 1.6%.
- 8 Under this proposal, only 107 additional members will be added to the current 435-body.
- 9 The 542 members will have a total vote of "561.1" with "280.6" being the simple majority.
- 10 Among the 542 members, 497 have 1 vote each, and 45 have a vote of 1.1 to 1.9, representing a larger district from one of the big cities in each state
- 11 Under this proposal, nationwide 311,867 (0.1%) of Americans are under-represented while 340,308 (0.1%) over-represented.
- 12 Under this proposal, the variance of representation ranges from under 1.6% to over 2.4%, within +/-3%, a near precision.