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## **The Impact of *Evenwel*: How Using Voters Instead of People Would Dramatically Change Redistricting**

*Michael Li and Eric Petry*

A big upheaval could be coming for America's state legislatures. On December 8, the Supreme Court will hear oral argument in [\*Evenwel v. Abbott\*](#), a closely watched case from Texas that will decide whether states must change the way they draw legislative districts. The new analysis in this paper shows that if the *Evenwel* challengers prevail, the nationwide impact will be far greater than previously assumed.

Like other states, Texas currently draws districts so they contain a roughly equal number of people rather than voters. Indeed, over the course of American history districts have overwhelmingly been drawn this way. But the *Evenwel* challengers say Texas's legislative plans are unconstitutional because while districts may contain approximately the same number of *people*, many vary widely in the number of eligible *voters*.

So far, a lot of the attention around the case has focused on how changing the way districts are drawn would impact fast-growing Latino communities in certain states. And to be sure, some of the biggest changes would be in booming metro areas, such as Dallas, Houston, and Los Angeles, which have high numbers of both children and non-citizen immigrants. Latino majority districts, in particular, would become much harder to draw in many parts of the country.

But this new Brennan Center analysis shows the impact of a change would be far greater than expected and not confined to just a few states. In fact, if the *Evenwel* plaintiffs win and the rules are changed so lines must be drawn based on citizen voting age population instead of total population:

- Every state legislative map in the country would become presumptively unconstitutional under Equal Protection principles and would need to be redrawn.
- Nationwide, 21.3 percent of state house seats and 16.7 percent of state senate seats would be presumptively unconstitutional. In eight states, the percentage of house or senate districts with constitutional problems would be more than 40 percent.
- Redrawing maps to comply with constitutional requirements would require changing far more districts because of cascade effects from changes elsewhere on the map.

## Measuring the Impact

To understand the extent of the impact, it is helpful to start with a few basics about the rules on the permissible size differentiation in state legislative districts.

Unlike congressional redistricting, state legislative districts do not have to have exactly the same number of people under the Constitution's Equal Protection Clause. Instead, a line of Supreme Court cases since the 1970s has allowed the size of legislative districts to vary somewhat from pure equality.

To measure whether variations go beyond constitutionally acceptable bounds, courts use two bright-line benchmarks. The first of these is the 10 percent “top-to-bottom” rule, which looks at how much the largest and smallest districts in a plan differ (“deviate” in redistricting lingo) from a hypothetical district with exactly the right number of people.

If the deviations of the largest and the smallest districts add up to more than 10 percent, a plan is presumed to be unconstitutional but still can be defended by the state, up to a deviation of 16.4 percent. If the deviation of a plan is greater than 16.4 percent, (the second bright-line benchmark) a plan is — with very rare exception — deemed to be per se unconstitutional.

Unconstitutional deviations can arise from a single district that is extremely imbalanced or from a group of moderately imbalanced districts that, in aggregate, push a district plan beyond constitutional benchmarks. A district, for example, that is 20 percent larger than the ideal district would make a map unconstitutional even if all the other districts had perfectly equal populations. Likewise, a legislative plan with one district 6 percent larger than the ideal and another 7 percent smaller than the ideal would have a total deviation of 13 percent and also would be presumptively unconstitutional.

## A Nationwide Upheaval

To evaluate the effect of changing to an eligible voter apportionment, we started by looking at the gap between the largest and smallest districts on the map using each district's citizen voting age population (CVAP) — one of the eligible voter metrics suggested by the plaintiffs in *Evenwel*.

What we found was that every state legislative map in use today would become presumptively unconstitutional, assuming that the Supreme Court does not change any of the current legal benchmarks.

**Table 1: Top-to-bottom deviation for each legislative chamber using Citizen Voting Age Population. Supreme Court has ruled deviation should not exceed 10 percent.\***

State	House	Senate	State	House	Senate
Alabama	29%	11%	Montana	82%	56%
Alaska	29%	23%	Nebraska†	-	36%
Arizona	47%	47%	Nevada	65%	55%
Arkansas	59%	33%	New Hampshire	49%	16%
California	60%	20%	New Jersey	37%	37%
Colorado	50%	31%	New Mexico	52%	46%
Connecticut	49%	35%	New York	70%	54%
Delaware	34%	27%	North Carolina	34%	29%
Florida	61%	40%	North Dakota	29%	29%
Georgia	67%	47%	Ohio	25%	17%
Hawaii	61%	45%	Oklahoma	64%	37%
Idaho	31%	31%	Oregon	50%	33%
Illinois	62%	54%	Pennsylvania	45%	26%
Indiana	33%	22%	Rhode Island	63%	51%
Iowa	31%	22%	South Carolina	28%	22%
Kansas	117%	55%	South Dakota	29%	26%
Kentucky	60%	31%	Tennessee	32%	18%
Louisiana	31%	17%	Texas	63%	43%
Maine	41%	16%	Utah	55%	37%
Maryland	75%	46%	Vermont	50%	18%
Massachusetts	56%	28%	Virginia	36%	33%
Michigan	38%	21%	Washington	48%	48%
Minnesota	39%	29%	West Virginia	31%	18%
Mississippi	32%	24%	Wisconsin	66%	32%
Missouri	47%	20%	Wyoming	32%	18%

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\* See Methodology section for a discussion of Hawaii, Kansas, Maryland, and New York.

† Nebraska unicameral legislature consisting of only the Nebraska senate.

In some states, these unconstitutional deviations result from a handful of districts, but as explained below, in many states, the scale of the problem is far greater.

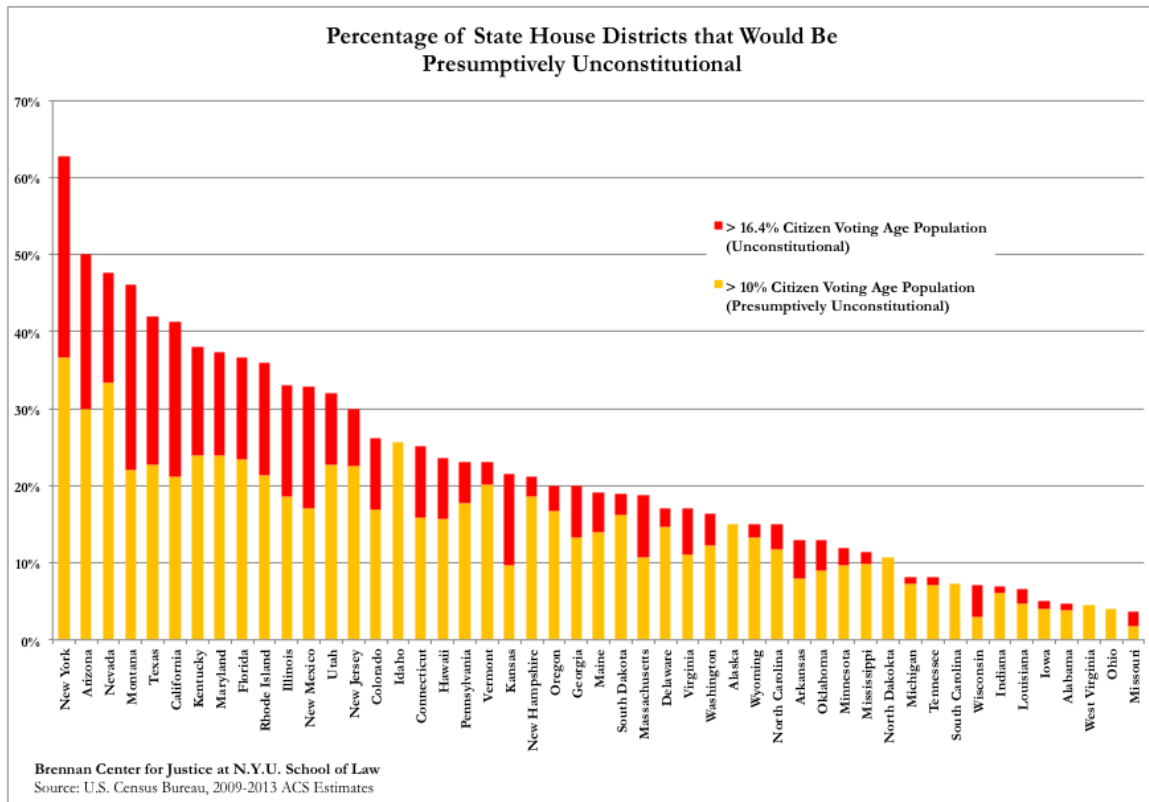
## A Large Number of Impacted Districts

In many parts of the country, bringing maps into compliance will be a significant challenge because of the large number of districts affected.

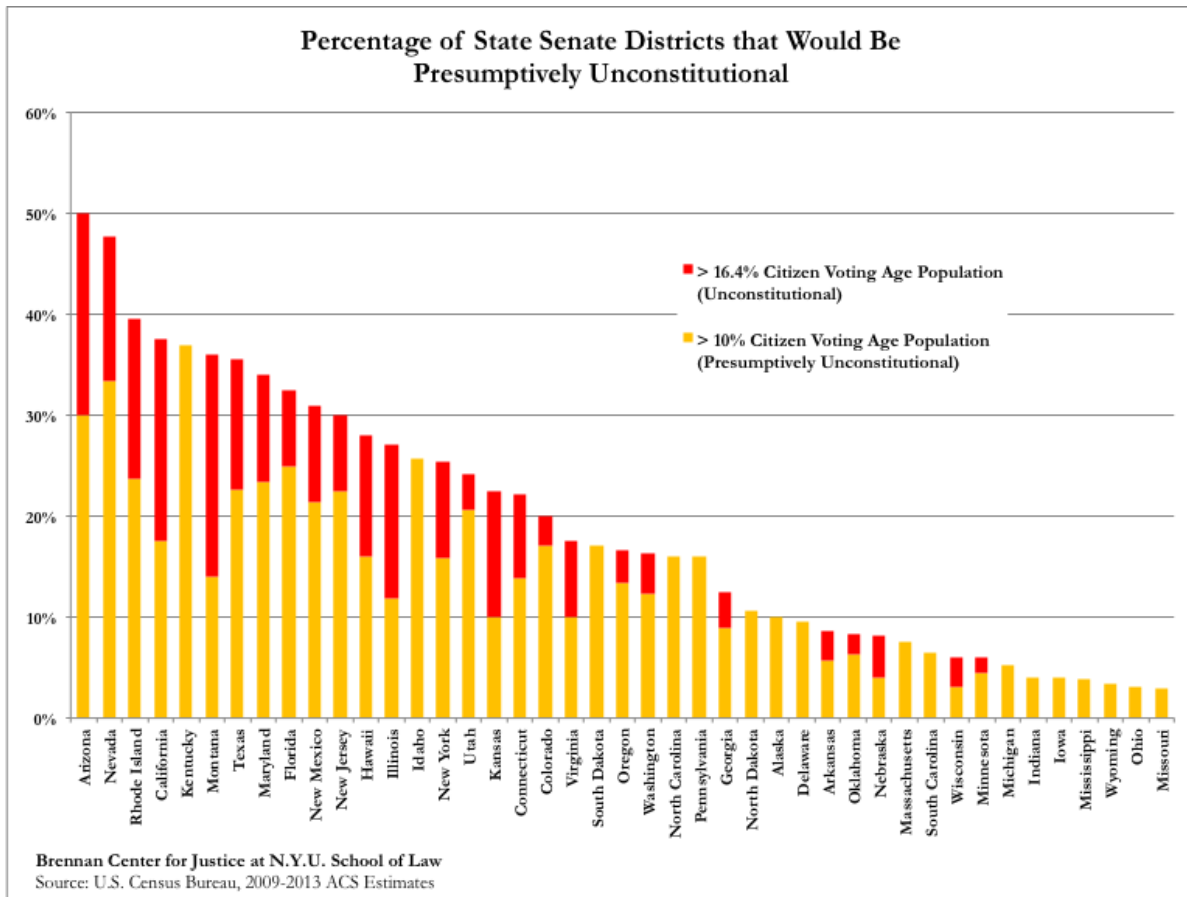
### High Deviation Districts

To start, 1,021 of the nation’s 4,785 state house districts (21.3 percent) and 323 of 1,938 state senate districts (16.7 percent) have citizen voting age population variances greater than 10 percent and would be presumptively unconstitutional. Of these, 343 house districts (7.2 percent) and 95 (4.9 percent) senate districts have a deviation of more than 16.4 percent, indicating a severe constitutional problem.

Nor are these high-deviation districts confined to just a few parts of the country. To be sure, states with large Latino populations, like Texas and California, are among the most affected, but a large number of districts outside of those states also would have to be redrawn. In Montana, for example, more than 40 percent of the house seats are significantly over or underpopulated. In Maryland and Kentucky, the figure is 37 percent and 38 percent, respectively.



The analysis shows a similar pattern in state senates.



Only the senates of Alabama, Louisiana, Maine, New Hampshire, Tennessee, Vermont, and West Virginia do not have any high deviation districts.

### Moderate Deviation Districts

Moreover, it is not just high deviation districts that will need to change.

Because it is not just individual districts, but a legislative plan as a whole that must comply with the 10 percent top-to-bottom rule, additional adjustments will have to be made in every state to make sure the variance between the largest and smallest districts does not exceed the 10 percent constitutional benchmark.

As the charts below show, there are a significant number of districts that are over- or under-populated on a CVAP basis by 5 to 10 percent. Many, if not all, would need to be adjusted to ensure that deviation of the largest and the smallest districts does not add up to be more than 10 percent.

**Table 2: Number of state house districts that deviate >5 to 10 percent from the ideal Citizen Voting Age Population.<sup>‡</sup>**

State	>5-10% Above	>5-10% Below	Districts in State	State	>5-10% Above	>5-10% Below	Districts in State
Alabama	10	9	105	Montana	10	16	100
Alaska	6	8	40	Nevada	10	3	42
Arizona	6	3	30	New Hampshire	28	22	161
Arkansas	23	11	100	New Jersey	6	8	40
California	17	7	80	New Mexico	17	10	70
Colorado	13	8	65	New York	17	5	150
Connecticut	40	13	151	North Carolina	26	14	120
Delaware	4	6	41	North Dakota	8	5	47
Florida	32	12	120	Ohio	11	11	99
Georgia	38	22	180	Oklahoma	11	2	101
Hawaii	8	9	51	Oregon	12	6	60
Idaho	6	7	35	Pennsylvania	29	38	203
Illinois	30	10	118	Rhode Island	12	3	75
Indiana	12	8	100	South Carolina	11	19	124
Iowa	8	8	100	South Dakota	3	4	37
Kansas	20	19	125	Tennessee	15	15	99
Kentucky	7	21	100	Texas	32	14	150
Louisiana	12	17	105	Utah	12	8	75
Maine	23	26	151	Vermont	16	20	104
Maryland	14	6	67	Virginia	27	14	100
Massachusetts	30	16	160	Washington	7	7	49
Michigan	16	15	110	West Virginia	12	15	67
Minnesota	19	15	134	Wisconsin	10	7	99
Mississippi	16	22	122	Wyoming	9	4	60
Missouri	19	11	163				

<sup>‡</sup> Some states use multimember districts. The overall number of districts in Table 2 and Table 3 reflects the number of districts, not the number of legislators. Nebraska does not have a state house.

**Table 3: Number of state senate districts that deviate >5 to 10% from the ideal Citizen Voting Age Population.**

State	>5-10% Above	>5-10% Below	Districts in State	State	>5-10% Above	>5-10% Below	Districts in State
Alabama	1	1	35	Montana	9	11	50
Alaska	3	3	20	Nebraska	8	6	49
Arizona	6	3	30	Nevada	7	1	21
Arkansas	9	4	35	New Hampshire	2	3	24
California	9	3	40	New Jersey	6	8	40
Colorado	6	6	35	New Mexico	8	5	42
Connecticut	5	5	36	New York	19	5	63
Delaware	5	6	21	North Carolina	6	10	50
Florida	13	4	40	North Dakota	8	5	47
Georgia	11	8	56	Ohio	2	3	33
Hawaii	4	6	25	Oklahoma	2	3	48
Idaho	6	7	35	Oregon	6	3	30
Illinois	17	5	59	Pennsylvania	9	11	50
Indiana	4	2	50	Rhode Island	8	1	38
Iowa	2	4	50	South Carolina	3	8	46
Kansas	6	2	40	South Dakota	3	4	35
Kentucky	3	8	38	Tennessee	2	4	33
Louisiana	4	3	39	Texas	5	3	31
Maine	4	4	35	Utah	2	4	29
Maryland	9	3	47	Vermont	4	2	13
Massachusetts	7	8	40	Virginia	11	2	40
Michigan	5	2	38	Washington	7	7	49
Minnesota	12	6	67	West Virginia	3	2	17
Mississippi	6	4	52	Wisconsin	4	2	33
Missouri	5	2	34	Wyoming	3	5	30

In fact, the number of affected districts could be even higher. That is because it is almost invariably hard to avoid a cascade effect from changes made in one part of a map. Thus, a district with only a small deviation (or no deviation at all) might need to change to help fix problems elsewhere on the map.

In some cases, the adjustments needed to a particular district might be relatively small. However, even minor changes in the district's boundaries can have significant political impact, affecting everything from the ability of minority communities to elect their candidates of choice to the result in party primaries.

## Methodology

### Data

The once a decade U.S. Census does not ask questions about citizenship or voter eligibility, and data reliability is one of the significant issues that will need to be addressed if states are ordered by courts to apportion using citizen voting age population.

As a substitute for non-existent Census citizenship data, we used legislative district estimates of citizen voting-age population from the Census Bureau's American Community Survey (ACS), one of the measures that the *Evenwel* plaintiffs have suggested could be used as a proxy for eligible voters, to gauge how many districts would be impacted. These estimates reflect the allocation of citizen voting-age population under protocols developed by the Census Bureau where Census block groups were split by district lines.

ACS citizenship data in the Census Bureau's legislative district estimates is based on a five-year average. We did not weight or modify the data. Because growth rates in certain communities may have been uneven over that five-year period, the five-year average may understate or overstate the population in communities depending on their relative growth rates in recent years.

Two further caveats about citizenship data from the ACS are in order. First, unlike the U.S. Census, where an effort is made to count everyone, the ACS surveys 2.5 percent of the American population annually and asks a variety of questions, including about citizenship. However, because the ACS relies on a sample, citizenship figures contain a margin of error that is not present with total population figures derived from the decennial U.S. Census. In some cases, the margin of error equals or exceeds the reported deviation. Thus, the number of affected seats could vary somewhat if more granular block-level citizenship data were to become available. In addition, since Census block groups were split in some instances, the allocation of citizen voting-age population between split block groups is necessarily approximate because citizen voting-age population data is not available at the sub-block group level. More granular block-level citizenship data thus also might affect the reported results somewhat.

For purposes of this analysis, we assumed that a state legislature, redistricting commission, or court considering the constitutionality of legislative maps in light of a mandate to apportion using eligible voters would use the most current data set and thus used the [2009-2013 ACS estimates](#) rather than the 2006-10 data that would have been available to mapdrawers in 2011.



## Calculations

We began by figuring out the ideal CVAP population of a district, *i.e.*, the population if every district had precisely the same number of adult citizens. The next step was to calculate the percentage by which actual districts vary from that ideal. For example, if the ideal population is 100 and the largest actual district has 106 people, the deviation of the district would be +6 percent. Likewise, in this example, if the smallest district had 97 people, it would have a deviation of -3 percent. After the deviations of every district is calculated, the deviations of the largest and smallest districts are added together to arrive at the total “top-to-bottom” deviation of a plan. In the example above, the top-to-bottom deviation would be 9 percent (6 percent + 3 percent), and, because that is less than 10 percent, the plan would be presumptively constitutional.

Note 1: Two states (Hawaii and Kansas) exclude non-permanent residents from their apportionment bases. The CVAP data used for this analysis includes some people that both states would choose to exclude. Two additional states (Maryland and New York) count incarcerated prisoners as residents of their pre-incarceration communities rather than the community where they are incarcerated. Because the citizenship status of incarcerated persons in those states is not known, this analysis does not reflect the reallocation of incarcerated persons in those states and, thus, the CVAP deviations in certain districts in those two states could be higher or lower.

Note 2: Five states (Maryland, New Hampshire, South Dakota, Vermont, and West Virginia) have multi-member house districts that elect varying numbers of legislators based on population. One state (Vermont) uses the same district structure for the state senate. To calculate ideal CVAP population for these districts, we found the ideal CVAP population per legislative seat and multiplied it by the number of legislators elected from each district.

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