

Whatever the need may be, to divide large counties among multiple legislative districts in order to keep them nearly equal in size, this need is not present for smaller Upstate counties. This map is a mathematic proof of this, showing that it is possible to keep every county, city, and town with a population under 320,655 undivided, and almost all villages, without skirting any of the other Constitutional criteria the IRC must follow.

There are 40 State Senate districts in the “Plan A” proposal submitted by the Independent Redistricting Commission that reach through the middle of Westchester County (numbered 1-37,39, and 40). These have a combined population of 12,519,302. There is no attempt here to re-define the boundaries of any of these “40 Downstate Plan A districts.” The remainder of Upstate NY has a 2020 population of 7,681,947. This corresponds to 23.957 times the average Senate district size (320,655, or 1/63 of the state’s population). The Upstate Senate Districting plan here defines 24 State Senate districts for this Upstate population.

North of Westchester, there are only 5 Upstate counties with populations entitling them to over one full State Senate district: Erie (almost exactly 3 full districts); Monroe (2.37); Onondaga (1.486); Orange (1.25), and Rockland (1.05). All the remaining 50 counties have fewer than 320,655 inhabitants in the 2020 census. If, as the NY Constitution mandates, Onondaga and Orange Counties were each left undivided as a single Senate district, or if Monroe County were divided into 2 equal districts, this would result in a district over 18% larger than the standard district size. These deviations appear to me likely to be violations of the “one-man, one-vote” principle laid out in Reynolds v. Sims. That is, this landmark court ruling might be used to justify the division of these 3 counties—but in my opinion, no more.

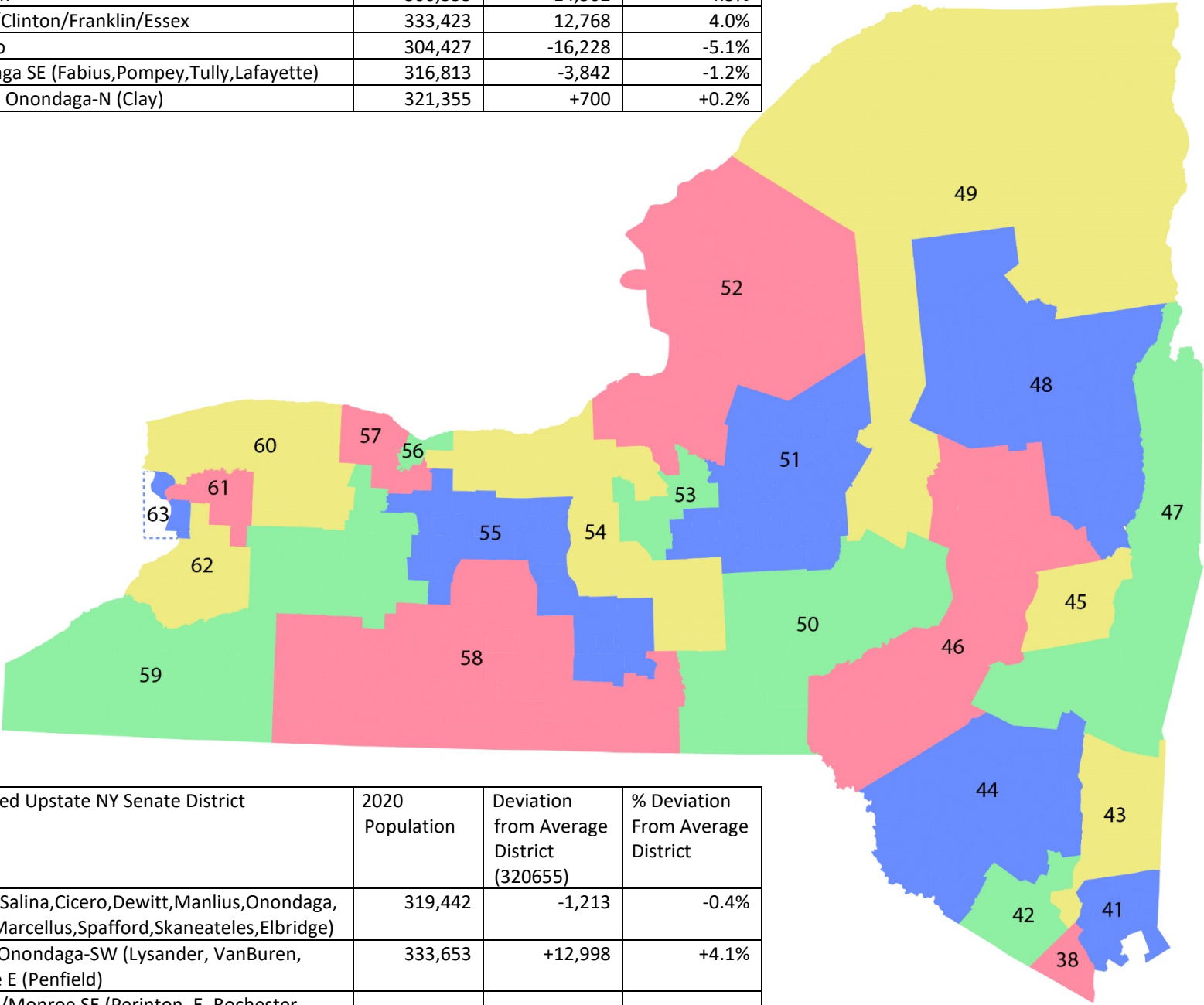
The district map below shows that by dividing only Monroe, Onondaga, and Orange, it is possible to avoid population imbalances greater than 5.5% above or 5.1% below ideal. The district with the most is Rockland County by itself. There is no good justification for dividing it; 105.5% of average is hardly an outrageous deviation. The ratio of the populations of the largest and smallest districts in this map is 338,329/304,427 or 1.111. A mere 11% discrepancy between largest and smallest populations in State Senate districts is not a self-evident violation of one-man, one-vote principle as elaborated in a US Supreme Court decision (Reynolds v. Sims).

The districting below furthermore divides *no Upstate city or town*. None of these has a population greater than 320,655. This is important for creating Senate districts with nonwhite majorities in Syracuse, Rochester, and Buffalo. On the other hand, the need to create such districts where possible is a justification for dividing Monroe and Onondaga counties: It better allows groups that have traditionally experienced voting-rights discrimination to gain fair representation in the NY Senate.

There are a few remaining features of this districting map that are slightly concerning, but unavoidable if counties are not to be divided unnecessarily:

- 1) The “excess populations” of Monroe, Onondaga, and Orange counties (over their populations that form integer numbers of districts) are each divided among 3, 3, and 2 neighboring Senate districts, respectively, rather than just 1 each. This means that the Boards of Elections in these 3 counties must each track 1 or 2 more State Senate races than the minimum necessary; and voters’ identities in these 3 counties are divided more than the minimum necessary to achieve equal-sized districts. So far, I have not found an Upstate Senate districting map that reduces this problem further, without also leading to significantly more unequal district sizes.
- 2) District 63, which contains the whole of Buffalo, plus the towns of Lackawanna and Grand Island, stretches to the limit the definition of “contiguous”. However, any town consisting of a single island is, by any strict definition, non-contiguous with any other jurisdiction. The only jurisdictions in Erie County that are “more” contiguous with Grand Island than Buffalo would be Tonawanda Town and Tonawanda City. I could not come up with an equal 3-way division of Erie County that keeps the City of Buffalo intact in a single district, and that also groups Grand Island with either of the Tonawanda jurisdictions. If one is found, I would consider it superior to the district map below.
- 3) District 43 consists of Dutchess County plus 2 appropriately sized towns in Orange County, that are across the Hudson River. The shape of this “tab” in District 43 is less compact than desirable. However, Dutchess County is just a bit too small for a single Senate district. Shifting these 2 towns from Orange County equalizes the population of districts 42 and 43 as no other “more-compact” shifts between these 2 districts can.
- 4) Several of the other districts (49, 53, 54, 55, 59) are also less compact than desirable. However, these shapes are necessary in order to allow compliance with the NY Constitution while keeping district sizes within $\pm 5.5\%$ of ideal.

District #	Counties/Towns in Proposed Upstate NY Senate District	2020 Population	Deviation from Average District (320655)	% Deviation From Average District
38	Rockland	338,329	+17,674	+5.5%
41	Putnam + Westchester N (Peekskill, Cortlandt, New Castle, Ossining, Yorktown, Somers, North Salem, Lewisboro, Pound Ridge)	304,716	-15,939	-5.0%
42	Orange Core (except Cornwall, Highlands, Montgomery, Crawford, Deer Park, Port Jervis, Greenville, Mt Hope)	315,339	-5,316	-1.7%
43	Dutchess + Orange SE (Cornwall, Highlands)	321,734	+1,079	+0.3%
44	Sullivan/Ulster/Orange-N (Montgomery,Crawford,Deer Park, Port Jervis,Greenville,Mt Hope)	320,623	-32	-0.0%
45	Albany	314,848	-5,807	-1.8%
46	Schenectady/Schoharie/Montgomery/Fulton/Delaware	334,939	+14,284	4.5%
47	Washington/Rensselaer/Columbia/Greene/	331,933	+11,278	3.5%
48	Saratoga/Warren/Hamilton	306,353	-14,302	-4.5%
49	Herkimer/Saint Lawrence/Clinton/Franklin/Essex	333,423	12,768	4.0%
50	Broome/Chenango/Otsego	304,427	-16,228	-5.1%
51	Madison/Oneida+ Onondaga SE (Fabius,Pompey,Tully,Lafayette)	316,813	-3,842	-1.2%
52	Jefferson/Lewis/Oswego + Onondaga-N (Clay)	321,355	+700	+0.2%



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53	Onondaga Core (Syracuse,Salina,Cicero,Dewitt,Manlius,Onondaga, Onondaga Nation,Otisco,Marcellus,Spafford,Skaneateles,Elbridge)	319,442	-1,213	-0.4%
54	Wayne/Cayuga/Cortland+Onondaga-SW (Lysander, VanBuren, Geddes,Camillus)+Monroe E (Penfield)	333,653	+12,998	+4.1%
55	Tompkins/Seneca/Ontario/Monroe SE (Perinton, E. Rochester, Mendon,Rush)	318,410	-2,245	-0.7%
56	Monroe-Core (Rochester,Irondequoit,Webster)	307,698	-12,957	-4.0%
57	Monroe-Inner Suburbs (Pittsford,Brighton,Henrietta, Chili,Gates,Greece,Parma,Ogden,Sweden,Clarkson,Hamlin)	327,658	+7,003	+2.2%
58	Allegany/Steuben/Schuyler/Yates/Chemung/Tioga	315,315	-5,340	-1.7%
59	Chautauqua/Cattaragus/Wyoming/Livingston + Monroe SW (Riga,Wheatland)	317,547	-3,108	-1.0%
60	Niagara/Orleans/Genesee	311,397	-9,258	-2.9%
61	Erie-NE (Tonawanda City,Tonawanda Town,Amherst,Clarence Newstead,Lancaster,Alden,Marilla)	319,020	-1,635	-0.5%
62	Erie-S (Wales,Holland,Sardinia,Elma,Aurora,Colden, Cheektowaga,West Seneca,Orchard Park,Boston,Concord, Hamburg,Eden,North Collins,Collins,Evans,Brant,Seneca Res.)	315,529	-5,126	-1.6%
63	Erie Core (Buffalo/Lackawanna/Grand Island)	319,687	-968	-0.3%

