## Updates and Answers on Redistricting and Re-Weighting County Voting Systems




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## New State Redistricting Law, Recent Litigation, \& Communities Of Interest

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# County Redistricting in New York 

- Equal Population
- Voting Rights Act
- NY Municipal Home Rule Law
- County Charters
and for 2021 and beyond:
- Chapter 516- New Criteria


## County Redistricting Types



- 16 County Boards of Supervisors
- 40 County Legislatures
-23 charter counties
-17 non-charter counties

Single Member Districts
Weighted voting districts- each member has a weighted vote based on population

## Recent Voting Rights Litigation

- Rockland County-Clerveaux v. East Ramapo Central School District
- Suffolk County- Flores v. Town of Islip


## Old MHRL CriteriaMHRL Sec.10(1) (a)(13)

- Population equality
- No towns except those comprising $110 \%$ of a district population can be divided
- Provide fair and effective representation for the people of the local government as organized in political parties
- Districts shall be of convenient and contiguous territory in as compact form as practicable


## Chapter 516

## New State Criteria

- In 1991, Westchester LWV challenged the county's legislative redistricting because it didn't follow state guidelines. The the Appellate Division held that the county "operates under a charter form of government and its reapportionment plans are adopted pursuant to its charter, not Municipal Home Rule Law Sec 10(1) (a) (13)(a)."
- Charter counties were not required to follow the State MHRL redistricting standards.
- Chapter 516 extends the MHRL guidelines to cover charter counties so that statutory provisions for electoral procedures would be uniformly applied in New York State.


## Chapter 516- New Ranked Criteria (avoids trade-offs)

- (single member)Population equality as near as practicable within $5 \%$ from smallest to largest district (+/-2.5\%)
- (multi-member) Population equality with substantially equal weight
- Cannot intend to or result in denying or abridging minority voting rights
- Districts must be contiguous
- Districts must be compact
- Cannot favor/disfavor incumbents, particular candidates, or parties
- Consider existing district cores, political subdivisions \& communities of interest
- No villages, cities or towns except those having $40 \%$ of a full ratio of a district can be divided
- Districts must be formed so as to promote orderly and efficient elections


## Balancing <br> ConflictsCommunities Of Interest

- When balancing other traditional criteria, CO usually ranks below population equality and minority voting rights and above all the others
- Can Communities of Interest camouflage partisan gerrymandering?
- Are Communities of Interest too subjective?
- Could use of Communities of Interest lead to strangely shaped districts?
- When should Communities of Interest be more important than established "actual" communities (towns, villages, etc.)?


## Communities Of Interest \& Race

- Be mindful of the $14^{\text {th }}$ Amendment Equal Protection Clause- avoid "packing" that leads to racial gerrymandering
- Will COIs lead to using race as a predominant factor?
- Make sure that race is one of several factors being used
- Expert "racial bloc voting analyses" inform of federal Voting Rights Act situations- do these before enacting a plan (where necessary)


## Stay In Touch

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# Decennial County Legislature Redistricting in NYS 

Webinar, February 8, 2021

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The Benjamin Center - SUNY New Paltz

## United States Constitution: One Person, One Vote

- In decisions made in 1962 (Baker v. Carr) and 1964 (Wesberry v. Sanders, Reynolds v. Sims) the United States Supreme Court made clear that the equal protection clause of the U.S. Constitution requires legislative districts to be "substantially equal in population." (XIV Amendment)
- In 1968 this principle was extended by the Court to apply to local governments (Avery v. Midland County)

Towns within counties were, of course, not equal in population
-Thus in 1968 counties with boards of supervisors found their governance structure immediately in violation of the U.S. constitution.

Historically, Most NY Counties Were Governed by Boards of Supervisors
-The Boards were comprised of the supervisors of each of the towns in the county, augmented by additional supervisors elected from wards within each city (if any) in the county

## Counties’ Response

- Some counties with charters were already empowered to respond to new federal
constitutional requirements
- State legislation was required to empower most counties to adjust their governance structures


## Two Major Alternative Approaches to Complying with One-Person-One Vote

Counties give up towns as the basis of their governance structure.

- Replace Boards with legislatures. 1. Create single member districts that were "substantially equal in population."

2. Combine towns and use single and multimember districts to assure that citizens were equally represented.
3. Periodically alter the size of the legislative body

Counties retain the board, maintaining towns as integral to county govt.

- Create a weighted voting system that equally represented citizens by giving supervisors different voting strength within the board, based upon their town's size relative to that of other towns in the county.
- 16 governed by Boards of Supervisors
-Weighted voting required
-41 have county legislatures
-All must consider if redistricting is needed, and redistrict if necessary


## For example: The Columbia County Board has 23 members, with a total of 3365 votes

- 18 Town Supervisors
- 5 Supervisors elected from the City of Hudson
- Total members - 23
- Total votes - 3535 Total pop. 58,813
- Most leg. Votes - Kinderhook - 442 (12.5\%)
- Kinderhook Population - 8049 (13.7\%)
- Least leg. votes - Hudson wards - 74 each (2.1\%)
- Hudson wards' population - 5964/4 = 1491 (2.5\% county)
- Taghkanic - 75 votes (2.1\%)
- Population 1231(2.3\%)


## Why "Power Equalizing" is Needed

- In some circumstances, allocating weights to representatives entirely in proportion to population excludes some of them from effective participation in governance -
-e.g. If one of Columbia's towns had more than half the county's people, it alone could run the county.


# Proportionality in Weighted Voting Iannucci v. Bd. Of Supervisors of Washington Cty. 20 NY 2d 244 (1967) 

It is not sufficient to weigh:

- Relative to \% of population represented
- e.g. Former Nassau County Board of Supervisors

Weighed in accord with:

- Voting power - \% of time representative may comprise a part of a potential winning coalition
- Banzhaf Index
- https://www.youtube.com/watch? $\mathrm{v}=$ sdWgGzetdWI


## Thee Banzhaf Index - One Way to determine relative power in a voting System

1. With consideration of the weight allocated each legislator (say based initially on population), determine how many votes are needed to pass a measure (the Quota)
2. Determine the total number of winning coalitions that may occur under these conditions
3. Determine how essential each legislator, with his or her weighed vote, is to the winning coalition.
4. If one or more legislators under the original allocation of weights will not be a winning coalition in his or her district's proportion of the county population, adjust the weights to assure that he or she may be on the winning side that proportion of the time.

## Voting Power: Why and How

- The Banzhaf Index is a probabilistic interpretation. It is proportional to the probability that a given member will be decisive in a given vote.
- The "critical count" is the number of times given all of the combinations winning coalitions that an individual member is the deciding vote should all of the other votes stay the same. The Banzhaf Index is the critical count divided by the possible number of coalitions.
- No perfect solution is likely to exist. The goal is to reduce the deviation between the normalized Banzhaf score and the population proportion the member represents.
- The important thing to remember here is that we are calculating the proportional power of each member.


## An Example: 2010 Numbers After Recalculation

| 2010 After Recalculation |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District | Population | Proportion | Weighted Vote | Critical Count | Banzhaf | Discrepency | Abs. Deviation |
| 1 | 5602 | 0.093243896 | 28 | 58 | 0.094463 | -1.31\% | 0.013074362 |
| 2 | 7859 | 0.130811099 | 45 | 82 | 0.13355 | -2.09\% | 0.020937836 |
| 3 | 7450 | 0.124003396 | 43 | 76 | 0.123778 | 0.18\% | 0.001817656 |
| 4 | 9268 | 0.154263553 | 47 | 82 | 0.13355 | 13.43\% | 0.134273797 |
| 5 | 7641 | 0.127182543 | 43 | 76 | 0.123778 | 2.68\% | 0.026768949 |
| 6 | 6794 | 0.113084439 | 38 | 70 | 0.114007 | -0.82\% | 0.008158162 |
| 7 | 4800 | 0.079894805 | 26 | 54 | 0.087948 | -10.08\% | 0.100797478 |
| 8 | 5185 | 0.086303034 | 28 | 58 | 0.094463 | -9.46\% | 0.094550159 |
| 9 | 5480 | 0.091213236 | 28 | 58 | 0.094463 | -3.56\% | 0.035628207 |
| Total | 60079 |  | 163 |  |  |  | 0.436006606 |

quota $=163$

## An Example: 2020 Using 2010 Weights

| 2020 Using 2010 Weights |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District | Population | Proportion | Weighted Vote | Critical Count | Banzhaf | Discrepency | Abs. Deviation |
| 1 | 4988 | 0.085428513 | 28 | 58 | 0.094463 | -10.58\% | 0.105754941 |
| 2 | 7586 | 0.129923957 | 45 | 82 | 0.13355 | -2.79\% | 0.027908964 |
| 3 | 7274 | 0.124580393 | 43 | 76 | 0.123778 | 0.64\% | 0.006440767 |
| 4 | 8717 | 0.149294376 | 47 | 82 | 0.13355 | 10.55\% | 0.105458598 |
| 5 | 7662 | 0.131225594 | 43 | 76 | 0.123778 | 5.68\% | 0.056754129 |
| 6 | 6561 | 0.11236898 | 38 | 70 | 0.114007 | -1.46\% | 0.014577155 |
| 7 | 5122 | 0.087723505 | 26 | 54 | 0.087948 | -0.26\% | 0.002559122 |
| 8 | 5155 | 0.088288689 | 28 | 58 | 0.094463 | -6.99\% | 0.0699332 |
| 9 | 5323 | 0.091165993 | 28 | 58 | 0.094463 | -3.62\% | 0.036164878 |
| Total | 58388 |  | 163 |  |  |  | 0.425551753 |

quota $=\mathbf{1 6 3}$

## An Example: 2020 Recalculation

| 2020 Recalculation |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District | Population | Proportion | Weighted Vote | Critical Count | Banzhaf | Discrepency | Abs. Deviation |
| 1 | 4988 | 0.085428513 | 26 | 52 | 0.085246 | 0.21\% | 0.002136438 |
| 2 | 7586 | 0.129923957 | 43 | 80 | 0.131148 | -0.94\% | 0.009421226 |
| 3 | 7274 | 0.124580393 | 42 | 72 | 0.118033 | 5.26\% | 0.052555567 |
| 4 | 8717 | 0.149294376 | 50 | 86 | 0.140984 | 5.57\% | 0.055664358 |
| 5 | 7662 | 0.131225594 | 44 | 86 | 0.140984 | -7.44\% | 0.074363585 |
| 6 | 6561 | 0.11236898 | 40 | 66 | 0.108197 | 3.71\% | 0.037127506 |
| 7 | 5122 | 0.087723505 | 27 | 56 | 0.091803 | -4.65\% | 0.046504015 |
| 8 | 5155 | 0.088288689 | 27 | 56 | 0.091803 | -3.98\% | 0.039804765 |
| 9 | 5323 | 0.091165993 | 27 | 56 | 0.091803 | -0.70\% | 0.006987331 |
| Total | 58388 |  | 163 |  |  |  | 0.324564792 |
| quota = | 63 |  |  |  |  |  |  |

## An Example: 2020 Recalculation

| 2020 Recalculation |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District | Population | Proportion | Weighted Vote | Critical Count | Banzhaf | Discrepency | Abs. Deviation |
| 1 | 4988 | 0.085428513 | 26 | 52 | 0.085246 | 0.21\% | 0.002136438 |
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| Total | 58388 |  | 163 |  |  |  | 0.324564792 |
| quota = | 63 |  |  |  |  |  |  |

## An Example: 2020 Recalculation

| 2020 Proportional Vote vs. Weighted Vote |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District |  | Proportion | Proportional Vote | Weighted Vote | Critical Count | Banzhaf | Discrepency | Abs. Deviation |
|  | 1 | 0.085429 | 28 | 26 | 57 | 0.092383 | -8.14\% | 0.081407098 |
|  | 2 | 0.129924 | 42 | 43 | 77 | 0.124797 | 3.95\% | 0.039461213 |
|  | 3 | 0.12458 | 41 | 42 | 73 | 0.118314 | 5.03\% | 0.050299996 |
|  | 4 | 0.149294 | 49 | 50 | 81 | 0.13128 | 12.07\% | 0.120663458 |
|  | 5 | 0.131226 | 43 | 44 | 79 | 0.128039 | 2.43\% | 0.024283329 |
|  | 6 | 0.112369 | 37 | 40 | 71 | 0.115073 | -2.41\% | 0.024063759 |
|  | 7 | 0.087724 | 29 | 27 | 59 | 0.095624 | -9.01\% | 0.090061326 |
|  | 8 | 0.088289 | 29 | 27 | 59 | 0.095624 | -8.31\% | 0.083083242 |
|  | 9 | 0.091166 | 30 | 27 | 61 | 0.098865 | -8.45\% | 0.084450426 |
|  |  |  | 163 |  |  |  |  | 0.597773847 |

quota $=163$

## Caveats of This Example

- This example only takes into account a simple majority vote. An actual recalculation of the weighted vote would also consider the $2 / 3$ majority scenario, and then find the best solution that applies to both scenarios.
- In this example I kept the quota (number of votes needed for a majority) the same as it was in 2010. An actual recalculation would also consider alternative total number of votes.
- There is no simple formula to plug the numbers into. This means that to calculate the weighted vote, the problem needs to be solved in reverse, and both individual discrepancy between the Banzhaf index score and the population proportion and total absolute deviation must be considered.


## More Information on Calculating the Proper Weights

TECHNICAL REPORT NO. 533<br>January 1982<br>REAPPORTIONMENT BY WEIGHTED VOTING<br>by<br>William F. Lucas: John C. Maceli**: Michael Hilliard* David Housman***:<br>- The Benjamin Center<br>- simons@newpaltz.edu<br>- benjamig@newpaltz.edu<br>- junj@newpaltz.edu

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Thank you for joining the webinar today!


