Your vote doesn’t count…but how it was counted does.

Assessing the validity of the Electoral College in the United States through Voter Power and spatial analyses

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The Electoral College

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The Electoral College

- background
- swing states
- current debate
does your vote matter? Voter Power

John Banzhaf and the statistic of Voter Power

\[ VP_s = \frac{n_s!}{(n_s - d_s)! d_s!} \times EV_s \]
evaluating the argument with data

census data

election results
putting the data together
cartograms

Voter Power by state
Virginia - Battleground 2008
Virginia - Battleground 2008

2008 Virginia Election District Hot Spot Analysis results (Republican voters)
- High Clustering (statistically significant)
- Low Clustering (statistically significant)

Hot Spot Analysis - GOP 2008
Virginia - Battleground 2008

2008 Virginia Election District Hot Spot Analysis results (Democratic voters)
- High Clustering (statistically significant)
- Low Clustering (statistically significant)

Hot Spot Analysis - Dems 2008
Virginia - Battleground 2008

true area
- Virginia city municipalities
- Virginia county municipalities

cartogram
- Virginia city municipalities
- Virginia county municipalities
is the argument valid?
is the argument valid?

Voter Power in the 2008 Presidential Election in Florida

Palm Beach

Broward and Miami-Dade (Metro Miami)

"cartogram" municipalities (area calculated using Voter Power)

"to scale" municipalities (area calculated using measured area)
is the argument valid?
is the argument valid?
issues

->MAUP...is this a problem in the study or in the Electoral College itself?
->more research needs to be done on the statistic of Voter Power including the theory and math behind it
->cartograms don’t afford the ability to do classic GIS overlays once constructed
questions or comments?