

Milestone Goal: March 2: Have experimented with a few different methods in order to identify a way to efficiently represent the districts.

Major Changes: Since the last bi-weekly status meeting, there have been no major changes in the goal for the implementation of the project, although there has been an increased focus placed on non-perfect mappings that help better visualize the data. If done carefully, this should not significantly affect the arguments that we can make about the protocol, but should be more aesthetically pleasing.

What You Have Accomplished Since Your Last Meeting:

- Met with Procaccia to present a few possible ways that we could move forward with generating the final electoral maps from some of the generated cartograms
 - After reviewing the possibilities, decided on (1) exploration of global geometry but non-topology preserving method or (2) the random assignment of precincts that can be shared across many atomic units
- After meeting, tried using the global geometry preserving cartogram out and discarded it as a possibility based off the topology of generated cartograms that preserve absolute geometry. Picked (1) as the final method
- Preprocessed the Wisconsin dataset for use in Cartogram generation
- Finished the main parts of randomized precinct allocation, currently debugging issues in generating the shapefile

Meeting Your Milestone:

Yes, I have experimented with a few methods and in addition to my experiments from previous milestones. Specifically, I've tried out:

- Generation of a global geometry preserving cartogram
- Generation of topology-preserving cartogram, using random assignment of precincts that can be shared across many atomic units ← chosen method

I am slightly behind in the shapefile generation, but other than this I have completed the milestone.

Surprises:

I have been having issues regenerating a shape file after randomly bucketing the precincts into atomic units. When I remove the randomization I don't have issues. I suspect that I have a bug in my code but am still working on finding it

Looking Ahead: What do you plan to focus on and accomplish over the next two weeks?

- Finish generating the shape file that overlays the atomic units over the precincts, specifically find the bug that's causing it to fail on method (1)
- Create a clickable interface

Revisions to Your Future Milestones: No revisions to milestones needed

Resources Needed: Currently have all the resources that I need