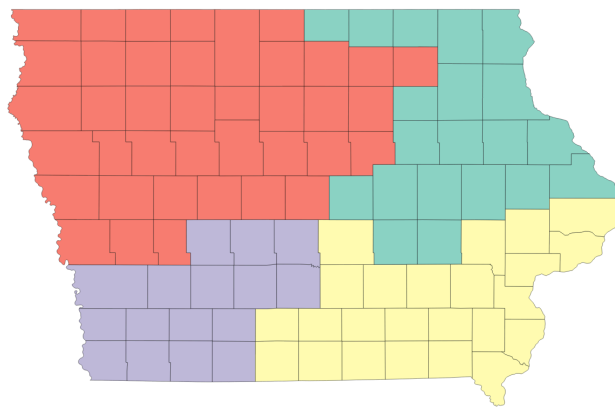


Data Visualization Final Project Write-up

When deciding on a dataset to explore, we were fascinated by election data and the idea of gerrymandering congressional regions. Originally, we were planning on displaying the entire US map and gerrymandering districts from that view but we decided it would make more sense to focus on a single state. We thought Iowa would be an interesting state to look at as it is a swing state and can play a big role in elections. This led us to choose population data from: <https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>, voting data from: <https://www.nytimes.com/interactive/2016/us/elections/primary-calendar-and-results.html>, and GeoJson data from: eric.clst.org/tech/usgeojson. The population data included population information from all of the different counties in Iowa. The voting data shows voting results from each of the different counties for the 2016 election results. The GeoJson file has data for the map of Iowa.

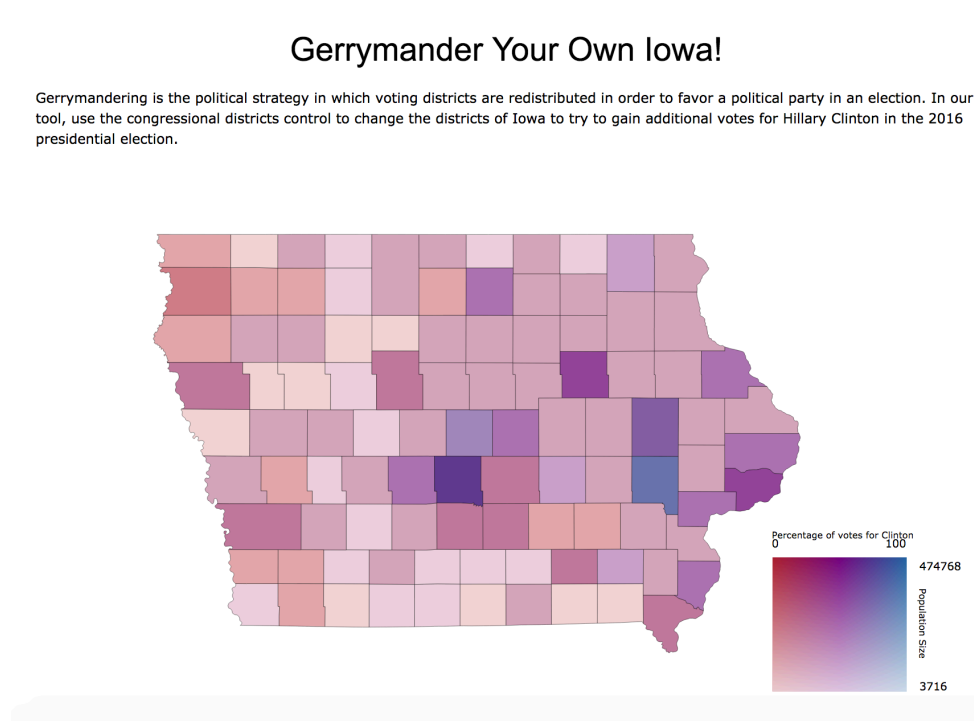
Gerrymander Your Own Iowa!

Gerrymandering is the political strategy in which voting districts are redistributed in order to favor a political party in an election. In our tool, use the congressional districts control to change the districts of Iowa to try to gain additional votes for Hillary Clinton in the 2016 presidential election.



View of the congressional districts

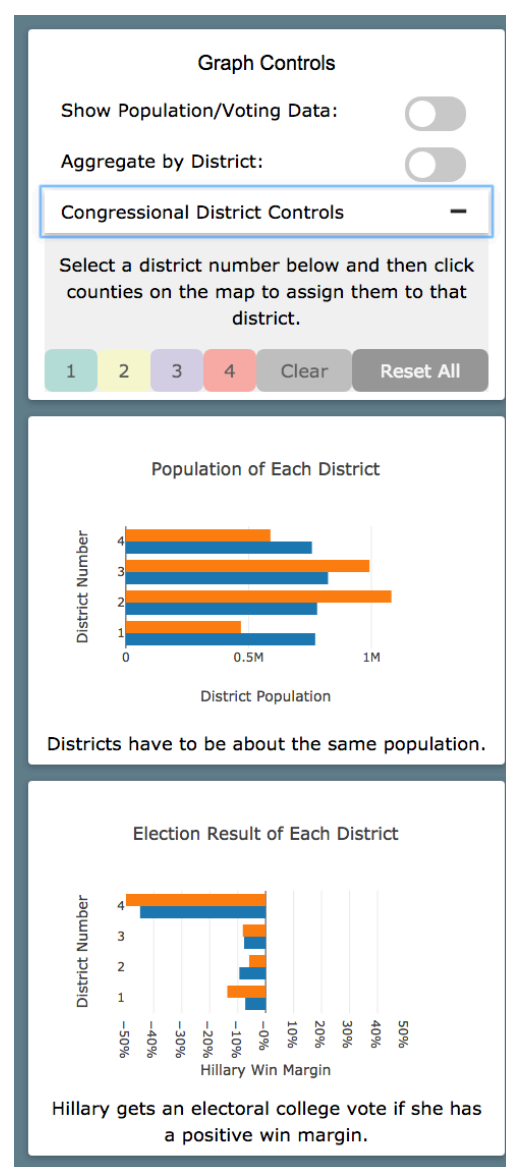
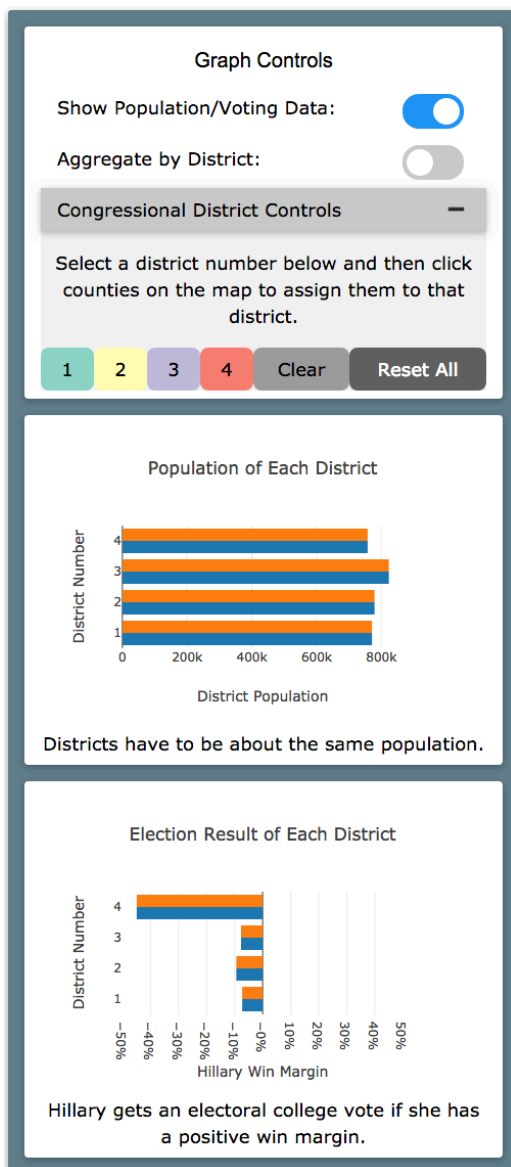
Our original design had the counties colored based on whether the majority vote was republican or democratic but after receiving critique from classmates we decided to have 2 differently colored maps. The first view is colored based on the different congressional districts and changes as you gerrymander the map. The second view is colored by county based off of the election results on a red/purple/blue scale and is gray-scaled based on population with the lower population counties being more gray. We decided to make the lower populations more gray because these have less of an impact on the election results compared to the highly populated counties.



View of the map with population and voting data

Having two different views was the biggest thing we took out of the critique session as this enabled us to include the election data we wanted but to also have a platform to easily gerrymander the different districts. The main question we were looking to answer was “Can

gerrymandering different congressional districts change the results of an election?" We believe that our exploratory visualization is able to allow the user to answer this question. The user can put any county in any district and have regions of any amount of counties as well. This means that if it is possible to gerrymander a district in order to change the election results our visualization will allow the user to interactively do so. Our side graphs also make it easy for the user to track how their gerrymandering has changed the votes and populations of the regions.



The side graphs before and after gerrymandering