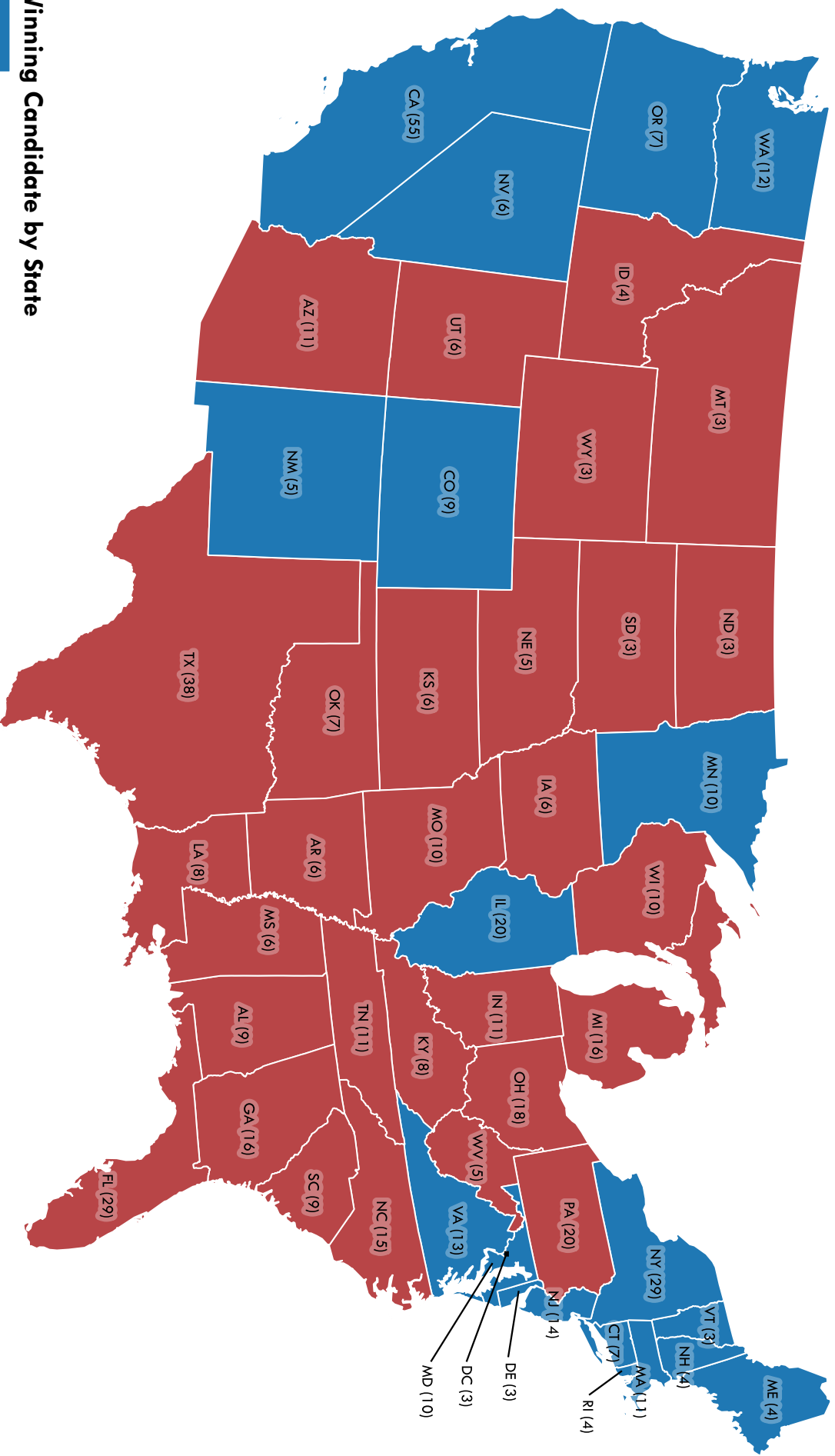


Results of the 2016 U.S. Presidential Election

Electoral College Vote by State



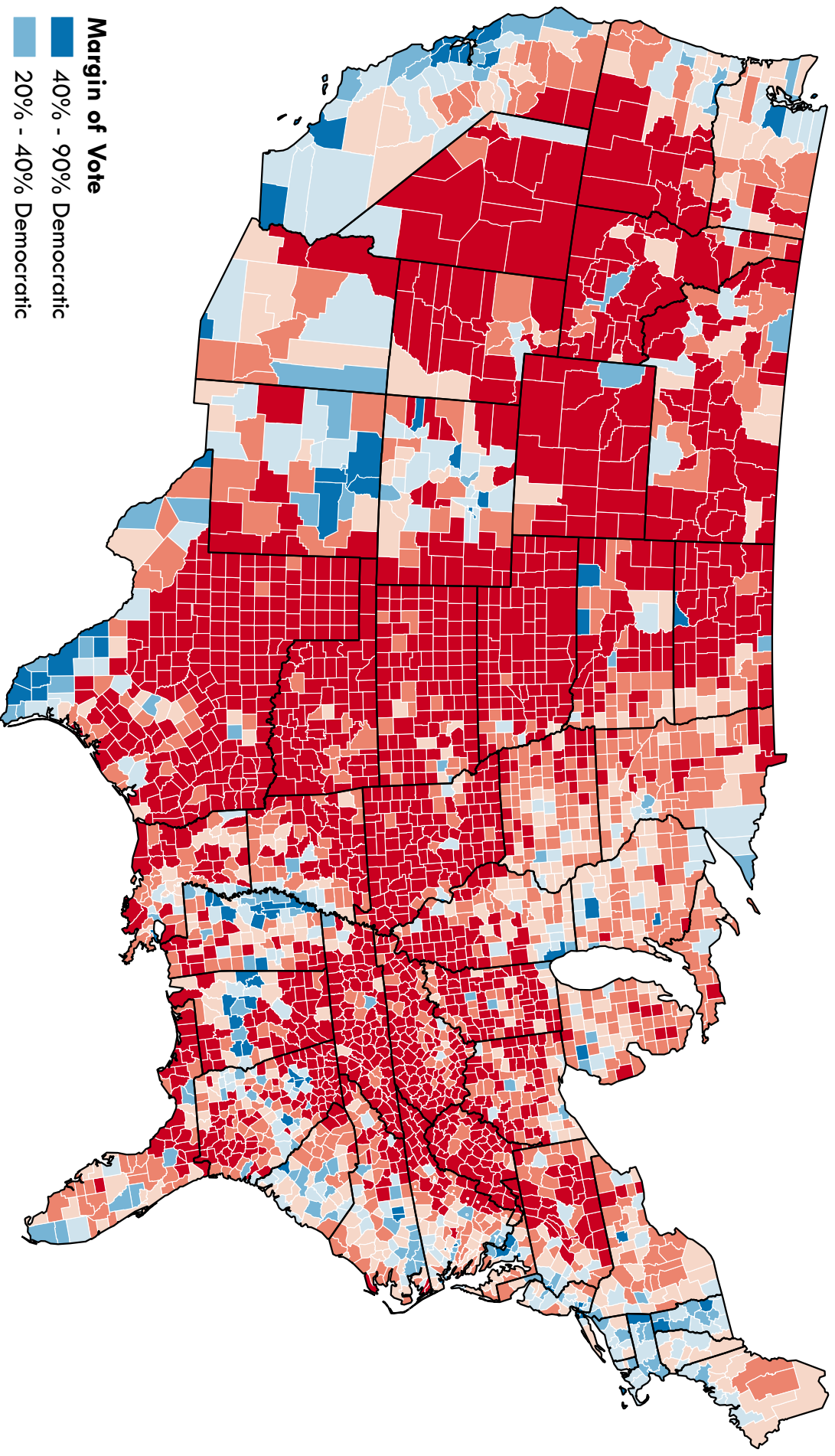
Winning Candidate by State

Clinton

Trump

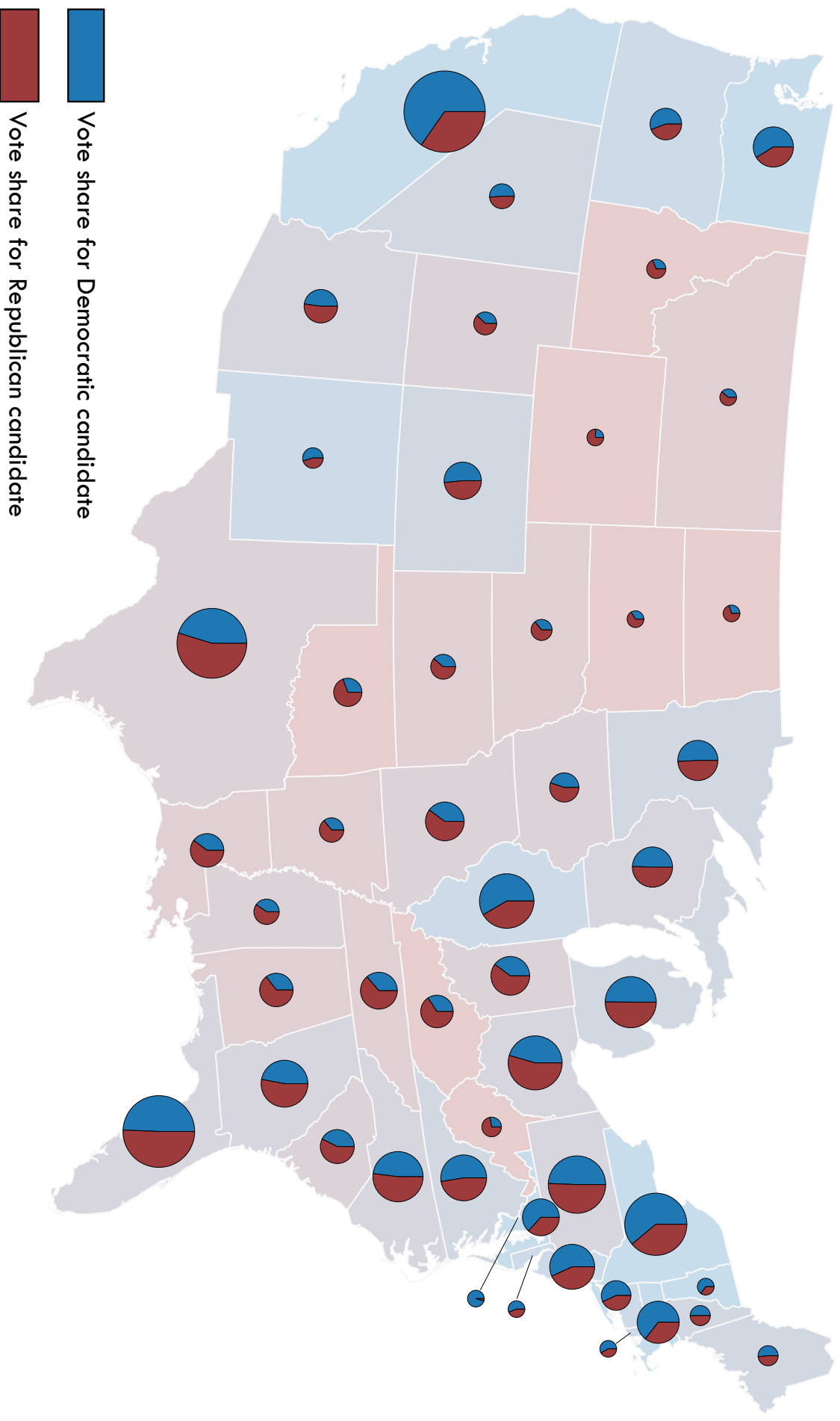
1 : 19,000,000 Scale | EPSG:3085 Projection

County-Level Vote Margins 2016 U.S. Presidential Election



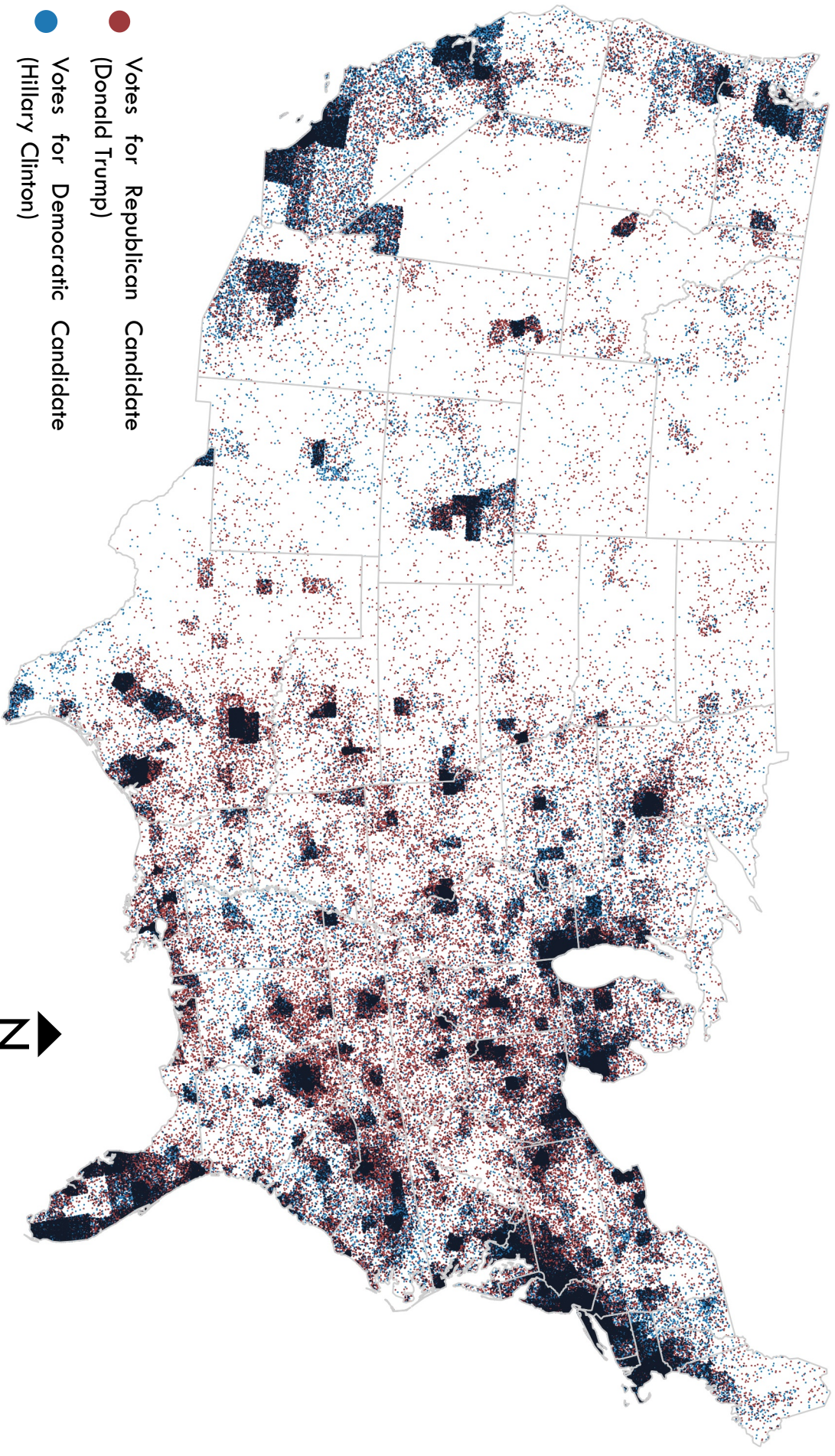
1 : 19,000,000 Scale | EPSG:3085 Projection

Results of the 2016 U.S. Presidential Election Popular Vote by State



1 : 19,000,000 Scale | EPSG:3085 Projection

Votes for Major Party Presidential Candidates by County 2016 U.S. Presidential Election



One point represents 500 votes cast.

Areas of greater vote density will appear to be darker.



Just from examining the maps and data from the 2016 election, we can observe several voting patterns based on the geography of the United States. The most obvious pattern from the choropleth map of county is the political disparity between rural and urban counties. Most of the rural counties voted overwhelmingly for Donald Trump, and the urban counties for Hillary Clinton in 2016. Pew Research makes note that even across party lines, rural voters tend to vote more conservatively than urban voters. With the rural versus urban divide comes several other related factors that predict political leanings, such as location and population. The coastlines in the Northeast and Southwest voted Clinton, while many counties toward the Midwest and South voted Trump. An important detail to note is the concentration of the population in urban areas. On the county map, the number of counties with a $\geq 40\%$ margin in favor of Trump greatly outnumbers the number of counties with the same margin favoring Clinton. With the electoral college, votes in battleground states and rural states technically have more value than those in more populated states. Due to this fact, the key states to focus on in the 2016 election such as Michigan, Wisconsin, Pennsylvania, and Florida were plainly highlighted for the Trump campaign.

Many voting trends, however, are not directly observable through these maps. While some districts' voting patterns are attributed to urban geography, some are predicted by other factors such as influx of people into a state, education, and religion ("Is The Electoral Map Changing?", Fivethirtyeight). Other than party affiliation, the demographics with the highest disparities in voting patterns were religion, USR (urban versus suburban versus rural), and education (Pew Research Center). For the purpose of ascertaining the specific reasoning behind certain states' voting patterns, a red/blue choropleth map would not give enough information. However, this type of map is very effective in visualizing the presidential election results. Due to the winner-take-all system of the electoral college, a candidate with the most votes in a state will receive all the states'

electoral votes, even with a margin as slim as 51% versus 49%. Each state is either one color or the other and regions can more-or-less be determined from them. Anything more specific about electoral geography such as historic voting trends, how slim the margins are, or demographics require more specific labeling and symbology.

When examining these electoral maps and choropleth maps in general, it is important to pay attention to the scale and units of data represented. Scale and units give an accurate representation of data regarding proportions, quantities, and other variables. For example, a county-level choropleth map of electoral margins in the presidential race should be based on percentage/per capita rather than actual count. If such a map represented votes by count and a county voted 300 persons vs 4 in favor in Trump, it would look ridiculously disproportionate to LA County, which had thousands voting for Trump and almost two million voting for Clinton (Politico). However, if one wanted to represent the weight of a county rather than electoral margins, visualizing votes by count would be an appropriate representation. Scale is important for representing data clearly, for example with intervals. Going back to electoral margins, a clear way to represent them was through a straight scale of increasing twenties. Percentage is uniform and between 0 and 100, therefore the intervals of 20 are appropriate. An equal count interval would skew the center toward a certain candidate, and a logarithmic scale is simply not possible with percentage. These quantitative details ensure that data represented by a map is accurate, clear, and not misleading.

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