

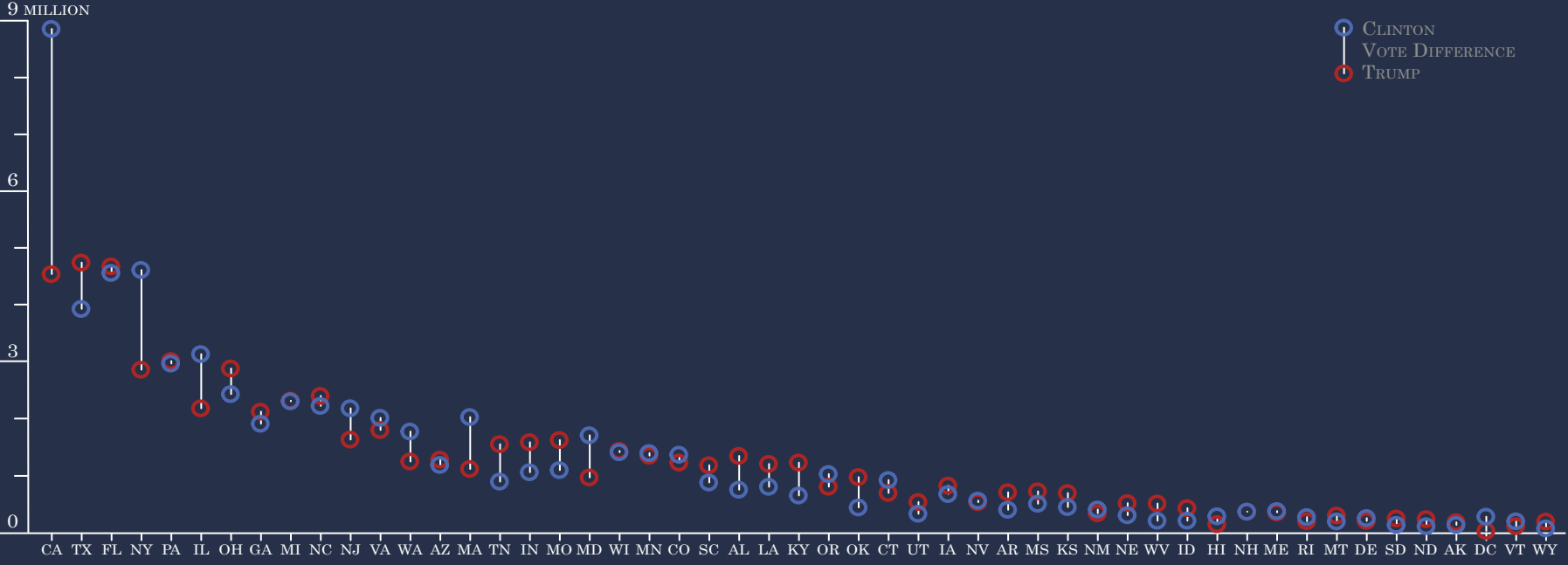
# The American Electorate: Projecting Ideological Shifts Onto the Electoral College Framework

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The Electoral College has elected a president who lost the popular vote five times in American history, two of which occurred in the five most recent elections. We typically think of elections in terms of victory for the most popular candidate, but the structure of the Electoral College allows less populous states to have an outsize influence on the election, leading to confusion in predictive models and, oftentimes, a president who lost the popular vote. Thus, we must project political opinions onto the Electoral College framework in order to make electoral predictions, since the impact of an ideological shift is heavily dependent upon voter geography.

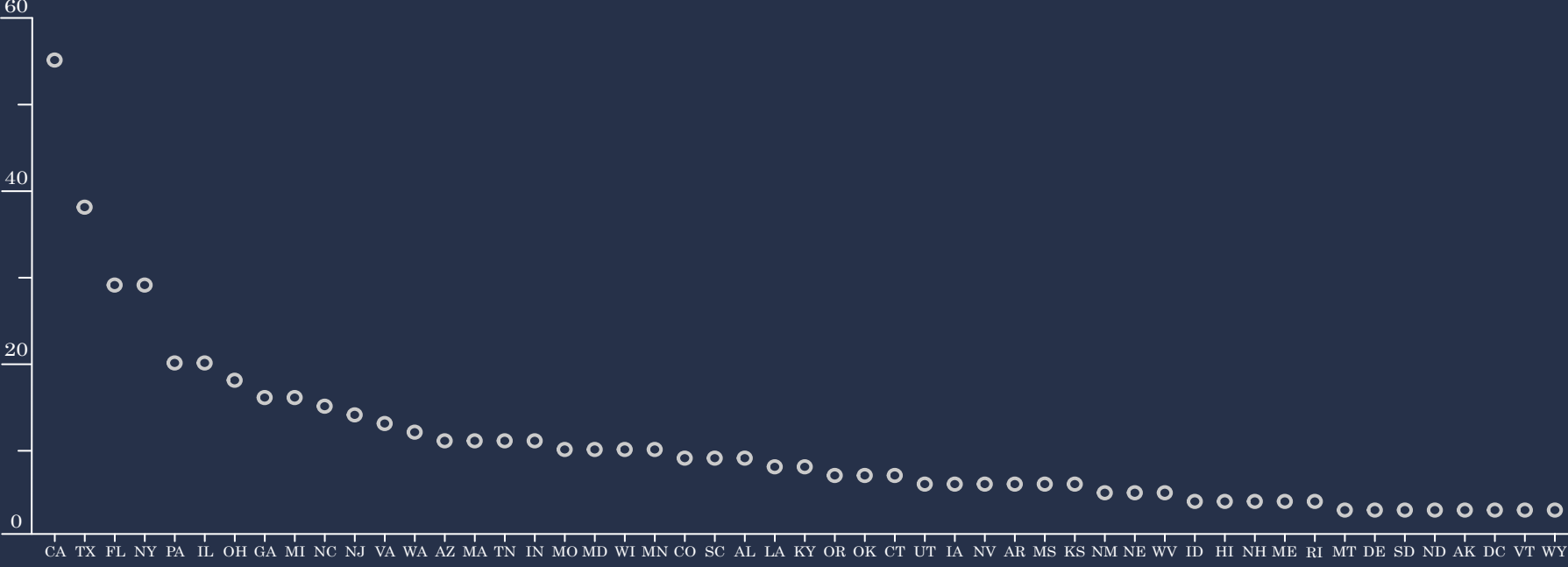
## 2016 VOTES BY CANDIDATE

States with larger populations have larger differences in votes per candidate, except key swing states, such as Florida, Pennsylvania, Ohio, Michigan, and others.



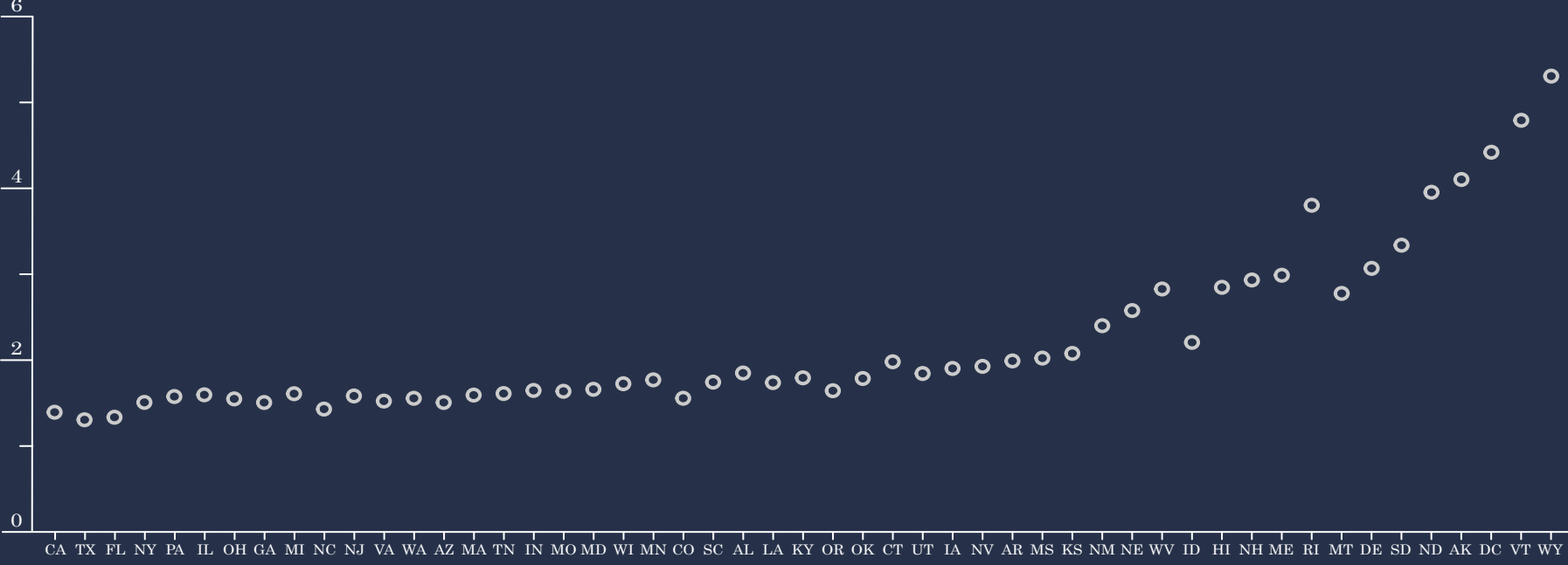
## ELECTORAL VOTES

A state's number of electoral votes are determined by the number of Representatives (determined by population) and Senators (two) the state has in Congress.



## ELECTORAL VOTES PER MILLION PEOPLE

Voters in states with larger populations have less Electoral power compared to voters in states with smaller populations due to the unbalanced nature of the Senate.



## DATA & QUESTIONS

The Democracy Fund Voter Study Group has conducted a national longitudinal study of American voter opinions starting in 2016, with the last survey having been conducted in January 2019. The data set originally contains 9,548 observations and 1,281 variables, which are pared down to focus on ideological trends between 2016 and 2019.

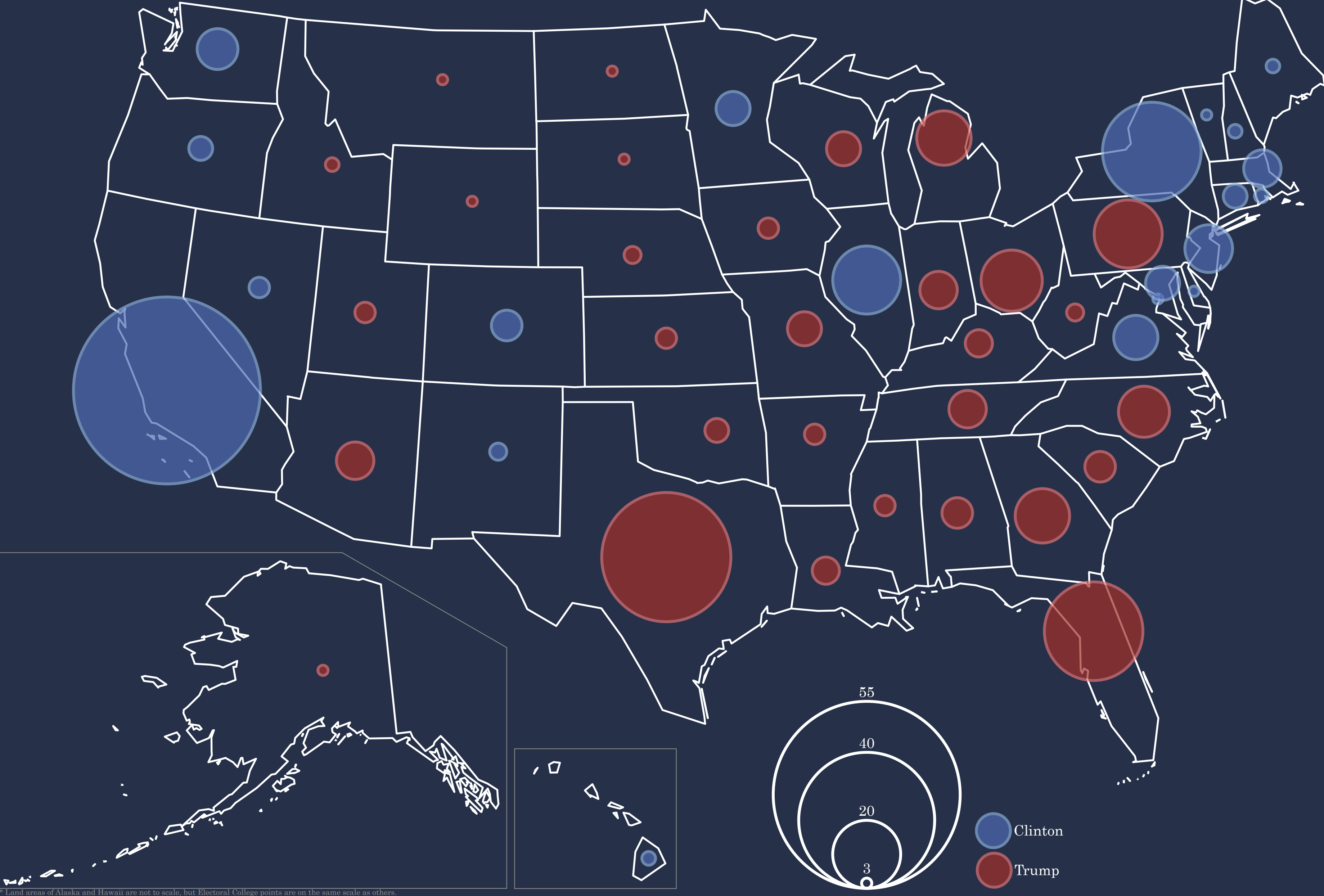
A data set of 2016 election and electoral results from Politico supplements the VOTER Survey to provide a broader, more national context for the ideological data to answer the following questions:

- What were the Electoral College results in 2016?
- Does the Electoral College give all Americans equal representation in electing a president?
- How have political ideologies shifted since 2016?
- How do these ideological shifts affect our expectations for the 2020 election?

Note: Maine and Nebraska do not allocate their electoral votes in a winner-take-all fashion, but for simplification purposes, these models and depictions assume that all votes in these states are allocated to the state popular vote winner.

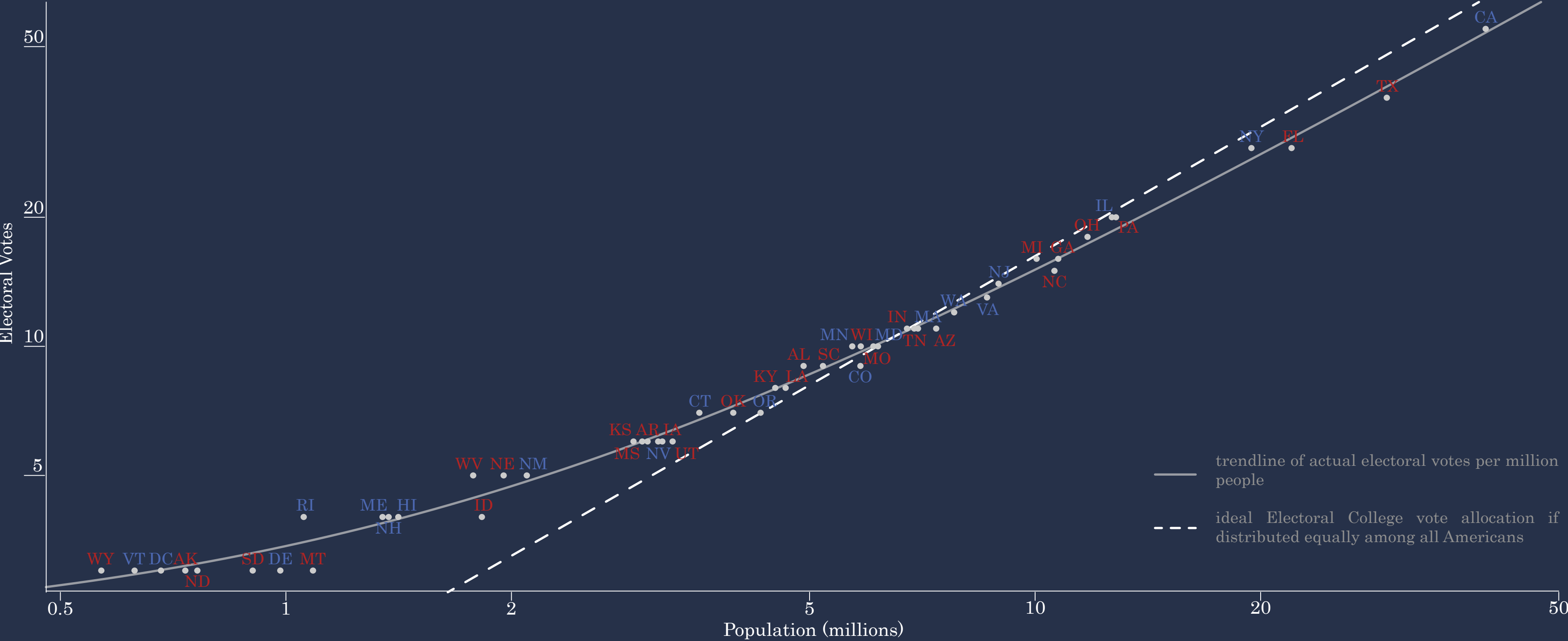
## 2016 ELECTORAL COLLEGE RESULTS

Traditional representations of electoral maps are generally misleading, particularly because Midwestern states with large land masses have lower population densities compared to more coastal states, so a more accurate depiction of electoral results involves converting the number of votes per state to a size measure, as seen below.



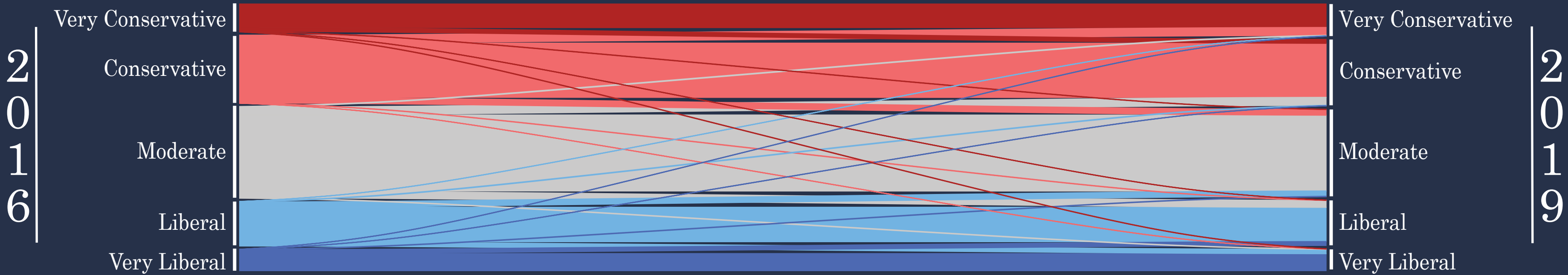
## STATE POPULATIONS VS. ELECTORAL REPRESENTATION

Each state's number of electoral votes is equal to its number of representatives in the U.S. Congress: two Senators and a number of representatives proportional to state population. This configuration gives disproportionate representation to less populous states, as seen when comparing the electoral votes trendline to the line representing equal representation for all Americans.



## IDEOLOGICAL SHIFTS BETWEEN 2016 AND 2019

The proportional composition of political ideologies was mostly persistent between 2016 and 2019. Among survey respondents who indicated some shift in ideology, the most common movement pattern was one "step" in either direction rather than two, three, or four steps.



## RACE TO 270

With 538 total electoral votes available, the winner is whoever reaches half plus 1, or 270, votes. By applying the weighted state ideological compositions to the electoral vote system in a winner-take-all fashion, we get an approximation of how electoral votes will be allocated in the 2020 election. Despite already weighting the responses to more accurately reflect each state's population, there is still a good deal of response bias in the data, causing historically unlikely outcomes to be predicted in some states. Thus, some states' predicted winner was manually adjusted to more accurately reflect the historical voting behavior of the state. Specifically, Colorado, Delaware, Hawaii, Minnesota, New Hampshire, Nevada, Virginia, and Washington were modified to vote for the Democratic Party candidate, Joe Biden, while Alaska, Nebraska, and Oklahoma were reallocated to the Republican Party candidate, Donald Trump.

