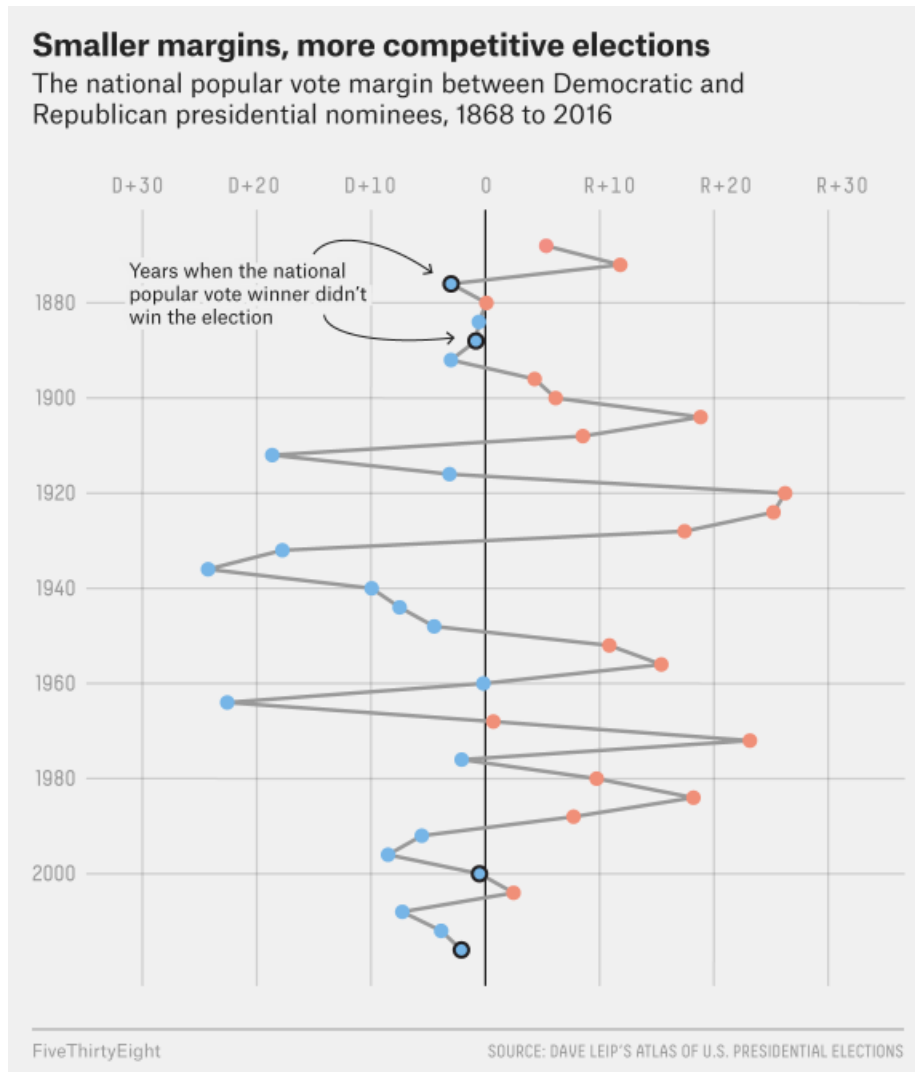


Homework 3: Question 1

My choice of graph to critique



Before moving to dissect the details of this plot, I'd like to bring up a brief description of what it is about. The graph should be read from top to bottom, which is sorted chronologically, from year 1868 to 2016. Each dot represents the national popular vote margin of the presidential election in the according year. The national popular margin is defined as the difference between the vote shares of the Democratic and Republican nominees in the single digits in every presidential election from 1888 to 2016. The main takeaway from the plot is: during the post Civil War period, the political competition is quite intense, leading to close vote shares of the two parties; in the post-war period, either the Democratic or the Republican can win the votes by a substantial margin; however recently, the share came close again, which is very reflective of the polarization in political ideology from the public. Some of the dots were circled black, which mark that the party receiving winning National Popular Vote did not win during that specific year. The unit of the X-axis is percentage.

Is the visualization truthful?

I think the plot is rich in its truthfulness in terms of the data. The data of the NPV margin was taken from the [Presidential General Election Results Comparison - National](#). The results of the national votes and the national electoral votes are recorded there in the database. All fields are recorded both in numbers and percentage shares of the total vote. Fairly speaking, there is no reason to suspect the reliability of these numbers, since they are real votes

from the participants. Other dimensions of data, like which party finally won the election and did the result diverge from the National Popular Vote are very easy to verify.

However, speaking of what these numbers stand for, we might argue that the National Popular votes are not sufficiently representative of the national popularity in the two parties. Therefore, we've taken a closer look at the [Presidential General Election Results Comparison - National](#) database. During the four most recent elections, more than 120 million or so citizens of America have voted, which I believe have composed over one third of the entire population. Therefore, I assume that the estimate would not be very biased, since the sample size should be large enough to reach these results, as long as those who are willing to express their political ideology are able to vote.

Is the visualization functional?

The basic function of the plot is to depict the dynamics of National Popular Vote margin over all the presidential elections, from 1868 to 2016. Generally speaking, the plot has fulfilled this functionality quite well. The figure size is set moderately, enabling readers to capture the key information at first sight. The plot has also combined line plot and the scatter plot, which made fully salient of the trending and the real observations.

The y-axis labels the years. The interval is twenty years, within each there are five presidential elections. In contrast, what the x-axis aims to present is not made clear in the plot itself. It labels the spectrum of NPV margin, and the number represents the percent point of how much one party has overcome the other in the share of all votes. The vertical line in the middle is the tie between the Democratic and Republican. I think this has set the benchmark of the comparison clear and readable.

One of the underlying assumption underneath the plot is: when the political ideas are very polarized, both between the parties within the general public, the votes will be divided and the result of NPV share will end up very close. The graph did a fair job on visualizing this division by plotting grids in the background. The author has also circled out the years where the election results disagrees with the NPV result with clear text explanations.

Is the visualization beautiful?

Overall speaking, I would say the plot is concise and beautiful. The background is set in light grey, which is enough to distinguish the plot from its surrounding and not making the plot look aggressive. The plot line, background grids, and the axis stick labels are all set in darker grey, which has made the information salient for reading. Information that are inferiorly important, like the copy right and the data source are listed at the bottom under the footer.

Scattered dots were marked in blue and red to signify which party won the National Popular Vote. The dots' colors have been slightly darkened, making themselves fitting perfectly in the background.

The title font looks to me is arial and is set in bold, which is the one I like most. The below description is set the same font, but slightly thinner. For me, I think it would be better to make the title and the description look less like, like by setting the size of description smaller. Readers may find it distractive to read them separately.

Is the visualization insightful?

As Cairo states in his books, there are two layers of insightfulness: the first one being spontaneous, and the second one being able to contribute to knowledge-building.

The plot, as I discussed above, has satisfied its functionality. A spontaneous finding from the plot is how well the Democratic and Republican has competed with each other in these years of presidential election. A deeper look will unveil how this reflects competition of political ideologies that the two parties have held for so long. Readers should be well-informed how that intensity varies over time. Political polarization has peaked during the post civil war period and after the 1990. Political leanings were characterized by cyclical stability through almost the entire twentieth century.

Is the visualization enlightening?

Part of the criterion that Cairo espouses to evaluate enlighteningness is how the plot can change its readers mind and leave a lasting effect.

I think there is space for improvement. The author is alluding at the potential division that America faces recently. It is indeed alerting for this polarization to stay on a level close to an internal war. However, I believe this internal division has been widely noticed by all the readers that have kept track of American politics. Simply this fact may not influence much on people's political views and how they think of the situation. This visualization can be more enlightening if the author could somehow offer more implications derived from the graph. This internal separation might be due to socioeconomic inequality, social status separation or something. It would be helpful to visualize some of these aspects together in the plot.

