



Group-4 Presents

ANALYSIS AND GAIN A DEEPER UNDERSTANDING OF POLLS AND POLLING

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Core Message & Hypothesis

By compiling the national polling data from the past 3 Presidential Elections starting with 2008, we can, with a high degree of accuracy & certainty, predict the winner in almost all 50 states. This can be done consistently, within a ± 5 point margin of error. We will convey these findings utilizing both data analysis and visual representations. We will discuss the accuracy of pollsters on both a state and national level. Historically, national polling is both less expensive and more accurate than its statewide counterparts and our chosen data sets reflect that sentiment accordingly. Each of these methods still plays an integral role in the overall prediction of election results.

With this in mind, we will also make a prediction regarding the 2020 election, deploying some of the very same techniques used in prior polls in elections to announce our winner.

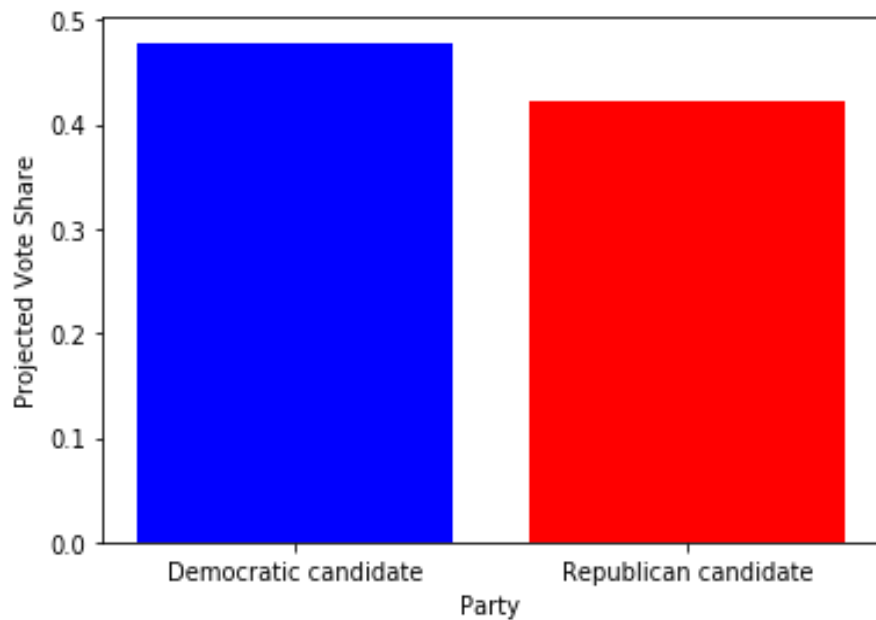
Questions & Data

- ◆ Q1: Have national polls been accurate in the past?
- ◆ Q2: Why was Hillary Clinton expected to win the 2016 election & were there widespread polling errors?
- ◆ Q3: Based on polling as of today, who is likely to win the 2020 election?
- ◆ Q4: In our current data centric society, are there other accurate ways to predict who will win elections other than polls?

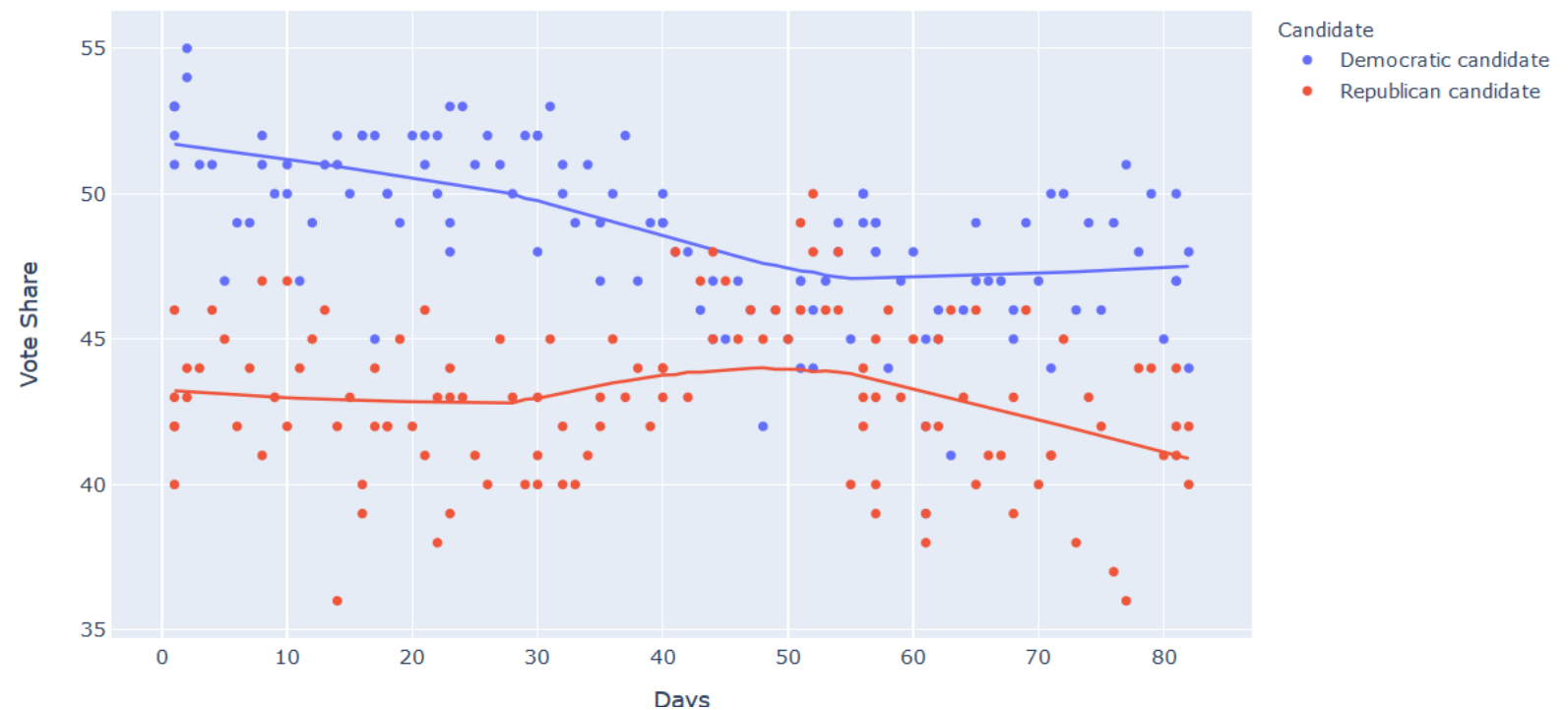
Acquiring & Cleaning the Data

- ◆ Pulled polls from major national and state level pollsters (ABC News, NY Times/Sienna College, Monmouth University et al) for the years 2008, 2012, 2016, and 2020.
- ◆ Downloaded a complete dataset of the 2016 and 2020 polls from data.fivethirtyeight.com.
- ◆ Built a national presidential polling dataset that included data from 2008 to 2020.
- ◆ Built two datasets for 2016 and 2020 that broke data down to the state level so that they could be built into heat maps.
- ◆ For more details, please, reference the code comments in our Github repository

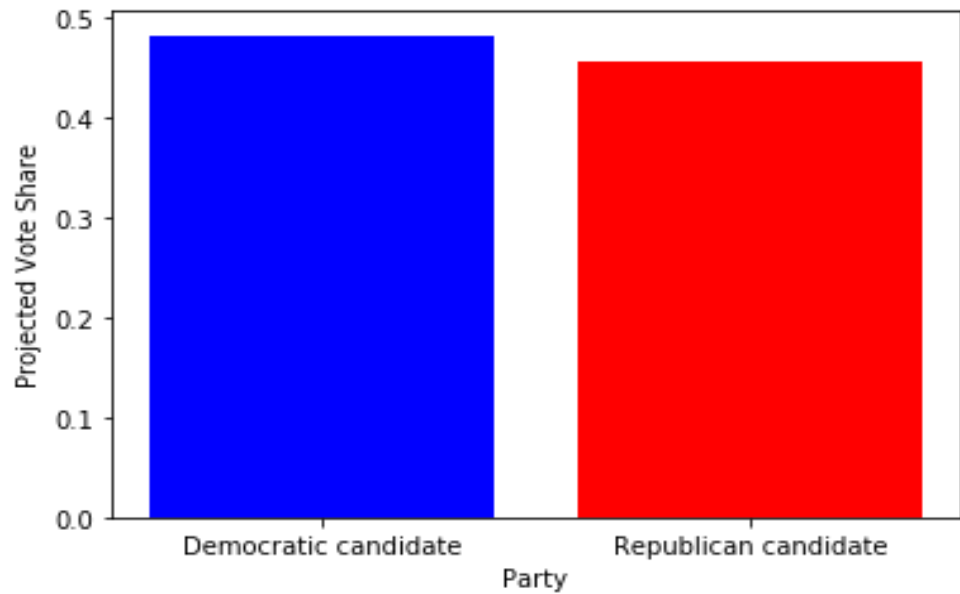
2008 Election Polling Analysis



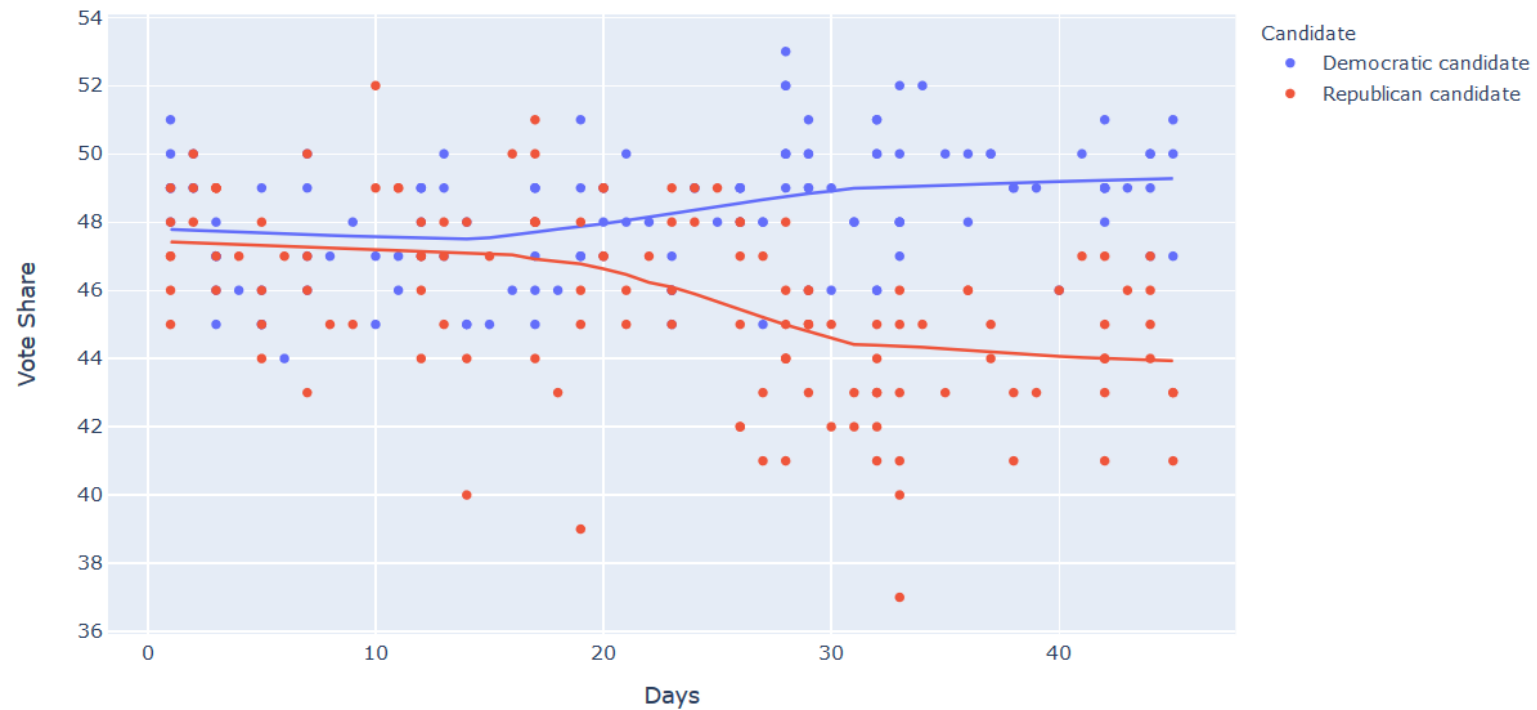
2008 Polling Data



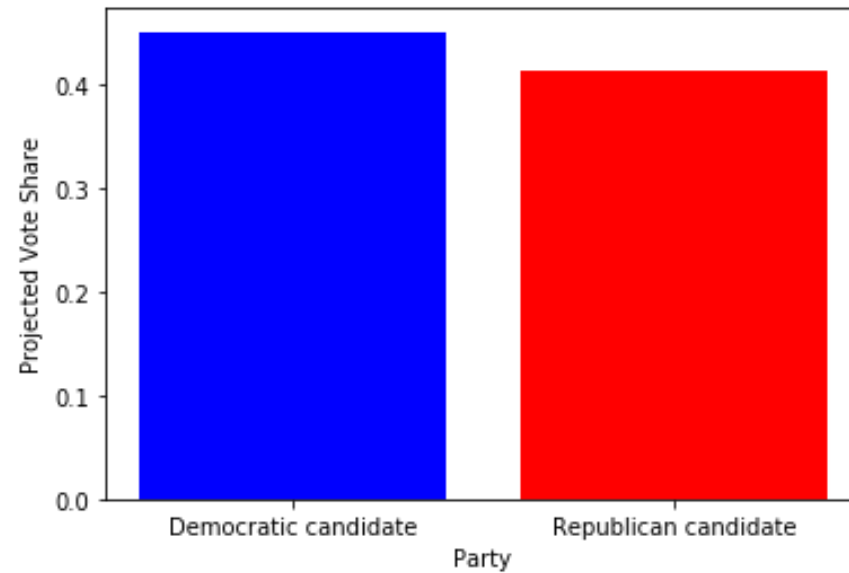
2012 Election Polling Analysis



2012 Polling Data

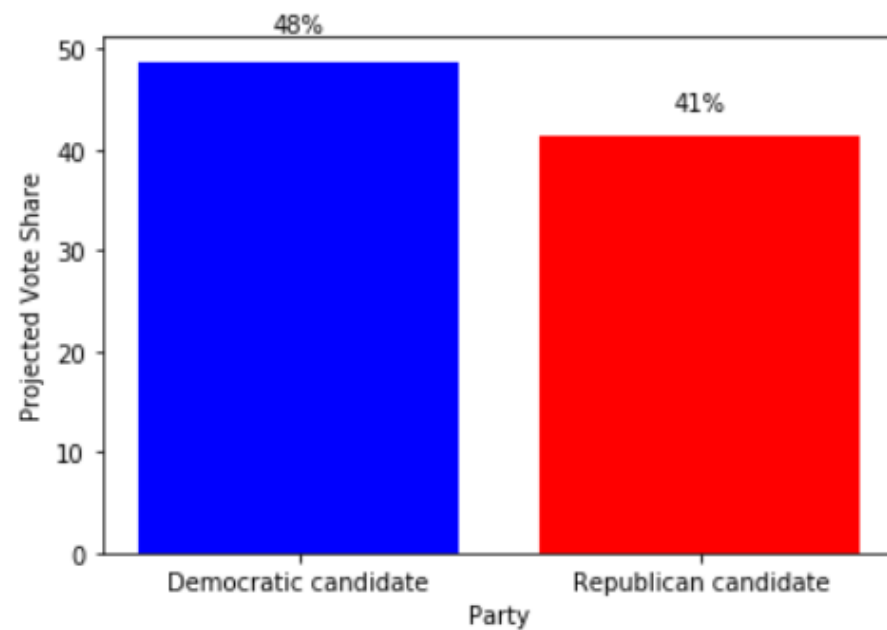


2016 Bar Graph



It predicted Hlllary would win the national popular vote and she did! Hurray for her!
No, wait a second...

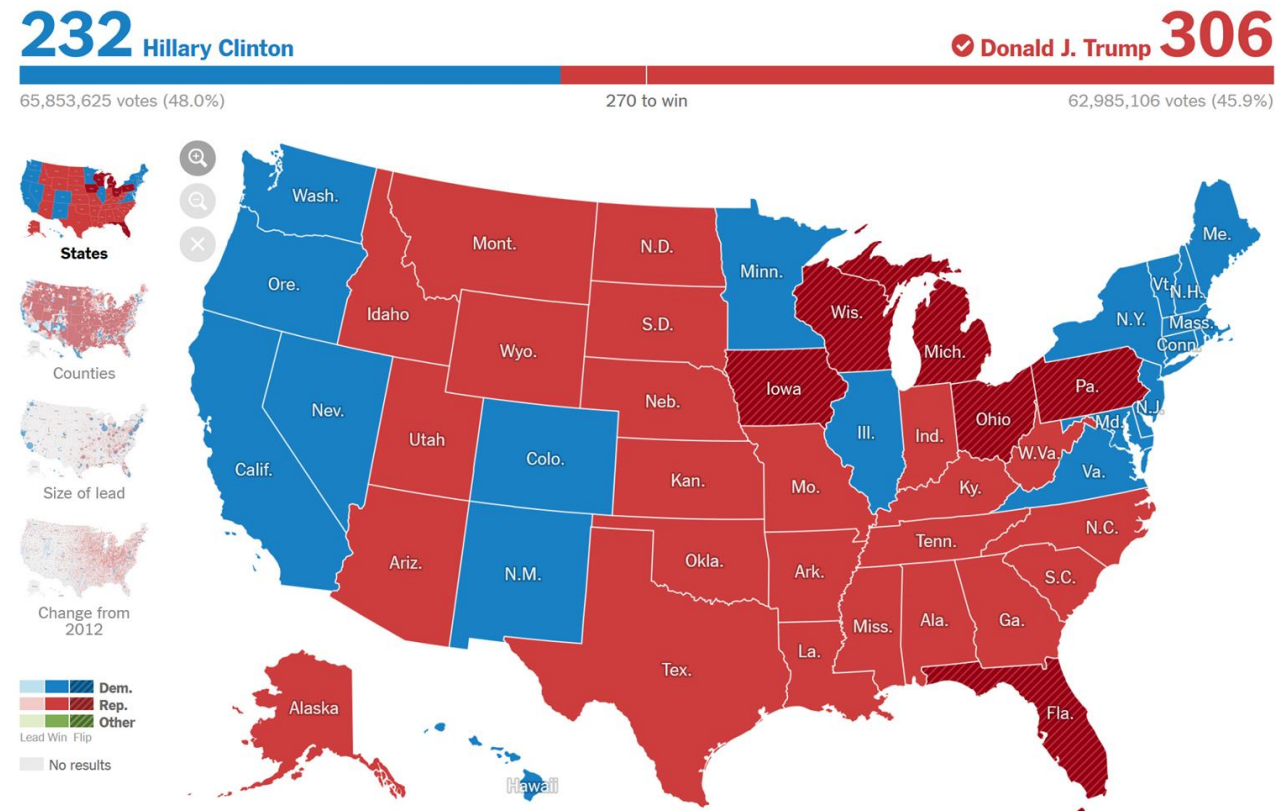
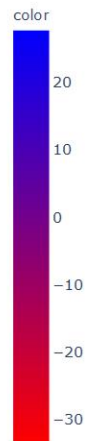
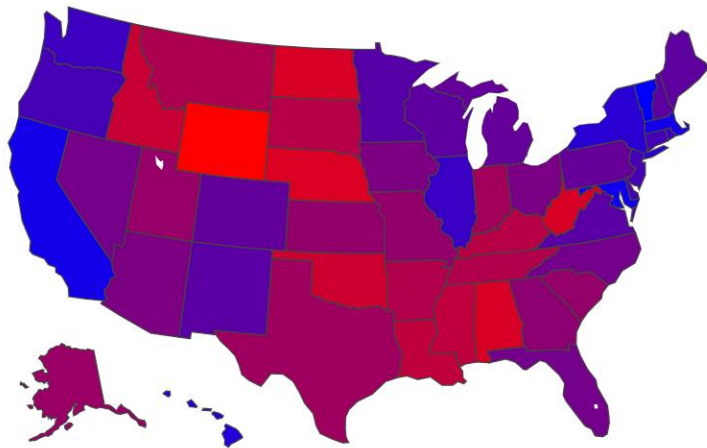
2020 Bar Graph



2016 Heat Map + Actual Election Outcome

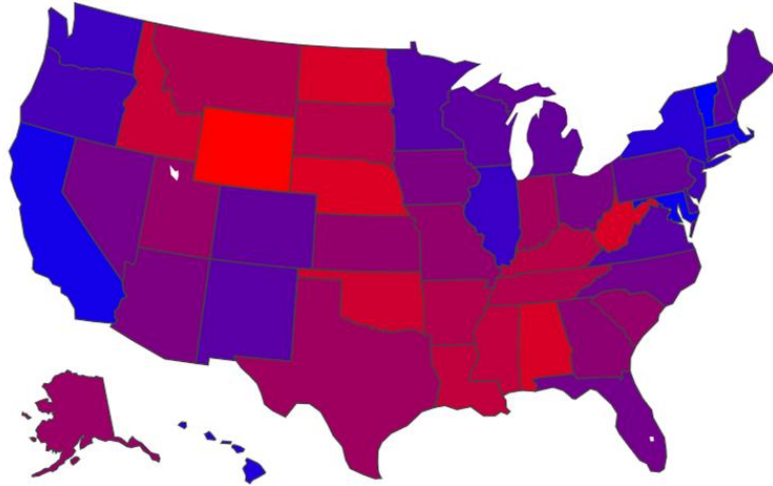
FL: Trump 0.9%
PA: Clinton 3%
MI: Clinton 3%
OH: Trump: 1%

All of these averages
are within a 5 points
of the actual
outcome!

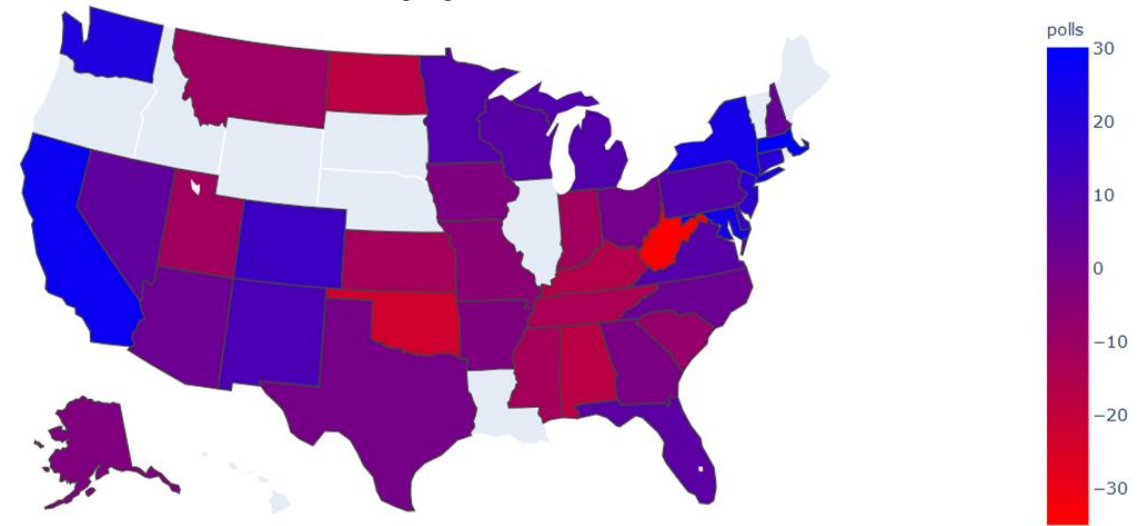


2020 Heat Map + Our Prediction

2016



2020



Conclusion

Polls are good instruments for capturing a snapshot of an election but are often misunderstood

Q & A