

ISyE 2028 – Basic Statistical Methods - Fall 2015  
Bonus Project: "Big" Data Analytics  
Proposal

---

Abstract:

The presidential election is one of the most anticipated events that occur every four years. Throughout the past few elections, candidates from both political parties have campaigned and debated extensively up until the final election. The current election has proven to be even more interesting with varying levels of popularity after every presidential debate. Polls are conducted before, during, and after each party debate to see how well-received each candidate is by the general public. It will be interesting to see how these numbers fluctuate throughout these past few months especially in determining who will become the frontrunners for each political party.

Data Collected:

Various news outlets such as CNN, FOX News, and MSNBC post poll results usually the day after each debate. Using this data as well as data collected by the Pew Research Center and the Polling Report, I will gather enough data to see where each presidential candidate stands with the general public. The data will include the number of people that have been polled as well as favorable and unfavorable opinions on each of the candidates. The poll data will consist of the percentage of people as well as the time at which the poll was conducted in order to construct a timeline for the candidates' popularity during the campaign trail.

Method:

Using poll results from various news outlets and political research centers, I will use a 5-point numerical summary for each of the 5 main candidates to see their general popularity level since the beginning of their campaign trails. This will gauge how popular each of them are within the polls as well as a good basis to see how their popularity has fluctuated in time. In addition, I will conduct a 95% confidence interval to see how well their popularity levels are within the statistical range. I will also conduct a linear regression to see how each candidate's popularity levels have changed post each major political party debate. In addition, I expect that there will be a rise in popularity for Donald Trump, Ben Carson, and Bernie Sanders after each political debate as well as a general decrease for Hillary Clinton and Jeb Bush solely based on their current standings in the polls after the most recent political debates. I also expect to see a general decrease in favorability for the Republican presidential candidates in comparison to the Democratic presidential candidates.