**Party Disparity**

A question we want to answer is if there are any hidden disparities between the Republican and Democratic parties with regard to Congressional elections. Historically, the Senate has been controlled for more years by Republicans while the Democrats have held control of the House of Representatives for a longer amount of time. But what other inferences can we find in our data?

In our network analysis, our decision to consider the networks of candidates and industries did not uncover any clustering of parties. A limitation of using industries was the ambiguity of how industries are defined by the S&P 500 Index. The implications of this analysis reveals a sense of hedging, so as to remain out of disfavor rather than risking full support to win the favor of the party that may end up being less influential. What we may not see, however, is if there are specific sectors within an industry that eschew this rationale. But this analysis would be outside the scope of our research.

With regard to party disparity in election win percentages, we found that Republicans won more elections in four of the six elections we covered, but in total of all six elections, the disparity was not as prominent with the Republican Party winning in 50.7% of elections compared to 49.1% for Democrats. In the instances where incumbents were running in an election, Republican incumbents were re-elected at a slightly higher rate than Democratic incumbents with percentages of 92.1% to 91.1%.

Finally, observing the total amount of funds received by each party from election year to the next, we find somewhat of an oddity in 2010 where Democrats received more contributions, but won significantly fewer elections. We also found that in total of the six years, Democrats actually raised over 2.5% more funds than Republicans with 50.9% for Democrats to the Republicans’ 48.3%. This is an interesting piece of data as it does not concur with the common perception that money essentially equates to election wins. This is evidenced by the anomaly in 2010.

In summary, there is little evidence that any significant disparity exists between the Republican and Democratic parties when considering industry support, fundraising, and election win percentages as variables. T-tests that were run by using these variables to create our samples reported high p-values and confidence intervals that would not allow the rejection of the hypothesis that there is no difference in means.