Project 2

Each group performs the following tasks:

1. Choose one of the swing states below (first come – first served).

   Arizona, Georgia, Michigan, Nevada, North Carolina, Pennsylvania, Wisconsin

2. Find pre-election data (election polls) for presidential election (closest poll to the election).
3. Estimate the proportion of the votes for two major candidates.
4. Put a 98% upper bound Confidence Interval for the true proportion of the votes for candidate with the lower proportion of the votes.
5. Put a 98% lower bound Confidence Interval for the true proportion of the votes for the candidate with the higher proportion of the votes.
6. Put a 98% two-sided Confidence Interval on the difference of true proportions. Use the higher proportion minus the lower proportion as the estimated difference.
7. Use the constructed Confidence Intervals in 4, 5, and 6 to perform hypothesis testing regarding whether the candidate wins the state or will lose the state at 2% level.
8. Find the true error of the estimate using post-election proportions.
9. Write a report and include equations, tables, and figures. Elaborate in detail about your estimates and discuss the results regarding the estimation error, true error, and type 1 and type 2 errors in your hypothesis testing.

One presentation and one report per group is required.

You need to upload your code, data, URL(s) for data-source(s), presentation, and report.

Presentations: Due on Wed, Dec 4 at 5:00pm

Report: Due on Sat, Dec 7 at 11:59 pm.