# Pre-registration

**Hypotheses**

1. We predict pollsters rated higher by FiveThirtyEight will be better at predicting elections than lower rated ones
2. We predict swing states are more difficult to predict than other states
3. We predict later polls are more accurate than earlier polls

**Study design**

Describe your study design. The key is to be as detailed as is necessary given the specific parameters of the design. There 2may be some overlap between this question and the following questions. That is OK, as long as sufficient detail is given in one of the areas to provide all of the requested information. Examples include two-group, factorial, randomized block, and repeated measures. Is it a between (unpaired), within-subject (paired), or mixed design? Describe any counterbalancing required.

We will be using mean squared error (with the difference between a poll and the final popular vote) as our error metric. When aggregating pollsters, we will use the 'mean of the mean-squared-error across pollsters in the group' as opposed to the 'mean-squared-error of the mean rating given by pollsters in the group'.

1. We predict pollsters rated higher by FiveThirtyEight will be better at predicting election margins than lower rated ones
   1. We aggregate pollsters based on their letter grades.
   2. We will use the final polls made before 02nd November by the pollsters.
2. We predict swing states are more difficult to predict than other states, in terms of margins of victory
   1. We will use the final polls made before 02nd November by the pollsters.
   2. We aggregate pollsters by state
   3. For further analysis, we will aggregate based on 538 letter grade
   4. We will use the definition of swing states as provided by this [Politico article](https://www.politico.com/news/2020/09/08/swing-states-2020-presidential-election-409000).
3. We predict later polls are more accurate than earlier polls
   1. For each pollster, we will only consider their latest poll in the window of that month (excluding the pollster if they do not have a poll for the given month).
   2. We will compare all pollsters' predictions against their predictions at a later date.
   3. We also aggregate pollster’s based on their 538 letter grade.