Data Science HW2 Total: 20 points Due: January 18th, 2019, NOON 1.

1. **In your own words, specify the research question(s) (2 sentences or less) for both studies [4]**

Study 1: Did voter intention change as a result of the Ebola outbreak?

Study 2: Did state specific voter intention change as a result of the Ebola outbreak?

1. **Include and explain IVs, DVs for both studies. [4]**

For study 1, the independent variable was date and the dependent variables were the voter intention index scores. For study 2, the independent variables were the PVI score and the pre-outbreak polling difference and the dependent variable was the state-specific voter-intention difference score.

**R section (please complete the following and include your script as inline text below)**

* 1. **Reproduce all 4 plots on page 599 using ggplot2 (do not worry about axes units accuracy or title of plot) [4]**
  2. **Reproduce the following Study 2 findings: (do not include the outliers outlined in the article)** 
     1. **Mean voter-intention difference score t test (bonus 1 pt for producing code for cohen d) [2]**
     2. **State-specific voter-intention difference score between Republican vs. Democrat candidate (bonus 1 pt for producing code for cohen d) [2]**
     3. **Regression: difference score, PVI score, polling difference (do not worry about beta values, but your R2 , p values should still match the article results).**

1. **In your own words, why did the authors run a regression for this particular analysis? [4]**