

Homework 3

SOCI 502B: Graduate Statistics (Fall 2017)

10 points

Due: December 13, 2017

Overview:

In this assignment, you'll be completing 1 problem using SPSS (or R). This problem covers topics from Chapter 11 in your textbook.

Problem 1 (*Analysis of Variance – ANOVA F-Ratio*)

- Using the GSS 2014 data set (`GSS2014_final`)¹, report the means and standard deviations of “political (conservative) views” (`polviews`) for each racial category (`race`).
 - `race` should be valued as: 1 – “white”; 2 – “black”; 3 – “other”
 - `polviews` should be changed to scale measure
- Display a means plot for “political (conservative) views” (`polviews`) for each racial category (`race`).
- Report the between-group and within-group degrees of freedom for the bivariate relationship between the “race” variable (`race`) and the “political (conservative) views” variable (`polviews`).
- Report the mean-square between and mean-square within (error).
- What is the value of the F statistic?
- Correctly and fully report and interpret the F statistic (using the example from our lecture slides, including the F value, the degrees of freedom, and the p-value)
- Based on the means reported above, which group(s) has higher conservativeness scores?

¹For SPSS, use `GSS2014_final.sav`. For R, use the R script and `GSS2014_final.csv`