

Assignment 11

LPO 9951 / Fall 2015

There are two reasons for including descriptive statistics in your papers. First, the reader needs to know some basic information about the indicators for the dependent and independent variables, including:

- What types of variables (e.g., continuous, categorical, ordinal) are they?
- What is the shape of the distribution for the variables?
- What are the measures of central tendency and variability associated with these indicators?
- How many missing values are there and is there a pattern to which variables are missing which values?

Second, the descriptive statistics in a paper should make an effort to lay the groundwork for the analysis to come. Most analytical techniques that you will use (particularly regression) are complex enough that you may lose many readers if you don't first help them understand the patterns that you see in the data.

The following list provides a brief breakdown on some techniques you can use to identify relationships among variables:

- **Continuous with other continuous variables**
 - *tabular*: conditional means
 - *graphical*: scatterplots
- **Continuous with other categorical variables**
 - *tabular*: conditional means
 - *graphical*: scatterplots, boxplots, dotplots
- **Categorical with other categorical variables**
 - *tabular*: cross-tabs
 - *graphical*: conditional histogram

For this assignment, compare your dependent variable with at least two continuous and one categorical variable. Create at least two nicely labeled and formatted tables, and at least four graphical displays of the relationships you find. Graphics should be neatly labeled, capable of being interpreted without additional information, and should be visually appealing. No additional text is needed. Spend your time on making a compelling argument just with graphics and tables.

Submit your do file and a word document (or if feeling bold, a .tex file to produce a LaTeX document) with the tables and graphics to me.