

Exercise #1: Generating Descriptive Statistics Using Analysis ToolPak

For your first exercise, we'll try something very simple. Generate descriptive statistics for four interval-level variables. All of the material you will need for this exercise is available on the course website. Before you perform the analyses, you will first need to create four new variables in Excel. These variables are constructed using the following equations:

1. Total Homicide Rate
2. Female Homicide Rate
3. % Poor
4. % Foreign-born

You will create the four new variables just as we discussed in class. Note that our data file includes a total of 125 counties.

Assignment:

Using the output provided by Excel's Analysis ToolPak, interpret what these descriptive results are telling you.

In your write-up, please include:

1. A general review of the data and measures (the data source, the variables considered and how they were constructed);
2. A discussion of what the indicators of central tendency are telling you about each of the variables;
3. A discussion of the shape of the respective distributions (does it appear that these distributions are skewed? If so, in what direction? If not, why not?);
4. Identify the counties with the highest and lowest (non-zero) scores for each of the variables you created (for this you will need to make use of the "sort" tool in Excel);
5. A discussion of dispersion (what do the indicators of variability tell us about the underlying distribution for each of these variables.

As a general rule, for these exercises, "less is not more." What I mean is that I want you to gain experience both analyzing data, but also explaining the results in a coherent narrative manner. Assume the reader is someone with only a passing familiarity of statistics. As such, you want to be clear about the data used, the variables, and the results from the analysis. Don't forget to have fun and please contact me should you have any questions. With your write-up please also submit 1 page that contains the descriptive statistics for the four variables. This exercise is due **Wednesday, September 30.**