**Hypothesis Testing with Z-Scores and T-Tests**

**HW #2**

**Directions:** Please complete all of the sections. You get half of your points for finishing/turning it in on time and the other half for correctness. For the Jamovi section, please print the output from Jamovi and staple the two documents together. Have fun!

**Section 1. Terminology**

1. What is an effect size? How is it different than hypothesis test?
2. What is the definition of a confidence interval?
3. You are enjoying a vacation in New York City. A bright sign flashes and says you can win $10,000 if you answer a question about statistics. You get excited because you took 6050. The question it asks is: what options are there to test for differences between two groups? You confidently respond:
4. If the distribution looks like the following figure, about where is the mean and about where is the median? Also, where is the mode?

Mean:

Median:

Mode:

1. For the previous answers, how did you determine where the mean and median were?

**Section 2. Jamovi**

Using your own data or the “OfficeParks” data:

1. Import the data set into Jamovi.
2. Pick two variables that you will use.
3. Clean the two variables (make sure Jamovi knows what is missing if there are missing values; check if there are any impossible values and if so, correct it; select the proper variable type for each variable [scale, nominal, ordinal]).
4. Produce a table showing the mean, median, and mode of each chosen variable in Jamovi.
5. What do these statistics tell us about the variable?
6. Produce a table showing the range and standard deviation of these two variables in Jamovi.
7. What do these statistics tell us about the variable?
8. Based on your understanding of this variable, do you think this variable is skewed? (We’ll talk about visualization for the next assignment.)