**Quiz #2 Review SOCI 15 Applied Statistics S. Cohn**

# Vocabulary

mutually exclusive; exhaustiveness

direct and indirect/ correlation

measures of central tendency (e.g., mean, median, and mode)

sample standard deviation (s) versus sample variance (s2), lower quartile (i.e, Q1) upper quartile (i.e., Q3) and IQR (i.e., Q3-Q1)

symmetrical versus skewed distributions;

ungrouped frequency distribution; group frequency distribution and histograms

# Problem Solving

Will include two data sets and a correlation problem. Concerning the two data sets, you will be given ALL of the information for one of the data sets; on the other, you will have to perform the following calculations and then make comparisons across data sets.

1. Create a frequency distribution with equal interval widths.
2. Make a frequency distribution with intervals along horizontal axis and relative frequencies along vertical axis.
3. Compute mean, median, and mode (if any) for the data set and make comparisons between data sets in terms of skewness.
4. Compute lower and upper quartiles, and IQR; Check for outliers for each data set.
5. Using computational formula, compute sample standard deviation and interpret between data sets.
6. Comparing the inter-quartile ranges and sample standard deviations, which data set shows more variability (i.e., spread)?

**Finally, you will have a correlation problem. You will need Pearson’s R formula to solve it and then, importantly, interpret regarding strength and direction.**