Inferential Statistics

- Inferential Statistics
  - A branch of stats that deals with inferring characteristics about the population from characteristics of samples
  - E.g. Sample, Population, Generalization

Why is this important?

- The purpose of inferential stats is to allow us to "infer" something about the entire population from testing only a small sample of that population

Selecting a Statistical Procedure: An Overview

- Is your study quantitative or qualitative?
  - Qualitative Data
    - Uses variables that are nominal/categorical
    - Example
      - Religion, Race, Direction

    Qualitative Data
  - Options:
    - Chi-Square Analysis

    Assesses the relationship between different sets of frequencies (how often something occurred)

Quantitative

Relationships

- trying to find relationships between two or more variables
- The prediction of one variable from knowledge of one or more other variables
- Correlations (two variables) and Regression (multiple variables)

Differences

- Trying to find differences between levels within a variable
- Example: Differences between men's and women's perception of crime
  - IV: Gender (Male and Female)
  - DV: Perception of crime
- Measuring differences between levels (M and F)

- T-tests and Analysis of Variance (ANOVA)
- T-tests evaluate the likelihood of a particular difference between treatment means by computing the statistic test t.