Hypothesis Testing Roadmap

- **# Factors?**
  - > 2
  - 1

- **Type of Y?**
  - Continuous
  - Discrete

- **Type of X?**
  - Continuous

- **# Levels in X?**
  - 2
  - > 2

- **Normal?**
  - Yes
  - No

- **1-Sample t Test**
  - Chi-Sq Test
  - Levene’s Test
  - Outliers?
    - Yes
      - Mood’s Median Test
    - No

- **2-Proportion Test**
  - Contingency Analysis
  - 1-Proportion Test
  - Levene’s Test
  - Mann-Whitney Test

- **F Test**
  - Dependency?
    - No
      - Equal Variances?
        - No
          - Bartlet’s Test
        - Yes
          - 1-Way ANOVA
    - Yes
      - Equal Variances?
        - No
          - 2-Sample t Test Unequal Variances
        - Yes
          - 2-Sample t Test Equal Variances

- **1-Way ANOVA w/Caution**
  - Paired t Test

Hypothesis Testing

- p-value > α level, fail to reject the null (H0)
- p-value ≤ α level, reject the null (H0)

If the p is low the null must go!