

Lecture 30: Chapter 11, Section 3

Categorical & Quantitative Variable Inference in Several-Sample Design

- Compare and Contrast Several- and 2-sample
- Variation Among Means or Within Groups
- F Statistic as Ratio of Variation
- Role of Sample Size

Looking Back: *Review*

□ 4 Stages of Statistics

- Data Production (discussed in Lectures 1-4)
- Displaying and Summarizing (Lectures 5-12)
- Probability (discussed in Lectures 13-20)
- Statistical Inference
 - 1 categorical (discussed in Lectures 21-23)
 - 1 quantitative (discussed in Lectures 24-27)
 - cat and quan: paired, 2-sample, several-sample
 - 2 categorical
 - 2 quantitative

Inference Methods for $C \rightarrow Q$ (*Review*)

- Paired: reduces to 1-sample t
 - Focused on mean of differences
- Two-Sample: 2-sample t (similar to 1-sample t)
 - Focused on difference between means
- Several-Sample: need new distribution (F)
 - Focus on difference among means