DATA ANALYSIS

It really is more exciting than this title
Data Classification

- Different types of questions yield different types of data
- The type of data you have will determine the type of tests you can run.
  - Nominal (Dichotomous/Categorical)
  - Ordinal
  - Interval
POP QUIZ!!!

Q1 - How old are you? Enter your age here []

Q2 – Which of the following best describes your gender?
- Male
- Female
- I don’t want to say

Q3 – Please rate your level of experience with program evaluation
- No experience
- Beginner
- Intermediate
- Expert
Extra Credit Question

Please rate how much you agree or disagree with the following statements:

I like science.

- [] Strongly agree
- [] Agree
- [] Disagree
- [] Strongly disagree
Parametric versus non-parametric statistics

- Are your data normally distributed?
- What is your sample size?
- Do you have adequate statistical power?
Descriptive statistics
- Mean – sum of values divided by the n
- Median – the middle value in a list of numbers
- Mode – the value that occurs most often
- Frequency – how often a value was chosen
- Cross tabulations – frequencies divided into categories

Inferential Statistics
- Chi-Squares
- Correlations (Pearson, Spearman)
- T-tests (Wilcoxon Signed Rank Test/ Mann-Whitney U Test)
- ANOVA (Kruskal-Wallace test)
Key concepts

• **Statistical power** - the likelihood that a study will detect an effect when there is an effect there to be detected

• **Significance** - the likelihood that the result is not due to chance (p is less than or equal to .05, .01, .001)

• **Effect Size** – the strength of the relationship between two variables