

Midterm Review

- I. Review
 - A. Probabilities
 - B. Confidence intervals
 - C. Reliability
 - D. Effect size
 - E. Group comparisons
- II. Modern
 - A. General approach
 - B. Some tools
 - i. Bootstrap
 - ii. Robust
 - iii. Bayesian
- III. Correlation/Regression Basics
 - A. Factors affecting r
 - B. Linear combination
 - C. Prediction and Explanation
 - D. Regression Interpretation
 - i. Model fit: R^2 , RSE, F
 - ii. Variable Specifics
 - a) Raw coefficients- meaningfulness, practical/statistical sig, interval estimates
 - b) Standardized coefficients and variable importance metrics
 - Problems with variable importance
 - E. Misc: fitted value, residual
- IV. Model Adequacy
 - A. Assumptions
 - B. Outliers and diagnostics
 - C. Validation
 - D. Collinearity
 - E. Suppression
 - F. Overfitting
- V. More Issues in Regression
 - A. Coding categorical variables and centering
 - B. Sequential/Hierarchical regression
 - C. Model exploration: stepwise, subsets approach
 - D. Model comparison
 - E. Interactions
 - F. Indirect effects