

Projects

Project ideas can be taken directly from your research or classwork. A typical project will often present a method just barely mentioned in class, or an elaboration of a model studied in class, or an exploration of a method appearing in SAS output (all those additional measures of association in PROC FREQ, for instance), or an alternative analysis mentioned by Agresti in the text (Chapter 7 is a rich source of ideas) or one of his exercises. An interesting data analysis is certainly a possibility as well. Most of the projects below are past student projects.

1. A measure of association for I x J tables
2. An exact test for I x J tables
3. A test of ordinal association for I x J tables
4. A Bayesian analysis for categorical data
5. A further discussion of the Zero-inflated Poisson analysis of the horseshoe crab data
6. Negative binomial, Zero-inflated negative binomial, and zero-truncated data analysis
7. Specificity and sensitivity for pool data with dilution
8. A simulation of asymptotic normality for quadratic dose response models
9. A presentation on ROC curves for sensitivity and specificity
10. Logistic regression with random effects
11. Hierarchical cluster analysis for binary data
12. Propensity score matching—many cases with a control
13. Bayesian binomial credible intervals