

Categorical Data Analysis

October 19 & 20

Professor Brian D. Marx, Louisiana State University

This course will cover the analysis of contingency table data (tabular data in which the cell entries represent counts of subjects or items falling into certain categories). Initial topics include chi-square tests for independence, exact testing methods, and treatment of ordered data. Both 2-way and 3-way tables are covered. The course moves quickly into a contemporary modelling approach to categorical data analysis, which is motivated through special cases of the generalized linear model, specifically Poisson regression for count responses and logistic/ probit regression for binomial responses. The focus will be on interpretation of models rather than the theory behind them. After taking this course, students will know how to perform logistic regression (with both binomial and multinomial response), probit, logit and loglinear analysis using statistical software. Model diagnostics and interpretation of results are also covered, and longitudinal analysis is introduced.

The Instructor:

Dr. Brian Marx is Professor of Statistics at Louisiana State University, and has taught Categorical Data Analysis for over ten years. He is currently serving as Chair of the Statistical Modelling Society and is the Coordinating Editor of *Statistical Modelling: An International Journal*. Dr. Marx has numerous publications in peer reviewed journals

The short course is a free service offered to conference registrants. No additional fees are required beyond conference registration.