SOC 385K • Socl Stat: Dis Multivar Models

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Meets MW 200pm-330pm PAR 208

Course Description

This course deals with regression models for discrete and categorical dependent variables. Regression-like models for discrete and categorical outcomes are widely used in applied research. Students in this course should have some prior exposure to linear regression models. This class serves a wide range of students; the material presented here aims to be useful for students at all levels. In keeping with the applied nature of this course, we will provide examples drawn mainly from sociological and demographic research.

Course Requirements

Grades are based on scores from approximately 5 assignments or problem sets (50%) and a 15-20 page (double spaced) methodologically-focused research paper (50%). Students who are enrolled in the MS in Mathematical Statistics program must complete the extra credit problems in the assignments. Paper proposals must be submitted for approval no later than Nov. 15. In lieu of a substantive paper, students may undertake an in-depth exploration of any methodological issues pertaining to the analysis of categorical data (i.e., a methods or applied statistics paper).

Topics

Topics covered in this course will include:

- an overview of the classical linear regression model
- models for binary data
- models for count data and contingency tables
- models for ordered and unordered categorical data

Extensions to the models above will also be examined, such as hierarchical/multilevel models for categorical responses, as well as treatment-effect and selection models.

Recommended Texts
