

Quantitative Methods for Sociological Analysis II

MW 11:00-12:20, SSB 101

Maria Charles
Office: SSB 492
Office Phone: (858) 534-2566
Email: mcharles@ucsd.edu
Office Hours: Monday 8:00-8:45
Wednesday 12:30-1:45

This course is designed to build skills required for evaluating, interpreting, and conducting quantitative social research. Prerequisites are an introductory graduate course in quantitative data analysis (e.g., Sociology G205), familiarity with the SPSS software program, and understanding of basic quantitative methods, including multivariate regression analysis. The aim of the course is to increase the breadth and depth of students' analytic skills, so that they may become informed consumers and skilled producers of quantitative sociological research. The course will focus upon those methods and models that are most commonly used in the social sciences. It will emphasize conceptual (rather than formal mathematical) issues.

We will be using the statistical software package *SPSS for Windows* (Version 11.5) to analyze data taken from the "World Values Survey," the "General Social Survey," and/or other data sets of your choice. Although quantitative methodologies are the focus of this course, many of the conceptual, analytical, and writing skills covered are applicable to qualitative research as well. Student participation (including in-class presentations) will be heavily emphasized.

Course Outline

- I. Multiple Regression, Advanced Topics
 - A. Comparing nested regression equations
 - B. Dummy variable regression and ANOVA
 - C. Interaction effects in multiple regression
 - D. Causal models and path analysis
 - E. Nonlinear regression
- II. Logistic Regression
- III. Multinomial-Logit Models
- IV. Log-Linear Analysis

Assignments

- Five analytical exercises involving computation and presentation of: (1) interaction effects, (2) path models, (3) nonlinear regression, (4) logistic regression, and (5) log-linear models.
 - Three in-class presentations.
 - One research paper (15-20 pages).
- Course grades will be based upon the quality of the analytical exercises (25%), the final paper (60%), and class participation (15%).

Required Materials

- Knoke, David, George W. Bohrnstedt, and Alisa Potter Mee. (**KBM**) 2002. *Statistics for Social Data Analysis. Fourth Edition*. Itasca, IL: F.E. Peacock Publishers.
- Students will be responsible for photocopying or downloading all assigned reading materials, including articles and book chapters that feature the analytic methods covered in class. Originals will be placed in the “Soc206” box of the Sociology mailroom.
- For in-class presentations, students should bring and distribute (3-4) copies of the relevant computer output and/or data tables.

Tentative Schedule

Week 1 (March 29 & 31): Advanced Topic in Multiple Regression: Nested Equations, Dummy Variables and ANOVA, Interaction Effects.

- Readings: **KBM** pp. 270-281; S. Schieman (“Socioeconomic Status and the Frequency of Anger Across the Life Course,” *Sociological Perspectives (SP)* 46:207-222, 2002).

Week 2 (April 5 & 7): Advanced Topic in Multiple Regression: Causal Models, Path Analysis.

- *Assignment 1 (interaction effects) is due April 7.*

Week 3 (April 12 & 14): Causal Models and Path Analysis (cont.).

- Readings: **KBM** Chapter 11, W. Sewell, A. Haller, A. Portes (“The Educational and Early Occupational Attainment Process” *American Sociological Review (ASR)* 34:82-92, 1969); A. Darnell & D. Sherkat (“The Impact of Protestant Fundamentalism on Educational Attainment,” *ASR* 62:306-15, 1997).

Week 4 (April 19 & 21): Nonlinear Regression

- Readings: **KBM** pp. 287-299; F. Pampel (“National Context, Social Change, and Sex Differences in Suicide Rates,” *ASR* 63:744-58); D. Grant II et al. (“Organizational Size and Pollution: The Case of the U.S. Chemical Industry,” *ASR* 67:389-407, 2002).
- *Assignment 2 (path analysis) is due April 19.*

Week 5 (April 26 & 28): Nonlinear Regression, Logistic Regression

- *Assignment 3 (nonlinear regression) is due April 28.*
- Readings: **KBM** pp. 299-319.

Week 6 (May 3 & 5): Logistic Regression (cont.), Multinomial Logit.

- Readings: C. Uggen, J. Manza (“Democratic Contraction? The Political Consequences of Felon Disenfranchisement in the United States” *ASR* 67:777-803, 2002); Jones, R. (“The Culture of Poverty and African-American Culture,” *SP* 42:439-58, 1999.).

Week 7 (May 10 & 12): Log-Linear Analysis.

- Readings: **KBM** Chapter 10.
- *Assignment 4 (logistic regression) is due May 12.*

Week 8 (May 17 & 19): Log-Linear Analysis.

- Readings: R. Erikson & J. Goldthorpe (*The Constant Flux: A Study of Class Mobility in Industrial Societies*. Oxford: Clarendon, 2002, excerpts).

Week 9 (May 24 & 26): Paper Presentations.

- *Note: Assignment 5 (log-linear analysis) is due May 24.*

Week 10 (June 2): Paper Presentations.

- *Note: No class on May 31: Memorial Day.*

Final Paper is due Wednesday, June 9 at 12:00 noon.