

Sociology 542
Analysis of Sociological Data II
Fall 2007

Lecture:
Tuesday 9:50am - 12:30pm
Lucy Stone Hall A256

Lab:
Tuesday 12:30pm - 1:30pm
Lucy Stone Hall A337

Professor: Kristen W. Springer
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542 TA: Brian Emerson McCormick
Lab (LSH A337): 12:30pm to 1:30pm
Except 9/11: 12:30-1:00pm and 11/13: 4-5pm

Computer Lab TA: Audrey Devine-Eller
Office Hours (LSH A337): M, W, & TH from 9am – 12pm

Workshops: Audrey Devine-Eller (LSH A337)
Weds, Sept 5 2-5 pm: Finding Data
Mon, Sept 10 3-6 pm: Finding Data
Tues, Sept 11 1-4 pm: SPSS Basics
Weds, Sept 19 2-5 pm: Presenting Quantitative Data

Course Description: This is the second in a two-course series of graduate-level statistics and data analysis. The course begins with an in-depth examination of data sources, content, and limitations. We will also review basic statistical concepts and will then move onto multiple regression – the main focus of the course. In the final weeks (as time permits), we will cover the basic conceptual underpinnings and purposes of more advanced statistical methods including binary and multinomial logistic regression, event history analysis, hierarchical linear modeling, and structural equation modeling.

This is not a course on how to use SPSS, although we will devote much of the course to interpreting the output generated from the computer. This also is not a math course, although we will learn and apply core concepts of basic algebra. Finally, this is not a course in a substantive area of sociology, although we will read about a variety of important substantive topics, and will be using statistical tools to test hypotheses and further our understanding of substantive questions. Rather, this is a course on how to conduct theoretically guided, methodologically rigorous social science research, using quantitative research methods and high-quality survey (or administrative) data. This course is designed to learn statistics through conducting an original, empirical research project. As such, I hope that this course will contribute to a qualifying paper and/or thesis in addition to teaching you statistics.

There is only one way to become a proficient quantitative sociologist and data analyst: by diving into the process and working one's way through the intricacies of preparing, coding, analyzing, presenting, and interpreting the data. It is also imperative for qualitative sociologists to be able to read, understand, and critique quantitative research. I know of no sociological sub-field that only produces qualitative work and

as such any sociologist must be able to interpret statistics. Conducting quantitative analyses is perhaps the best possible way to gain this experience – even for sociologists who have no intention of ever pursuing another quantitative project.

It is important to emphasize that I hope this class will be collaborative rather than competitive. I believe all research can benefit from collaboration, but I feel it is crucial in the early stages of learning statistics and developing research projects. Although I require students to choose independent projects and topics, I encourage students to work together on homework assignments and assist each other with statistical analyses and interpretation as appropriate. In addition, I encourage several students to work on the same dataset. By working on the same dataset, students can assist each other with extraction, locating variables etc. thereby allowing more energy to be spent on the actual analysis and writing. Further information about suggested datasets is included in the syllabus and we will spend class time discussing data possibilities. Please feel free to see me if you have any questions.

Prerequisites: Sociology 541 (Analysis of Sociological Data I) or its equivalent. You should be familiar with basic descriptive statistics, inferential statistics, and simple bivariate regression.

Statistical Packages: I will use SPSS in this class because this is what most of you are already trained in. However, I am a Stata user and believe that Stata is the best package to grow with. If you think you might be doing more advanced statistical analysis in the future, I *strongly* recommend you learn Stata. If you are interested in learning Stata and using it in this class, please see me. Also, if you use a different package – i.e. SAS – please see me. The following is a great comparison of Stata, SAS, and SPSS.

Mitchell, M. N. 2005. *Strategically using General Purpose Statistics Packages: A Look at Stata, SAS and SPSS* (Technical Report Series, Report Number 1, Version Number 1). Statistical Consulting Group: UCLA Academic Technology Services.

Reading: There will be two sets of readings outlined in the syllabus – required and recommended. In general, the required reading will cover how to perform, understand, interpret, and discuss multivariate statistical analyses. In contrast, the recommended reading will generally include substantive articles utilizing a particular statistical technique. I have streamlined the reading and assigned only the minimum amount that I feel is necessary to understand the course content. As such, I expect that everyone will complete each week's readings prior to the start of class, and will be prepared to both ask and answer questions on the readings during the class session. The reading schedule may be modified throughout the semester if needed. I will always provide ample notice of changes. The required books are available at the Livingston College Bookstore and the articles are in the "resources" folder on our Sakai website.

Required Books:

Norusis, Marija J. 2005. *SPSS 13.0 Guide to Data Analysis*. Upper Saddle River, NJ: Prentice Hall.

Allison, Paul D. 1999. *Multiple Regression: A Primer*. Thousand Oaks, CA: Pine Forge Press.

Miller, Jane E. 2005. *The Chicago Guide to Writing about Multivariate Analysis*. Chicago: University of Chicago Press.

Recommended Reference Book: This course is an applied regression course and as such we will discuss, but not focus on, the math behind the models. McClendon's book is a good basic multiple regression reference for students who are more interested the mathematical foundation.

McClendon, McKee J. 1994. *Multiple Regression and Causal Analysis*. Prospect Heights, IL: Waveland Press, Inc.

Lecture and Lab: The official lecture time – from 9:50-12:30 on Tuesdays – is the required portion of Sociology 542. The lab time – from 12:30 to 1:30 on Tuesdays – is not officially required but is *highly recommended*. This course requires an understanding of why and how certain techniques are used *as well as* the skills to implement these techniques.

The official course time will be spent primarily on lectures covering the week's materials. I will post my power point slides on the Sakai website by 5pm the day before class. Please feel free to print out the notes pages and bring them to lecture. Lectures are also a very good time to discuss problems with homework assignments, SPSS codes, and research puzzles. During these discussions, students are expected to raise questions about the course readings and lecture content, and should talk freely about their challenges with the past week's data analysis activities.

In addition to the lecture portion of the class, we will have a dedicated hour of lab time immediately following lecture. This lab hour is the perfect time to start the homework, ask for help with specific SPSS problems, and learn from other students. The lab hour will be proctored by Brian McCormick – a student who took this course last year and is very proficient in multivariate analyses and SPSS. I would like you to try and work out homework, SPSS issues, and general statistics problems in lab or with the help of other students *before* asking me. I do this because it is very important to figure out ways to solve statistics problems on your own, or with you colleagues. However, I am always available to assist you with problems and questions – and I strongly encourage you to meet with me as the need arises. I simply ask that you try to solve the problem with your colleagues first. To this end, when you visit me for assistance, I will ask what you have already done to problem-solve your questions.

Computer Lab T.A.: This semester the Sociology department is very lucky to have hired Audrey Devine-Eller as the computer Lab T.A. Audrey will be available in Lucy Stone Hall A337 to help any student with computer-related problems, including SPSS. She will also be giving tutorials on several topics designed to supplement and coincide with 542. Specifically, she will be teaching an SPSS refresher course, a course on finding and accessing dataset, and a course on presenting quantitative data. I *strongly* encourage you to take advantage of this incredible opportunity. We will briefly discuss the topics Audrey is covering, but the workshops will provide a much more thorough treatment of the material – material that will be very helpful for successfully producing a quantitative manuscript. Audrey's office hours and workshop times are listed at the top of the syllabus and I will update you with any changes.

Sakai: This course has a Sakai website where I will post announcements, articles, homework, and lecture notes. Any announcement I post will also be e-mailed to your Rutgers' e-mail account unless you notify me of a different e-mail address. You are expected to check the course website or your e-mail regularly for announcements – although I don't plan on posting things at the last minute. I have also enabled the "chat room" feature of Sakai to further facilitate peer problem solving. I will be happy to respond to a chat question if someone brings it to my attention, but I will otherwise not participate in the chat room.

Grading: Course grades will be based on homework assignments and the final paper. I will grade your paper proposal, final presentation, and final paper; Brian McCormick will be primarily responsible for grading your annotated bibliography and weekly homework. I will not give grades of "incomplete." In the "real world," journal and book editors, publishers, and grant reviewers do not extend deadlines.

Completion of homework assignments (40 percent of class grade).

Most weeks students are required to complete a homework assignment. The homework assignments will be based on a student's own research project, so that students will be completing sections of their final paper throughout the semester. These assignments may include draft sections of the final paper, presentation of descriptive data, and/or statistical analysis. All analyses are to be conducted using SPSS, unless a student has already spoken with me about choosing another software package. In addition, students are required to submit a copy of all statistical output and implementation code used for homework assignments. These files should be organized, labeled and only consist of the material in the homework – in other words, don't submit everything that was run.

It is crucial that each homework assignment is completed carefully and on deadline. If a student's homework does not show sufficient grasp of the material assigned, I may ask him or her to redo the assignment. Each of these homework assignments builds on the past assignment, and will comprise a critical component of the final research paper. It is therefore essential that students understand and complete each assignment on time.

Assignments will be distributed and discussed in class, one week prior to deadline. Homework is due at the start of class unless otherwise noted. We will have 8 assignments with each accounting for 5 percent of the course grade. I have listed the approximate due dates on the syllabus to assist with semester planning. However this schedule may change because the content, frequency, and timing of the homework assignments are contingent upon students' comprehension of the course material.

Final research paper (60 percent of class grade).

The main course requirement is the preparation of an original empirical research paper (roughly 25 pages, double spaced). Paper topic, methodology, and data source will be chosen in consultation with the instructor. The paper should define a research question, review relevant prior studies, analyze suitable data, and present the findings and implications. The centerpiece of the analysis **MUST** be a multivariate analysis with some complexity. Completion of the paper will proceed in four steps.

1. Each student will submit a brief (2-3 page) research proposal **by the start of class on September 18th**. This brief proposal should describe your research question(s), data to be used, and analyses to be undertaken. If you are working closely with another student you must both include a statement about how your research projects overlap and how they are distinct. You are encouraged to meet with me early in the semester to discuss your research plan. You **MUST** meet with me before submitting this proposal if your project overlaps with another student's project.
2. An annotated bibliography summarizing at least five seminal sources related to your research question will be due early in the semester. This will help to ensure that you are deriving hypotheses and models with reference to the existing literature. The annotated bibliography is due **by the start of class on October 9th**. However, I strongly suggest that you begin reading the relevant literature as soon as class starts.
3. Each student will make a 10-15 minute presentation of his or her research to the class on **December 11th**. We may need to extend our class time in order to fit all presentations.
4. The final paper is due **no later than December 14th at 5 p.m.** Organized code and output for analyses in the paper should be submitted at the same time.

Data Sources: All students are **required** to conduct an original analysis of secondary data. Many data sets are available through University of Michigan's Inter-University Consortium for Political and Social Research (<http://www.icpsr.umich.edu>). Information on accessing data sets will be made available during the first two weeks of the course. As previously stated, it is my hope that small groups (3-4) of students will choose to work on the same dataset. Each dataset I will recommend is rich enough to support hundreds of projects so it should be no problem for each student to have his or her own project. I recommend using one of the following datasets:

General Social Surveys (GSS)
Health and Retirement Survey (HRS)
Midlife in the United States (MIDUS)

National Survey of Families and Households (NSFH)
Wisconsin Longitudinal Study (WLS)

We'll talk about each during the first week and students can spend time exploring the datasets outside of class. If you are already working on a project and/or are interested in a dataset other than those I've listed, please see me.

Academic Integrity: Academic honesty and integrity are expected in this class. Students should familiarize themselves with ethical conduct guidelines and Rutgers' policies on academic integrity (<http://teachx.rutgers.edu/integrity/>). Lack of familiarity with these rules in no way constitutes an excuse for acts of misconduct. Any instance of cheating, plagiarism, or other misconduct will be dealt with strictly according to University policy.

Because I DO encourage all students to form study groups and work together, let me clarify the application of this academic integrity policy to joint work.

First, every student is expected to understand and complete all analyses for his/her project. It is fine to have someone help you do something, but before you hand in any work you need to do all of the analyses yourself and understand everything you are doing.

Second, while working in small groups you will hopefully discuss problems, alternatives, and solutions related to your research. This is great. But, all of the decision making for your project **MUST** be your own. Let me reiterate: all of the decision making that goes into writing a research paper – what is your main point, how are you going to prioritize issues, what variables to use, how to operationalize the analyses, which analyses to run, what is your overall conclusion etc. – should be your own work. Of course, the writing itself also needs to be your own.

Third, each student needs to be explicit about how his or her work/ideas/models vary from other students' projects. This is particularly true if students choose to do complementary analyses (i.e. one student looks at how childhood health impacts educational attainment and then another student looks at how childhood health impacts marriage). In short, do not let fear of plagiarism cause you to "hoard" your ideas, but make sure that your presentation of your ideas fairly represents your own thinking process, including saying what you have learned from others.

Special Accommodations: Students requiring special accommodations and/or students who plan to miss class due to a disability, religious observance, or other extenuating circumstances should speak with me early in the semester.

READING SCHEDULE

Week 1 (9/4): Introduction and Data Options

Objectives: (1) To choose a data set for your course paper; (2) To understand the basic principles of collecting survey data; (3) To understand the strengths and weaknesses of cross-sectional, repeated cross-section, longitudinal, and cohort studies; (4) To understand the role of the Institutional Review Board (IRB) and prepare requests for IRB approval/exemption.

Recommended Reading:

Carr, Deborah. 2006. "Methodological Issues in Studying Bereavement." Pp. 19-47 in *Spousal Bereavement in Late Life*, edited by Deborah Carr, Randolph Nesse, and Camille B. Wortman. New York: Springer.

Kiecolt, K. Jill and Laura E. Nathan. 1985. *Secondary Analysis of Survey Data*. Newbury Park, CA: Sage Publications. (Pp. 9-14, and 47-76).

Website for Inter-University Consortium for Political Research at University of Michigan:
<http://www.icpsr.umich.edu/>

Week 2 (9/11): Linking Data and Theory

Homework 1: Due by 9pm on Monday (9/10) by e-mail. We may spend a little time at the end of class breaking into groups by dataset.

NOTE: Lab is from 12:30-1pm on 9/11.

Objectives: (1) To derive testable hypotheses from sociological theories, particularly midrange theories; (2) To develop operationalized measures from theoretical concepts; (3) To understand the process through which broad sociological ideas are translated into conceptual models, and eventually into statistical models

Required:

Kritzer, Herbert M. 1996. "The Data Puzzle: The Nature of Interpretation in Quantitative Research." *American Journal of Political Science* 40(1): 1-32.

Gross, Neil and Solon Simmons. 2002. "Intimacy as a Double-Edged Phenomenon? An Empirical Test of Giddens." *Social Forces* 81(2): 531-555.

Recommended:

Bryson, Bethany. 1996. "'Anything but Heavy Metal': Symbolic Exclusion and Musical Dislikes." *American Sociological Review* 61: 884-899.

Weeks 3 (9/18): Understanding Variables: What They Are, What They Do, What They Look Like and How to Document

Objectives: (1) To understand the differences and similarities among independent, dependent, mediating, confounding, and control variables; (2) To identify and recognize the appropriate use of continuous, ordinal, and categorical variables; (3) To develop an understanding of scale construction, use, and replicability; (4) To discuss variable coding and SPSS documentation.

Research proposal due

Required:

Norusis, Marija. 2005. Chapter 4: Counting Responses (Pp. 47-67); Chapter 5: Computing Descriptive Statistics (Pp. 77-100); Appendix A: Obtaining Charts in SPSS (Pp.577-592); and Appendix B: Transforming and Selecting Data (Pp. 593-615).

Miller, Jane. 2005. Chapter 12: Writing About Data and Methods (Pp. 272-300). [We will revisit this chapter throughout the semester]; Chapter 3: Causality, Significance, and Substantive Significance (Pp. 34-41).

Week 4 (9/25): Scales and Missing Data

Objectives: (1) To understand the diverse types of missing data, and basic strategies for handling missing data; (2) To understand how validity of scales and items can be changed dependent on instrument design.

Homework 2 due (Write “Sample” portion of “Data and Methods” section of final paper)

Required:

Ryff, Carol D. 1989. “Happiness is Everything, or is it? Explorations on the Meaning of Psychological Well-Being.” *Journal of Personality and Social Psychology* 57: 1069-81.

Horwitz, Allan. 2002. “Outcomes in the Sociology of Mental Health and Illness: Where Have We Been and Where Are We Going?” *Journal of Health and Social Behavior* 43(2): 125-42.

Springer, Kristen W. and Robert M. Hauser. 2006. “An Assessment of the Construct Validity of Ryff’s Scales of Psychological Well-Being: Method, Mode and Measurement Effects.” *Social Science Research*. 35: 1080-1102. (Focus on introduction, background and discussion sections).

Week 5 (10/2): Simple Regression

Homework 3 due (Write “Measures” portion of the “Data and Methods” section of your final paper).

Objectives: (1) To understand the basic assumptions of ordinary least squares (OLS) regression; (2) To interpret regression coefficients; (3) To understand the relationship between multiple regression and correlation; (4) To recognize the importance of statistically significant and not statistically significant predictor variables.

Required:

Norusis, Marija J. 2005. Chapter 20: Linear Regression and Correlation. (Pp. 441-476).

Allison, Paul. D. 1999. Chapter 1: What is Multiple Regression?; Chapter 5: How Does Bivariate Regression Work?; Chapter 9: How is Multiple Regression Related to Other Statistical Techniques (Pp. 175-177).

Miller, Jane. 2005. Chapter 3: Causality, Significance, and Substantive Significance (Pp. 41-49); Chapter 4: Five More Technical Principles (Pp. 50-67); Chapter 5: Creating Effective Tables (Pp. 81- 97); Chapter 9: Quantitative Comparisons for Multivariate Models (Pp. 208-212).

Recommended:

Thompson, Maxine S. and Verna M. Keith. 2001. "The Blacker the Berry: Gender, Skin Tone, Self-Esteem, and Self-Efficacy" *Gender and Society* 15: 336 - 357. (read up to the bottom of the first paragraph on page 347).

Week 6 (10/9): Multiple Regression

Annotated Bibliography due

Objectives: (1) To understand the purposes and form of multiple regression; (2) To understand the process of model building; (3) To statistically interpret results using categorical and continuous independent variables; (4) To understand the use of sampling weights

Required:

Norusis, Marija. 2005. Chapter 21: Testing Regression Hypotheses (Pp. 477-498) and Chapter 23: Building Multiple Regression Models (Pp. 523-559).

Allison, Paul. 1999. Chapter 2: How Do I Interpret Multiple Regression Results?; Chapter 4: How Do I Run a Multiple Regression? (skip multicollinearity diagnostics and influence statistics sections on Pp. 89-91)

Miller, Jane. 2005. Chapter 5: Creating Effective Tables (Pp. 97-119); Chapter 14: Writing About Multivariate Models (Pp. 317-348)

Recommended:

Freedman, David A. 1991. "Statistical Models and Shoe Leather." *Sociological Methodology* 21: 291-313.

Berk, Richard. 1991. "Toward a Methodology for Mere Mortals." *Sociological Methodology* 21: 315-324.

Thompson, Maxine S. and Verna M. Keith. 2001. "The Blacker the Berry: Gender, Skin Tone, Self-Esteem, and Self-Efficacy" *Gender and Society* 15: 336 - 357. (continue reading up to the bottom of the first paragraph on page 349).

Week 7 (10/16): Multiple Regression Diagnostics

Objectives: (1) To understand and remedy issues including sample bias; (2) To recognize and address problems including multicollinearity; (3) To understand and test assumptions of multiple regression.

Required:

Norusis, Marija 2005. Chapter 9: Plotting Data (Pp. 167-197); Chapter 11: The Normal Distribution (Pp. 213-231); Chapter 24: Multiple Regression Diagnostics (Pp. 559-576).

Allison, Paul. 1999. Chapter 6: What are the Assumptions of Multiple Regression; Chapter 3: What Can Go Wrong with Multiple Regression (Pp. 57-64); Chapter 4: How Do I Run a Multiple Regression? (Pp. 89-91); Chapter 7: What Can Be Done about Multicollinearity?

Recommended:

Berk, Richard A. 1983. "An Introduction of Sample Selection Bias in Sociological Data." *American Sociological Review* 48: 386-398. [Skim only]

Week 8 (10/23): Model Form, Testing and Fit

Homework 4 due (Multiple linear regression).

Objectives: (1) To identify the meaning of model fit statistics including BIC; (2) To develop strategies for presenting and discussing regression model fit; (3) To devise strategies for transforming data to handle non-linear relationships; (4) To develop a general understanding of sensitivity analyses.

Required:

Allison, Paul. 1999. Chapter 8: How Can Multiple Regression Handle Nonlinear Relationships (Pp. 153-166).

Miller, Jane. 2005. Chapter 9: Quantitative Comparisons for Multivariate Models (Pp. 213-215); Chapter 10: Choosing How to Present Statistical Test Results (Pp. 231-254)

Recommended:

Flegal, Katherine M., Barry I. Graubard, David F. Williamson, and Mitchell H. Gail. 2005. "Excess Deaths Associated with Underweight, Overweight and Obesity." *Journal of American Medical Association* 293(15): 1861-1867.

Morgan, Laurie A. and Michelle M. Arthur. 2005. "Methodological Considerations for Estimating the Gender Pay Gap for Employed Professionals." *Sociological Methods and Research* 33: 383-403.

Week 9 (10/30): Causal Ordering and Causal Inference

Homework 5 due (Sensitivity analyses).

Objectives: (1) To understand the purpose of nested models; (2) To develop an understanding of mediation and selection effects; (3) To recognize the threats to causal inferences in OLS regression; (4) To understand omitted variable bias and its threats to causal inference.

Required:

Allison, Paul. 1999. Chapter 3: What Can Go Wrong with Multiple Regression (Pp. 50-57; 60-62).

Baron, Reuben M. and David A. Kenny. 1986. "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations." *Journal of Personality and Social Psychology* 51(6): 1173-1182.

Miller, Jane. 2005. Chapter 14: Writing About Multivariate Models (Pp. 342-344).

Recommended:

Ainsworth, James W. 2002. "Why Does it Take a Village? The Mediation of Neighborhood Effects on Educational Attainment." *Social Forces* 81(1): 117-52.

Cagney, Kathleen A. and Diane S. Lauderdale. 2002. "Education, Wealth, and Cognitive Function in Later Life." *The Journals of Gerontology, Social Sciences*: 57:P163-P172

Week 10 (11/6): Interaction Terms

Homework 6 due (Mediation analyses)

Objectives: (1) To define "main effect" and "interaction effect"; (2) To recognize when interaction terms should be used (versus separate models for subpopulations); (3) To calculate and interpret the main and interactive effects of relevant variables.

Required:

Allison, Paul. 1999. Chapter 8: How Can Multiple Regression Handle Nonlinear Relationships? (Pp. 166-174)

Miller, Jane. 2005. Chapter 9: Quantitative Comparisons for Multivariate Models (Pp. 215-218); Chapter 13: Writing About Distributions and Associations (Pp. 311-315); Appendix D: Using a Spreadsheet for Calculations (Pp. 433-437).

Required – Choose One:

Carr, Deborah. 2004. "Gender, Pre-Loss Marital Dependence and Older Adults' Adjustment to Widowhood." *Journal of Marriage and Family* 66: 220-35.

Thompson, Maxine S. and Verna M. Keith. 2001. "The Blacker the Berry: Gender, Skin Tone, Self-Esteem, and Self-Efficacy" *Gender and Society* 15: 336 - 357. (Finish article).

Week 11 (11/13): Logistic Regression

Homework 7 due (Interaction analyses)

NOTE: Lab is from 4-5pm on 11/13.

Objectives: (1) To recognize when logistic regression should be used; (2) To interpret the effects of continuous and categorical variables in logistic regression models; (3) To interpret main and interaction effects in logistic regression models.

Required:

DeMaris, Alfred. 1995. "A Tutorial in Logistic Regression." *Journal of Marriage and Family* 57: 956-968. [Focus on pp. 965-968].

Morgan, S. Philip and Jay D. Teachman. 1988. "Logistic Regression: Description, Examples, and Comparisons." *Journal of Marriage and Family* 50: 929-36.

Miller, Jane. 2005. Chapter 9: Quantitative Comparisons for Multivariate (Pp. 220-226); Appendix C: Terminology for Ordinary Least Squares (OLS) and Logistic Models (Pp. 423-432).

Recommended:

Gerstel, Naomi and Sally K. Gallagher. 2001. "Men's Caregiving: Gender and the Contingent Character of Care." *Gender and Society* 15: 197 - 217.

Wald, Kenneth D., James W. Button, and Barbara A. Rienzo. 1996. "The Politics of Gay Rights in American Communities: Explaining Antidiscrimination Ordinances and Policies." *American Journal of Political Science* 40(4): 1152-1178.

Week 12 (11/20): NO CLASS – HAPPY THANKSGIVING

Week 13 (11/27): Multinomial Logistic Regression and Conceptual Overview of Advanced Methods: Event History Analysis (EHA), Structural Equation Modeling (SEM) and Hierarchical Linear Modeling (HLM)

Objectives: (1) To recognize when multinomial and ordered logistic regression should be used; (2) To interpret the effects of continuous and categorical variables in multinomial logistic regression models; (3) To interpret main and interaction effects in multinomial logistic regression models; (4) To develop a conceptual understanding of the differences between multinomial logistic regression and ordered logistic regression; (5) To recognize when event history analyses, structural equation modeling, and hierarchical linear modeling should be used.

Required:

Allison, Paul. D. 1999. Chapter 9: How is Multiple Regression Related to Other Statistical Techniques? (Pp. 177-187)

Recommended:

Multinomial Logistic Regression

Perna, Laura W. 2004. "Understanding the Decision to Enroll in Graduate School: Sex and Racial/Ethnic Group Differences." *Journal of Higher Education* 75(5): 487-527.

Sarkisian, Natalia and Naomi Gerstel. 2004. "Kin Support among Blacks and Whites: Race and Family Organization." *American Sociological Review* 69: 812-837.

EHA

Heaton, Tim B. and Vaughn R. A. Call. 1995. "Modeling Family Dynamics with Event History Techniques." *Journal of Marriage and Family* 57: 1078-1090.

SEM

Godwin, Deborah D. 1988. "Causal Modeling in Family Research." *Journal of Marriage and the Family* 50: 917-927.

HLM

Lee, Valerie E. 2000. "Using Hierarchical Linear Modeling to Study Social Contexts: The Case of School Effects Source." *Educational Psychologist* 35(2): 125-141.

Week 14 (12/4): Pulling it Together: Writing a Quantitative Research Paper

Objectives: (1) To produce a theoretically-guided, methodologically rigorous research paper, drawing together this semester's lessons!

Homework 8 due (Logistic regression)

Required:

White, Lynn. 2005. "Writes of Passage: Writing an Empirical Journal Article." *Journal of Marriage and Family*. 67: 791-798.

Miller, Jane. 2005. Chapter 14: Writing About Multivariate Models (Pp. 317-348)

Recommended:

Cherlin, Andrew J., Linda M. Burton, Tera R. Hurt, and Diane M. Purvin. 2004. "The Influence of Physical and Sexual Abuse on Marriage and Cohabitation." *American Sociological Review* 69: 768-789.

Week 15 (12/11): Student Presentations

HAVE A WONDERFUL WINTER VACATION!