

Sociology 542
Analysis of Sociological Data II
Fall 2006
Thursdays 4:10-6:50pm
Lucy Stone Hall A256

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Office Hours: Wednesday 1-2pm, Thursday 3-4pm, and by appointment

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.

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. This process of discovery is only possible, however, with a strong grasp of the statistical concepts that underlie one's analyses, and a basic knowledge of the computer software packages that generate those analyses.

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.

I will use SPSS for examples presented in 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. To this end I will assign Stata and SPSS readings that correspond to the sections I will cover in the class. Please read the section that corresponds to your package of choice. I will require implementation code and statistical output for all analyses regardless of the statistical package used. (NOTE: If you use a different package – i.e. SAS please see me).

I want to emphasize that the examples I present in class will be from SPSS. However, I will provide support for Stata and SPSS users and there are multiple public websites which can help students learn Stata (i.e. <http://www.ats.ucla.edu/STAT/stata/>).

Please read the following Mitchell manuscript if you would like more information comparing

Stata, SAS, and SPSS.

(E) 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.

This is not a course on how to use Stata or 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 be reading 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.

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.

Required Reading: All reading is required. Students must complete each week's readings prior to the start of class, and should be prepared to both ask and answer questions on the readings during the class session. The reading schedule may be modified throughout the semester as I see fit. I will always provide ample notice of changes. The required books are available at the Livingston College Bookstore. The required articles and chapters will be e-mailed to students in a zipped file after the first week of class and will be "on reserve" in the Sociology department. These readings are preceded by a (E) in the syllabus.

Choose One:

Acock, Alan C. 2006. *A Gentle Introduction to Stata*. College Station, TX: Stata Press.

Or

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

Everyone Buys:

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.

Stata users will also be assigned some material from the free online Stata Regression Book by Chen et al. at <http://www.ats.ucla.edu/STAT/stata/webbooks/reg/default.htm> with permission from UCLA Academic Technology Services.

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. However, McClendon's book is a good basic multiple regression reference for students who are more interested in regression statistics.

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

Overview of Course Requirements and Grading: The course is organized as a combination of a lecture class and a "working group" meeting. I will provide a 1.5 to 2 hour lecture on each week's topics, followed by a discussion where research challenges are puzzled out and, hopefully, resolved. During the discussion, 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. Course grades will be based on three major requirements: participation in discussion, homework assignments, and the final course paper (see details below). I will not give grades of "incomplete." In the "real world," journal and book editors, publishers, and grant proposal reviewers do not give breaks to those who cannot meet deadlines.

(1) Participation in weekly discussion (10 percent of class grade).

This grade reflects participation in discussion and the quality of both the questions and answers offered during class. Students should read carefully and complete all homework assignments so that they come to class with insightful comments and questions. Students who read materials that are not on the syllabus but that are germane to the discussion should feel free to contribute this knowledge to the discussion; the class as a whole will benefit from the specialized knowledge of all participants. In addition, students are expected to attend every class.

(2) Completion of homework assignments (50 percent of class grade).

Most weeks, students are required to complete a homework assignment. These assignments may include draft sections of your final paper, presentation of descriptive data, and/or statistical analysis. Analyses are to be conducted using Stata, 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. I am available to meet with students who have questions and/or need assistance.

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 10 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.

(3) Final research paper or proposal (40 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 (i.e., OLS regression, binary logistic regression, or multinomial logistic regression). Students are encouraged to use this class project to develop a qualifying paper or journal article. 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 21st**. This brief proposal should describe your research question, the data to be used, and the 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/complements 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 5th**.
3. Each student will make a 10-15 minute presentation of his or her research to the class on **December 7th**. We may need to extend our class time in order to fit all presentations.
4. The final draft of the 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) 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 Survey (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 are likely to miss class due to a disability, religious observance, or other extenuating circumstances should speak with me early in the semester. Please also see <http://disabilityservices.rutgers.edu/> for information about Rutgers' disability support services.

READING SCHEDULE

Week 1 (9/7): 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, including sampling frame, response rate, and attrition; (3) To understand the strengths and weaknesses of cross-sectional, repeated cross-section, longitudinal, and cohort studies; (4) To begin preparing secondary data for your own empirical analysis.

(E) 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.

(E) 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 (9/14): Linking Data and Theory

Homework 1: Due 5pm day before class by e-mail. We will spend a little time at the end of class breaking into groups by dataset.

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; (4) To understand the role of the Institutional Review Board (IRB) and prepare requests for IRB approval/exemption.

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

(E) Cox, D. R. 1990. "Role of Models in Statistical Analysis." *Statistical Science* 5(2): 169-174.

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

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

Week 3 (9/21): Understanding Variables: What They Are, What They Do, What They Look Like, and What to Do When They're Missing.

Research Proposal due

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 understand the diverse types of missing data, and basic strategies for handling missing data; (5) To understand how validity of scales and items can be changed dependent on instrument design.

Acock, Alan C. 2006. Chapters 3-5.

OR

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).

(E) 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: 1069-1081.

(E) 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.

(E) Springer, Kristen W. and Robert M. Hauser. *Forthcoming*. "An Assessment of the Construct Validity of Ryff's Scales of Psychological Well-Being: Method, Mode and Measurement Effects." *Social Science Research*. (Focus on introduction, background and discussion sections).

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 (9/28): Simple Regression

Homework 2 Due

Come prepared to ask questions and discuss variable coding questions/issues

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.

Acock, Alan C. 2006. Chapter 8 (Pp. 149-167)

Chen et al. <http://www.ats.ucla.edu/STAT/stata/webbooks/reg/default.htm> (sections 1.0 - 1.3)

OR

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).

(E) 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).

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).

Week 5 (10/5): Multiple Regression

Homework 3 and 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

Acock, Alan C. 2006. Chapter 10 (Pp. 211 – 217; 229-240)

Chen et al. <http://www.ats.ucla.edu/STAT/stata/webbooks/reg/default.htm> (sections 1.4; 3.0-3.3.1)

OR

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)

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

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

(E) 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).

Miller, Jane. 2005. Chapter 5: Creating Effective Tables (Pp. 97-119)

Week 6 (10/12): Multiple Regression Diagnostics

Homework 4 due

Objectives: (1) To understand and remedy issues including sample bias; (2) To recognize the problems posed by outliers; (3) To recognize and address problems including multicollinearity; (4) To understand and test assumptions of multiple regression.

Acock, Alan C. 2006. Chapter 10 (Pp. 218-229)

Chen et al. <http://www.ats.ucla.edu/STAT/stata/webbooks/reg/default.htm> (Section 1.5; Chapter 2)

OR

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?

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

Week 7 (10/19): Causal Ordering and Causal Inference

Homework 5 due

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

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

- (E) 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.
- (E) Ainsworth, James W. 2002. "Why Does it Take a Village? The Mediation of Neighborhood Effects on Educational Attainment." *Social Forces* 81(1): 117-52.
- (E) 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
- Miller, Jane. 2005. Chapter 14: Writing About Multivariate Models (Pp. 342-344).

Week 8 (10/26): Model Form, Testing and Fit

Homework 6 due

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.

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

(E) 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.

(E) 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.

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)

Week 9 (11/2): Interaction Terms

Homework 7 due

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.

Acock, Alan C. 2006. Chapter 10 (Pp. 240-244)

Chen et al. <http://www.ats.ucla.edu/STAT/stata/webbooks/reg/default.htm> (Sections 3.6.2, 3.7, 3.7.1)

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

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

(E) Mouw, Ted and Yu Xie. 1999. "Bilingualism and the Academic Achievement of First- and Second-Generation Asian Americans: Accommodation with or without Assimilation?" *American Sociological Review* 64: 232-252.

(E) 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).

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).

Week 10 (11/9): Logistic Regression

Homework 8 due

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.

Acock, Alan C. 2006. Chapter 11.

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

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

(E) 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.

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).

Week 11 (11/16): Logistic Regression Cont. (if needed) and Multinomial Logistic Regression

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 probit models.

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

(E) Kane, John and Lawrence M. Spizman. 1994. "Race, Financial Aid Awards and College Attendance: Parents and Geography Matter." *American Journal of Economics and Sociology* 53(1): 85-97.

(E) 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.

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

Week 12 (11/23): Class Cancelled for Thanksgiving

Week 13 (11/30): Conceptual Overview of Advanced Methods: Event History Analysis (EHA), Structural Equation Modeling (SEM) and Hierarchical Linear Modeling (HLM)

&

Pulling it Together: Writing a Quantitative Research Paper

Homework 9 due

Objectives: (1) To recognize when event history analyses, structural equation modeling, and hierarchical linear modeling should be used; (2) To produce a theoretically-guided, methodologically rigorous research paper, drawing together this semester's lessons!

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

EHA

(E) 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

(E) Godwin, Deborah D. 1988. "Causal Modeling in Family Research." *Journal of Marriage and*

the Family 50: 917-927.

HLM

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

Writing a Quantitative Paper

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

(E) 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.

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

Week 14 (12/7): Student Presentations

Homework 10 due

Miller, Jane. 2005. Chapter 15: Speaking About Multivariate Models (Pp. 349-379)

HAVE A WONDERFUL WINTER VACATION!