SOCIOLOGY 593: QUANTITATIVE ANALYSIS
Winter Quarter, 2014
Tuesdays, 2:00-4:50 PM; 450 NH

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Course Description
Sociology 593 is designed for first-year sociology graduate students. The main goal is to learn how to statistically analyze quantitative data using SPSS. This course teaches applied statistics, so rather than focusing on mathematics we will spend the majority of our time positing hypotheses, generating statistics using SPSS, and interpreting the findings. Soc 593 is an introductory course, so if you plan on analyzing quantitative data for your thesis you will probably need to take additional, more advanced statistics courses. The School of Community Health, offers a good 2-part course: USP 534 in the spring term and USP 554 in the fall term. Within the sociology department, we offer SOC 695 (Advanced Methods in Sociology) in the spring term.

Course Objectives
- Learn basic techniques for analyzing quantitative data.
- Learn the statistical package SPSS.
- Gain experience writing a quantitative research paper.
- Understand other researchers’ published quantitative research.
- Develop a literature review that will help you write your Master’s thesis.
- Sharpen your critical thinking skills.

Course Materials

Required: Several peer-reviewed articles will provide examples of how to discuss data analysis results. These articles are accessible via D2L (d2l.pdx.edu).

Required: A data set (in SPSS) that is of theoretical interest to you.

Optional: If you do not find a data set of interest, the default will be the GSS (General Social Survey).

Optional: Discovering Statistics using SPSS for Windows, by Andy Field (2000). [I recommend this book if you are planning on analyzing quantitative data for your thesis or if you would like to learn more advanced statistics/SPSS functions on your own.]
Grading

**Weekly Homework Assignments (30%)**
Each week you will be given an assignment that will be based on the weekly readings and the lab lecture. This assignment will be posted on D2L (d2l.pdx.edu). Send completed assignments to mthomp@pdx.edu in two files: the homework in MS Word and relevant SPSS output (the output can also be copied and pasted into Word) by Mondays at 9:00am (earlier submission is always welcome). In the email subject line please write “YOUR NAME, week # homework” (e.g., “Melissa’s week 1 homework”). Note: To allow grading time, late homework submissions will not be accepted without prior approval.

**Research paper (60%)**
The majority of your grade is based on your research paper. This paper will be 15-30 pages in length, and will be based on analysis of the data set that you have acquired. Chapter 9 of *Data Analysis with SPSS* discusses the main parts of the paper. This paper is due by Tuesday, March 18, at noon.

Each week you should work on your research paper, however you will not be turning it in to the instructor (unless otherwise notified). For more information on the research paper, see the notes at the end of each week’s homework assignment and the document “Timetable for Writing a Research Paper.” After the lecture part of the weekly class (approximately 1.5 hours), students and the instructor will stay in the computer lab until approximately 4:50 p.m. during which time students can work on their homework assignment or seek guidance from the instructor regarding their research paper. You may leave early only if your homework for that week is finished, and even if this is the case, you are strongly encouraged to stick around and work on your final paper.

Students are encouraged to seek the help of the Social Sciences Librarian, Kimberly Pendell: kpendell@pdx.edu, (503.725.4501). She can help you develop a research strategy for the literature review (in which you will be developing your hypotheses) for your research paper. The Writing Center is also a valuable resource to help you develop your technical writing skills (phone: 503.725.3570).

**Oral presentation (10%)**
During week 10 students will present their main research findings. The feedback you receive from the instructor and fellow students will help you revise your findings for the final draft. Note: To accommodate all research presentations, we will need to meet twice during week 10. The scheduling for this second meeting will occur in class on January 14 (week 2).
Course Schedule
(subject to change with reasonable notice)

Week 1 (Jan 7): Introduction, Univariate Analysis, Levels of Measurement
Readings:
- Sweet & Grace-Martin, Chapter 1-3;
- Uggen, Manza, and Thompson, 2006, especially Table 3 and its discussion on pages 291-296.
Assignment: Problems from Chapters 1 and 3.

Week 2 (Jan 14): Indexes/Scales
Readings:
- Sweet & Grace-Martin, Chapter 4;
- Begin Sweet & Grace-Martin, Chapter 9: Writing a Research Report;
- Moon et al. 2011, especially the scales (indexes) discussed under “The Association with Delinquent Peers and the Legitimacy of Violence” and “Strain and Negative Emotions (Anger and Depression)” (pp. 858-861).
Assignment: Problems from Chapter 4.

Week 3 (Jan 21): Crosstabs
Readings:
- Sweet & Grace-Martin, Chapter 5, pages 105-116 (up through the end of the “Bar Charts” section);
- Finish reading Sweet & Grace-Martin, Chapter 9: Writing a Research Report
- Sobolewski and Amato, 2007, especially “Descriptive Results” crosstabs discussion on pages 1112-1113.
Assignment: Problems from Chapter 5.

Week 4 (Jan 28): Correlation and ANOVA
Readings:
- Rest of Sweet & Grace-Martin, Chapter 5, starting on page 116 (starting with “Analyzing Bivariate Relationships Between Two Scale Variables”);
- All of Sweet & Grace-Martin, Chapter 6
- Ng and Burke, 2004 (see correlation and ANOVA examples)
Assignment: Problems from Chapters 5 and 6.

Week 5 (Feb 4): NO CLASS MEETING
Assignment:
- Finalize plans for a data set to use in your final project; start running frequencies and bivariate analyses to determine your best bests for independent and dependent variables.
- Meet with social sciences librarian (if you haven’t already done so); work on the first draft of introduction, literature review, data and methodology, and references (due next class meeting).
Week 6 (Feb 11): Simple Regression
Readings:
- Sweet & Grace-Martin, Chapter 7, pages 161-170
- Kwon and Baack, 2005
Assignment: Problems from Chapter 7.
- Due: First draft of introduction, literature review, data and methodology, and references, plus an abbreviated draft of this document.

Week 7 (Feb 18): Multiple Linear Regression
Readings:
- Sweet & Grace-Martin, Chapter 7, pages 171-182
Assignment:
- Within your own area of interest, find and read a peer-reviewed article that uses linear (a.k.a. OLS [ordinary least squares]) regression
- Problems from Chapter 7.
- Due: Feedback on another student’s first draft (and meet with them face-to-face).

Week 8 (Feb 25): Logistic Regression
Readings:
- Sweet & Grace-Martin, Chapter 8;
- Thompson 2010, especially the description of Table 2 results, the discussion, and conclusion (pp. 110-118).
Assignment:
- Problems from Chapter 8.

Week 9 (Mar 4): Final Thoughts on Regression
No reading
No homework assignment.
Work on your oral presentation and research paper.

Week 10 (Mar 11): Oral presentations and individual work on projects
Note: To accommodate all presentations, we will meet twice during week 10. This second meeting will be scheduled during our week 2 class meeting.

Research papers are due by Tuesday, March 18 at 12:00pm.
Papers can either be emailed or left in my sociology department mailbox.