SOCILOGY 311
RESEARCH METHODS

Marc Schneiberg
Office hours TBA
Eliot 409, ext. 7495

Marc.Schneiberg@reed.edu

MW: 3:10-4:30
ETC 205
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Course description: This is a rigorous, workshop-based course designed to provide students with the basic skills for planning and conducting research in sociology. The course addresses comparative case study approaches, but focuses mainly on multi-variate analyses of quantitative data. Skills and topics covered include conducting literature reviews in sociology, locating and downloading data sets, descriptive statistics and exploratory data analysis, hypothesis testing and the logic of statistic inference, ANOVA, regression analysis and its extensions. Students will become familiar with STATA, an excellent data analysis program, and with three key sources of data: the General Social Survey, the Census, and the resources of the Inter-University Consortium for Political and Social Research.

Note bene: This is a required course in sociology and is designed specifically to prepare junior sociology majors for the qual and senior thesis. Non-majors may take this course provided that they have taken Sociology 211, Introduction to Sociology.

Course assignments: There is some reading, but the bulk of the assignments involve locating, downloading and analyzing data. You will complete 13 weekly memo/problem set exercises, and a 10 page (text) final paper based on a multivariate analysis of a data set of your choosing. Weekly memos are assigned on Wednesdays, and unless otherwise noted, are due by 5pm on the following Sunday. Note that I will only accept assignments via hard copy, and not by email. I am not a print shop.

Books and materials: The assigned text is available for purchase at the bookstore and on reserve. It is expensive, but will be useful reference for this and other courses. Students have also found Berry and Sanders helpful as a primer on regression analysis.


Recommended: W. Berry and M. Sanders, Understanding Multivariate Research

Other resources: Beyond the materials listed above, students will be able to take advantage of four workshops and web-site resources developed by Dena Hutto, Andrew Rumbach and Marc Schneiberg as a part of the “Development of Research Competencies through Faculty-Library Collaboration” program funded by the Mellon Foundation. Information about web-site resources and their use will be presented in the library workshops listed below.
ASSIGNMENTS

GETTING STARTED

Week 1: (August 28, 30)

Framing the course: How do you know?
Conducting a literature review (Library workshop)

Memo #1: Literature review exercise, due Sunday, September 5th, at 5pm.

CASES, VARIABLES AND CASE STUDIES

Week 2: (September 6, plus a Friday discussion TBA)

Method of Difference, Finding Qualitative Data

Theda Skocpol, “Emergent Agendas and Recurrent Strategies in Historical Sociology,” in Skocpol ed., Vision and Method In Historical Sociology. NY Cambridge University (on reserve)


Locating data for, case study and historical analysis (Library workshop)

Memo #2: Data Bibliography for a Qualitative Analysis

QUANTITATIVE ANALYSIS OF DATA SETS

Week 3: (September 11, 13)

Downloading data sets I: GSS, STATA and Univariate Descriptive Statistics

Agresti and Finlay, Chapter 3

Memo #3 Downloading and describing data
Week 4: (September 18, 20)

_Bivariate Descriptive Statistics_

Agresti and Finlay, Chapter 7, pp. 210-middle 212 (Difference of means); Chapter 8, pp 248-256, 265-middle 268 (Chi-square); Chapter 12, pp. 438-445 (ANOVA)

_Memo #4:_ Analyzing bivariate relations, Chi-square and anova

Week 5: (September 25, 27)

_Statistical Inference I: Sampling Distributions_

Agresti and Finlay, Chapter 4

_Memo #5:_ Probability statements about sample means

Week 6: (October 2, 4)

_Statistical Inference II: Sampling Distributions and Confidence Intervals_

Agresti and Finlay, Chapter 5, pp. 121-131, 144-145, 180-184

_Memo #6:_ Confidence intervals

Week 7: Monday (October 9)

_Statistical Inference III: Hypothesis Testing, T-test for a Single Mean_

Agresti and Finlay, Chapter 6, pp. 154-167, 173-187; 196-198

_Memo #7:_ Hypothesis tests (the t-test), due Tuesday, October 10 by 5pm

Week 7: Wednesday (October 11)

_Statistical Inference IV: Difference of Means, Chi-square, ANOVA_

Agresti and Finlay, Chapter 7, pp. 210-224 (Difference of Means); Chapter 8, pp. 253-260 (Chi-square); Chapter 12, pp. 439-445, Chapter 11, pp. 399-400 (ANOVA)

_Memo #8:_ Bivariate hypothesis tests, due Thursday October 14, by 5pm
FALL BREAK, OCTOBER 14-22

Week 8: (October 23, 25)

Regression I: Simple Regression, Fit Statistics

Agresti and Finlay, Chapter 9

Berry and Sanders, Understanding Multivariate Research (Chs. 1-2, ch. 3; 44-5)

Memo #9: Simple regression exercise

Week 9: (October 30, November 1)

Locating and Downloading Data Sets II: Census and IPUMS, ICPSR

Library Workshops: No reading

Memo #10: Downloading data exercises

Week 10: (November 6, 8)

Locating and Downloading Data Sets: III

No reading

Memo #11: Research proposal: data set and dependent variables

Week 11: (November 13, 15)

Regression II: Multiple Regression, F-tests, Model Building

Agresti and Finlay, Chapter 10, Chapter 11, 382-404, 408-411, 415-21
Berry and Sanders, Understanding Multivariate Research (Chs. 3, 5-6)

Memo #12: Multiple regression exercise
**Week 12:** (November 20)

*Regression III: Dummy Variables and Interaction Effects*

Agresti and Finlay, Chapter 12, pp. 449-452; Chapter 11, pp. 404-408,
Berry and Sanders, *Understanding Multivariate Research* (Ch. 6)

**Memo #13:** Dummy Variables, Interactions, due *Wed., November 24 by 5pm*

**THANKSGIVING BREAK**

**Week 13:** (November 27)

*Regression IV: Interactions, Non-linearity, Logistic Regression*

Agresti and Finlay, Chapter 14, pp. 543-550; Chapter 15, 575-589

No memo due

**Week 13-14:** (November 29, December 4)

*Final Paper Workshops*

**** FINAL PAPER DUE WEDNESDAY, DECEMBER 6 AT 5PM ****