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Democracy and Social Science
Social Science 132
Winter 2007

Course meets Tuesday and Thursday, 9:00 am – 10:20 am
Please check Chalk website periodically for syllabus updates

Overview

In this class we will study some of the main ways in which social scientists produce knowledge. The focus is on 'positive' knowledge, that is, that concerning causes and effects. Such knowledge often has practical application, informing policy. In that sense, social science can play an important role in the conduct of government – democratic or otherwise – and can also speak to the work of non-governmental organizations. Do minority preferences improve the situation of minorities? What explains differences in student achievement? Does government regulation of pharmaceutical companies benefit or harm the public? What is the best way to allocate limited resources to control the spread of AIDS? Are female-led governments less corrupt? These are examples of questions that can be, and have been, addressed by social scientists.

Many questions of great interest and impact, of course, are difficult to answer with full certainty. We will explore some of the reasons for this. Yet, this is not to say that nothing can be learned from their systematic study. In this course, we will study what is perhaps the most widely used method for analyzing data in the social sciences – regression analysis. In the course, you will learn about the logic behind regression analysis, be able to produce, read and interpret regression results, and, perhaps most importantly, understand *what regression can and cannot do*. There are three components to the course. First, we will study some of the technical aspects of the analysis of data. Second, we will read existing social science research for its substantive content as well as its use of data analysis. Third, the course includes a hands-on component, where you will analyze data yourself and produce a report. These three components inform each other, therefore they will not be neatly separated, but rather they will overlap both in class and in your work.

This is an ambitious and demanding course, covering a lot of material. The material is cumulative and it is best learned by doing. Therefore, it is important that you stay on top of the readings and the assignments.

Structure of the course

The course will meet twice per week for lecture, **Tuesdays and Thursdays at 9 am**. In addition, there will be four lab sessions where you will work with Zack Kertcher, the Teaching Assistant for the course, on the computer, using statistical software to analyze

data. Lab sessions will take place in the Computer Room 018, on **Fridays at 1-2:30 pm**. In addition to regular course sessions, both Zack and I will hold office hours (listed at the top of the syllabus) which you are welcome to attend. Zack is an excellent and capable TA, so I strongly recommend that you attend the lab sessions.

Assignments

There will be three take-home assignments. These are designed to give you practice with the methods of data analysis. There will also be a 10-page final project where you will analyze and interpret data on a topic of your choosing (I will suggest three general topics). You will be asked to turn in a project prospectus, and, at some point during the last three class sessions, to present your ideas in class to receive feedback from the group before your project is due at the end of the quarter.

Assignments are due on the dates indicated in the timetable below, at the **beginning** of class. Late assignments will be penalized grade-wise as described in the next section.

Grading

Your grade will be structured as follows:

Assignments 1-3:	15% each
Presentation of final paper:	10%
Final paper:	35%
In-class and lab participation:	10%

I will ask students at random to occasionally summarize the readings or answer questions in class.

Late assignments, prospectuses and final projects will be penalized a half-grade for every day of lateness. There will be no make-ups offered for missed final presentations. In the case of a last-minute emergency, your grade will be calculated on the basis of the remaining assignments.

The procedure to have any grade revised is as follows. First, please write up a one-page description of your arguments and hand it in to the Teaching Assistant, within one week of receiving your grade. He will respond in writing. If this does not resolve your concern, please write up a one-page description of your arguments, considering the Teaching Assistant's response, and hand it in to the professor. The professor's decisions regarding grades are final.

If you need to receive your final course grade by a particular date (e.g. due to graduation), please inform the Teaching Assistant no later than the second week of class to plan accordingly.

Readings and Resources
All the books listed below are on reserve in Regenstein library. Required readings from other sources will be posted on the course Chalk website as the course progresses, usually a week before the date on which the reading will be discussed.

Required books:
1. David S. Moore and George P. McCabe. 2006. *Introduction to the Practice of Statistics*, 5th edition, W. H. Freeman and Company.

2. Paul D. Allison. 1999. *Multiple Regression: A Primer*, Pine Forge Press.

3. Dennis Gilbert. 2002. *The American Class Structure*. Wadsworth.

Software:
The statistical and data analysis software that we will be using is Stata, version 9. The software is available on many public computers in the U Chicago network. For those who wish to purchase it, student versions of Intercooled Stata are available at a discount from: http://www.stata.com/order/new/edu/gradplans/gp-direct.html
Please note that the version called Small Stata may be too limited for the kinds of datasets that we will be using.

Supplementary books (not required):
4. Davis, J.A., T.W. Smith, and P. Marsden. *General Social Surveys, 1972-2004: Cumulative Codebook*. Chicago: NORC. (Regenstein stacks HN59.D385)

5. Hamilton, Lawrence C. 2006. *Statistics with Stata 9.0*. Duxbury Press. (Eckhart QA276.4 .H36 2006)

Relevant Websites:
6. HyperStat Online Textbook: http://davidmlane.com/hyperstat/index.html

7. National Opinion Research Center (NORC) website: http://www.norc.uchicago.edu/projects/gensoc.asp (contains the complete General Social Survey (GSS) data and codebook).

8. The following website is an excellent resource for learning to use Stata: http://www.ats.ucla.edu/stat/stata/

Course Website

The syllabus, readings, and requirements will be adjusted as the course progresses.
*** **Every student is required to check the Chalk website for updates to this syllabus before doing any reading or assignment** ***

Course Timetable

All the readings listed below are required unless otherwise noted.

Date	Topic	Readings	Assignments
January 4	Course organization Does social science matter for policy?	Peltzman (2004) Jencks pp.1-23 (optional)	
January 9	Describing and visualizing data Univariate statistics	Moore ch.1 HyperStat ch.2 Duggan and Levitt (2002) Kreyszig pp.1174 ex.2 (optional)	
January 11	Relations between variables	Moore 2.1-2.3 HyperStat 3.1, 3.2	
January 12 (LAB)	Introduction to Stata; preparing and describing data		
January 16	The General Social Survey Social class and wealth	Gilbert ch.1, ch.4	
January 18	Experimental vs. observational data Treatment effects Introduction to linear regression	Moore 3.1-3.3 Allison ch.1, ch.5 Miguel and Kremer (2003)	Assignment 1 due
January 23	Populations and samples The amazing Central Limit Theorem	Moore 3.4, ch.5 Allison p.121-122	
January 25	Inference Confidence intervals Interpreting surveys	Moore 6.1-6.3, 7.1-7.2 Kreyszig 24.7	

January 26 (LAB)	Running regressions		
January 30	Education and social mobility	Gilbert ch.6-7	Assignment 2 due
February 1	Introduction to multiple regression	Allison ch.1-2 Moore ch.10 Hamermesh and Parker	
February 2 (LAB)	Running and interpreting regressions		
February 6	Multiple regression continued	Moore ch.11 Allison ch.5 (re-read) Allison ch.4	
February 8	Introduction to regression criticism Causality	Allison ch.3 and 6 Frey and Stutzer, Fig.1 Oswald (1997) House et al (1988)	
February 13	Nonlinearity Conditional hypotheses	Allison ch.8 Powell and Whitten (1993)	Assignment 3 due
February 15	Influence analysis Cohorts	Hamilton, pp.125-133 (optional) Ryder (1965) Easterlin (2001a) Easterlin (2001b)	
February 20	Health	Link and Phelan (1995)	
February 22	Political participation	Nie et al (selections)	
February 23 (LAB)	Work on final projects		
February 27	Class presentation of final paper		Prospectus of final paper due
March 1	Class presentation of final paper		
March 6	Class presentation of final paper		
March 8-9	Reading period		
March 10			Final paper due