Estimating Impacts in Policy Research (P11.2875)  
Spring 2010  
** SYLLABUS VERSION 2.0 **

This course covers selected analytic and design issues that are relevant to policy research and program evaluation. It applies and extends skills that are developed in other courses that are offered at the Wagner School. For example, the concepts of experimental and quasi-experimental design that are introduced in Program Evaluation and Analysis (P11.2171) are applied in understanding and critiquing research reports, and in analyzing data. Multivariable statistical methods introduced in Statistical Data Analysis: Multiple Regression (P11.2902) are extended to various types of research designs and analytic situations.

Your goals in this course should be to:

• Acquire hands-on experience in analyzing and presenting data, including managing data, selecting appropriate analyses, interpreting computer output, and summarizing and presenting results. In this course, you will become "bilingual", using both SPSS and Stata;

• Extend your familiarity with methodologic issues in research, including various study designs, measurement problems and analytic approaches;

• Apply your skills by reading about and reporting on policy-relevant impact analyses written by others.

The course is not a comprehensive or exhaustive review of the field of policy-relevant research or program evaluation, nor is it a course in how to evaluate a program. The focus is on impact analysis (rather than process evaluation, performance monitoring, cost-effectiveness analysis, or evaluation synthesis, all of which are covered in other Wagner courses). To that end, there is a substantial amount of data analysis both in and out of class. There is also a significant amount of new statistical material presented. All of this is done using real world examples, to solidify the base as you build your career as a practitioner and consumer of the research that informs public policy.
Course prerequisites (neither may be taken concurrently)

1. Program Evaluation and Analysis (P11.2171)
2. Statistical Data Analysis: Multiple Regression  (P11.2902)

Course texts & software

Required readings will be posted on the course Blackboard (BB) site. You are not required to purchase a text for this class. However, your texts from Stat 1, Stat 2 and Program Evaluation will serve as important references (see below). Assignments requiring data analysis can be completed using SPSS or Stata. These applications are accessible at NYU computer labs. You may choose to purchase a version for use on your own computer.


Kahane LH.  Regression Basics. 2001. Thousand Oaks: Sage Publications.  (LHK, this may have been one of your Stat 2 textbooks)

Stock JH and Watson MW.  Introduction to Econometrics.  2003.  Boston: Addison Wesley.  (S&W, this may have been one of your Stat 2 textbooks).


Blustein J.  SPSS: The Wagner Way.  (available at the WagnerWorks café at the Puck Bldg).

Additional information

Blackboard (BB) A number of resources will be posted on the course BB site. These include the syllabus, scheduling information, information on contacting staff connected with the course, datasets, assignments, article links and other course documents. As the semester progresses documents will be added to the website. Note that some posted material will be modified as the semester progresses, so you should NOT download and print everything at the beginning. BB will be also be used to communicate urgent matters such as assignment changes or glitches, class cancellations, and changes in office hours. You should check the site frequently; always take a look on the day of class. Also, you will be receiving email via BB, which goes to your NYU mailing account by default. You can arrange forwarding to another account, but make sure you are receiving your class emails.

Missed classes.  This course moves quickly. There is a lot of work! While the reading is important, there is a fair bit of informal in-class give-and-take. Lecture handouts will
be posted on BB before class, but these are not verbatim transcripts of lectures. There may be slides and material presented in class that are omitted from the handout, intentionally or unintentionally. Thus, class attendance is important, and if you miss a lecture you should make sure to get notes from a fellow student.

**Practice problems and discussion questions.** Non-graded assignments will be distributed throughout the semester. Practice problems will give you an opportunity to apply some of the concepts and methods that will be covered on the in-class exam. Discussion questions will help you prepare for each week’s class.

**Grading**

Course grades will be based on the following:

- 4 graded assignments (60%)
- A final exam (30%)
- Class participation (10%)

The Wagner School grading policy will be applied in assigning grades.

**COURSE TOPICS**


To prepare:

- Review your class notes and textbooks from Stat 1 and Stat 2 and from Program Analysis and Evaluation. Make sure you’re comfortable with the statistical methods and concepts you learned in those classes.
- Review material on Type I and Type II errors (posted on BB)

**February 1 (Week 2). Validity in social research.** Causality and validity in social research. Internal validity, external validity, validity in measurement, conclusion validity. Basic study designs and threats to internal validity.

To prepare:

- Review chapters 6-8 in CHW, with special attention to chapter 8
- Read:
- Discussion questions for Bassett and Elbel papers
February 8 (Week 3). Continuous outcomes, cross sectional data. Confounding and what it means to "adjust for" or "hold constant". Discussion of Devaney article. Review instructions for Assignment 1.

To prepare:
- Read
- Download and preview Assignment 1; bring assignment instructions to class

February 15. President’s Day – NO CLASS


To prepare:
- Read
  - Bitler MP and Currie J. Does WIC work? The effects of WIC on pregnancy and birth outcomes. *JPAM*, 2005 ;24:73-91 (This paper has some advanced statistical methods, including odds ratios and 2-stage least squares. Don’t worry about this – we’ll get to it later in the course)
- Discussion questions for Bitler and Joyce papers
- Bring to class any questions you have about Assignment 1 (due next week)


**ASSIGNMENT 1 DUE IN CLASS**
To prepare:
- Review S&W chapter 11, “Regression with a Binary Dependent Variable”
- Review logarithms and percent change and complete practice problems
- Read
- Discussion questions for Munnell paper

March 8 (Week 6). Dichotomous outcomes (II): The health researcher’s perspective. Back to the fourfold table. Odds versus risk. The RD, RR and OR as measures of the magnitude of association.

To prepare:
- Review S&W chapter 11, “Regression With a Binary Dependent Variable” AGAIN!, and do exercise 9.1 (a-d) for practice
- Read background material on fourfold table and complete practice problems
- Read
- Discussion questions for Guttmacher paper

March 15. Spring Break - NO CLASS

March 22 (Week 7). Dichotomous outcomes and non-linearity. Interactions/effect modification. Subgroup effects and coding of interactions in regressions.

**ASSIGNMENT 2 DUE IN CLASS**

To prepare:
- Review pages 83-101 in LHK (Regression Basics) on interactions
- Read
- Discussion questions for Schulman and Schwartz papers

March 29. Religious observances – NO CLASS
April 5 (Week 8). Panel data. Simplest panel data analysis (pooled cross sections), two-period panel data, multi period panels. Method of first differences; fixed effects estimation.

To prepare:
- Review S&W chapter 10, “Regression with Panel Data”
- Read
- Discussion questions for Ruhm and Geronimus papers


To prepare:
- Read
- Discussion questions for Berger and Huang papers

April 19 (Week 10). In-class Stata session

NOTE - Class meets at Tisch Hall, room LC19

**ASSIGNMENT 3 DUE IN CLASS**

To prepare:
- Review the UCLA Stata material (posted on BB)

April 26 (Week 11). Experimental designs and ethics in research. Internal validity in social research; recent trends in social experimentation. Ethical issues in research; federal regulations to protect human subjects; the IRB.

To prepare:
- Review *CHW* pp. 175-178, 292 and chapters 9 and 14
- Read
  - Orr L, “Why Experiment?”
• Blustein J. Toward a more public discussion of the ethics of federal social program evaluation" *JPAM*, 2005;24:824-846 and 851-852;

Also, in preparation for next week’s final exam:
• Review class notes, lecture handouts, readings, assignments, practice problems and discussion questions
• Bring to class any questions you have about the course material, or email your questions in advance

**May 3 (Week 12). FINAL EXAM**

**May 7 (Friday, no class meeting)**

**ASSIGNMENT 4 DUE**