Introduction to Health Services Research
Population Health 796
University of Wisconsin-Madison

DRAFT SYLLABUS
Spring 2012

Lecture (DeLeire) Friday 12:30 p.m. - 2:55 p.m.
WARF 753
Section (Forgues): TBD

Professor Thomas DeLeire

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Introduction:

This course will provide an introduction to the research topics covered and empirical methods used in the field of health service research. What is health services research? Health services researchers focus on some of the most complex and challenging issues currently affecting health care in the United States. Findings from health services research inform the health care policymaking process, lead to improvements in clinical practice, and help shape the manner in which health care will be delivered and paid for in the future. Health services researchers examine health care quality and effectiveness, patient outcomes, access to care, health care costs and financing, primary and managed care, new technologies, and other critical topics. Researchers trained in health services research are pursuing careers in many settings, including academia, professional organizations, health policy groups, clinical settings, and in Federal, State, and local agencies.

Readings and Software:

All readings and handouts will be available on the course webpage at learn@uw.

All students should have access to STATA, an advanced statistical software package. STATA is available for purchase on campus via the STATA “Grad Plan.” Please see
http://www.stata.com/order/new/edu/gradplans/gp-campus.html for details. Don’t purchase “small” STATA; “Intercooled” STATA should be sufficient though you might consider buying “Special Edition” STATA, but this version is more more expensive.

Requirements:

Class participation and attendance is required. Students must complete all of the readings prior to the week’s class in order to participate in class discussions. There will also be a large number of problem sets. These problem sets will involve empirical explorations of data sets provided to you, many of which are directly based on the readings. These problem sets are due by classtime on the dates indicated in the syllabus—LATE HOMEWORKS WILL NOT BE ACCEPTED. You may hand in hard copies, email, or use dropbox on learn@uw to turn in your assignments. There will be an in-class midterm and a take-home final exam, in which the students will answer questions based on their reading an empirical paper (handout out the day before the exam).

For the final project and paper, students will be assigned to teams. Each team will both make a 20-minute class presentation based on an empirical investigation using one of the data sets provided in class (or on an alternative data set with approval from the instructor), and write a final paper also based on this empirical investigation.

Grading:

Grades will be based on the following:
Problem Sets, 10%
Midterm Exam, 20%
Final Exam, 30%
Final Presentation / Final Paper, 20%
Class Participation, 20%

Topics and Reading List:

Topic I. Linear Regression and Threats to Validity

Lecture 1. 1/27 Introduction and Linear Regression

Required Readings:


Handout 1: Linear Regression
Lecture 2.  2/3  STATABasics (Angela Forgues)

Required for class: (i) already have access to STATA; (ii) attempt to complete Problem Set 1

Lecture 3.  2/10  Omitted Variables and Other Threats to Internal Validity

Problem Set 1 Due

Required Readings:


Handout 2: Omitted Variables

Handout 3: Internal Validity

Topic II.  Differences in Differences and Panel Data

Lecture 4.  2/17  Differences in Differences I

Problem Set 2 Due

Required Readings:


Handout 3: Differences in differences

Lecture 5.  2/24  Guest Lecture: Professor John Mullahy Interactions

Required Readings: TBD
Lecture 6. 3/2 Differences in Differences II

Problem Set 3 Due

Required Readings:


Lecture 7. 3/9 Panel Data and Fixed Effects I

Problem Set 4 Due

Required Readings:


Handout 4: Panel Data

Optional Readings:

Lecture 8.  3/16  Panel Data and Fixed Effects II

Problem Set 5 Due

Required Readings:


Optional Readings:


Lecture 9.  3/23  Panel Data and Fixed Effects III

Problem Set 6 Due


Optional Readings:


Lecture 10.  3/30  In Class Midterm Exam

4/6  SPRING BREAK
**Topic III. Randomized Experiments**

**Lecture 11. 4/13 Experiments I**

Required Readings:


**Lecture 12. 4/20 Experiments II**

**Problem Set 7 Due**

Required Readings:


**Topic IV. Instrumental Variables and Regression Discontinuity**

**Lecture 13. 4/27 Instrumental Variables**

**Problem Set 8 Due**

Required Readings:


Handout 5: Instrumental Variables

Optional Readings:


Lecture 14. 5/6  Student Group Presentations of Final Projects

Lecture 15. 5/11  Regression Discontinuity (Laura Dague)

Required Readings:


5/14  Problem Set 9 Due  
      Final Papers Due  
      Take Home Final Exam Due