POL 217/290G: Topics in Political Methodology  
Winter 2007  
Seminar: W 12:00–3:00, Social Sciences 273

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Course Description

This course is a special topics seminar in political methodology. In general, my goal is to cover two broad types of modeling strategies. The first involves estimation of statistical models when one is working with categorical data, in particular, categorical data where the response variable can have multiple scores. The second general topic will deal with models for duration data. Here, we will consider the case when one is working with response variables measuring the timing of political or social events. Each of these topics have wide applicability to the social sciences, especially political science. By way of prerequisites, I assume extensive knowledge of the classic linear model as well as a strong understanding of the principles of maximum likelihood estimation and some associated models typically estimated with MLE (such as logit/probit regression). Additionally, I assume the student is well-versed in issues pertinent to regression diagnostics and functional form. If you have not had exposure to MLE, you should not take this course at this time.

Course Requirements

There are a variety of readings assignments the student will be expected to complete in a timely fashion. Additionally, several problem sets will be assigned during the course. Finally, each student must make the following choice: exam or paper. The intent of the exam option is to help prepare students for the methods qualifying exam (though it is critical to note that I am not the only faculty member to ask questions on a methods exam). The intent of the paper project is for the student to produce a conference-quality or (ideally) publication-quality paper in this course. The papers should employ some of the modeling strategies considered in this course. As far as software packages are concerned, as long as you can solve the problems sets and produce a high-quality paper, I don’t care which program you use. You will note from lectures and lecture notes, however, I have a personal bias toward R and Stata. Further, because R is an open-source environment, there is considerably high utility in learning to work within this environment. As far as your grade break-down goes, problem sets will account for 50 percent of your total grade, the paper/exam will account for 40 percent of your total grade, and participation (beyond breathing) will
account for 10 percent of the grade. “Participation” scores will be based on discussion and the presentation of one or two scholarly articles during the quarter.

**Readings**

The primary books we will use in this class are:


There are several other books I have made available for purchase and are recommended. They are:


In addition to these books, several articles will be assigned. Most of these articles will be available on JStor (www.jstor.org).

**Course Requirements**

**Course Itinerary**

**Jan. 3** Preliminaries: Categorical Response Variables, MLE, and Some Basic Concepts
Readings: Powers and Xie, Chapters 1–3.

Simonoff, Chapters 1–2, 4, 9.

Everitt and Hothorn, Chapters 1, 6.

**Jan. 10, 24, 31** Models for Ordinal and Nominal Outcomes: Extensions Beyond Conventional Practices
Simonoff, Chapter 10.

Statistical Articles:


Illustration of Generalized Ordinal Logit Model:


Illustrations of Continuation Ratio/Sequential Logit:


Illustration of Adjacent Category Logit:


Illustrations of Multinomial Logit, Nested Logit and Conditional Logit Models:


**Feb. 7 Models for Counts**
Readings: Simonoff, Chapters 4–5.


Illustrations:


**Feb. 14 Models for Events Data: Preliminaries and Parametrics**
Readings: Box-Steffensmeier and Jones, Chapters 1–3, 11.

Collett, Chapters 1–2, 5–6.

Everitt and Hothorn, Chapter 9.

Illustrations:


**Feb. 21 Semi-Parametric and Discrete-Time Models**

Readings: Box-Steffensmeier and Jones, Chapters 4–7

Collett, Chapters 3–4, 8.


Illustrations of Cox Model:


Illustrations of Discrete-Time/Piecewise Models:


Feb. 28 Diagnostics for Cox and Parametric Models Readings: Box-Steffensmeier and Jones, Chapters 4, 8.

Collett, Chapter 4, 7.


Mar. 7–14 Complicated Events Data

Readings: Box-Steffensmeier and Jones, Chapters 9–10


Illustrations of Repeated Events:


Illustrations of Competing Risks:


