Course Description:

Social science theories are increasingly focused on change processes and temporal data are becoming widely available. Yet the vast majority of empirical research focuses on static relationships, i.e., at one point in time, typically cross-sectional studies. Even when time series or panel data are analyzed, the temporal structure is often ignored and the data are treated as though they are cross-sections with some additional methodological complications involving autocorrelations. Event history methods are ideal for studying temporal change. They address not only whether an event occurred, but when the event occurred. For many research questions in social science, the timing or history of social change is at least as interesting as understanding the culminating event. Research designs incorporating “history” into the analysis promises greater analytical leverage than designs ignoring history, such as cross-sectional designs. Event history analysis is clearly longitudinal and involves the statistical examination of longitudinal data collected on a set of observations. While a wide variety of statistical models may be constructed for event history data, at the most basic level, all event history models have some common features.

The dependent variable measures the duration of time that units spend in a state before experiencing some event. Generally, a researcher knows when the observations enter the process, i.e., when the history begins, and when, and whether or not, the process ends (with the occurrence or nonoccurrence of some event). Analysts are typically interested in the relationship between the length of the observed duration and independent variables, or covariates, of theoretical interest. A statistical model can then be constructed to link the dependent variable to the covariates. Inferences can be made regarding the influence of the covariates on the length of the duration and the occurrence (or nonoccurrence) of some event.

As scholars are beginning to recognize, these methods have many advantages and allow new questions to be addressed. Event history data are becoming more and more available in all areas of empirically oriented political science. Applications include the duration of peace, the duration of unemployment, the length of time a cabinet is in place, when a challenger enters a congressional race, the duration of congressional careers, when a policy is likely to be adopted by the states, or how long it takes to complete a dissertation. The course will thoroughly describe different models for different kinds of duration data, document the assumptions underlying these different models, and consider goodness-of-fit indices and diagnostic techniques, i.e., residual and specification analysis.
Software: a variety of software can be used for this course with varying advantages and disadvantages, which will be discussed in class. The options include Stata, S+, Limdep, TDA (shrink wrapped with the Blossfeld and Rohwer text), SAS, and SPSS.

There will be a class web site to facilitate/augment the class at:
http://psweb.sbs.ohio-state.edu:8080/webct/public/show_courses
From here you need to log into the event history course and enter your userid and password which will be assigned at the beginning of the class.

Texts:
Required:
Reading packet will be made available for the applications.

Recommended:
* = strong recommendation

Grading:
Grading will be based on class presentations of a recently published article or conference paper using event history. Permission and consultation with the instructor prior to choosing the article is required. 15%
Participation in class and discussion of articles presented. 10%
Data analysis assignments (three total; 25% each). 75%
Course Schedule:

The class generally meets on Fridays from 12:00-2:00 EASTERN time. Specifically, we are meeting:
January 21st
January 28th
February 4th
February 11th
February 18th
February 25th
March 3rd
March 10th
March 17th
March 31st
April 7th
April 14th
April 21st
May 5

There will NOT be class on March 24th or April 28th (Spring Break and MPSA dates). Those students able to attend the MPSA will likely meet for dinner.

**Topic 1: Event History Models: Introduction and Overview**

*Required:*

Chapter 1, Blossfeld & Rohwer: Introduction
Chapter 2, Blossfeld & Rohwer: Event History Data Structures

*Recommended:*

Chapter 1, Box-Steffensmeier & Jones: Event History and Political Analysis.

**Topic 2: Event History Model Estimation**

*Required:*

Chapter 5, Blossfeld & Rohwer: Piecewise Constant Exponential Models
Recommended:


Chapter 3, Box-Steffensmeier & Jones: Models for Event History Data (section on estimation).

**Topic 3: Continuous-Time Models I: Cox’s Proportional Hazards Model**

**Required:**

Chapter 9, Blossfield and Rohwer: Semi-Parametric Transition Rate Models


**Recommended:**


**Topic 4: Continuous-Time Models II: Parametric Models**

**Required:**

Chapter 4, Blossfeld & Rohwer: Exponential Transition Rate Models

Chapter 6, Blossfeld & Rohwer: Exponential Models with Time-Dependent Covariates

Chapter 7, Blossfeld & Rohwer: Parametric Models of Time-Dependence


**Recommended:**


Chapter 3, Box-Steppensmeier & Jones: Models for Event History Data (section on estimation).

**Topic 5: Discrete-Time Models**

*Required:*


*Recommended:*


Chapter 2, Box-Steffensmeier & Jones: Semi-Parametric and Discrete-Time Models for Event History Data (Discrete-time section).

**Topic 6: Model Selection, Assessment, Specification, & Diagnostic Methods for Event History Models **

**Duration Dependence**

*Required:*


*Recommended:*


**Residual Analysis**

*Required:*

Chapter 8, Blossfeld & Rohwer: Methods to Check Parametric Assumptions

Chapter 10, Blossfeld & Rohwer: Problems of Model Specification


*Recommended:*


Chapter 4, Box-Steffensmeier & Jones: Model Selection, Assessment, Specification, and Diagnostic Methods for the Event History Model.
Topic 7: Methods and Models for Complicated Events
Heterogeneity and Multiple Events

Required:
Box-Steppensmeier, Janet M., and Christopher J.W. Zorn. "Modeling Heterogeneity in Duration Models." Presented at the 1999 Annual Meeting of the Political Methodology Society, College Station, Texas.

Recommended:
Chapter 5, Box-Steppensmeier & Jones: Methods and Models for Complicated Events (Heterogeneity and Multiple Events section).

Split-Population Models

Required:

Recommended:
Chapter 5, Box-Steppensmeier & Jones: Methods and Models for Complicated Events (Split-Population Model section).

Topic 8: Social Science and Event History

Required:
Chapter 6, Box-Steppensmeier & Jones: What Have We Learned and Where Are We Going?

Two Important Considerations (inserted here at request of OSU lawyers):

Academic Honesty. All of the work you do in this course is expected to be your own. Absolutely no cheating or plagiarism (using someone else's words or ideas without proper citation) will be tolerated. Any cases of cheating or plagiarism will be reported to the university committee on academic misconduct and handled according to university policy.

Disability. Students with disabilities are responsible for making their needs known to the instructor, and seeking available assistance, in a timely manner. Course materials are available in alternative formats upon request. For such materials please contact Mr. Wayne DeYoung, 2140 Derby Hall, 154 North Oval Mall, 292-2880.