



INTERMEDIATE DATA ANALYSIS WITH STATA

Professors F. Bernardi and M. Franklin

(Spring 2010)

Seminar Room 2, Tuesdays 15-17.

Please register with Alessandra.Torre@eui.eu

PRELIMINARY DRAFT SYLLABUS

Readings for this class are either on reserve in the EUI library, available as electronic publications through the library, or (in the case of materials authored by one of the instructors) available in the class dropbox folder which students will be invited to join in time for to deliver their first homework which is due THE DAY BEFORE THE FIRST MEETING OF THE CLASS, Monday, January 11th. That homework will already have been done by anyone who attended the final weeks of Elementary Data Analysis with STATA (Autumn 2009) but needs to be completed by anyone joining this Intermediate STATA class who did not attend the previous class. *Homework is detailed in a separate document that can be downloaded from the dropbox (homework for students joining the class, due Monday 11th Jan, is given in the exercises to Ch 10 and 11 of Acock - see below). In subsequent weeks, homework will also be due the day before the class at 9am.*

WEEK 1 (Jan 12th) Review session: Stata commands and do-files, running regression and logistic regression in Stata. An elementary introduction to programming Stata do-files. Extending Stata with useful additions.

Readings: review chapters 1-8 and 10-11 of Acock's *Gentle Introduction to Stata* (on reserve in the EUI library).

WEEK 2 (Jan 19th) Predicted probabilities, marginal effects, and interactions using CLARIFY.

Readings: Brambor, Clark and Golder (2006) *Political Analysis* on interaction effects (electronic journal).

Michael Tomz, Jason Wittenberg and Gary King (2001) *Clarify: Software for Interpreting and Presenting Statistical Results* (downloadable from Gary King's website: <http://gking.harvard.edu/stats.shtml>).

Mood, C. (2009). 'Logistic Regression: Why We Cannot Do What We Think We Can Do, and What We Can Do About It', *European Sociological Review*, DOI:10.1093/esr/jcp006 (electronic journal).

Scott Long, J. and Freese, J. (2006) *Regression Models for Categorical Variables using Stata*, College Station: Stata Press., pp.160-181 (on reserve).

Cameron, A. and Trivedi P. (2009) *Microeconometrics Using Stata*, College Station: Stata Press., pp.462-465 (on reserve in the EUI library).



WEEK 3 (Jan 26th) Multinomial logistic regression and its alternatives.

Readings: Franklin and Rynko (2010) chapter for *From the Engine Room* (manuscript in the class dropbox folder).

Breen and Jonsson (2000) 'Analyzing Educational Careers: A Multinomial Transition Model', *American Sociological Review*, 65: 754-72 (electronic journal).

Van der Eijk et al. in *Electoral Studies* (2006) on the analysis of electoral utilities (electronic journal and in the class dropbox folder).

WEEK 4 (Feb 2nd) Reliability, validity and measurement problems.

Readings: Alcock's *Gentle Introduction to Stata* (on reserve), first part of Chapter 12.

Firebaugh, G. (2008), *Seven Rules for Social Research*, Princeton University Press, Ch 3: "Build reality checks into your research" (on reserve).

WEEK 5 (Feb 9th) Sample selection: Heckman's model and probit model with sample selection.

Readings: Baum, C. (2006) *An introduction to Modern Econometrics Using Stata*, College Station: Stata Press., pp.259-275 (on reserve)

Bernardi, F. (2009), "Second chance after educational failure. Compensatory effect of social class and selection bias in educational Transitions", (manuscript in the class dropbox folder).

WEEK 6 (Feb 16th) Hierarchical analysis (regression and logit) with pooled datasets.

Readings: vdEijk and Franklin (1996) *Choosing Europe?* Ch20 (in the class dropbox folder), Robert Bickel, *Multilevel Analysis for Applied Research*, Ch 1 (on reserve).

WEEK 7 (Feb 23rd) Scaling (Cronbach's Alpha, Mokken).

Readings: Reidar Jakobsen "Stages of Progression in non-coital sexual interactions."

International Journal of Behavioral Development. 1997, 21, 3, 537-553 (electronic journal).

March 2nd NO CLASS THIS WEEK.

WEEK 8 (Mar 9th) Multidimensional scaling and factor analysis.

Readings: Acock's *Gentle Introduction to Stata* (on reserve), Second half of Chapter 12, vdEijk's factor analysis handout (in the class dropbox folder).

Dunteman (1989) *Principal components analysis* (on reserve in the EUI library).

WEEK 9 (Mar 16th) Classic time series analysis.

Readings: Franklin (2007) introduction to time series (handout in the class dropbox folder).

Kennedy (2008) *Guide to Econometrics*, (3rd edition) Ch1-3, Ch5-7 (large text and General Notes - on reserve in the EUI library)

WEEK 10 (Mar 23rd) Pooled cross-section time-series analysis.

Readings: Kennedy (2008) *Guide to Econometrics*, (3rd edition), Ch17 (large text and General Notes - on reserve in the EUI library).

Franklin, *Voter Turnout*, pp. 126-9 and 237-43 (in the class dropbox folder).

WEEK 11 (Mar 30th) RESERVE THIS DATE in case a class has to be cancelled.