Techniques for analysing the Scottish Longitudinal Study

October 7th 2010, University of Edinburgh, Library Training Room

Time slot	Programme part	Presenter
09:30 – 10:00	Registration and coffee	Gillian and Peteke
10:00 – 10:45	Introduction to the Scottish Longitudinal Study	Peteke Feijten
10:45 – 11:15	Survival analysis and Cox regression: theory I	Gillian Raab
11:15 – 12:15	Survival analysis and Cox regression: theory II	Gillian Raab
12:15 – 12:45	Lunch	
12:45 – 13:45	Survival analysis: practical	Gillian and Peteke
13:45 – 14:45	Difference-in-difference models: theory	Peteke Feijten
14:45 – 15:00	Tea / coffee break	
15:00 – 16:00	Difference-in-difference models: practical	Gillian and Peteke
16:00 – 16:50	Presentation of two real SLS projects using the two techniques	Gillian and Peteke
16:50 - 17:00	Evaluation and closing	

This workshop is aimed at researchers who want to analyse the Scottish Longitudinal Study (SLS) specifically for its longitudinal nature. The SLS contains information over time from 1991 for a 5.3% sample of the Scottish population. The main data sources are the 1991 and 2001 Censuses, and Vital Events data (births, deaths, and marriages).The longitudinal nature of the data allows to study *change over time on the individual level*.

Special methods and techniques are available to analyse longitudinal data. In this workshop, some of these techniques will be explained. Each theoretical session is followed by a practical so participants can get hands-on experience with applying the techniques to Longitudinal Study data.

The techniques taught on the day are:

Survival analysis and Cox regression

Survival analysis is a technique that was first used in biostatistics, epidemiology and demography, but that can be applied in other social sciences as well. The technique uses the timing and duration information that is available in longitudinal data, for example, the time to death from a certain age. This workshop covers life tables; survival plots; (proportional) hazards; and Cox regression. An explanation is given of each technique (mostly in non-mathematical terms); its practical application in SPSS; and interpretation of the outcomes.

Difference-in-difference models

Difference-in-difference models were developed by economists. They are used to estimate the effect of a causal variable on an outcome variable, taking into account pre-existing differences between the groups with different values on the causal variable. For example: Using this technique one can estimate the difference in health in 2001 between people who did and did not get married between 1991 and 2001, taking into account existing health differences between these two groups in 1991. This technique makes use of the feature of longitudinal data that they contain both pre- and post measurements of the outcome variable of interest. Difference-in-difference models are a special application of a fixed-effects panel models. An explanation is given of fixed-effect panel models, and in particular the difference-in-difference model (mostly in non-mathematical terms); its practical application in SPSS; and interpretation of the outcomes.

During the workshop, practicals will be done in SPSS. If enough interest is expressed by participants in other software (we will inquire in advance), syntax examples for Stata and/or SAS will be provided too.

As this is just a one-day workshop, only the basics of each technique are covered. We will provide participants with suggestions for further reading or advanced courses.

Participants are expected to have experience with using SPSS, and basic statistical knowledge.

For more information, contact Peteke Feijten (pmf1@st-andrews.ac.uk).

EARLY REGISTRATION FOR THE TRAINING WORKSHOP IS RECOMMENDED

Location The SLS Training Workshop will take place on 7th October 2010 from 10a.m. – 5p.m. at the University of Edinburgh, Library Training Room

Registration To register for Training Workshop please complete the registration form online:

http://onlineshop.st-andrews.ac.uk/browse/extra_info.asp?compid=1&catid=14&modid=2&prodid=155&deptid=28

The fee for the **Workshop** is **£15**, which includes, training materials and lunch/ refreshments. Total places for the Workshop are limited to **15**, so please book early.

Enquiries Please direct any further enquiries to cll@st-andrews.ac.uk