An Introduction to the ECHP for New Users - Day 5

Dorothy Watson, Bertrand Maître, Bernadette Ryan

EPUNet EuroPanel Users Network
Connecting ECHP Users

ESRI

Day 5 Outline

- *Other Data Issues*
  - *Income from Surveys vs Registers*
  - *Measurement error & estimates of change*
- *Overview of Research Using the ECHP*
- *Resources for Panel Analysis*
- *Looking Ahead - EU SILC*

ESRI

Measures of Income in Surveys vs Registers

- Atkinson et al (1995) define 5 conceptual levels of income data
  - "True income"
  - Administrative Record Income
  - Tax Reported Income
  - Edited Survey Income
  - Reported Survey Income
- Register data come from administrative records

ESRI

Survey vs Register Data (1)

- *Finland: survey and register data for 1996 and 2000*
- *Registers based on administrative data for tax and social welfare systems*
- *Allows comparison of results for income derived from the two sources (CHINTEX WP 15, Nordberg)*

ESRI

Question

- *How would you expect income from survey to differ from income from registers?*

ESRI

Surveys vs Register Data (2)

- *Substantial differences between mean income/earnings and measures of inequality and poverty*
  - *Survey - lower estimates of mean wages and household income, especially at the upper end of the income distribution.*
  - *Survey data also tend to indicate higher inequality (Gini coefficient)*
  - *Survey data overestimate income mobility*

ESRI

Measurement Error in Panel Surveys 1

- *Breen and Mosio, 2003: ISER Working Paper No. 13*
  - *http://www.iser.essex.ac.uk/pubs/workpaps/*
- *Examine effect of measurement error on estimates of poverty dynamics*
  - *use latent class models*

ESRI

Breen and Mosio, 2003, Findings

- *Some of the observed movement into/out of poverty is due to measurement error*
- *When control for measurement error -*
  - *fewer people moving into or out of poverty*
  - *more remaining poor or non-poor*
- *Measurement error has different effects in the different countries*
  - *once error is corrected, poverty rates show less crossnational variation*
  - *ordering of countries in terms of the size of their flows into / out of poverty can also change.*

ESRI

Research Using the ECHP (1)

- *See EPUNet database of projects and publications*
- *Current projects (research contracts)*
- *Working papers*
- *Published books and articles*
- *Statistics in Focus Publications by Eurostat, based on ECHP data*

ESRI

Research Using the ECHP (2)

Labour Force	99	Life Cycle &Ageing	24
Poverty	68	Demographics	23
Family and Children	65	Health	22
Data and Analysis Issues (quality, comparability, methodology etc.)	43	Non-monetary indicators of living standard	21
Income Distribution	38	Education	17
Social Exclusion (general)	38	Housing	8
Components of Income	29	Intra-Household Income Distribution	4
Gender	28	Social Participation	3

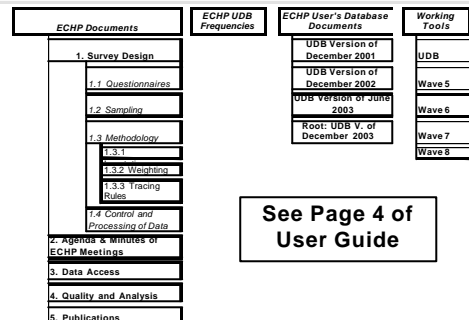*Number of projects/publications in each category in EPUNet database of projects and publications*

ESRI

Resources for Panel Analysis

- *Eurostat's CIRCA website and PAN documents*
  - *http://forum.europa.eu.int/irc/dsis/echpanel/ info/data/information.html*
- *EPUNet website:*
  - *http://epunet.essex.ac.uk/*

ESRI

Structure of Circa Website

ECHP Documents	ECHP UDB Frequencies	ECHP User's Database Documents	Working Tools
1. Survey Design		**UDB Version of December 2001**	UDB
1.1 Questionnaires		**UDB Version of December 2002**	Wave 5
1.2 Sampling		**UDB Version of June 2003**	Wave 6
1.3 Methodology		**Root: UDB V. of December 2003**	Wave 7
1.3.1			Wave 8
1.3.2 Weighting			
1.3.3 Tracing Rules			
1.4 Control and Processing of Data			
2. Agenda & Minutes of ECHP Meetings			
3. Data Access			
4. Quality and Analysis			
5. Publications			

See Page 4 of User Guide

ESRI

Eurostat Panel Documents

- PAN 15 Variable list, codebook (1994).
  - (PAN 30, 65, 81, 97, 112, 151, 159)
- PAN 165 Weighting procedure
- PAN 166 Variable Description
  - (data dictionary, code book, and differences between countries and waves).
- PAN 167 Variable Construction
- PAN 168 Manual
- Full List, see *User Guide* p.19ff

EPUNet: EuroPanel User Network
http://epunet.essex.ac.uk/

- Support forum for users of ECHP funded as a Thematic Network within the EU Fifth Framework
- EPUNet offers
  - User Guide
  - Data Transcription routines
  - Training
  - Research Visits
  - E-mail hotline
  - Register of Queries and Solutions
  - Programmes for derived variables
  - Database of projects and publications
  - Annual Conference
  - Newsletters

Advanced Topics for Panel Analysts

- *2 courses planned by EPUNet for 2005*
  - *Tilburg (Netherlands) in March*
  - *and Luxembourg in November*

Other Resources (1)

- *EPAG* - European Panel Analysis Group; consortium based at ISER - use ECHP and other panel data sets
  - *http://iserwww.essex.ac.uk/epag/*
- *CHINTEX* - project examining quality of data from output harmonisation
  - *http://www.destatis.de/chintex/*

Other Resources (2)

- CHER - project harmonizing and integrating micro datasets from national panels and ECHP for comparative longitudinal analysis
  - *http://www.ceps.lu/Cher/*
- **LIS -** database of household income surveys -data at level of household, person and child.
  - *http://www.lisproject.org/*
- PACO - international comparative database of micro-data from national household panels over a large number of years

Looking Ahead: EU SILC

- *Statistical Instrument on Living Conditions will replace ECHP from 2003-2004*

- *Priority of EU-SILC is*
  - *provision of quality, timely cross-sectional information*
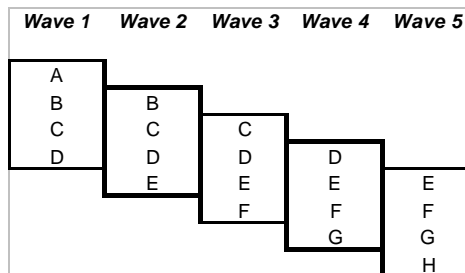 - *on household incomes & social exclusion.*

Looking Ahead: EU SILC

- *6 countries launched EU-SILC in 2003*
  - *(Belgium, Denmark, Greece, Ireland, Luxembourg and Austria).*
- *Most other MS starting in 2004*
- *Germany, Netherlands & UK start 2005*
- *Accessing and candidate countries will launch EU-SILC between 2004 and 2007*

SILC: Rotational Panel Design

Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
A				
B	B			
C	C	C		
D	D	D	D	
	E	E	E	E
		F	F	F
			G	G
				H

Design of EU SILC

- *Rotational design (vs Full panel for ECHP)*
- *Cross-sectional data emphasised*
- *Output harmonisation*
  - *data may come from different sources: registers, existing national panels etc.*
- *Reduced coverage in some areas*
  - *labour market detail; some non-monetrry indicators*
- *But Coverage of new areas*
  - *in-kind employee income (company car)*
  - *imputed rent (eventually)*

Implications of Design

- *Reduced number of cases for panel analysis*
  - *only one quarter of initial sample size available for four-year analysis*
- *Shorter panel - Four years maximum*
- *However, new people will be drawn into sample - better representation of immigrants*

Review of Course Goals

- Know what is/isn't covered in the ECHP
- Understand the structure of the UDB
- Read the data files into SPSS
- Match data between units (individuals, households, spouses, families)
- Match data for an individual across waves
- Understand basic data issues - attrition, imputation of missing information, comparability
- Know which sample weights to use
- Know where to find further detail

Lab Session

- *Special Topics of interest to participants*
  - Using income and deprivation items to examine poverty level of large families (3+ children)
  - Satisfaction variables – quality of information available
  - Social protection (income before and after social transfers)
  - Training and supervisory variable – number of cases available for longitudinal analysis
  - Change in number of persons at work in household
  - Earnings and data on firms: earnings density function; cases available for panel analysis of earnings distribution; quality of data on employers