

Accessing the New Earnings Survey Panel

Efficient techniques and applications

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Abstract

The New Earnings Survey Panel Dataset is one of the largest datasets of its kind in the world. Its size and confidentiality restrictions present considerable difficulties for analysis using standard econometric packages.

This thesis presents a number of methods for accessing the information held within the panel relatively efficiently, based upon the use of cross-product matrices and on data compression techniques. These methods allow, for the first time, the panel aspect of the dataset to be used in analysis. The techniques described here are then employed to produce an overview of changes in the UK labour market from 1975 to 1990 and detailed estimates of male and female earnings over a fourteen year period. These are the first panel estimates on the dataset. The estimates indicate the importance of allowing the parameters of any labour market model to vary over time, which is significant as panel estimators typically impose structural stability on the coefficients. Some preliminary estimates of the male-female wage gap indicate that both heterogeneity and variation over time have an important part to play in accounting for the differences in wages.

List of abbreviations

AV	Attrition variable
CS	Cross-section
DEUK	Department of Employment
DEG	Department of Employment Gazette
FE	Fixed-effects
FES	Family Expenditure Survey
IV	Instrumental variable
LFS	Labour Force Survey
NES	New Earnings Survey
NESPD	New Earnings Survey Panel Datasets
NI	National Insurance
NiNo	National Insurance number
OH	Observation history
QCC	Quasi-complete cohort
SCELI	Social Change and Economic Life Initiative
TVC	Time-varying cross-section estimator
TVFE	Time-varying fixed-effects estimator
TFEIV	Time-varying fixed-effects instrumental variable estimator
WC	Wages Council
WIRS	Workplace Industrial Relations Survey

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