Changing Fortunes

Income Mobility and Poverty Dynamics in Britain

by Stephen P. Jenkins

OXFORD
UNIVERSITY PRESS

Contents

List of Figures xiii
List of Tables xvi
List of Abbreviations xix

Introduction

1. Introduction: Longitudinal Perspectives on the Income Distribution 3

Part I. Measurement and Data

2. Income over Time: Measurement Issues 25
3. Sources of Longitudinal Data on Income: Household Panel Surveys in Context 56
4. The British Household Panel Survey and its Income Data 78

Part II. Income Mobility

5. Income Mobility and How it has Changed over Time 115
6. Transitory Variation and Volatility in Income 140
7. Spaghetti Unravelled: A Model-Based Description of Differences in Income-Age Trajectories 170

Part III. Poverty Dynamics

8. Poverty Dynamics and How They Have Changed over Time 205
9. Routes Into and Out of Poverty and the Role of Trigger Events 239
10. The Length of Time Spent Poor: Estimates from Hazard Regression Models 291
11. Modelling Low Income Transitions: Estimates from a Markov Model 330

Envoi

12. Summary and Conclusions 359

References 371
Author Index 393
Subject Index 398

List of Figures

1.1 Claimant count and ILO unemployment rates (%), and GDP annual growth rate (%), by year 10

1.2 Scatter plot of 1991 and 1992 incomes 19

2.1 Accounting periods for income, and temporal coverage: examples 41

2.2 Spell data and patterns of time spent in poverty: examples 43

4.1 Individual interview response rate (%) and refusal rate (%), BHPS waves 1–13 84

4.2 Full and partial response within BHPS households, rates (%) by wave 101

4.3 Selected quantiles of net household income, BHPS and HBAI, by year 107

4.4 BHPS and HBAI estimates of the percentage of individuals with a net household income less than 60 per cent of the median, by year 108

4.5 BHPS and HBAI estimates of inequality, by index and year 109

4.6 BHPS and HBAI estimates of inequality (trimmed distributions), by index and year 110

5.1 Changes in relative position over a 16-year period from 1991 income origins 124

5.2 The association between incomes one year apart, by year 127

5.3 The correlation of incomes one year apart (%), by person type and year 128

5.4 Trends in average individual income growth over a one-year interval 131

5.5 Mobility profiles and the progressivity of individual income growth 133

5.6 Income mobility and inequality reduction over a 16-year period 135

5.7 Income immobility (Shorrocks indices), by year 136

6.1 Transitory and permanent variances of log net household income, by estimation method and year 148

6.2 Transitory variance (gross household income), by person type and year 151

6.3 Transitory and permanent variances of gross earnings for prime-aged male employees, by year 153

6.4 Transitory variance of gross earnings for prime-aged male employees, by permanent earnings group and year 153

6.5 Volatility of household income (all individuals) and of earnings (prime-aged male employees), by year 157

6.6 Percentage of individuals with a large income fall over a one-year interval, by year 159

6.7 Trend in transitory variances of income sources 165

7.1 Stylized income-age trajectories for two individuals and the average trajectory 172

7.2 Income-age trajectories for hourly wages (£ per hour) and equivalized net household income (£ per week), logarithmic scale, for men and women born in 1966 who have A-level + educational qualifications 178

7.3 Average wage-age trajectories, logarithmic scale, by group, for employees of working age 187

7.4 Cross-sectional pictures of 'average' wage-age profiles differ from longitudinal ones 189

7.5 The distribution of log(hourly wage) at age 25, by group 191

7.6 The distribution of log(hourly wage) at age 40, by group 193

7.7 Inequality and age: Gini coefficient of hourly wages, by group 194

7.8 The heterogeneity of individual trajectories: simulated data example 196

7.9 Log(wage) trajectories for men and women born in 1966 with A-level(s)+ qualifications: observed (left-hand side) versus fitted (right-hand side) 198

7.10 Average income-age trajectories for equivalized net household income, logarithmic scale, by sex 199

8.1 Poverty rates, 1991–2006, by family type 209

8.2 Distribution of number of times poor over a four-year period, all persons, by year 211

8.3 Distribution of number of times poor over a four-year period, by family type and year 214

8.4 Number of times observed poor over a nine-year window, all persons and dependent children, by year 217

8.5 Decomposition of total poverty over a seven-year period into chronic and transitory poverty, by family type and year 219

8.6 Rates of poverty, poverty entry, and poverty exit (%), by group and year 223

8.7 Conditional probabilities of leaving poverty and of re-entering poverty, by spell length (%) 228

8.8 Probabilities of remaining poor and remaining non-poor, by spell length (%) 229

8.9 Poverty exit hazard rates and poverty re-entry hazard rates for dependent children (%), by year-of-spell-entry cohort of dependent children 236

9.1 Classification of income events and demographic events associated with a poverty spell ending (or beginning) between waves *t*–1 and *t* 251

9.2 Poverty rates (%), by household type and period 255

9.3 Poverty exit rates (%), by household type and period 256

9.4 Poverty entry rates (%), by household type and period 257

9.5 Relative frequency (%) of demographic and other events associated with poverty entries and exits in 12 European countries, Canada, and the USA, by type of event 286

10.1 Poverty exit rates for individuals with a household head aged less than 60 years, by length of poverty spell 305

10.2 Hazard ratios from model of exit rates for individuals with a household head aged less than 60 years 306

10.3 Poverty exit rates for individuals with a household head aged 60+ years, by length of poverty spell 307

10.4 Hazard ratios from model of poverty exit rates for individuals with a household head aged 60+ years 308

10.5 Poverty re-entry rates for individuals with a household head aged less than 60 years, by length of time since end of last poverty spell 313

10.6 Hazard ratios from model of poverty re-entry rates for individuals with a household head aged less than 60 years 314

10.7 Poverty re-entry rates for individuals with household heads aged 60+, by length of time since last poverty spell 315

10.8 Hazard ratios from model of poverty re-entry rates for individuals with a household head aged 60+ years 315

List of Tables

1.1 Principal changes to the UK system of cash benefits and tax credits, 1991–2006 11

3.1 Relative advantages and disadvantages of a household panel survey design 77

4.1 Interview outcomes for BHPS wave 1 respondents 85

4.2 The income sources included in net household income 94

5.1 Positional change over a 16-year period, by summary index and year 126

6.1 Income sources and incomes over a seven-year period: contributions to variability (%) and shares of total (%), by year 168

7.1 Between-group differences in variance component parameters 190

8.1 Distribution of number of times poor over a four-year period, by year and family type 213

8.2 Overlap between chronic and current poverty, by family type, 2000–2006 (percentages) 221

8.3 Poverty entry and exit rates (%), by previous poverty status, family type, and year 225

8.4 Distribution of the number of years poor over an eight-year period 232

8.5 Cumulative proportions remaining poor and non-poor, and hazard rates, by elapsed duration, age, and period 234

9.1 Poverty exits classified by main trigger event, all poor individuals (column %) 258

9.2 Poverty exits and trigger events, by individual's household type in last year of poverty spell (column %) 260

9.3 Poverty entries classified by main trigger event, all non-poor individuals (column %) 262

9.4 Poverty entries and trigger events, by individual's household type in first year of poverty spell (column %) 263

9.5 Poverty exits and trigger events: all individuals in poor households, by period (cell %) 266

9.6 Poverty exits and trigger events: individuals from poor couple-with-children households, by period (cell %) 269

9.7 Poverty exits and trigger events: individuals from poor childless-couple households, by period (cell %) 270

9.8 Poverty exits and trigger events: individuals from poor lone-parent households, by period (cell %) 272

9.9 Poverty exits and trigger events: individuals from poor single-pensioner households, by period (cell %) 274

9.10 Poverty entries and trigger events: all individuals in non-poor households, by period (cell %) 275

9.11 Poverty entries and trigger events: individuals from non-poor couple-with-children households, by period (cell %) 278

9.12 Poverty entries and trigger events: individuals from non-poor childless-couple households, by period (cell %) 279

9.13 Poverty entries and trigger events: individuals from non-poor lone-parent households, by period (cell %) 281

9.14 Poverty entries and trigger events: individuals from non-poor single-pensioner households, by period (cell %) 283

10.1 Multivariate models of the hazard rate of poverty exit: individuals with non-elderly household heads and individuals with elderly household heads 303

10.2 Predicted poverty spell lengths for individuals beginning a poverty spell 310

10.3 Multivariate models of the hazard rate of poverty re-entry, individuals with a non-elderly household head and individuals with an elderly household head 312

10.4 Predicted time between poverty spells for individuals finishing a poverty spell 317

10.5 Distribution of the number of years poor over an eight-year period (row percentages): predictions from separate models of poverty exit and re-entry 320

10.6 Multivariate model of poverty exit and re-entry with correlated unobserved heterogeneity 322

10.7 Estimates of unobserved heterogeneity parameters in joint model of poverty exit and re-entry 323

10.8 Distribution of the number of years poor over an eight-year period (row percentages): predictions from joint model of poverty exit and re-entry 325

11.1 Annual poverty inflow and outflow rates (row %), with and without missing income data 333

11.2 Estimates of model correlations, and model test statistics 344
11.3 Estimates of model of poverty status at *t*, conditional on poverty status at *t*–1 346
11.4 Predicted poverty transition probabilities, and steady-state probabilities and spell durations 349