

Econometric Methods for Labour Economics

Stephen Bazen

OXFORD
UNIVERSITY PRESS

Contents

<i>List of Figures</i>	ix
<i>List of Tables</i>	x
<i>Data Sources</i>	xi
Introduction	1
1. The Use of Linear Regression in Labour Economics	4
1.1 The Linear Regression Model—A Review of Some Basic Results	5
1.2 Specification Issues in the Linear Model	10
1.3 Using the Linear Regression Model in Labour Economics—the Mincer Earnings Equation	20
1.4 Concluding Remarks	30
Appendix: The Mechanics of Ordinary Least Squares Estimation	32
2. Further Regression Issues in Labour Economics	34
2.1 Decomposing Differences Between Groups—Oaxaca and Beyond	35
2.2 Quantile Regression and Earnings Decompositions	42
2.3 Regression with Panel Data	44
2.4 Estimating Standard Errors	48
2.5 Concluding Remarks	51
3. Dummy and Ordinal Dependent Variables	53
3.1 The Linear Model and Least Squares Estimation	53
3.2 Logit and Probit Models—A Common Set-up	56
3.3 Interpreting the Output	61
3.4 More Than Two Choices	68
3.5 Concluding Remarks	74
4. Selectivity	76
4.1 A First Approach—Truncation Bias and a Pile-up of Zeros	77
4.2 Sample Selection Bias—Missing Values	79

4.3 Marginal Effects and Oaxaca Decompositions in Selectivity Models	84
4.4 The Roy Model—The Role of Comparative Advantage	87
4.5 The Normality Assumption	90
4.6 Concluding Remarks	91
Appendix:	
1. The conditional expectation of the error term under truncation	93
2. The conditional expectation of the error term with sample selection	94
3. Marginal effects in the sample selection model	95
4. The conditional expectation of the error terms in two equations with selectivity bias	96
5. Duration Models	97
5.1 Analysing Completed Durations	100
5.2 Econometric Modelling of Spell Lengths	102
5.3 Censoring: Complete and Incomplete Durations	108
5.4 Modelling Issues with Duration Data	113
5.5 Concluding Remarks	117
Appendix:	
1. The expected duration of completed spell is equal to the integral of the survival function	119
2. The integrated hazard function	119
3. The log likelihood function with discrete (grouped) duration data	120
6. Evaluation of Policy Measures	122
6.1 The Experimental Approach	123
6.2 The Quasi-experimental Approach—A Control Group can be Defined Exogenously	125
6.3 Evaluating Policies in a Non-experimental Context: The Role of Selectivity	131
6.4 Concluding Remarks	136
Appendix:	
1. Derivation of the average treatment effect as an OLS estimator	138
2. Derivation of the Wald estimator	139
Conclusion	141
<i>Bibliography</i>	143
<i>Index</i>	147