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1 *****
2 * A Practical Guide to Using Panel Data
3 * Simonetta Longhi and Alita Nandi
4 * ISER, University of Essex
5 * Chapter 4
6 *****
7
8 version 12
9 clear all
10 set more off
11 capture log close
12
13 cd "C:\My Documents"
14
15 global datadir "S:\final"
16 global dirresults "C:\My Documents\"
17
18 log using "$dirresults\Example_Chapter4.log", replace
19
20 * 4.3. Merge files into long format, generalisation to multiple waves
21 *-----
22
23 foreach wave in a b c d e f g h i j k l m n o p q r {
24     use `wave' hid pid `wave' sex `wave' mastat ///
25         `wave' age `wave' qfachi `wave' paygu ///
26         `wave' jbft `wave' region `wave' jbsoc ///
27         `wave' jbbgy4 `wave' jbsemp `wave' jbstat ///
28         `wave' cjsten ///
29     using "$datadir/`wave'indresp", clear
30     rename `wave'* *
31     // deal with wave p
32     capture rename id pid
33     generate wave = index("abcdefghijklmnopqr", "`wave'")
34     if indexnot("a", "`wave'") append using "$dirresults\DataFile"
35     save "$dirresults\DataFile", replace
36 }
37
38 recode jbstat (5=6) (6=7) (7=8) (8=5) if wave == 1, gen(Correctjbstat)
39 replace Correctjbstat = jbstat if Correctjbstat >= . & wave != 1
40 * Now attach the value labels to the new jbstat variable
41 * First, find out the name of the label
42 describe jbstat
43 label value Correctjbstat rjbstat
44
45 * Alternatively:
46 recode jbstat (5=6) (6=7) (7=8) (8=5) if wave == 1
47 tabulate Correctjbstat jbstat
48
49
50
51 * 4.5. Recoding variables and identifying the data as a panel
52 *-----
53
54 mvdecode _all, mv(-9/-1)
55
56 save "$dirresults\DataFile", replace
57 * Save for use in later chapters
58
59 describe
60 sort pid wave
61 compress
62
63 tsset pid wave
64 xtsum
65 xtdes
66 iis
67 tis
68
69 * 4.6. Computing changes over time
70 *-----
71
72 recode paygu -9/-1 = .
73 generate paych = paygu - L.paygu
74 label var paych "Change in pay"
75

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76 tabulate sex, sum(paych)
77
78 tabulate mastat
79 recode mastat (0 98 = .) (1 2 7 = 1) (3/5 8/10 = 2) (6 = 3), gen(ma)
80 generate mach = (10*ma) + L.ma
81 tabulate mach
82
83 label var ma "marital status"
84 label define malab 1 "married, living as couple" ///
85 2 "widowed, divorced or separated" ///
86 3 "never married"
87 label value ma malab
88
89 tabulate ma
90 sort wave hid
91 list ma in 1/20, sepby(hid)
92
93 xttrans ma
94 table ma sex, contents(mean paych n paych) format(%9.2f)
95
96
97 * 4.7. Graphically analysing panel data
98 *-----
99
100 set more on
101
102 kdensity paygu, title(Distribution of Wages 1991-2008) scheme(slmanual)
103 more
104 kdensity paygu if wave == 15, title(Distribution of Wages 2005) scheme(slmanual)
105 more
106 histogram paygu, scheme(slmanual)
107 by(wave, title(Distribution of Wages 1991-2008))
108 more
109
110 keep if jbstat == 2
111 drop if paygu == .
112
113 * Figure 4.8
114 twoway (kdensity paygu if wave == 1, lcolor(black)) ///
115 (kdensity paygu if wave == 8, lcolor(gs4) lp(dash)) ///
116 (kdensity paygu if wave == 17, lcolor(gs10)), ///
117 scheme(slmanual) ///
118 ytitle(Density) xtitle(Wage) title(Distribution of Wages)
119 more
120
121 * Figure 4.9
122 twoway (kdensity paygu if wave == 1, lcolor(black)) ///
123 (kdensity paygu if wave == 8, lcolor(gs4) lp(dash)) ///
124 (kdensity paygu if wave == 17, lcolor(gs10) lwidth(thick)) ///
125 if paygu <= 5000, ///
126 legend(label(1 "Wage 1991") label(2 "Wage 1998") ///
127 label(3 "Wage 2007")) ///
128 scheme(slmanual) ytitle(Density) xtitle(Wage) ///
129 title(Distribution of Wages)
130 more
131
132 * Figure 4.10
133 twoway (kdensity paygu if wave == 1, lcolor(black)) ///
134 (kdensity paygu if wave == 8, lcolor(gs4) lp(dash)) ///
135 (kdensity paygu if wave == 17, lcolor(gs10) lwidth(thick)) ///
136 if paygu <= 5000, ///
137 legend(label(1 "Wage 1991") label(2 "Wage 1998") ///
138 label(3 "Wage 2007")) ///
139 scheme(slmanual) ytitle(Density) xtitle(Wage) ///
140 by(sex, title(Distribution of Wages))
141
142 log close
143

```