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1 *****
2 *** Project      :
3 *** Created by   : Mamina Panda
4 *** Date Created : ...
5 *****
6
7 ** setting working directory
8 cd "C:\Users\mamin\Desktop\ecotrix project"
9
10 *IAIR74FL
11 use IAIR74FL, clear
12 keep caseid v000 v002 v024 v501 v025 v106 v130 v131 v137 v013 v714 v190 v005
13
14 rename v005 pwtold
15 rename v002 hh_num
16 rename v013 age
17 rename v024 states
18 rename v025 residence
19 rename v106 education_level
20 rename v130 religion
21 rename v131 caste
22 rename v137 children
23 rename v501 marital_status
24 rename v714 Employment_status
25 rename v190 wealth_index
26
27 gen pwt =pwtold/1000000 //pop weights in decimals
28 gen temp = string(states)
29 destring temp, gen(state_code)
30
31
32 /* Importing excel file for sex ratio
33 preserve
34 import excel "C:\Users\mamin\Desktop\sex ratio.xlsx", sheet("Sheet1") firstrow clear
35 save sexratio.dta, replace
36
37 restore
38 */
39
40
41
42 ** Merging sex ratio with women data
43 merge m:1 state_code using sexratio, force // all matched
44 drop _merge
45
46 save ReqVar_File, replace //saved the new file with required variables
47
48 *****
49 **** Part 2*****
50 *****
51 use ReqVar_File, clear // uncomment this code to use the file with ur *required variables
52
53 *cleaning variables
54 drop if Employment_status==.
55
56 *Age group
57 generate age_dummy = 1 if inlist(age, 1,2)
58 replace age_dummy = 2 if inlist(age, 3,4,5)
59 replace age_dummy = 3 if inlist(age, 6,7)
60
61 *State
62 * Assign values based on assigned numbers
63 generate location = 1 if inlist(states, 14, 13, 28, 34, 12, 33, 6, 25)

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64 replace location= 2 if inlist(states, 2, 36, 16, 17, 31, 27, 18)
65 replace location = 3 if inlist(states, 3, 4, 5, 15, 26, 35, 30, 21, 22, 23, 24, 32)
66 replace location = 4 if inlist(states, 10, 11, 20, 8, 29, 7, 19)
67
68 * Label regions
69 label define region 1 "North" 2 "South" 3 "East" 4 "West"
70
71
72 drop if location==.
73
74 *Religion
75 generate Religion = 1 if inlist(religion, 1)
76 replace Religion = 2 if inlist(religion, 2)
77 replace Religion = 3 if inlist(religion, 3,4,5,6,7,8,9,96)
78
79 *Caste
80 generate caste_category = 1 if inlist(caste, 993)
81 replace caste_category = 2 if inlist(caste, 991)
82 replace caste_category = 3 if inlist(caste, 992)
83 replace caste_category = 4 if inlist(caste, 998)
84
85
86 *marital_status
87 generate marriage_status = 0 if inlist(marital_status, 0)
88 replace marriage_status = 1 if inlist(marital_status, 1)
89 replace marriage_status = 2 if inlist(marital_status, 3,4,5)
90
91
92 *Employment_status
93 generate EMP = 0 if inlist(Employment_status, 0)
94 replace EMP = 1 if inlist(Employment_status, 1)
95
96 *Wealth Index
97 generate Socio_Economic_status = 0 if inlist(wealth_index, 1,2)
98 replace Socio_Economic_status = 1 if inlist(wealth_index, 3)
99 replace Socio_Economic_status = 2 if inlist(wealth_index, 4,5)
100
101 reg EMP i.age_dummy i.location i.residence i.education_level i.Religion i.caste_category i.children i
.Socio_Economic_status i.marriage_status
102
103 *****Estimating LPM Regression*****
104 reg EMP i.age_dummy i.location i.residence i.education_level i.Religion i.caste_category i.children i
.Socio_Economic_status i.marriage_status
105
106 *****LPM*****
107 predict lmpred, xb
108 sort lmpred
109 *****
110
111
112 *****Testing LPM assumptions*****
113 //Multicollinearity//
114 estat vif
115 //heteroscedasticity//
116 hettest
117 ****there is heteroscedastcity*****
118 //to correct this we will do robust test//
119 reg EMP i.age_dummy i.location i.residence i.education_level i.Religion i.caste_category children i.
Socio_Economic_status i.marriage_status, robust
120 *****Normality*****
121 //jaque berra test//
122 predict residuals
123 jb residuals

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124
125 *****Autocorrelation*****
126 gen time = _n
127 tsset time
128 reg EMP i.age_dummy i.location i.residence i.education_level i.Religion i.caste_category children i.
Socio_Economic_status i.marriage_status
129 dwstat
130
131
132 *****IV LPM*****
133 ivregress 2sls EMP i.age_dummy i.location i.Religion i.caste_category i.Socio_Economic_status
children i.education_level i.residence (marriage_status = sex_ratio)
134
135 *****checking for endogeneity*****
136 estat endogenous marriage_status
137 //endogeneity issue is not there///
138
139
140 *****Estimating logistic regression*****
141 logit EMP i.age_dummy i.location i.residence i.education_level i.Religion i.caste_category children i
.Socio_Economic_status i.marriage_status
142 logistic EMP i.age_dummy i.location i.residence i.education_level i.Religion i.caste_category
children i.Socio_Economic_status i.marriage_status
143
144 * Compute marginal effects
145 margins, dydx(*) post
146
147 *****multicollinearity*****
148
149 pwcorr age_dummy location residence education_level Religion caste_category children
Socio_Economic_status marriage_status, sig
150
151 ****Goodness of Fit*****
152 estat gof
153
154
155
156
157
158

```