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/* Filename:    PANEL2.LIM                                */
/* Date:        27 June 1998                              */
/* Project:     Determinants of Youth Employment          */
/* Written by:  Owen Gabbitas (Trade & Economic Studies Branch) */

/* Purpose:     Conducts regressions with panel data techniques */
/*              with male and female youth aggregated together */

Open; output=v:\youthemp\time\limdep\panel2.out $
Title; output file v:\..\panel2.out (aggregated youth) $

Reset $

/* ==== Read in data - variable names in first line ==== */

Read; file = v:\youthemp\time\limdep\input2.wk1
      ; format = wks
      ; names = $

/* ===== */
/*      VARIABLE NAMING CONVENTION      */
/*      */
/* y  - youth      (aged 15 to 19) */
/* am - adult males (aged 20 to 64) */
/* af - adult females (aged 20 to 64) */
/* ===== */

/* list; Cy, Wy, Edy, My $ */
/* list; Cam, Wam, Edam, Mam $ */
/* list; Caf, Waf, Edaf, Maf $ */
/* list; Ck, r $ */
/* list; Year, Industry, Q $ */

Create; LWy=log(Wy)
      ; LWam=log(Wam)
      ; LWaf=log(Waf)
      ; LWk=log(r)
      ; lQ=log(Q)
      ; time = Trn(-13,0) $

/* ===== Create industry dummy variables ===== */
/*      */
/* A - Agriculture, forestry, fishing & hunting */
/* C - Manufacturing */
/* E - Construction */
/* F - Wholesale trade */
/* G - Retail trade (ommitted as biggest employer of youth) */
/* H - Acommodation, cafes & restuarants */
/* I - Transport, storage & communication services */
/* P - Cultural & personal services */
/* Indx respresents the industry dummy for industry X */
/*      */
/* ===== */

Create; if (Industry = 1) Inda = 1; (Else) Inda = 0
      ; if (Industry = 2) Indc = 1; (Else) Indc = 0
      ; if (Industry = 3) Inde = 1; (Else) Inde = 0
      ; if (Industry = 4) Indf = 1; (Else) Indf = 0
      ; if (Industry = 6) Indh = 1; (Else) Indh = 0

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; if (Industry = 7) Indi = 1; (Else) Indi = 0
; if (Industry = 8) Indp = 1; (Else) Indp = 0 $

Namelist ; Wages = LWy, LWam, LWaf
          ; Prices = LWy, LWam, LWaf, LWk
          ; Costshar = Cy, Cam, Caf
          ; Educate = Edy, Edam, Edaf
          ; Mobility = My, Mam, Maf
          ; Ind = Inda, Indc, Inde, Indf, Indh, Indi, Indp $

/* **** Estimation of labour input demand equations **** */

/* === A) One way fixed and random effects models === */

/* --- i) Basic model - own-price term --- */

/* Youth */
Regress ; LHS = Cy
          ; RHS = LWy, LQ
          ; Panel
          ; Str = Industry
          ; Period = time
          ; Output = 2
          ; Het
          ; Het = Industry
          ; List
          ; Printvc $

/* Adult male */
Regress ; LHS = Cam
          ; RHS = LWam, LQ
          ; Panel
          ; Str = Industry
          ; Period = time
          ; Output = 2
          ; Het
          ; Het = Industry
          ; List
          ; Printvc $

/* Adult female */
Regress ; LHS = Caf
          ; RHS = LWaf, LQ
          ; Panel
          ; Str = Industry
          ; Period = time
          ; Output = 2
          ; Het
          ; Het = Industry
          ; List
          ; Printvc $

/* --- ii) Basic model with additional price terms --- */

/* Youth */
Regress ; LHS = Cy

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; RHS = Prices, LQ
; Panel
; Str = Industry
; Period = time
; Output = 2
; Het
; Het = Industry
; List
; Printvc $

/* Adult male */
Regress ; LHS = Cam
; RHS = Prices, LQ
; Panel
; Str = Industry
; Period = time
; Output = 2
; Het
; Het = Industry
; List
; Printvc $

/* Adult female */
Regress ; LHS = Caf
; RHS = Price, LQ
; Panel
; Str = Industry
; Period = time
; Output = 2
; Het
; Het = Industry
; List
; Printvc $

/* --- iii) Expanded variable set ---- */

/* Youth */
Regress ; LHS = Cy
; RHS = Prices, Educate, LQ, Time
; Panel
; Str = Industry
; Period = time
; Output = 2
; Het
; Het = Industry
; List
; Printvc $

/* Adult male */
Regress ; LHS = Cam
; RHS = Prices, Educate, LQ, Time
; Panel
; Str = Industry
; Period = time
; Output = 2
; Het
; Het = Industry
; List
; Printvc $

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/* Adult female */
Regress ; LHS = Caf
    ; RHS = Prices, Educate, LQ, Time
    ; Panel
    ; Str = Industry
    ; Period = time
    ; Output = 2
    ; Het
    ; Het = Industry
    ; List
    ; Printvc $

/* --- iv) Base model with homogeneity ---- */

/* Youth */
Regress ; LHS = Cy
    ; RHS = Prices, LQ
    ; Rls: B(2) + B(3) + B(4) +B(5) + B(6) = 1 $
    ; Panel
    ; Str = Industry
    ; Period = time
    ; Output = 2
    ; Het
    ; Het = Industry
    ; List
    ; Printvc $

/* Adult male */
Regress ; LHS = Cam
    ; RHS = Prices, LQ
    ; Rls: B(2) + B(3) + B(4) +B(5) + B(6) = 1 $
    ; Panel
    ; Str = Industry
    ; Period = time
    ; Output = 2
    ; Het
    ; Het = Industry
    ; List
    ; Printvc $

/* Adult female */
Regress ; LHS = Caf
    ; RHS = Prices, LQ
    ; Rls: B(2) + B(3) + B(4) +B(5) + B(6) = 1 $
    ; Panel
    ; Str = Industry
    ; Period = time
    ; Output = 2
    ; Het
    ; Het = Industry
    ; List
    ; Printvc $

Plot ; Lhs = Cy
    ; Rhs = Wy
    ; Title = Male_youth
    ; regression $

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