job submitted

```
local country "es lu"
loc c "es"

 clear
 use ${mydata}/extract-`c' , clear
 svyset [pw=ppopwgt] , psu(hid) strata(year)
 tab inda1 , gen(dinda1)   // generate dummy variables
 loc covariates   c.age##c.age i.ptime1 i.inda1
 loc covariatesnoi   age age2 ptime1 dinda12 dinda13

 // reweighting approach

 svy : logit period  i.tersex
 predict p1   // probability to "be in period 1" given sex educ
 svy : logit period  i.tersex i.tersex#(`covariates')
 predict p2   // probability to "be in perdio 1 given sex educ and other cov"

 gen rw1 = cond(period==1 , 1 , p1/(1-p1))
 gen rw2 = cond(period==1 , 1 , p2/(1-p2))

 tab tersex period [aw=ppopwgt] , col
 tab tersex period [aw=ppopwgt*rw1]  , col
 tab tersex period [aw=ppopwgt*rw2]  , col

 tab inda1 period [aw=ppopwgt] , col
 tab inda1 period [aw=ppopwgt*rw1]  , col
 tab inda1 period [aw=ppopwgt*rw2]  , col
 tab inda1 period if tersex==1 [aw=ppopwgt*rw2]  , col

 * Period 0 inequality
 sgini capearn if period==0 [aw=ppopwgt]
 * Period 0 inequality if gender and education of period 1 (what is held fixed is within group inequality)
 sgini capearn if period==0  [aw=ppopwgt*rw1]
 * Period 0 inequality if gender and education and industry and age etc. of period 1 (what is held fixed is
within group inequality)
 sgini capearn if period==0  [aw=ppopwgt*rw2]
 * Period 1 inequalty
 sgini capearn if period==1  [aw=ppopwgt]

 // distribution regression -- illustration using quantile regression
 // use the -counterfactual- command:
 counterfactual capearn fnonter fter mter `covariatesnoi' [aw=ppopwgt] , group(period) noboot method(lpm)

 // quantile regression:
 preserve
 foreach quant of numlist 1(2)99 {
 quietly qreg lncapearn `covariates' [pw=ppopwgt] if period==0 , quantile(`quant')
 qui predict lnq_0_`quant'    // predict for both period 0 and 1 !
 qui gen q_0_`quant' = exp(lnq_0_`quant')

 quietly qreg lncapearn `covariates' [pw=ppopwgt] if period==1 , quantile(`quant')
 qui predict lnq_1_`quant'
 qui gen q_1_`quant' = exp(lnq_1_`quant')
 }
```

```
keep upid q* period ppopwgt
reshape long q_0_ q_1_ , i(upid period) j(quant)
reshape error
sample 50
sgini q_0_ if period==0  [aw=ppopwgt]
sgini q_0_ if period==1  [aw=ppopwgt]
sgini q_1_ if period==0  [aw=ppopwgt]
sgini q_1_ if period==1  [aw=ppopwgt]
restore

// Singh-Maddala model:
preserve

smfit capearn [aw=ppopwgt] if period==0 ,  a(fnonter fter mter)  b(`covariatesnoi')   itera(50)
predict double a0, eq(a) xb
   predict double b0, eq(b) xb
   predict double q0, eq(q) xb
smfit capearn [aw=ppopwgt] if period==1 ,  a(fnonter fter mter )  b(`covariatesnoi')   itera(50)
predict double a1, eq(a) xb
   predict double b1, eq(b) xb
   predict double q1, eq(q) xb
foreach quant of numlist 2(2)98 {
loc p = `quant' / 100
qui gen q_0_`quant' = b0*((1-`p')^(-1/q0) - 1)^(1/a0)
qui gen q_1_`quant' = b1*((1-`p')^(-1/q1) - 1)^(1/a1)
}
keep upid q* period ppopwgt
reshape long q_0_ q_1_ , i(upid period) j(quant)
sample 50
sgini q_0_ if period==0  [aw=ppopwgt]
sgini q_0_ if period==1  [aw=ppopwgt]
sgini q_1_ if period==0  [aw=ppopwgt]
sgini q_1_ if period==1  [aw=ppopwgt]
restore
```

listing

```
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  regulations which do not allow copying or further distribution of the
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  into the LIS computing system will result in prosecution.

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  submitted for entry into the Working Papers Series.
```

```
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################################ NOTICE TO USERS ################################


. local country "es lu"

. loc c "es"

.
.  clear

.  use ${mydata}/extract-`c' , clear

.  svyset [pw=ppopwgt] , psu(hid) strata(year)

      pweight: ppopwgt
          VCE: linearized
  Single unit: missing
     Strata 1: year
         SU 1: hid
        FPC 1: <zero>

.  tab inda1 , gen(dinda1)   // generate dummy variables

industry (3-category |
   recode), main job |      Freq.     Percent        Cum.
---------------------+-----------------------------------
      [1]agriculture |        565        3.23        3.23
         [2]industry |      5,177       29.62       32.85
         [3]services |     11,737       67.15      100.00
---------------------+-----------------------------------
               Total |     17,479      100.00

.  loc covariates   c.age##c.age i.ptime1 i.inda1

.  loc covariatesnoi   age age2 ptime1 dinda12 dinda13

.
.  // reweighting approach
.
.  svy : logit period  i.tersex
(running logit on estimation sample)

Survey: Logistic regression

Number of strata   =         3                Number of obs     =      17,479
Number of PSUs     =    13,352                Population size   =  22,944,058
                                              Design df         =      13,349
                                              F(   3,  13347)   =       13.79
                                              Prob > F          =      0.0000

------------------------------------------------------------------------------
             |             Linearized
      period |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      tersex |
```

```
          2  |  -.0143159   .0972809    -0.15   0.883    -.2050003    .1763686
         11  |   .4793977   .1383145     3.47   0.001     .2082816    .7505138
         12  |   .9627537   .1709272     5.63   0.000     .6277122    1.297795
             |
      _cons  |   2.576662   .0496303    51.92   0.000      2.47938    2.673945
------------------------------------------------------------------------------

.  predict p1   // probability to "be in period 1" given sex educ
(option pr assumed; Pr(period))

.  svy : logit period  i.tersex i.tersex#(`covariates')
(running logit on estimation sample)

note: 12.tersex#1b.inda1 != 0 predicts success perfectly
      12.tersex#1b.inda1 dropped and 13 obs not used
note: 12.tersex#3.inda1 omitted because of collinearity

Survey: Logistic regression

Number of strata   =         3                Number of obs     =      17,139
Number of PSUs     =    13,147                Population size   =  22,480,862
                                               Design df         =      13,144
                                               F(  22,  13123)   =        6.74
                                               Prob > F          =      0.0000

------------------------------------------------------------------------------
                   |             Linearized
            period |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------------+----------------------------------------------------------------
            tersex |
                2  |  -2.141927   2.702068    -0.79   0.428    -7.438371    3.154517
               11  |   1.441412   3.659233     0.39   0.694    -5.731213    8.614037
               12  |  -3.181588   6.426098    -0.50   0.621    -15.77767    9.414493
                   |
      tersex#c.age |
                1  |   .0621844   .0840148     0.74   0.459    -.1024968    .2268655
                2  |   .1631631   .0996883     1.64   0.102    -.0322403    .3585665
               11  |     .07273   .1316836     0.55   0.581     -.185389    .3308489
               12  |    .202644   .3035439     0.67   0.504     -.392346    .7976339
                   |
tersex#c.age#c.age |
                1  |  -.0004096   .0009341    -0.44   0.661    -.0022406    .0014215
                2  |   -.001463   .0011369    -1.29   0.198    -.0036914    .0007654
               11  |  -.0003209   .0014448    -0.22   0.824    -.0031529     .002511
               12  |  -.0006539   .0036487    -0.18   0.858    -.0078059    .0064982
                   |
     tersex#ptime1 |
   1#[1]part-time  |  -1.067602   .2920368    -3.66   0.000    -1.640036   -.4951674
   2#[1]part-time  |  -.5927583   .1665101    -3.56   0.000    -.9191421   -.2663744
  11#[1]part-time  |   .0276531   .6556452     0.04   0.966    -1.257506    1.312812
  12#[1]part-time  |  -.4600546   .3623876    -1.27   0.204    -1.170387    .2502774
                   |
      tersex#inda1 |
    1#[2]industry  |   .5136529    .247102     2.08   0.038     .0292973    .9980085
    1#[3]services  |    .958991   .2519323     3.81   0.000     .4651673    1.452815
    2#[2]industry  |   .3408531   .4491455     0.76   0.448     -.539537    1.221243
    2#[3]services  |   .7713542   .4168893     1.85   0.064    -.0458092    1.588518
```

```
   11#[2]industry  |  -.9538479   1.041044    -0.92   0.360    -2.994444    1.086748
   11#[3]services  |  -.8372206   1.029285    -0.81   0.416    -2.854768    1.180326
12#[1]agriculture  |          0  (empty)
   12#[2]industry  |   1.266884     .71157     1.78   0.075    -.1278955    2.661664
   12#[3]services  |          0  (omitted)
                   |
             _cons |   .0404943   1.877318     0.02   0.983    -3.639321    3.720309
------------------------------------------------------------------------------

.  predict p2   // probability to "be in perdio 1 given sex educ and other cov"
(option pr assumed; Pr(period))
(340 missing values generated)

.
.  gen rw1 = cond(period==1 , 1 , p1/(1-p1))

.  gen rw2 = cond(period==1 , 1 , p2/(1-p2))
(5 missing values generated)

.
.  tab tersex period [aw=ppopwgt] , col

+-------------------+
| Key               |
|-------------------|
|     frequency     |
| column percentage |
+-------------------+

           |        period
    tersex |         0          1 |     Total
-----------+----------------------+----------
         1 |504.229092  6,632.206 | 7,136.435
           |     48.40      40.35 |     40.83
-----------+----------------------+----------
         2 |320.245513  4,152.368 | 4,472.614
           |     30.74      25.26 |     25.59
-----------+----------------------+----------
        11 | 138.63478  2,945.114 | 3,083.749
           |     13.31      17.92 |     17.64
-----------+----------------------+----------
        12 | 78.602383    2,707.6 | 2,786.202
           |      7.55      16.47 |     15.94
-----------+----------------------+----------
     Total | 1,041.712  16,437.29 |    17,479
           |    100.00     100.00 |    100.00

.  tab tersex period [aw=ppopwgt*rw1]  , col

+-------------------+
| Key               |
|-------------------|
|     frequency     |
| column percentage |
+-------------------+

           |        period
```

```
    tersex |         0          1 |     Total
-----------+----------------------+----------
         1 | 3,526.261  3,526.261 | 7,052.522
           |     40.35      40.35 |     40.35
-----------+----------------------+----------
         2 | 2,207.761  2,207.762 | 4,415.523
           |     25.26      25.26 |     25.26
-----------+----------------------+----------
        11 |  1,565.88   1,565.88 |3,131.7605
           |     17.92      17.92 |     17.92
-----------+----------------------+----------
        12 | 1,439.597  1,439.597 | 2,879.194
           |     16.47      16.47 |     16.47
-----------+----------------------+----------
     Total |   8,739.5    8,739.5 |    17,479
           |    100.00     100.00 |    100.00

.  tab tersex period [aw=ppopwgt*rw2]  , col

+-------------------+
| Key               |
|-------------------|
|     frequency     |
| column percentage |
+-------------------+

           |        period
    tersex |         0          1 |     Total
-----------+----------------------+----------
         1 | 3,512.607  3,600.857 | 7,113.465
           |     41.08      40.35 |     40.71
-----------+----------------------+----------
         2 | 2,167.377  2,254.466 | 4,421.843
           |     25.35      25.26 |     25.31
-----------+----------------------+----------
        11 | 1,557.947  1,599.006 | 3,156.953
           |     18.22      17.92 |     18.07
-----------+----------------------+----------
        12 |1,311.6882  1,470.051 | 2,781.739
           |     15.34      16.47 |     15.92
-----------+----------------------+----------
     Total |  8,549.62   8,924.38 |    17,474
           |    100.00     100.00 |    100.00

.
.  tab inda1 period [aw=ppopwgt] , col

+-------------------+
| Key               |
|-------------------|
|     frequency     |
| column percentage |
+-------------------+

industry (3-category |        period
   recode), main job |         0          1 |     Total
---------------------+----------------------+----------
```

```
      [1]agriculture |  68.00967 499.197008 | 567.20668
                     |      6.53       3.04 |      3.25
---------------------+----------------------+----------
         [2]industry | 381.48857  4,878.046 | 5,259.535
                     |     36.62      29.68 |     30.09
---------------------+----------------------+----------
         [3]services | 592.21353  11,060.05 | 11,652.26
                     |     56.85      67.29 |     66.66
---------------------+----------------------+----------
               Total | 1,041.712  16,437.29 |    17,479
                     |    100.00     100.00 |    100.00

.  tab inda1 period [aw=ppopwgt*rw1]  , col

+-------------------+
| Key               |
|-------------------|
|     frequency     |
| column percentage |
+-------------------+

industry (3-category |        period
   recode), main job |         0          1 |     Total
---------------------+----------------------+----------
      [1]agriculture |  477.9441  265.41678 |743.360886
                     |      5.47       3.04 |      4.25
---------------------+----------------------+----------
         [2]industry | 2,897.825  2,593.596 | 5,491.421
                     |     33.16      29.68 |     31.42
---------------------+----------------------+----------
         [3]services | 5,363.731  5,880.487 |11,244.218
                     |     61.37      67.29 |     64.33
---------------------+----------------------+----------
               Total |   8,739.5    8,739.5 |    17,479
                     |    100.00     100.00 |    100.00

.  tab inda1 period [aw=ppopwgt*rw2]  , col

+-------------------+
| Key               |
|-------------------|
|     frequency     |
| column percentage |
+-------------------+

industry (3-category |        period
   recode), main job |         0          1 |     Total
---------------------+----------------------+----------
      [1]agriculture | 249.69093  271.03156 | 520.72249
                     |      2.92       3.04 |      2.98
---------------------+----------------------+----------
         [2]industry | 2,699.517  2,648.462 |5,347.9796
                     |     31.57      29.68 |     30.61
---------------------+----------------------+----------
         [3]services | 5,600.412  6,004.886 |  11,605.3
                     |     65.50      67.29 |     66.41
---------------------+----------------------+----------
```

```
               Total |  8,549.62   8,924.38 |    17,474
                     |    100.00     100.00 |    100.00

.  tab inda1 period if tersex==1 [aw=ppopwgt*rw2]  , col

+-------------------+
| Key               |
|-------------------|
|     frequency     |
| column percentage |
+-------------------+

industry (3-category |        period
   recode), main job |         0          1 |     Total
---------------------+----------------------+----------
      [1]agriculture | 153.49023  171.42634 | 324.91657
                     |      4.39       4.79 |      4.59
---------------------+----------------------+----------
         [2]industry | 1,682.177  1,691.964 | 3,374.141
                     |     48.14      47.23 |     47.68
---------------------+----------------------+----------
         [3]services | 1,658.934  1,719.009 | 3,377.943
                     |     47.47      47.98 |     47.73
---------------------+----------------------+----------
               Total | 3,494.601  3,582.399 |     7,077
                     |    100.00     100.00 |    100.00

.
.  * Period 0 inequality
.  sgini capearn if period==0 [aw=ppopwgt]

Gini coefficient for capearn

----------------------
    Variable |      v=2
-------------+--------
     capearn |   0.4231
----------------------

.  * Period 0 inequality if gender and education of period 1 (what is held fixed is within group inequality)
.  sgini capearn if period==0  [aw=ppopwgt*rw1]

Gini coefficient for capearn

----------------------
    Variable |      v=2
-------------+--------
     capearn |   0.4264
----------------------

.  * Period 0 inequality if gender and education and industry and age etc. of period 1 (what is held fixed is
within group inequality)
.  sgini capearn if period==0  [aw=ppopwgt*rw2]

Gini coefficient for capearn

----------------------
```

```
    Variable |      v=2
-------------+---------
     capearn |   0.4265
-----------------------

.  * Period 1 inequalty
.  sgini capearn if period==1  [aw=ppopwgt]

Gini coefficient for capearn

-----------------------
    Variable |      v=2
-------------+---------
     capearn |   0.3012
-----------------------


.
.  // distribution regression -- illustration using quantile regression
.  // use the -counterfactual- command:
.  counterfactual capearn fnonter fter mter `covariatesnoi' [aw=ppopwgt] , group(period) noboot method(lpm)

Conditional model                        linear probability model
Number of regressions estimated          98

The variance has not been computed.
Do not turn the option boot off if you want to compute it.

No. of obs. in the reference group       462
No. of obs. in the counterfactual group  16000


Quantile Treatment Effects
------------------------------------------------------------------------------
            |            Pointwise     Pointwise              Functional
Quantile    |     QTE    Std. Err. [95% Conf. Interval]  [95% Conf. Interval]
------------+-----------------------------------------------------------------
.1          |   338.772         .          .         .            .         .
.2          |   354.182         .          .         .            .         .
.3          |   588.992         .          .         .            .         .
.4          |   955.609         .          .         .            .         .
.5          |   843.412         .          .         .            .         .
.6          |   691.163         .          .         .            .         .
.7          |   1372.71         .          .         .            .         .
.8          |   2091.52         .          .         .            .         .
.9          |   1986.92         .          .         .            .         .
------------------------------------------------------------------------------

.
.  // quantile regression:
.  preserve

.  foreach quant of numlist 1(2)99 {
  2.  quietly qreg lncapearn `covariates' [pw=ppopwgt] if period==0 , quantile(`quant')
  3.  qui predict lnq_0_`quant'    // predict for both period 0 and 1 !
  4.  qui gen q_0_`quant' = exp(lnq_0_`quant')
  5.
.  quietly qreg lncapearn `covariates' [pw=ppopwgt] if period==1 , quantile(`quant')
```

```
  6.  qui predict lnq_1_`quant'
  7.  qui gen q_1_`quant' = exp(lnq_1_`quant')
  8.  }

.
.  keep upid q* period ppopwgt

.  reshape long q_0_ q_1_ , i(upid period) j(quant)
(note: j = 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69
71 73 75 77 79 81 83 85 87 89 91 93 95 97 99)

Data                               wide   ->   long
-----------------------------------------------------------------------------
Number of obs.                    17479   ->  873950
Number of variables                 103   ->       6
j variable (50 values)                    ->   quant
xij variables:
                q_0_1 q_0_3 ... q_0_99   ->   q_0_
                q_1_1 q_1_3 ... q_1_99   ->   q_1_
-----------------------------------------------------------------------------

.  reshape error
(note: j = 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69
71 73 75 77 79 81 83 85 87 89 91 93 95 97 99)
quant is unique within upid period and
all the "reshape xi" variables are constant within quant;
there is no error with which "reshape error" can help.

.  sample 50
(436,975 observations deleted)

.  sgini q_0_ if period==0  [aw=ppopwgt]

Gini coefficient for q_0_

----------------------
    Variable |      v=2
-------------+--------
        q_0_ |   0.4139
----------------------

.  sgini q_0_ if period==1  [aw=ppopwgt]

Gini coefficient for q_0_

----------------------
    Variable |      v=2
-------------+--------
        q_0_ |   0.4147
----------------------

.  sgini q_1_ if period==0  [aw=ppopwgt]

Gini coefficient for q_1_

----------------------
    Variable |      v=2
```

```
-------------+---------
       q_1_ |   0.3047
----------------------

.  sgini q_1_ if period==1  [aw=ppopwgt]

Gini coefficient for q_1_

----------------------
    Variable |      v=2
-------------+---------
       q_1_ |   0.2989
----------------------

.  restore

.
.  // Singh-Maddala model:
.  preserve

.
.  smfit capearn [aw=ppopwgt] if period==0 ,  a(fnonter fter mter)  b(`covariatesnoi')   itera(50)

initial:       log likelihood =     -<inf>  (could not be evaluated)
feasible:      log likelihood = -5819.9998
rescale:       log likelihood = -5694.2046
rescale eq:    log likelihood = -4810.1498
Iteration 0:   log likelihood = -4810.1498
Iteration 1:   log likelihood =  -4734.328
Iteration 2:   log likelihood = -4590.4611
Iteration 3:   log likelihood = -4581.9462
Iteration 4:   log likelihood = -4569.3106
Iteration 5:   log likelihood = -4564.9869
Iteration 6:   log likelihood = -4564.6775
Iteration 7:   log likelihood = -4564.6759
Iteration 8:   log likelihood = -4564.6759

ML fit of Singh-Maddala distribution              Number of obs   =        462
                                                  Wald chi2(3)    =      24.07
Log likelihood = -4564.6759                       Prob > chi2     =     0.0000

------------------------------------------------------------------------------
     capearn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
a            |
     fnonter |  -.4616451   .2533934    -1.82   0.068     -.958287    .0349969
        fter |  -.7377449    .355477    -2.08   0.038    -1.434467   -.0410228
        mter |  -1.181195   .2409233    -4.90   0.000    -1.653396   -.7089943
       _cons |   2.866497   .2024387    14.16   0.000     2.469724    3.263269
-------------+----------------------------------------------------------------
b            |
         age |   410.5409   264.5737     1.55   0.121     -108.014    929.0958
        age2 |  -4.212473   2.953135    -1.43   0.154    -10.00051    1.575566
      ptime1 |  -3687.296   584.6024    -6.31   0.000    -4833.096   -2541.496
     dinda12 |   3560.022   654.3701     5.44   0.000      2277.48    4842.564
     dinda13 |   2521.336   559.3448     4.51   0.000     1425.041    3617.632
       _cons |   -4445.42   5753.889    -0.77   0.440    -15722.84    6831.995
```

```
-------------+----------------------------------------------------------------
q            |
       _cons |   1.112705   .1692871     6.57   0.000     .7809086    1.444502
------------------------------------------------------------------------------

.  predict double a0, eq(a) xb

.     predict double b0, eq(b) xb
(327 missing values generated)

.     predict double q0, eq(q) xb

.  smfit capearn [aw=ppopwgt] if period==1 ,  a(fnonter fter mter )  b(`covariatesnoi')   itera(50)

initial:       log likelihood =     -<inf>  (could not be evaluated)
feasible:      log likelihood =  -218180.2
rescale:       log likelihood = -211110.37
rescale eq:    log likelihood = -179635.72
Iteration 0:   log likelihood = -179635.72
Iteration 1:   log likelihood = -168706.67
Iteration 2:   log likelihood = -167907.84
Iteration 3:   log likelihood = -167310.44
Iteration 4:   log likelihood = -167257.01
Iteration 5:   log likelihood = -167168.71
Iteration 6:   log likelihood = -167023.53
Iteration 7:   log likelihood = -166627.06
Iteration 8:   log likelihood = -166468.43
Iteration 9:   log likelihood = -166351.33
Iteration 10:  log likelihood = -166282.94
Iteration 11:  log likelihood = -166237.35
Iteration 12:  log likelihood = -166208.48
Iteration 13:  log likelihood = -166188.24
Iteration 14:  log likelihood = -166173.72
Iteration 15:  log likelihood = -166164.21
Iteration 16:  log likelihood = -166157.99
Iteration 17:  log likelihood = -166150.58
Iteration 18:  log likelihood = -166146.73
Iteration 19:  log likelihood = -166143.27
Iteration 20:  log likelihood = -166141.51
Iteration 21:  log likelihood = -166138.55
Iteration 22:  log likelihood = -166137.66
Iteration 23:  log likelihood = -166135.32
Iteration 24:  log likelihood = -166134.71
Iteration 25:  log likelihood =  -166133.9
Iteration 26:  log likelihood = -166133.44
Iteration 27:  log likelihood = -166133.14
Iteration 28:  log likelihood = -166132.84
Iteration 29:  log likelihood = -166132.72
Iteration 30:  log likelihood = -166132.49
Iteration 31:  log likelihood = -166132.32
Iteration 32:  log likelihood =  -166132.3
Iteration 33:  log likelihood = -166132.27
Iteration 34:  log likelihood = -166132.27
Iteration 35:  log likelihood = -166132.27
Iteration 36:  log likelihood = -166132.27
Iteration 37:  log likelihood = -166132.27  (backed up)
Iteration 38:  log likelihood = -166132.27  (backed up)
```

```
Iteration 39:  log likelihood = -166132.27  (backed up)
Iteration 40:  log likelihood = -166132.27  (backed up)
Iteration 41:  log likelihood = -166132.27  (backed up)
Iteration 42:  log likelihood = -166132.27  (backed up)
Iteration 43:  log likelihood = -166132.27  (backed up)
Iteration 44:  log likelihood = -166132.27  (backed up)
Iteration 45:  log likelihood = -166132.27  (backed up)
Iteration 46:  log likelihood = -166132.27  (backed up)
Iteration 47:  log likelihood = -166132.27  (backed up)
Iteration 48:  log likelihood = -166132.27  (backed up)
Iteration 49:  log likelihood = -166132.27  (backed up)
Iteration 50:  log likelihood = -166132.27  (backed up)
convergence not achieved

ML fit of Singh-Maddala distribution              Number of obs   =      16000
                                                  Wald chi2(3)    =     138.79
Log likelihood = -166132.27                       Prob > chi2     =     0.0000

------------------------------------------------------------------------------
     capearn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
a            |
     fnonter |  -.2046752   .0181529   -11.28   0.000    -.2402541   -.1690962
        fter |   .1521232   .0148799    10.22   0.000      .122959    .1812873
        mter |   .2924795   .0287601    10.17   0.000     .2361107    .3488482
       _cons |   2.211115    .013166   167.94   0.000      2.18531    2.236919
-------------+----------------------------------------------------------------
b            |
         age |   22379.53   6929.038     3.23   0.001     8798.863    35960.19
        age2 |  -183.1978   60.29367    -3.04   0.002    -301.3712   -65.02441
      ptime1 |  -196465.2   58640.14    -3.35   0.001    -311397.8   -81532.64
     dinda12 |   153823.2   45835.91     3.36   0.001     63986.49      243660
     dinda13 |   179664.2   52829.03     3.40   0.001     76121.16    283207.2
       _cons |  -136888.6   68635.23    -1.99   0.046    -271411.2   -2366.051
-------------+----------------------------------------------------------------
q            |
       _cons |   2084.988   1352.663     1.54   0.123    -566.1826    4736.158
------------------------------------------------------------------------------

.  predict double a1, eq(a) xb

.     predict double b1, eq(b) xb
(327 missing values generated)

.     predict double q1, eq(q) xb

.  foreach quant of numlist 2(2)98 {
  2.  loc p = `quant' / 100
  3.  qui gen q_0_`quant' = b0*((1-`p')^(-1/q0) - 1)^(1/a0)
  4.  qui gen q_1_`quant' = b1*((1-`p')^(-1/q1) - 1)^(1/a1)
  5.  }

.  keep upid q* period ppopwgt

.  reshape long q_0_ q_1_ , i(upid period) j(quant)
(note: j = 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70
72 74 76 78 80 82 84 86 88 90 92 94 96 98)
```

```
Data                              wide   ->   long
-----------------------------------------------------------------------------
Number of obs.                   17479   ->  856471
Number of variables                103   ->       8
j variable (49 values)                   ->   quant
xij variables:
                 q_0_2 q_0_4 ... q_0_98   ->   q_0_
                 q_1_2 q_1_4 ... q_1_98   ->   q_1_
-----------------------------------------------------------------------------

.  sample 50
(428,235 observations deleted)

.  sgini q_0_ if period==0  [aw=ppopwgt]

Gini coefficient for q_0_

----------------------
    Variable |      v=2
-------------+--------
        q_0_ |   0.3819
----------------------

.  sgini q_0_ if period==1  [aw=ppopwgt]

Gini coefficient for q_0_

----------------------
    Variable |      v=2
-------------+--------
        q_0_ |   0.3867
----------------------

.  sgini q_1_ if period==0  [aw=ppopwgt]

Gini coefficient for q_1_

----------------------
    Variable |      v=2
-------------+--------
        q_1_ |   0.3114
----------------------

.  sgini q_1_ if period==1  [aw=ppopwgt]

Gini coefficient for q_1_

----------------------
    Variable |      v=2
-------------+--------
        q_1_ |   0.3030
----------------------

.  restore

.
```

```
.
.
.
.
end of do-file
```