```
-------------------------------------------------------------------------------
-------
      name:  <unnamed>
       log:  ...\program2--forecast SES.log
  log type:  text
 opened on:   2 Sep 2014, 16:15:20

. use "...\program1--prepare data.dta", clear ;
(National Longitudinal Study of Adolescent Health (Add Health), 1994-2008: Wave I)

. *** recode ***;
. recode _mj 0=0 1/10=1, gen(imputed) ;
(13563 differences between _mj and imputed)

. foreach l in m f { ;
  2. foreach p in mom dad { ;
  3. recode `l'1_`p'_edu       .=1 1/4=0, gen(`l'1_`p'_msed) ;
  4. recode `l'1_`p'_edu      1=1 2/4=0, gen(`l'1_`p'_lths) ;
  5. recode `l'1_`p'_edu   1=0 2=1 3/4=0, gen(`l'1_`p'_hs) ;
  6. recode `l'1_`p'_edu 1/2=0 3=1   4=0, gen(`l'1_`p'_mths) ;
  7. recode `l'1_`p'_edu 1/3=0 4=1,       gen(`l'1_`p'_cg) ;
  8. foreach v in `l'1_`p'_lths `l'1_`p'_hs `l'1_`p'_mths `l'1_`p'_cg { ;
  9. replace `v'=0 if `v'==. ;
 10. } ;
 11.  } ;
 12.  } ;
(16577 differences between m1_mom_edu and m1_mom_msed)
(13008 differences between m1_mom_edu and m1_mom_lths)
(15744 differences between m1_mom_edu and m1_mom_hs)
(15744 differences between m1_mom_edu and m1_mom_mths)
(15744 differences between m1_mom_edu and m1_mom_cg)
(833 real changes made)
(833 real changes made)
(833 real changes made)
(833 real changes made)
(16577 differences between m1_dad_edu and m1_dad_msed)
(13972 differences between m1_dad_edu and m1_dad_lths)
(15634 differences between m1_dad_edu and m1_dad_hs)
(15634 differences between m1_dad_edu and m1_dad_mths)
(15634 differences between m1_dad_edu and m1_dad_cg)
(943 real changes made)
(943 real changes made)
(943 real changes made)
(943 real changes made)
(16577 differences between f1_mom_edu and f1_mom_msed)
(13205 differences between f1_mom_edu and f1_mom_lths)
(15865 differences between f1_mom_edu and f1_mom_hs)
(15865 differences between f1_mom_edu and f1_mom_mths)
(15865 differences between f1_mom_edu and f1_mom_cg)
(712 real changes made)
(712 real changes made)
(712 real changes made)
(712 real changes made)
(16577 differences between f1_dad_edu and f1_dad_msed)
(14411 differences between f1_dad_edu and f1_dad_lths)
(15742 differences between f1_dad_edu and f1_dad_hs)
(15742 differences between f1_dad_edu and f1_dad_mths)
(15742 differences between f1_dad_edu and f1_dad_cg)
(835 real changes made)
(835 real changes made)
(835 real changes made)
(835 real changes made)
```

```
. foreach l in m f { ;
  2. recode  `l'1_hshld_inc .=1 1/999=0, gen(`l'1_miss_hhinc) ;
  3. replace `l'1_hshld_inc = 0 if `l'1_hshld_inc==. ;
  4. recode  `l'1_dad_sei .=1 1/999=0, gen(`l'1_miss_dsei) ;
  5. replace `l'1_dad_sei = 0 if `l'1_dad_sei==. ;
  6. recode  `l'3_ahpvt .=1 1/999=0, gen(`l'3_miss_ahpvt) ;
  7. replace `l'3_ahpvt = 0 if `l'3_ahpvt==. ;
  8. recode  `l'3_sei .=1 1/999=0, gen(`l'3_miss_sei) ;
  9. replace `l'3_sei = 0 if `l'3_sei==. ;
 10. } ;
(14678 differences between m1_hshld_inc and m1_miss_hhinc)
(963 real changes made)
(11256 differences between m1_dad_sei and m1_miss_dsei)
(159 real changes made)
(16176 differences between m3_ahpvt and m3_miss_ahpvt)
(58 real changes made)
(16345 differences between m3_sei and m3_miss_sei)
(388 real changes made)
(15444 differences between f1_hshld_inc and f1_miss_hhinc)
(892 real changes made)
(11030 differences between f1_dad_sei and f1_miss_dsei)
(182 real changes made)
(16198 differences between f3_ahpvt and f3_miss_ahpvt)
(50 real changes made)
(16301 differences between f3_sei and f3_miss_sei)
(550 real changes made)

. *** for men ***;
. replace m4_inc=0 if m4_inc<0 ;
(0 real changes made)

. gen m4_ln_inc = ln(m4_inc+1) if m4_inc~=. ;
(921 missing values generated)

. pwcorr m4_inc m4_ln_inc m3_ee_cgrdp m3_ahpvt m3_ln_inc m1_dad_sei, sig ;

             |   m4_inc m4_ln_~c m3_ee_~p m3_ahpvt m3_ln_~e m1_dad~i
-------------+------------------------------------------------------
      m4_inc |   1.0000
             |
             |
   m4_ln_inc |   0.5650   1.0000
             |   0.0000
             |
 m3_ee_cgrdp |   0.1354   0.1111   1.0000
             |   0.0000   0.0000
             |
    m3_ahpvt |   0.0284   0.0580   0.2884   1.0000
             |   0.0004   0.0000   0.0000
             |
m3_ln_income |   0.0953   0.0713  -0.0262   0.0599   1.0000
             |   0.0000   0.0000   0.0008   0.0000
             |
  m1_dad_sei |   0.1296   0.1019   0.2107   0.2390   0.0263   1.0000
             |   0.0000   0.0000   0.0000   0.0000   0.0008
             |

. reg m4_inc m3_ee_cgrdp m3_ahpvt m1_dad_sei m3_black m3_hisp m3_other m3_bmi_3
m3_physatt
> m3_peratt m3_groomed m3_calcage3 if _mj==0 ;

      Source |       SS       df       MS              Number of obs =     584
-------------+------------------------------           F( 11,   572) =    2.21
```

```
      Model |  5.1384e+10    11  4.6713e+09           Prob > F      =  0.0126
   Residual |  1.2075e+12   572  2.1110e+09           R-squared     =  0.0408
-------------+------------------------------           Adj R-squared =  0.0224
      Total |  1.2588e+12   583  2.1593e+09           Root MSE      =   45945

------------------------------------------------------------------------------
      m4_inc |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
 m3_ee_cgrdp |   12863.01   4746.412     2.71   0.007     3540.492    22185.54
    m3_ahpvt |  -63.88384   70.36384    -0.91   0.364    -202.0869    74.31918
  m1_dad_sei |   210.2456    78.3584     2.68   0.008     56.34031    364.1509
    m3_black |  -6322.173   5536.804    -1.14   0.254    -17197.12    4552.775
     m3_hisp |   753.9658   6236.313     0.12   0.904     -11494.9    13002.83
    m3_other |   4661.758   6105.466     0.76   0.445    -7330.109    16653.63
    m3_bmi_3 |   287.9359   339.5799     0.85   0.397    -379.0398    954.9116
  m3_physatt |   826.2578   3387.768     0.24   0.807    -5827.725    7480.241
   m3_peratt |   -604.771   3144.617    -0.19   0.848    -6781.176    5571.634
  m3_groomed |   3218.583   3278.332     0.98   0.327    -3220.454    9657.621
 m3_calcage3 |   1474.636   1199.898     1.23   0.220    -882.1079     3831.38
       _cons |  -12365.06    29458.7    -0.42   0.675    -70225.47    45495.36
------------------------------------------------------------------------------

. reg m4_ln_inc m3_ee_cgrdp m3_ahpvt m1_dad_sei m3_black m3_hisp m3_other m3_bmi_3
m3_physa
> tt m3_peratt m3_groomed m3_calcage3 if _mj==0 ;

      Source |       SS       df       MS              Number of obs =     584
-------------+------------------------------           F( 11,   572) =    2.79
       Model |   122.04181    11    11.09471           Prob > F      =  0.0015
    Residual |  2274.01616   572  3.97555273           R-squared     =  0.0509
-------------+------------------------------           Adj R-squared =  0.0327
       Total |  2396.05797   583  4.10987646           Root MSE      =  1.9939

------------------------------------------------------------------------------
   m4_ln_inc |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
 m3_ee_cgrdp |   .5442046     .20598     2.64   0.008     .1396351     .948774
    m3_ahpvt |   -.000578   .0030536    -0.19   0.850    -.0065756    .0054196
  m1_dad_sei |   .0060553   .0034005     1.78   0.075    -.0006237    .0127344
    m3_black |  -.7092258   .2402807    -2.95   0.003    -1.181166   -.2372858
     m3_hisp |  -.0151447   .2706373    -0.06   0.955    -.5467087    .5164194
    m3_other |  -.1975104   .2649589    -0.75   0.456    -.7179215    .3229006
    m3_bmi_3 |   .0238554   .0147367     1.62   0.106    -.0050894    .0528001
  m3_physatt |  -.0154859    .147019    -0.11   0.916    -.3042487     .273277
   m3_peratt |  -.1638176   .1364669    -1.20   0.230     -.431855    .1042198
  m3_groomed |   .1982693   .1422698     1.39   0.164    -.0811655    .4777042
 m3_calcage3 |   -.033248    .052072    -0.64   0.523    -.1355236    .0690276
       _cons |     10.051   1.278419     7.86   0.000      7.54003    12.56197
------------------------------------------------------------------------------

. reg m4_ln_inc
>     m3_ee_cgrdp m3_ahpvt m3_miss_ahpvt m3_sei m3_miss_sei
>     m1_dad_sei m1_miss_dsei
>     m1_dad_hs m1_dad_mths m1_dad_cg m1_dad_msed
>     m1_mom_hs m1_mom_mths m1_mom_cg m1_mom_msed
>     m1_hshld_inc m1_miss_hhinc
>     m3_black m3_hisp m3_other m3_calcage3 if _mj==0 ;

      Source |       SS       df       MS              Number of obs =     586
-------------+------------------------------           F( 21,   564) =    2.14
       Model |  177.146263    21  8.43553635           Prob > F      =  0.0023
    Residual |   2219.8232   564  3.93585674           R-squared     =  0.0739
-------------+------------------------------           Adj R-squared =  0.0394
```

```
       Total |  2396.96947   585   4.0973837           Root MSE      =  1.9839

------------------------------------------------------------------------------
    m4_ln_inc |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
--------------+---------------------------------------------------------------
  m3_ee_cgrdp |   .6291378   .2214279     2.84   0.005     .1942137    1.064062
     m3_ahpvt |  -.0008359   .0034126    -0.24   0.807    -.0075387     .005867
m3_miss_ahpvt |   .1759383   .4753145     0.37   0.711    -.7576645    1.109541
       m3_sei |   .0022746    .004606     0.49   0.622    -.0067725    .0113217
  m3_miss_sei |  -.4660268   .2755344    -1.69   0.091    -1.007226    .0751722
   m1_dad_sei |   .0068356   .0040707     1.68   0.094      -.00116    .0148312
 m1_miss_dsei |   .1110309   .2524178     0.44   0.660    -.3847629    .6068246
    m1_dad_hs |  -.5843873   .3984335    -1.47   0.143    -1.366982    .1982075
  m1_dad_mths |  -.1282099   .4287253    -0.30   0.765    -.9703033    .7138834
    m1_dad_cg |  -.6081572   .4339644    -1.40   0.162    -1.460541    .2442265
  m1_dad_msed |  -.7129733   .4091978    -1.74   0.082    -1.516711    .0907644
    m1_mom_hs |   .2473446   .2987381     0.83   0.408    -.3394305    .8341197
  m1_mom_mths |  -.0043898   .3048927    -0.01   0.989    -.6032536     .594474
    m1_mom_cg |  -.0832411   .3342749    -0.25   0.803    -.7398168    .5733345
  m1_mom_msed |   .7196676   .5678364     1.27   0.206    -.3956648       1.835
 m1_hshld_inc |   -.000132    .002102    -0.06   0.950    -.0042607    .0039966
m1_miss_hhinc |  -.1204767   .2326393    -0.52   0.605     -.577422    .3364686
     m3_black |  -.5680712   .2497106    -2.27   0.023    -1.058547   -.0775948
      m3_hisp |   .0867182   .2879381     0.30   0.763    -.4788437    .6522801
     m3_other |  -.1843057   .2650675    -0.70   0.487    -.7049457    .3363343
  m3_calcage3 |  -.0599334   .0533072    -1.12   0.261    -.1646383    .0447715
        _cons |   11.71658    1.27737     9.17   0.000     9.207595    14.22556
------------------------------------------------------------------------------

. predict m4_ln_incp ;
(option xb assumed; fitted values)
(11 missing values generated)

. sum m4_ln_incp ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
  m4_ln_incp |     16566    10.16739    .5303029   8.137443   11.93744

.  tab _mj if  m4_ln_incp==. ;

 imputation |
     number |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         11      100.00      100.00
------------+-----------------------------------
      Total |         11      100.00

. table imputed, contents(mean m4_ln_inc mean m4_ln_incp) ;

----------------------------------------
RECODE of |
_mj       |
(imputati |
on        |
number)   | mean(m4_ln_~c)  mean(m4_ln_~p)
----------+-----------------------------
        0 |       10.08211         10.1558
        1 |       8.986382        10.16854
----------------------------------------

. pwcorr m4_ln_inc m4_ln_incp, sig ;
```

```
             | m4_ln_~c m4_ln_~p
-------------+------------------
   m4_ln_inc |   1.0000
             |
             |
  m4_ln_incp |   0.1432   1.0000
             |   0.0000
             |

. reg m4_inc
>     m3_ee_cgrdp m3_ahpvt m3_miss_ahpvt m3_sei
>     m1_dad_sei
>     m1_dad_hs m1_dad_mths m1_dad_cg
>     m1_mom_hs m1_mom_mths m1_mom_cg
>     m1_hshld_inc
>     m3_black m3_hisp m3_other m3_calcage3 if f3_partner==1 & _mj>0 ;

      Source |       SS       df       MS              Number of obs =    6920
-------------+------------------------------           F( 16,  6903) =   30.40
       Model |  9.9440e+11    16  6.2150e+10           Prob > F      =  0.0000
    Residual |  1.4113e+13  6903  2.0445e+09           R-squared     =  0.0658
-------------+------------------------------           Adj R-squared =  0.0637
       Total |  1.5107e+13  6919  2.1835e+09           Root MSE      =   45216

------------------------------------------------------------------------------
       m4_inc |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
--------------+---------------------------------------------------------------
  m3_ee_cgrdp |   9429.889   1484.199     6.35   0.000     6520.401    12339.38
     m3_ahpvt |  -127.6619   21.72458    -5.88   0.000    -170.2487   -85.07503
m3_miss_ahpvt |  -48980.43   159026.3    -0.31   0.758    -360720.9      262760
       m3_sei |   314.7414     27.802    11.32   0.000     260.2409    369.2418
   m1_dad_sei |   148.8711   25.16769     5.92   0.000     99.53469    198.2075
    m1_dad_hs |  -9426.589   2079.997    -4.53   0.000    -13504.02   -5349.155
  m1_dad_mths |  -5627.991    2342.94    -2.40   0.016    -10220.87   -1035.107
    m1_dad_cg |  -4202.428   2411.204    -1.74   0.081     -8929.13    524.2733
    m1_mom_hs |    5566.78   1883.133     2.96   0.003     1875.259      9258.3
  m1_mom_mths |   4692.078   1946.368     2.41   0.016     876.5979    8507.559
    m1_mom_cg |  -622.8558   2188.652    -0.28   0.776    -4913.288    3667.576
 m1_hshld_inc |   81.52698   13.17309     6.19   0.000     55.70367    107.3503
     m3_black |  -3565.851   1547.446    -2.30   0.021    -6599.322   -532.3807
      m3_hisp |   1353.041   1889.214     0.72   0.474      -2350.4    5056.483
     m3_other |   3165.905   1721.478     1.84   0.066    -208.7212    6540.531
  m3_calcage3 |   1644.938   337.8078     4.87   0.000     982.7311    2307.145
        _cons |   -3514.77   7843.119    -0.45   0.654     -18889.7    11860.16
------------------------------------------------------------------------------

. predict m4_incp ;
(option xb assumed; fitted values)
(11 missing values generated)

. sum m4_inc m4_incp ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
      m4_inc |     15656    47098.72    46976.05          0     619800
     m4_incp |     16566    46370.91    13333.48  -20014.52   106568.3

. replace m4_incp=0 if m4_incp<0 ;
(32 real changes made)

. sum m4_inc m4_incp ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
```

```
-------------+---------------------------------------------------------
      m4_inc |     15656    47098.72    46976.05          0     619800
     m4_incp |     16566    46387.49    13267.84          0   106568.3

. sum m4_inc m4_incp if _mj==0 ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+---------------------------------------------------------
      m4_inc |       586    44322.59    46406.28          0     619800
     m4_incp |      1496    41932.93    14236.28          0   86014.87

. sum m4_inc m4_incp if _mj>0 ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+---------------------------------------------------------
      m4_inc |     15070    47206.67    46996.28          0     619800
     m4_incp |     15070     46829.7    13085.83   8510.252   106568.3

. pwcorr m4_inc m4_incp, sig ;

             |   m4_inc  m4_incp
-------------+------------------
      m4_inc |   1.0000
             |
             |
     m4_incp |   0.2366   1.0000
             |   0.0000
             |

. table imputed, contents(mean m4_inc mean m4_incp) ;

----------------------------------------
RECODE of |
_mj       |
(imputati |
on        |
number)   |  mean(m4_inc)  mean(m4_incp)
----------+-----------------------------
        0 |      44322.59       41932.93
        1 |      47206.67        46829.7
----------------------------------------

. egen temp1=pctile(m4_inc) if _mj==0, p(10) ;
(15070 missing values generated)

. egen temp2=pctile(m4_inc) if _mj==0, p(20) ;
(15070 missing values generated)

. egen temp3=pctile(m4_inc) if _mj==0, p(30) ;
(15070 missing values generated)

. egen temp4=pctile(m4_inc) if _mj==0, p(40) ;
(15070 missing values generated)

. egen temp5=pctile(m4_inc) if _mj==0, p(50) ;
(15070 missing values generated)

. egen temp6=pctile(m4_inc) if _mj==0, p(60) ;
(15070 missing values generated)

. egen temp7=pctile(m4_inc) if _mj==0, p(70) ;
(15070 missing values generated)
```

```
. egen temp8=pctile(m4_inc) if _mj==0, p(80) ;
(15070 missing values generated)

. egen temp9=pctile(m4_inc) if _mj==0, p(90) ;
(15070 missing values generated)

. gen     m4_inc10=1  if                m4_inc<=temp1 ;
(1446 missing values generated)

. replace m4_inc10=2  if m4_inc>temp1 & m4_inc<=temp2 ;
(73 real changes made)

. replace m4_inc10=3  if m4_inc>temp2 & m4_inc<=temp3 ;
(43 real changes made)

. replace m4_inc10=4  if m4_inc>temp3 & m4_inc<=temp4 ;
(58 real changes made)

. replace m4_inc10=5  if m4_inc>temp4 & m4_inc<=temp5 ;
(58 real changes made)

. replace m4_inc10=6  if m4_inc>temp5 & m4_inc<=temp6 ;
(62 real changes made)

. replace m4_inc10=7  if m4_inc>temp6 & m4_inc<=temp7 ;
(61 real changes made)

. replace m4_inc10=8  if m4_inc>temp7 & m4_inc<=temp8 ;
(59 real changes made)

. replace m4_inc10=9  if m4_inc>temp8 & m4_inc<=temp9 ;
(59 real changes made)

. replace m4_inc10=10 if m4_inc>temp9 & m4_inc<. ;
(52 real changes made)

. drop temp* ;

. *tab m4_inc10 ;
. table m4_inc10, contents(min m4_inc mean m4_inc max m4_inc) ;

----------------------------------------------------
 m4_inc10 |  min(m4_inc)  mean(m4_inc)   max(m4_inc)
----------+-----------------------------------------
        1 |             0      47030.24        619800
        2 |          9999       16047.7         20000
        3 |         21000      24325.58         26000
        4 |         27000      29174.14         31900
        5 |         32000      33991.38         36000
        6 |         36450       39842.4         43000
        7 |         43500      47214.62         50000
        8 |         51000      56196.61         60000
        9 |         61500      68205.08         75000
       10 |         76000      138303.8        619800
----------------------------------------------------

. ologit m4_inc10 m3_ee_cgrdp m3_ahpvt m1_dad_sei m3_black m3_hisp m3_other m3_bmi_3
m3_phy
> satt m3_peratt m3_groomed m3_calcage3 if _mj==0 ;

Iteration 0:   log likelihood = -1340.4052
Iteration 1:   log likelihood = -1300.4856
Iteration 2:   log likelihood = -1300.0439
```

```
Iteration 3:   log likelihood = -1300.0437
Iteration 4:   log likelihood = -1300.0437

Ordered logistic regression                       Number of obs   =        584
                                                  LR chi2(11)     =      80.72
                                                  Prob > chi2     =     0.0000
Log likelihood = -1300.0437                       Pseudo R2       =     0.0301

------------------------------------------------------------------------------
    m4_inc10 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
 m3_ee_cgrdp |    .914521   .1810187     5.05   0.000     .5597309    1.269311
    m3_ahpvt |  -.0008167   .0026691    -0.31   0.760    -.0060481    .0044147
  m1_dad_sei |   .0091507   .0029413     3.11   0.002      .003386    .0149155
    m3_black |  -.7292215    .216905    -3.36   0.001    -1.154347   -.3040956
     m3_hisp |   .0817299   .2394474     0.34   0.733    -.3875784    .5510382
    m3_other |  -.0096043   .2376329    -0.04   0.968    -.4753561    .4561476
    m3_bmi_3 |   .0257573   .0129827     1.98   0.047     .0003117    .0512029
  m3_physatt |  -.0090172    .130815    -0.07   0.945    -.2654099    .2473755
   m3_peratt |   .1731983   .1191335     1.45   0.146    -.0602991    .4066957
  m3_groomed |   .2002922   .1221583     1.64   0.101    -.0391336     .439718
 m3_calcage3 |   .1057596   .0454626     2.33   0.020     .0166545    .1948647
-------------+----------------------------------------------------------------
       /cut1 |   2.279648   1.104046                      .1157586    4.443538
       /cut2 |   3.265407   1.103691                      1.102213    5.428602
       /cut3 |   3.687351   1.105878                       1.51987    5.854832
       /cut4 |    4.17653   1.108726                      2.003467    6.349592
       /cut5 |   4.628035   1.111657                      2.449228    6.806841
       /cut6 |   5.111861   1.115956                      2.924628    7.299094
       /cut7 |   5.623601   1.120855                      3.426766    7.820436
       /cut8 |   6.216069   1.126379                      4.008408    8.423731
       /cut9 |   7.133211   1.134676                      4.909287    9.357135
------------------------------------------------------------------------------

. ologit m4_inc10
>     m3_ee_cgrdp m3_ahpvt m3_miss_ahpvt
>     m1_dad_sei m1_miss_dsei
>     m1_dad_hs m1_dad_mths m1_dad_cg m1_dad_msed
>     m1_mom_hs m1_mom_mths m1_mom_cg m1_mom_msed
>     m1_hshld_inc m1_miss_hhinc
>     m3_black m3_hisp m3_other m3_calcage3 if _mj==0 ;

Iteration 0:   log likelihood = -1344.7958
Iteration 1:   log likelihood =   -1304.11
Iteration 2:   log likelihood = -1303.6927
Iteration 3:   log likelihood = -1303.6925
Iteration 4:   log likelihood = -1303.6925

Ordered logistic regression                       Number of obs   =        586
                                                  LR chi2(19)     =      82.21
                                                  Prob > chi2     =     0.0000
Log likelihood = -1303.6925                       Pseudo R2       =     0.0306

------------------------------------------------------------------------------
     m4_inc10 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
--------------+----------------------------------------------------------------
  m3_ee_cgrdp |   .9512022   .1914583     4.97   0.000     .5759508    1.326454
     m3_ahpvt |  -.0003619   .0030291    -0.12   0.905    -.0062987     .005575
m3_miss_ahpvt |   .1798216   .4291831     0.42   0.675    -.6613618    1.021005
   m1_dad_sei |   .0067252    .003531     1.90   0.057    -.0001955    .0136459
 m1_miss_dsei |   -.036264   .2208536    -0.16   0.870    -.4691292    .3966012
    m1_dad_hs |  -.1055819   .3535178    -0.30   0.765    -.7984641    .5873003
  m1_dad_mths |   .4606153    .381929     1.21   0.228    -.2879518    1.209182
```

```
    m1_dad_cg |   .0934467   .3841423     0.24   0.808    -.6594585    .8463518
  m1_dad_msed |  -.1345415   .3624825    -0.37   0.711    -.8449942    .5759113
    m1_mom_hs |   .5954155   .2689995     2.21   0.027     .0681862    1.122645
  m1_mom_mths |   .2888582   .2768617     1.04   0.297    -.2537808    .8314973
    m1_mom_cg |   .3181193     .29742     1.07   0.285    -.2648131    .9010517
  m1_mom_msed |   .6170611   .5068288     1.22   0.223    -.3763051    1.610427
 m1_hshld_inc |   .0000619   .0017952     0.03   0.972    -.0034565    .0035804
m1_miss_hhinc |   -.088461   .2061988    -0.43   0.668    -.4926032    .3156812
     m3_black |  -.7576511   .2255752    -3.36   0.001     -1.19977   -.3155318
      m3_hisp |   .2251909   .2549665     0.88   0.377    -.2745342    .7249159
     m3_other |   .0116567   .2393765     0.05   0.961    -.4575127    .4808261
  m3_calcage3 |   .1238471   .0459742     2.69   0.007     .0337394    .2139547
--------------+----------------------------------------------------------------
        /cut1 |   1.097507   1.088285                     -1.035492    3.230506
        /cut2 |   2.098471    1.08647                     -.0309715    4.227914
        /cut3 |   2.518001   1.087898                      .3857601    4.650242
        /cut4 |   3.002887   1.090119                      .8662922    5.139481
        /cut5 |   3.452994   1.092331                      1.312064    5.593924
        /cut6 |   3.932092   1.095513                      1.784927    6.079258
        /cut7 |   4.436525   1.099402                      2.281737    6.591314
        /cut8 |   5.035076   1.104188                      2.870908    7.199245
        /cut9 |   5.951071   1.111746                       3.77209    8.130053
------------------------------------------------------------------------------

. predict p10 p20 p30 p40 p50 p60 p70 p80 p90 p100 ;
(option pr assumed; predicted probabilities)
(11 missing values generated)

. sum p10 p20 p30 p40 p50 p60 p70 p80 p90 p100 ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
         p10 |     16566    .0935757    .0595662   .0035593   .4335403
         p20 |     16566      .11593    .0530584   .0060662   .2451452
         p30 |     16566    .0707864    .0241217   .0049442   .1044995
         p40 |     16566    .0960673    .0245944   .0088782   .1206311
         p50 |     16566    .0978081    .0175628   .0128458   .1120542
-------------+--------------------------------------------------------
         p60 |     16566    .1055047    .0154757   .0210281   .1192052
         p70 |     16566    .1036945    .0202253   .0269876   .1254439
         p80 |     16566    .1035269    .0314418   .0194542   .1485309
         p90 |     16566     .108646    .0507183   .0147507    .225078
        p100 |     16566    .1044604    .0779513   .0100893   .6859096

. gen m4_inc10p=1      if p10~=. & p10>p20 & p10>p30 & p10>p40 & p10>p50 & p10>p60 &
p10>p7
> 0 & p10>p80 & p10>p90 & p10>p100 ;
(15717 missing values generated)

. replace m4_inc10p=2  if p20~=. & p20>p10 & p20>p30 & p20>p40 & p20>p50 & p20>p60 &
p20>p7
> 0 & p20>p80 & p20>p90 & p20>p100 ;
(6992 real changes made)

. replace m4_inc10p=3  if p30~=. & p30>p20 & p30>p10 & p30>p40 & p30>p50 & p30>p60 &
p30>p7
> 0 & p30>p80 & p30>p90 & p30>p100 ;
(0 real changes made)

. replace m4_inc10p=4  if p40~=. & p40>p20 & p40>p30 & p40>p10 & p40>p50 & p40>p60 &
p40>p7
> 0 & p40>p80 & p40>p90 & p40>p100 ;
(0 real changes made)
```

```
. replace m4_inc10p=5  if p50~=. & p50>p20 & p50>p30 & p50>p40 & p50>p10 & p50>p60 &
p50>p7
> 0 & p50>p80 & p50>p90 & p50>p100 ;
(0 real changes made)

. replace m4_inc10p=6  if p60~=. & p60>p20 & p60>p30 & p60>p40 & p60>p50 & p60>p10 &
p60>p7
> 0 & p60>p80 & p60>p90 & p60>p100 ;
(2276 real changes made)

. replace m4_inc10p=7  if p70~=. & p70>p20 & p70>p30 & p70>p40 & p70>p50 & p70>p60 &
p70>p1
> 0 & p70>p80 & p70>p90 & p70>p100 ;
(592 real changes made)

. replace m4_inc10p=8  if p80~=. & p80>p20 & p80>p30 & p80>p40 & p80>p50 & p80>p60 &
p80>p7
> 0 & p80>p10 & p80>p90 & p80>p100 ;
(0 real changes made)

. replace m4_inc10p=9  if p90~=. & p90>p20 & p90>p30 & p90>p40 & p90>p50 & p90>p60 &
p90>p7
> 0 & p90>p80 & p90>p10 & p90>p100 ;
(3029 real changes made)

. replace m4_inc10p=10 if p100~=. & p100>p20 & p100>p30 & p100>p40 & p100>p50 &
p100>p60 &
> p100>p70 & p100>p80 & p100>p90 & p100>p10 ;
(2817 real changes made)

. tab m4_inc10p ;

  m4_inc10p |      Freq.     Percent        Cum.
------------+-----------------------------------
          1 |        860        5.19        5.19
          2 |      6,992       42.21       47.40
          6 |      2,276       13.74       61.14
          7 |        592        3.57       64.71
          9 |      3,029       18.28       83.00
         10 |      2,817       17.00      100.00
------------+-----------------------------------
      Total |     16,566      100.00

. drop p10 p20 p30 p40 p50 p60 p70 p80 p90 p100 ;

. pwcorr m4_inc m4_inc10p, sig ;

             |   m4_inc m4_i~10p
-------------+------------------
      m4_inc |   1.0000
             |
             |
   m4_inc10p |   0.1582   1.0000
             |   0.0000
             |

. gen m4_sei_0to1=m4_sei/93 ;
(916 missing values generated)

. glm m4_sei_0to1
>     m3_ee_cgrdp m3_ahpvt m3_miss_ahpvt m3_sei m3_miss_sei
>     m1_dad_sei m1_miss_dsei
```

```
>     m1_dad_hs m1_dad_mths m1_dad_cg m1_dad_msed
>     m1_mom_hs m1_mom_mths m1_mom_cg m1_mom_msed
>     m1_hshld_inc m1_miss_hhinc
>     m3_black m3_hisp m3_other m3_calcage3 if _mj==0, family(gaussian) link(logit)
;

Iteration 0:   log likelihood =  88.060883
Iteration 1:   log likelihood =  89.757443
Iteration 2:   log likelihood =   89.76552
Iteration 3:   log likelihood =   89.76552

Generalized linear models                         No. of obs      =        591
Optimization     : ML                             Residual df     =        569
                                                  Scale parameter =  .0448821
Deviance         =   25.5379077                   (1/df) Deviance =  .0448821
Pearson          =   25.5379077                   (1/df) Pearson  =  .0448821

Variance function: V(u) = 1                       [Gaussian]
Link function    : g(u) = ln(u/(1-u))             [Logit]

                                                  AIC             = -.2293249
Log likelihood   =  89.76552024                   BIC             = -3605.715

------------------------------------------------------------------------------
             |                 OIM
  m4_sei_0to1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
--------------+---------------------------------------------------------------
  m3_ee_cgrdp |   .7816873   .1011966     7.72   0.000     .5833456     .980029
     m3_ahpvt |   .0005356   .0015789     0.34   0.734    -.0025591    .0036303
m3_miss_ahpvt |    -.27897   .2245025    -1.24   0.214    -.7189868    .1610468
       m3_sei |   .0152116    .002143     7.10   0.000     .0110114    .0194119
  m3_miss_sei |   .3437256   .1278377     2.69   0.007     .0931682     .594283
   m1_dad_sei |   .0018377   .0018739     0.98   0.327     -.001835    .0055104
 m1_miss_dsei |   .1859494   .1161668     1.60   0.109    -.0417334    .4136322
    m1_dad_hs |   .0432129   .1879566     0.23   0.818    -.3251752     .411601
  m1_dad_mths |   .0674751   .2018176     0.33   0.738    -.3280801    .4630303
    m1_dad_cg |   .0143366   .2058299     0.07   0.944    -.3890827    .4177559
  m1_dad_msed |  -.2323197   .1948504    -1.19   0.233    -.6142195      .14958
    m1_mom_hs |   .0212982    .139777     0.15   0.879    -.2526596     .295256
  m1_mom_mths |  -.0354367   .1425087    -0.25   0.804    -.3147486    .2438753
    m1_mom_cg |   .1698413    .155204     1.09   0.274     -.134353    .4740356
  m1_mom_msed |    -.33681   .2892124    -1.16   0.244    -.9036559    .2300358
 m1_hshld_inc |  -.0014002    .000949    -1.48   0.140    -.0032602    .0004598
m1_miss_hhinc |  -.0453484   .1079578    -0.42   0.674    -.2569418    .1662451
     m3_black |  -.0746974    .117374    -0.64   0.525    -.3047463    .1553514
      m3_hisp |   .2835779    .134728     2.10   0.035     .0195159    .5476399
     m3_other |    .079752   .1227035     0.65   0.516    -.1607424    .3202463
  m3_calcage3 |   .0040085   .0249355     0.16   0.872    -.0448643    .0528813
        _cons |  -1.152412   .5941244    -1.94   0.052    -2.316875    .0120501
------------------------------------------------------------------------------

. predict m4_seip ;
(option mu assumed; predicted mean m4_sei_0to1)
(11 missing values generated)

.  replace m4_seip=m4_seip*93 ;
(16566 real changes made)

.  sum m4_sei* ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
      m4_sei |     15661    38.89451    22.81813          0         96
```

```
 m4_sei_0to1 |     15661    .4182205    .2453562          0   1.032258
     m4_seip |     16566    40.60725    12.65362   5.944057    76.7218

.  pwcorr m4_sei m4_seip, sig ;

             |   m4_sei  m4_seip
-------------+------------------
      m4_sei |   1.0000
             |
             |
     m4_seip |   0.4637   1.0000
             |   0.0000
             |

. glm m4_sei_0to1
>     m3_ee_cgrdp m3_ahpvt m3_miss_ahpvt m3_sei m3_miss_sei
>     m1_dad_sei m1_miss_dsei
>     m1_dad_hs m1_dad_mths m1_dad_cg m1_dad_msed
>     m1_mom_hs m1_mom_mths m1_mom_cg m1_mom_msed
>     m1_hshld_inc m1_miss_hhinc
>     m3_black m3_hisp m3_other m3_calcage3 if _mj>0 & f3_partner==1,
family(gaussian) link
> (logit) ;
note: m1_dad_msed omitted because of collinearity
note: m1_mom_msed omitted because of collinearity

Iteration 0:   log likelihood =  921.14946
Iteration 1:   log likelihood =   942.8922
Iteration 2:   log likelihood =  942.99075
Iteration 3:   log likelihood =  942.99075

Generalized linear models                         No. of obs      =      6920
Optimization     : ML                             Residual df     =      6900
                                                  Scale parameter =  .0447116
Deviance         =  308.5097056                   (1/df) Deviance =  .0447116
Pearson          =  308.5097056                   (1/df) Pearson  =  .0447116

Variance function: V(u) = 1                       [Gaussian]
Link function    : g(u) = ln(u/(1-u))             [Logit]

                                                  AIC             = -.2667603
Log likelihood   =   942.990749                   BIC             = -60702.47

------------------------------------------------------------------------------
             |                 OIM
  m4_sei_0to1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  m3_ee_cgrdp |   .7228724   .0291977    24.76   0.000      .665646    .7800988
     m3_ahpvt |   .0003814   .0004419     0.86   0.388    -.0004848    .0012476
m3_miss_ahpvt |   2.793652   4.251519     0.66   0.511    -5.539172    11.12648
       m3_sei |     .01415    .000563    25.13   0.000     .0130465    .0152534
  m3_miss_sei |  -.1710739     .57522    -0.30   0.766    -1.298484    .9563366
   m1_dad_sei |    .002141   .0005101     4.20   0.000     .0011412    .0031408
 m1_miss_dsei |  -.0324898   .0182946    -1.78   0.076    -.0683466     .003367
    m1_dad_hs |   .0636915   .0434476     1.47   0.143    -.0214643    .1488473
  m1_dad_mths |   .0935448   .0488245     1.92   0.055    -.0021494     .189239
    m1_dad_cg |   .0491204   .0503167     0.98   0.329    -.0494986    .1477393
  m1_dad_msed |          0  (omitted)
    m1_mom_hs |   .0520265   .0387723     1.34   0.180    -.0239658    .1280187
  m1_mom_mths |   .0008043    .040108     0.02   0.984    -.0778059    .0794144
    m1_mom_cg |   .2035258   .0443709     4.59   0.000     .1165604    .2904911
  m1_mom_msed |          0  (omitted)
 m1_hshld_inc |  -.0012066   .0002643    -4.57   0.000    -.0017246   -.0006886
```

```
m1_miss_hhinc |  -.5988886   .9336538    -0.64   0.521    -2.428816    1.231039
     m3_black |  -.1439915   .0323936    -4.45   0.000    -.2074818   -.0805013
      m3_hisp |   .2392069   .0377811     6.33   0.000     .1651573    .3132566
     m3_other |   .0033227   .0349575     0.10   0.924    -.0651928    .0718382
   m3_calcage3 |   .0097073   .0069182     1.40   0.161    -.0038522    .0232667
         _cons |  -1.352057   .1608221    -8.41   0.000    -1.667262   -1.036852
------------------------------------------------------------------------------

. predict m4_seip_v2 ;
(option mu assumed; predicted mean m4_sei_0to1)
(11 missing values generated)

.  replace m4_seip_v2=m4_seip_v2*93 ;
(16566 real changes made)

.  sum m4_sei* ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
      m4_sei |     15661    38.89451    22.81813          0         96
 m4_sei_0to1 |     15661    .4182205    .2453562          0   1.032258
     m4_seip |     16566    40.60725    12.65362   5.944057    76.7218
  m4_seip_v2 |     16566    38.85546    12.40131   10.23551   90.49995

. pwcorr m4_sei m4_seip m4_seip_v2, sig ;

             |   m4_sei  m4_seip m4_sei~2
-------------+---------------------------
      m4_sei |   1.0000
             |
             |
     m4_seip |   0.4637   1.0000
             |   0.0000
             |
  m4_seip_v2 |   0.4607   0.9429   1.0000
             |   0.0000   0.0000
             |

. drop m4_seip ;

.  rename m4_seip_v2 m4_seip ;

. ologit m4_edu5
>     m3_ee_cgrdp m3_ahpvt m3_miss_ahpvt
>     m1_dad_sei m1_miss_dsei
>     m1_dad_hs m1_dad_mths m1_dad_cg m1_dad_msed
>     m1_mom_hs m1_mom_mths m1_mom_cg m1_mom_msed
>     m1_hshld_inc m1_miss_hhinc
>     m3_black m3_hisp m3_other m3_calcage3 if _mj==0 ;

Iteration 0:   log likelihood = -834.51235
Iteration 1:   log likelihood = -646.87259
Iteration 2:   log likelihood =  -612.0938
Iteration 3:   log likelihood = -609.88478
Iteration 4:   log likelihood = -609.87766
Iteration 5:   log likelihood = -609.87766

Ordered logistic regression                     Number of obs   =        601
                                                LR chi2(19)     =     449.27
                                                Prob > chi2     =     0.0000
Log likelihood = -609.87766                     Pseudo R2       =     0.2692

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

m4_edu5	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
m3_ee_cgrdp	4.083214	.3175809	12.86	0.000	3.460766	4.705661
m3_ahpvt	.0159883	.0034169	4.68	0.000	.0092913	.0226853
m3_miss_ahpvt	.4403391	.4792701	0.92	0.358	-.4990131	1.379691
m1_dad_sei	.0064828	.0039797	1.63	0.103	-.0013172	.0142829
m1_miss_dsei	-.4077473	.2428453	-1.68	0.093	-.8837153	.0682208
m1_dad_hs	.4877781	.3796051	1.28	0.199	-.2562343	1.23179
m1_dad_mths	.7900712	.4143646	1.91	0.057	-.0220685	1.602211
m1_dad_cg	.8547965	.4211334	2.03	0.042	.0293901	1.680203
m1_dad_msed	.0781742	.3901691	0.20	0.841	-.6865432	.8428915
m1_mom_hs	.0849726	.2782924	0.31	0.760	-.4604705	.6304158
m1_mom_mths	.4842081	.2890116	1.68	0.094	-.0822442	1.05066
m1_mom_cg	.9659235	.3262793	2.96	0.003	.3264278	1.605419
m1_mom_msed	-.6757079	.5251471	-1.29	0.198	-1.704977	.3535614
m1_hshld_inc	-.000376	.0018764	-0.20	0.841	-.0040536	.0033016
m1_miss_hhinc	.3440192	.2254189	1.53	0.127	-.0977938	.7858323
m3_black	-.0592433	.2361447	-0.25	0.802	-.5220785	.4035918
m3_hisp	-.0537313	.279112	-0.19	0.847	-.6007807	.4933181
m3_other	.1324724	.2559951	0.52	0.605	-.3692687	.6342135
m3_calcage3	-.0007618	.0509628	-0.01	0.988	-.100647	.0991234
/cut1	-.4616159	1.209242			-2.831686	1.908454
/cut2	1.286923	1.207666			-1.08006	3.653905
/cut3	5.226882	1.235851			2.804658	7.649106
/cut4	7.288386	1.26601			4.807052	9.769721

```
. predict e1 e2 e3 e4 e5 ;
(option pr assumed; predicted probabilities)
(11 missing values generated)

.  sum e1 e2 e3 e4 e5 ;
```

Variable	Obs	Mean	Std. Dev.	Min	Max
e1	16566	.1013605	.0948112	.0000291	.6279577
e2	16566	.2245394	.144515	.0001381	.4112664
e3	16566	.4791076	.1956613	.0083582	.7552179
e4	16566	.11794	.163534	.0017461	.4741233
e5	16566	.0770524	.1547965	.0002551	.9367094

```
. gen m4_edu5p=1      if e1~=. & e1>e2 & e1>e3 & e1>e4 & e1>e5 ;
(16451 missing values generated)

. replace m4_edu5p=2  if e1~=. & e2>e1 & e2>e3 & e2>e4 & e2>e5 ;
(2223 real changes made)

. replace m4_edu5p=3  if e1~=. & e3>e1 & e3>e2 & e3>e4 & e3>e5 ;
(11067 real changes made)

. replace m4_edu5p=4  if e1~=. & e4>e1 & e4>e2 & e4>e3 & e4>e5 ;
(2085 real changes made)

. replace m4_edu5p=5  if e1~=. & e5>e1 & e5>e2 & e5>e3 & e5>e4 ;
(1065 real changes made)

. *tab1 m4_edu5 m4_edu5p ;
. drop e1 e2 e3 e4 e5 ;

. *** for women ***;
. replace f4_inc=0 if f4_inc<0 ;
(0 real changes made)
```

```
. gen f4_ln_inc = ln(f4_inc+1) if f4_inc~=. ;
(784 missing values generated)

. egen f4_pct_inc=pctile(f4_inc) ;

. pwcorr f4_inc f4_ln_inc f3_ee_cgrdp f3_ahpvt f3_ln_inc f1_dad_sei, sig ;

             |   f4_inc f4_ln_~c f3_ee_~p f3_ahpvt f3_ln_~e f1_dad~i
-------------+------------------------------------------------------
      f4_inc |   1.0000
             |
             |
   f4_ln_inc |   0.4963   1.0000
             |   0.0000
             |
 f3_ee_cgrdp |   0.1173   0.1310   1.0000
             |   0.0000   0.0000
             |
    f3_ahpvt |   0.0269   0.0410   0.3375   1.0000
             |   0.0007   0.0000   0.0000
             |
f3_ln_income |  -0.0171   0.0063   0.0174   0.0537   1.0000
             |   0.0325   0.4284   0.0269   0.0000
             |
  f1_dad_sei |   0.0083   0.0347   0.2565   0.2547   0.0272   1.0000
             |   0.2975   0.0000   0.0000   0.0000   0.0005
             |

. reg f4_inc f3_ee_cgrdp f3_ahpvt f1_dad_sei f3_black f3_hisp f3_other f3_bmi_3
f3_physatt
> f3_peratt f3_groomed f3_calcage3 if _mj==0 ;

      Source |       SS       df       MS              Number of obs =     716
-------------+------------------------------           F( 11,   704) =    2.71
       Model |  8.1971e+10    11  7.4519e+09           Prob > F      =  0.0020
    Residual |  1.9340e+12   704  2.7471e+09           R-squared     =  0.0407
-------------+------------------------------           Adj R-squared =  0.0257
       Total |  2.0160e+12   715  2.8195e+09           Root MSE      =   52413

------------------------------------------------------------------------------
      f4_inc |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
 f3_ee_cgrdp |   14546.39   4827.904     3.01   0.003      5067.58    24025.21
    f3_ahpvt |   25.24891   74.71845     0.34   0.736    -121.4488    171.9466
  f1_dad_sei |  -63.68003   83.32342    -0.76   0.445    -227.2722    99.91212
    f3_black |    6973.09   5732.204     1.22   0.224    -4281.172    18227.35
     f3_hisp |   7598.711   6823.939     1.11   0.266    -5798.998    20996.42
    f3_other |   10384.84   5860.709     1.77   0.077    -1121.724     21891.4
    f3_bmi_3 |  -459.0589   310.3535    -1.48   0.140    -1068.388    150.2704
  f3_physatt |   2871.489   3121.219     0.92   0.358    -3256.523    8999.502
   f3_peratt |  -75.13057   2888.648    -0.03   0.979    -5746.527    5596.266
  f3_groomed |  -14.77531   3084.205    -0.00   0.996    -6070.116    6040.566
 f3_calcage3 |   2480.503   1146.344     2.16   0.031     229.8394    4731.166
       _cons |  -31098.11    28179.8    -1.10   0.270    -86424.62    24228.41
------------------------------------------------------------------------------

. reg f4_ln_inc f3_ee_cgrdp f3_ahpvt f1_dad_sei f3_black f3_hisp f3_other f3_bmi_3
f3_physa
> tt f3_peratt f3_groomed f3_calcage3 if _mj==0 ;

      Source |       SS       df       MS              Number of obs =     716
-------------+------------------------------           F( 11,   704) =    3.02
```

```
      Model |  394.252523    11  35.8411385           Prob > F      =  0.0006
   Residual |  8368.14481   704  11.8865693           R-squared     =  0.0450
-------------+------------------------------           Adj R-squared =  0.0301
      Total |  8762.39733   715  12.2551012           Root MSE      =  3.4477

------------------------------------------------------------------------------
   f4_ln_inc |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
 f3_ee_cgrdp |    1.31964    .317575     4.16   0.000     .6961328    1.943148
    f3_ahpvt |   -.002323   .0049149    -0.47   0.637    -.0119727    .0073266
  f1_dad_sei |   .0066471   .0054809     1.21   0.226    -.0041139     .017408
    f3_black |   .9294939   .3770591     2.47   0.014      .189199    1.669789
     f3_hisp |   .3836627   .4488724     0.85   0.393    -.4976262    1.264951
    f3_other |  -.1166188    .385512    -0.30   0.762    -.8735096     .640272
    f3_bmi_3 |  -.0124652   .0204148    -0.61   0.542    -.0525463    .0276159
  f3_physatt |  -.0855606   .2053109    -0.42   0.677    -.4886555    .3175344
   f3_peratt |   .0585063   .1900126     0.31   0.758    -.3145529    .4315655
  f3_groomed |   .0269698   .2028761     0.13   0.894    -.3713449    .4252844
 f3_calcage3 |  -.0391331   .0754055    -0.52   0.604    -.1871796    .1089135
       _cons |    9.19469   1.853641     4.96   0.000     5.555363    12.83402
------------------------------------------------------------------------------

. reg f4_ln_inc
>     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt f3_sei f3_miss_sei
>     f1_dad_sei f1_miss_dsei
>     f1_dad_hs f1_dad_mths f1_dad_cg f1_dad_msed
>     f1_mom_hs f1_mom_mths f1_mom_cg f1_mom_msed
>     f1_hshld_inc f1_miss_hhinc
>     f3_black f3_hisp f3_other f3_calcage3 if _mj==0 ;

      Source |       SS       df       MS              Number of obs =     722
-------------+------------------------------           F( 21,   700) =    2.95
       Model |  713.770553    21   33.989074           Prob > F      =  0.0000
    Residual |  8058.30486   700  11.5118641           R-squared     =  0.0814
-------------+------------------------------           Adj R-squared =  0.0538
       Total |  8772.07542   721  12.1665401           Root MSE      =  3.3929

------------------------------------------------------------------------------
    f4_ln_inc |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
--------------+---------------------------------------------------------------
  f3_ee_cgrdp |   1.065739   .3171869     3.36   0.001     .4429874    1.688491
     f3_ahpvt |  -.0030503   .0051598    -0.59   0.555    -.0131809    .0070802
f3_miss_ahpvt |   1.175081   .8503147     1.38   0.167    -.4943914    2.844554
       f3_sei |  -.0019046   .0082428    -0.23   0.817    -.0180882    .0142791
  f3_miss_sei |  -1.049277   .4701965    -2.23   0.026    -1.972442   -.1261129
   f1_dad_sei |   .0023723   .0066204     0.36   0.720    -.0106259    .0153705
 f1_miss_dsei |   -.004114    .395443    -0.01   0.992    -.7805105    .7722825
    f1_dad_hs |   .5988499   .6090669     0.98   0.326    -.5969669    1.794667
  f1_dad_mths |   .2739054   .6686339     0.41   0.682    -1.038863    1.586673
    f1_dad_cg |   .7835713   .6779837     1.16   0.248     -.547554    2.114696
  f1_dad_msed |   .6638824   .6332504     1.05   0.295    -.5794152     1.90718
    f1_mom_hs |   .7281039   .4199508     1.73   0.083    -.0964102    1.552618
  f1_mom_mths |   .9040406   .4570014     1.98   0.048     .0067829    1.801298
    f1_mom_cg |    1.20922   .4956479     2.44   0.015     .2360856    2.182355
  f1_mom_msed |   .6671135    .959382     0.70   0.487    -1.216497    2.550724
 f1_hshld_inc |   .0025864   .0047602     0.54   0.587    -.0067596    .0119325
f1_miss_hhinc |   .6277858   .3663577     1.71   0.087    -.0915059    1.347077
     f3_black |   .8925153   .3738637     2.39   0.017     .1584866    1.626544
      f3_hisp |   .7033574    .454552     1.55   0.122    -.1890912    1.595806
     f3_other |  -.0696799   .3838306    -0.18   0.856    -.8232771    .6839172
  f3_calcage3 |  -.0375586   .0759173    -0.49   0.621    -.1866114    .1114943
        _cons |   7.825055   1.751031     4.47   0.000     4.387153    11.26296
------------------------------------------------------------------------------
```

```
. predict f4_ln_incp ;
(option xb assumed; fitted values)
(2 missing values generated)

. pwcorr f4_ln_inc f4_ln_incp, sig ;

             | f4_ln_~c f4_ln_~p
-------------+------------------
   f4_ln_inc |   1.0000
             |
             |
  f4_ln_incp |   0.1615   1.0000
             |   0.0000
             |

. table imputed, contents(mean f4_ln_inc mean f4_ln_incp) ;

-----------------------------------------
RECODE of |
_mj       |
(imputati |
on        |
number)   | mean(f4_ln_~c)  mean(f4_ln_~p)
----------+------------------------------
        0 |       8.632617        8.786597
        1 |        7.89992        8.770556
-----------------------------------------

. bysort f3_partner: sum f4_inc f4_sei
>     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt f3_sei
>     f1_dad_sei
>     f1_dad_hs f1_dad_mths f1_dad_cg
>     f1_mom_hs f1_mom_mths f1_mom_cg
>     f1_hshld_inc
>     f3_black f3_hisp f3_other f3_calcage3 ;

-------------------------------------------------------------------------------------------
-------
-> f3_partner = 0

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
      f4_inc |      8873    29701.28    52164.99          0     999995
      f4_sei |      8880      46.974     21.5697          0         96
 f3_ee_cgrdp |      8964    .2846943    .4512939          0          1
    f3_ahpvt |      8965    48.00536    29.79715          0   129.9404
f3_miss_ah~t |      8965    .0022497    .0472151          0          1
-------------+--------------------------------------------------------
      f3_sei |      8965    42.50642    21.84113          0         96
  f1_dad_sei |      8965    23.66404    24.74304  -9.511329   89.73272
   f1_dad_hs |      8965    .4431679    .4967873          0          1
 f1_dad_mths |      8965    .1857223    .3889041          0          1
   f1_dad_cg |      8965    .2776352    .4478574          0          1
-------------+--------------------------------------------------------
   f1_mom_hs |      8965    .3457892    .4756514          0          1
 f1_mom_mths |      8965     .250976    .4335989          0          1
   f1_mom_cg |      8965      .23971    .4269303          0          1
f1_hshld_inc |      8965    42.10704    33.63568          0        450
    f3_black |      8965    .1791411    .3834918          0          1
-------------+--------------------------------------------------------
     f3_hisp |      8965    .1006135     .300833          0          1
    f3_other |      8965    .1558282    .3627126          0          1
```

```
 f3_calcage3 |      8965    21.89202    1.746082         18         26

-------------------------------------------------------------------------------
-------
-> f3_partner = 1

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
      f4_inc |      6920    38403.06     42608.5          0   345903.9
      f4_sei |      6920    44.72733    22.48006          0         96
 f3_ee_cgrdp |      7612    .2572254    .4371334          0          1
    f3_ahpvt |      7612    47.46407    29.74217          0   138.4166
f3_miss_ah~t |      7612    .0039764     .062732          0          1
-------------+--------------------------------------------------------
      f3_sei |      7612    40.78938    23.07227          0         96
  f1_dad_sei |      7612    24.84537    24.07469   -10.9672   86.31851
   f1_dad_hs |      7612    .3981871    .4895565          0          1
 f1_dad_mths |      7612    .1660536    .3721532          0          1
   f1_dad_cg |      7612     .261298    .4393708          0          1
-------------+--------------------------------------------------------
   f1_mom_hs |      7612     .307278    .4613959          0          1
 f1_mom_mths |      7612    .2172885    .4124276          0          1
   f1_mom_cg |      7612    .2250394    .4176357          0          1
f1_hshld_inc |      7612     41.5983    34.54355          0   186.5839
    f3_black |      7611    .1488635    .3559772          0          1
-------------+--------------------------------------------------------
     f3_hisp |      7611    .1478124    .3549372          0          1
    f3_other |      7611    .0725266    .2593749          0          1
 f3_calcage3 |      7612    21.80347    2.944589         18         40


. reg f4_inc
>     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt f3_sei
>     f1_dad_sei
>     f1_dad_hs f1_dad_mths f1_dad_cg
>     f1_mom_hs f1_mom_mths f1_mom_cg
>     f1_hshld_inc
>     f3_black f3_hisp f3_other f3_calcage3 if f3_partner==0 & _mj>0 ;

      Source |       SS       df       MS              Number of obs =    8150
-------------+------------------------------           F( 16,  8133) =   31.47
       Model |  1.2900e+12    16  8.0623e+10           Prob > F      =  0.0000
    Residual |  2.0833e+13  8133  2.5616e+09           R-squared     =  0.0583
-------------+------------------------------           Adj R-squared =  0.0565
       Total |  2.2123e+13  8149  2.7148e+09           Root MSE      =   50612

------------------------------------------------------------------------------
       f4_inc |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
--------------+---------------------------------------------------------------
  f3_ee_cgrdp |   10426.32   1431.464     7.28   0.000     7620.281    13232.35
     f3_ahpvt |  -51.89062   22.05355    -2.35   0.019    -95.12122   -8.660015
f3_miss_ahpvt |   504836.9   300113.5     1.68   0.093    -83462.43     1093136
       f3_sei |   36.58182   28.14793     1.30   0.194    -18.59533    91.75897
   f1_dad_sei |  -190.8352    26.6815    -7.15   0.000    -243.1378   -138.5327
    f1_dad_hs |  -1269.325   2301.209    -0.55   0.581    -5780.282    3241.633
  f1_dad_mths |   519.7561   2602.052     0.20   0.842    -4580.931    5620.443
    f1_dad_cg |   5264.429   2627.857     2.00   0.045     113.1582     10415.7
    f1_mom_hs |   688.5252   1790.024     0.38   0.701     -2820.38     4197.43
  f1_mom_mths |   6679.249   1963.502     3.40   0.001     2830.284    10528.21
    f1_mom_cg |   15206.98   2170.006     7.01   0.000     10953.21    19460.75
 f1_hshld_inc |   113.7334   19.52886     5.82   0.000     75.45181    152.0149
     f3_black |   5262.789   1638.023     3.21   0.001     2051.845    8473.733
      f3_hisp |   10775.95   2027.078     5.32   0.000     6802.354    14749.54
```

```
     f3_other |   9720.152   1632.609     5.95   0.000      6519.82    12920.48
  f3_calcage3 |    2444.88   330.6584     7.39   0.000     1796.705    3093.055
        _cons |  -36229.32   7581.914    -4.78   0.000    -51091.81   -21366.83
------------------------------------------------------------------------------

. predict f4_incp ;
(option xb assumed; fitted values)
(2 missing values generated)

. table imputed if f3_partner==0, contents(mean f4_inc mean f4_incp) ;

----------------------------------------
RECODE of |
_mj       |
(imputati |
on        |
number)   |  mean(f4_inc)  mean(f4_incp)
----------+-----------------------------
        0 |       28321.1       40943.36
        1 |      29823.72       29823.72
----------------------------------------

. table imputed, contents(mean f4_inc mean f4_incp) ;

----------------------------------------
RECODE of |
_mj       |
(imputati |
on        |
number)   |  mean(f4_inc)  mean(f4_incp)
----------+-----------------------------
        0 |       28321.1       39991.34
        1 |      33763.27       29453.09
----------------------------------------

. sum f4_inc f4_incp ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
      f4_inc |     15793    33514.13    48402.87          0     999995
     f4_incp |     16575    30409.95     30258.7  -7544.694   554214.6

. replace f4_incp=0 if f4_incp<0 ;
(57 real changes made)

. sum f4_inc f4_incp ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
      f4_inc |     15793    33514.13    48402.87          0     999995
     f4_incp |     16575     30417.2    30250.96          0   554214.6

. sum f4_inc f4_incp if _mj==0 ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
      f4_inc |       723     28321.1    52863.25          0     999995
     f4_incp |      1505    40042.67    91174.93          0   554214.6

. sum f4_inc f4_incp if _mj>0 ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
```

```
      f4_inc |     15070    33763.27    48166.33          0     999995
     f4_incp |     15070    29455.93    12909.41          0   157599.4

. pwcorr f4_inc f4_incp, sig ;

             |   f4_inc  f4_incp
-------------+------------------
      f4_inc |   1.0000
             |
             |
     f4_incp |   0.1237   1.0000
             |   0.0000
             |

. egen temp1=pctile(f4_inc) if _mj==0, p(10) ;
(15070 missing values generated)

. egen temp2=pctile(f4_inc) if _mj==0, p(20) ;
(15070 missing values generated)

. egen temp3=pctile(f4_inc) if _mj==0, p(30) ;
(15070 missing values generated)

. egen temp4=pctile(f4_inc) if _mj==0, p(40) ;
(15070 missing values generated)

. egen temp5=pctile(f4_inc) if _mj==0, p(50) ;
(15070 missing values generated)

. egen temp6=pctile(f4_inc) if _mj==0, p(60) ;
(15070 missing values generated)

. egen temp7=pctile(f4_inc) if _mj==0, p(70) ;
(15070 missing values generated)

. egen temp8=pctile(f4_inc) if _mj==0, p(80) ;
(15070 missing values generated)

. egen temp9=pctile(f4_inc) if _mj==0, p(90) ;
(15070 missing values generated)

. gen     f4_inc10=1  if                f4_inc<=temp1 ;
(1412 missing values generated)

. replace f4_inc10=2  if f4_inc>temp1 & f4_inc<=temp2 ;
(51 real changes made)

. replace f4_inc10=3  if f4_inc>temp2 & f4_inc<=temp3 ;
(72 real changes made)

. replace f4_inc10=4  if f4_inc>temp3 & f4_inc<=temp4 ;
(75 real changes made)

. replace f4_inc10=5  if f4_inc>temp4 & f4_inc<=temp5 ;
(70 real changes made)

. replace f4_inc10=6  if f4_inc>temp5 & f4_inc<=temp6 ;
(76 real changes made)

. replace f4_inc10=7  if f4_inc>temp6 & f4_inc<=temp7 ;
(85 real changes made)

. replace f4_inc10=8  if f4_inc>temp7 & f4_inc<=temp8 ;
```

```
(56 real changes made)

. replace f4_inc10=9  if f4_inc>temp8 & f4_inc<=temp9 ;
(72 real changes made)

. replace f4_inc10=10 if f4_inc>temp9 & f4_inc<. ;
(71 real changes made)

. drop temp* ;

. *tab f4_inc10 ;
. table f4_inc10, contents(min f4_inc mean f4_inc max f4_inc) ;

----------------------------------------------------
 f4_inc10 |  min(f4_inc)  mean(f4_inc)   max(f4_inc)
----------+-----------------------------------------
        1 |             0      33551.76        999995
        2 |           120      2057.765          4000
        3 |          4500      7859.639         10000
        4 |         10225       13713.6         16000
        5 |         17000      19995.21         22000
        6 |         22800      25236.84         28000
        7 |         28500      31958.35         35000
        8 |         36000       38312.5         40000
        9 |         40073      46238.51         53000
       10 |         54000      102366.1        999995
----------------------------------------------------

. ologit f4_inc10 f3_ee_cgrdp f3_ahpvt f1_dad_sei f3_black f3_hisp f3_other f3_bmi_3
f3_phy
> satt f3_peratt f3_groomed f3_calcage3 if _mj==0 ;

Iteration 0:   log likelihood = -1639.2656
Iteration 1:   log likelihood = -1579.5074
Iteration 2:   log likelihood = -1578.7171
Iteration 3:   log likelihood = -1578.7161
Iteration 4:   log likelihood = -1578.7161

Ordered logistic regression                     Number of obs   =        716
                                                LR chi2(11)     =     121.10
                                                Prob > chi2     =     0.0000
Log likelihood = -1578.7161                     Pseudo R2       =     0.0369

------------------------------------------------------------------------------
    f4_inc10 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
 f3_ee_cgrdp |   1.297514   .1684671     7.70   0.000     .9673241    1.627703
    f3_ahpvt |   .0016907   .0024859     0.68   0.496    -.0031817     .006563
  f1_dad_sei |   .0054168   .0028473     1.90   0.057    -.0001639    .0109974
    f3_black |   .3422278   .1851226     1.85   0.065    -.0206059    .7050614
     f3_hisp |   .5868046   .2309049     2.54   0.011     .1342394     1.03937
    f3_other |   .4658543   .2076209     2.24   0.025     .0589248    .8727839
    f3_bmi_3 |  -.0120854   .0102183    -1.18   0.237    -.0321128     .007942
  f3_physatt |  -.1084718   .1009555    -1.07   0.283     -.306341    .0893974
   f3_peratt |   .1395466   .0937486     1.49   0.137    -.0441973    .3232905
  f3_groomed |   .1555499    .100651     1.55   0.122    -.0417224    .3528222
 f3_calcage3 |   .0627828   .0383208     1.64   0.101    -.0123245    .1378902
-------------+----------------------------------------------------------------
       /cut1 |    .415594   .9450251                     -1.436621    2.267809
       /cut2 |   .9512058   .9435052                     -.8980305    2.800442
       /cut3 |   1.514749   .9434334                     -.3343462    3.363845
       /cut4 |   2.002628   .9439862                      .1524491    3.852807
       /cut5 |   2.442843   .9456338                      .5894348    4.296251
```

```
       /cut6 |   2.946869   .9482274                      1.088378    4.805361
       /cut7 |   3.564366   .9518162                      1.698841    5.429892
       /cut8 |   4.064137   .9553553                      2.191675    5.936599
       /cut9 |   4.969239   .9630901                      3.081617     6.85686
------------------------------------------------------------------------------

. ologit f4_inc10
>     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt f3_sei f3_miss_sei
>     f1_dad_sei f1_miss_dsei
>     f1_dad_hs f1_dad_mths f1_dad_cg f1_dad_msed
>     f1_mom_hs f1_mom_mths f1_mom_cg f1_mom_msed
>     f1_hshld_inc f1_miss_hhinc
>     f3_black f3_hisp f3_other f3_calcage3 if _mj==0 ;

Iteration 0:   log likelihood = -1652.7521
Iteration 1:   log likelihood = -1574.0545
Iteration 2:   log likelihood = -1572.3451
Iteration 3:   log likelihood = -1572.3424
Iteration 4:   log likelihood = -1572.3424

Ordered logistic regression                     Number of obs   =        722
                                                LR chi2(21)     =     160.82
                                                Prob > chi2     =     0.0000
Log likelihood = -1572.3424                     Pseudo R2       =     0.0487

------------------------------------------------------------------------------
     f4_inc10 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
--------------+---------------------------------------------------------------
  f3_ee_cgrdp |   1.154742   .1698826     6.80   0.000     .8217779    1.487705
     f3_ahpvt |   .0000699   .0026417     0.03   0.979    -.0051077    .0052474
f3_miss_ahpvt |   .4492802   .4177296     1.08   0.282    -.3694547    1.268015
       f3_sei |   .0045588   .0041585     1.10   0.273    -.0035917    .0127092
  f3_miss_sei |  -.3526145   .2373652    -1.49   0.137    -.8178418    .1126128
   f1_dad_sei |  -.0002258   .0034554    -0.07   0.948    -.0069983    .0065468
 f1_miss_dsei |  -.0597005   .2060118    -0.29   0.772    -.4634762    .3440752
    f1_dad_hs |   .0795665   .3199147     0.25   0.804    -.5474548    .7065877
  f1_dad_mths |   .3078247   .3524611     0.87   0.382    -.3829864    .9986358
    f1_dad_cg |   .2470516       .352     0.70   0.483    -.4428558     .936959
  f1_dad_msed |  -.0480884   .3305085    -0.15   0.884    -.6958732    .5996963
    f1_mom_hs |   .0321227   .2159097     0.15   0.882    -.3910525     .455298
  f1_mom_mths |   .3401497   .2361365     1.44   0.150    -.1226694    .8029688
    f1_mom_cg |   .5498778   .2575951     2.13   0.033     .0450007    1.054755
  f1_mom_msed |  -.0323089   .4574934    -0.07   0.944    -.9289794    .8643616
 f1_hshld_inc |    .008107   .0028099     2.89   0.004     .0025997    .0136143
f1_miss_hhinc |   .5708304   .1937807     2.95   0.003     .1910272    .9506336
     f3_black |   .2964859   .1871779     1.58   0.113    -.0703761    .6633479
      f3_hisp |   .7347249    .241842     3.04   0.002     .2607234    1.208726
     f3_other |   .5099548   .2103774     2.42   0.015     .0976226     .922287
  f3_calcage3 |   .0502906   .0393563     1.28   0.201    -.0268464    .1274276
--------------+---------------------------------------------------------------
        /cut1 |   .2512703   .9032403                     -1.519048    2.021589
        /cut2 |   .7985745    .901419                     -.9681743    2.565323
        /cut3 |   1.385528   .9004354                     -.3792932    3.150349
        /cut4 |   1.901713   .9005474                      .1366722    3.666753
        /cut5 |   2.363512   .9018698                      .5958797    4.131144
        /cut6 |   2.886693   .9040683                      1.114752    4.658634
        /cut7 |   3.538582   .9077719                      1.759382    5.317782
        /cut8 |   4.050021    .911732                      2.263059    5.836983
        /cut9 |   4.975238   .9204307                      3.171227    6.779249
------------------------------------------------------------------------------

. predict p10 p20 p30 p40 p50 p60 p70 p80 p90 p100 ;
(option pr assumed; predicted probabilities)
```

```
(2 missing values generated)

. sum p10 p20 p30 p40 p50 p60 p70 p80 p90 p100 ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
         p10 |     16575    .1146945    .0691246   .0004708   .3934821
         p20 |     16575    .0636263    .0313159   .0003427    .135138
         p30 |     16575    .0928621    .0376679   .0006487   .1456941
         p40 |     16575      .09998    .0308076   .0009855   .1283346
         p50 |     16575     .098036    .0215064    .001431   .1149396
-------------+--------------------------------------------------------
         p60 |     16575     .111899    .0177829   .0026488   .1300545
         p70 |     16575     .127024    .0265602   .0059251   .1615446
         p80 |     16575    .0826631      .02918   .0081433   .1271675
         p90 |     16575    .1054552    .0570811   .0198707   .2272654
        p100 |     16575    .1037598    .0899255   .0135027   .9496279

. gen f4_inc10p=1      if p10~=. & p10>p20 & p10>p30 & p10>p40 & p10>p50 & p10>p60 &
p10>p7
> 0 & p10>p80 & p10>p90 & p10>p100 ;
(9840 missing values generated)

. replace f4_inc10p=2  if p20~=. & p20>p10 & p20>p30 & p20>p40 & p20>p50 & p20>p60 &
p20>p7
> 0 & p20>p80 & p20>p90 & p20>p100 ;
(0 real changes made)

. replace f4_inc10p=3  if p30~=. & p30>p20 & p30>p10 & p30>p40 & p30>p50 & p30>p60 &
p30>p7
> 0 & p30>p80 & p30>p90 & p30>p100 ;
(0 real changes made)

. replace f4_inc10p=4  if p40~=. & p40>p20 & p40>p30 & p40>p10 & p40>p50 & p40>p60 &
p40>p7
> 0 & p40>p80 & p40>p90 & p40>p100 ;
(0 real changes made)

. replace f4_inc10p=5  if p50~=. & p50>p20 & p50>p30 & p50>p40 & p50>p10 & p50>p60 &
p50>p7
> 0 & p50>p80 & p50>p90 & p50>p100 ;
(0 real changes made)

. replace f4_inc10p=6  if p60~=. & p60>p20 & p60>p30 & p60>p40 & p60>p50 & p60>p10 &
p60>p7
> 0 & p60>p80 & p60>p90 & p60>p100 ;
(0 real changes made)

. replace f4_inc10p=7  if p70~=. & p70>p20 & p70>p30 & p70>p40 & p70>p50 & p70>p60 &
p70>p1
> 0 & p70>p80 & p70>p90 & p70>p100 ;
(6318 real changes made)

. replace f4_inc10p=8  if p80~=. & p80>p20 & p80>p30 & p80>p40 & p80>p50 & p80>p60 &
p80>p7
> 0 & p80>p10 & p80>p90 & p80>p100 ;
(0 real changes made)

. replace f4_inc10p=9  if p90~=. & p90>p20 & p90>p30 & p90>p40 & p90>p50 & p90>p60 &
p90>p7
> 0 & p90>p80 & p90>p10 & p90>p100 ;
(444 real changes made)
```

```
. replace f4_inc10p=10 if p100~=. & p100>p20 & p100>p30 & p100>p40 & p100>p50 &
p100>p60 &
> p100>p70 & p100>p80 & p100>p90 & p100>p10 ;
(3076 real changes made)

. drop p10 p20 p30 p40 p50 p60 p70 p80 p90 p100 ;

. tab f4_inc10p ;

  f4_inc10p |      Freq.     Percent        Cum.
------------+-----------------------------------
          1 |      6,737       40.65       40.65
          7 |      6,318       38.12       78.76
          9 |        444        2.68       81.44
         10 |      3,076       18.56      100.00
------------+-----------------------------------
      Total |     16,575      100.00

. pwcorr f4_inc f4_inc10p, sig ;

             |   f4_inc f4_i~10p
-------------+------------------
      f4_inc |   1.0000
             |
             |
   f4_inc10p |   0.1679   1.0000
             |   0.0000
             |

. gen f4_sei_0to1=f4_sei/93 ;
(777 missing values generated)

. glm f4_sei_0to1
>     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt
>     f1_dad_sei f1_miss_dsei
>     f1_dad_hs f1_dad_mths f1_dad_cg f1_dad_msed
>     f1_mom_hs f1_mom_mths f1_mom_cg f1_mom_msed
>     f1_hshld_inc f1_miss_hhinc
>     f3_black f3_hisp f3_other f3_calcage3 if _mj==0, family(gaussian) link(logit)
;

Iteration 0:   log likelihood =  105.52357
Iteration 1:   log likelihood =  106.04159
Iteration 2:   log likelihood =  106.04226
Iteration 3:   log likelihood =  106.04226

Generalized linear models                         No. of obs      =       730
Optimization     : ML                             Residual df     =       710
                                                  Scale parameter =  .0450211
Deviance         =  31.96497343                   (1/df) Deviance =  .0450211
Pearson          =  31.96497343                   (1/df) Pearson  =  .0450211

Variance function: V(u) = 1                       [Gaussian]
Link function    : g(u) = ln(u/(1-u))             [Logit]

                                                  AIC             = -.2357322
Log likelihood   =  106.0422618                   BIC             = -4649.097

------------------------------------------------------------------------------
             |                 OIM
  f4_sei_0to1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
--------------+---------------------------------------------------------------
  f3_ee_cgrdp |   .6209529   .0830193     7.48   0.000      .458238    .7836678
```

```
     f3_ahpvt |   .0031597   .0012989     2.43   0.015     .0006139    .0057055
f3_miss_ahpvt |   .3325367    .217396     1.53   0.126    -.0935517    .7586251
   f1_dad_sei |   .0020966   .0017084     1.23   0.220    -.0012519     .005445
 f1_miss_dsei |   .1028395   .1020655     1.01   0.314    -.0972052    .3028841
    f1_dad_hs |   .1570174   .1599071     0.98   0.326    -.1563948    .4704296
  f1_dad_mths |   .0978842   .1733847     0.56   0.572    -.2419436     .437712
    f1_dad_cg |   .2346687   .1755646     1.34   0.181    -.1094316    .5787691
  f1_dad_msed |   .2398427   .1658683     1.45   0.148    -.0852532    .5649387
    f1_mom_hs |   .1235471   .1085393     1.14   0.255     -.089186    .3362802
  f1_mom_mths |   .2213556   .1185759     1.87   0.062    -.0110488      .45376
    f1_mom_cg |   .2043635   .1273029     1.61   0.108    -.0451456    .4538726
  f1_mom_msed |   .1562524   .2220745     0.70   0.482    -.2790055    .5915104
 f1_hshld_inc |   .0007882   .0014213     0.55   0.579    -.0019975     .003574
f1_miss_hhinc |   .1642656   .0973756     1.69   0.092     -.026587    .3551183
     f3_black |  -.0189285   .0956756    -0.20   0.843    -.2064492    .1685922
      f3_hisp |   .4010513   .1215946     3.30   0.001     .1627303    .6393722
     f3_other |   .1075144   .0971333     1.11   0.268    -.0828635    .2978922
  f3_calcage3 |   .0069582   .0191738     0.36   0.717    -.0306218    .0445382
        _cons |   -.959497   .4544997    -2.11   0.035      -1.8503   -.0686939
------------------------------------------------------------------------------

. predict f4_seip ;
(option mu assumed; predicted mean f4_sei_0to1)
(2 missing values generated)

.  replace f4_seip=f4_seip*93 ;
(16575 real changes made)

.  sum f4_sei* ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
      f4_sei |     15800    45.99002    22.00061          0         96
 f4_sei_0to1 |     15800    .4945163    .2365657          0   1.032258
     f4_seip |     16575    45.69316    9.340236   13.32569   75.57096

.  pwcorr f4_sei f4_seip, sig ;

             |   f4_sei  f4_seip
-------------+------------------
      f4_sei |   1.0000
             |
             |
     f4_seip |   0.3900   1.0000
             |   0.0000
             |

. glm f4_sei_0to1
>     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt
>     f1_dad_sei f1_miss_dsei
>     f1_dad_hs f1_dad_mths f1_dad_cg f1_dad_msed
>     f1_mom_hs f1_mom_mths f1_mom_cg f1_mom_msed
>     f1_hshld_inc f1_miss_hhinc
>     f3_black f3_hisp f3_other f3_calcage3 if _mj>0 & f3_partner==0,
family(gaussian) link
> (logit) ;
note: f1_dad_msed omitted because of collinearity
note: f1_mom_msed omitted because of collinearity

Iteration 0:   log likelihood =  1111.2332
Iteration 1:   log likelihood =  1116.7758
Iteration 2:   log likelihood =  1116.7816
Iteration 3:   log likelihood =  1116.7816
```

```
Generalized linear models                         No. of obs      =      8150
Optimization     : ML                             Residual df     =      8132
                                                  Scale parameter =  .0446133
Deviance         =  362.7954951                   (1/df) Deviance =  .0446133
Pearson          =  362.7954951                   (1/df) Pearson  =  .0446133

Variance function: V(u) = 1                       [Gaussian]
Link function    : g(u) = ln(u/(1-u))             [Logit]

                                                  AIC             = -.2696397
Log likelihood   =  1116.781618                   BIC             = -72872.15

------------------------------------------------------------------------------
             |                 OIM
  f4_sei_0to1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  f3_ee_cgrdp |     .61156    .024843    24.62   0.000     .5628687    .6602514
     f3_ahpvt |   .0028304   .0003772     7.50   0.000     .0020911    .0035697
f3_miss_ahpvt |   6.717788   6.193142     1.08   0.278    -5.420546    18.85612
   f1_dad_sei |   .0013567   .0004716     2.88   0.004     .0004323    .0022811
 f1_miss_dsei |   .0191387   .0176125     1.09   0.277    -.0153812    .0536586
    f1_dad_hs |    .076968   .0400621     1.92   0.055    -.0015523    .1554882
  f1_dad_mths |   .0670407   .0450599     1.49   0.137    -.0212752    .1553565
    f1_dad_cg |   .1494639   .0455008     3.28   0.001      .060284    .2386438
  f1_dad_msed |           0  (omitted)
    f1_mom_hs |   .1374422   .0309723     4.44   0.000     .0767375    .1981468
  f1_mom_mths |   .2063956   .0338577     6.10   0.000     .1400357    .2727556
    f1_mom_cg |   .2268555   .0374132     6.06   0.000      .153527     .300184
  f1_mom_msed |           0  (omitted)
 f1_hshld_inc |   .0005632   .0003692     1.53   0.127    -.0001604    .0012868
f1_miss_hhinc |   .5710631   .4817473     1.19   0.236    -.3731443     1.51527
     f3_black |  -.0308245   .0282506    -1.09   0.275    -.0861947    .0245456
      f3_hisp |   .4053773   .0361864    11.20   0.000     .3344533    .4763013
     f3_other |   .0982559   .0282082     3.48   0.000     .0429689     .153543
  f3_calcage3 |   .0064525   .0056707     1.14   0.255    -.0046619    .0175669
        _cons |  -.7764794   .1320162    -5.88   0.000    -1.035226   -.5177323
------------------------------------------------------------------------------

. predict f4_seip_v2 ;
(option mu assumed; predicted mean f4_sei_0to1)
(2 missing values generated)

.  replace f4_seip_v2=f4_seip_v2*93 ;
(16575 real changes made)

.  sum f4_sei* ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
      f4_sei |     15800    45.99002    22.00061          0         96
 f4_sei_0to1 |     15800    .4945163    .2365657          0   1.032258
     f4_seip |     16575    45.69316    9.340236   13.32569   75.57096
  f4_seip_v2 |     16575    47.48015    9.187669   29.39629   92.95724

.  pwcorr f4_sei f4_seip f4_seip_v2, sig ;

             |   f4_sei  f4_seip f4_sei~2
-------------+---------------------------
      f4_sei |   1.0000
             |
             |
     f4_seip |   0.3900   1.0000
```

```
             |   0.0000
             |
  f4_seip_v2 |   0.3863   0.9560   1.0000
             |   0.0000   0.0000
             |

. table imputed, contents(mean f4_sei mean f4_seip mean f4_seip_v2) ;

----------------------------------------------------------
RECODE of |
_mj       |
(imputati |
on        |
number)   |   mean(f4_sei)   mean(f4_seip)  mean(f4_sei~2)
----------+-----------------------------------------------
        0 |        47.2835        48.77783        52.87745
        1 |        45.9274         45.3851        46.94113
----------------------------------------------------------

. drop f4_seip ;

. rename f4_seip_v2 f4_seip ;

. ologit f4_edu5
>     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt
>     f1_dad_sei f1_miss_dsei
>     f1_dad_hs f1_dad_mths f1_dad_cg f1_dad_msed
>     f1_mom_hs f1_mom_mths f1_mom_cg f1_mom_msed
>     f1_hshld_inc f1_miss_hhinc
>     f3_black f3_hisp f3_other f3_calcage3 if _mj==0 ;

Iteration 0:   log likelihood = -1048.5547
Iteration 1:   log likelihood = -777.03867
Iteration 2:   log likelihood = -735.60651
Iteration 3:   log likelihood = -733.70911
Iteration 4:   log likelihood = -733.70473
Iteration 5:   log likelihood = -733.70473

Ordered logistic regression                     Number of obs   =        748
                                                LR chi2(19)     =     629.70
                                                Prob > chi2     =     0.0000
Log likelihood = -733.70473                     Pseudo R2       =     0.3003

------------------------------------------------------------------------------
      f4_edu5 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
--------------+---------------------------------------------------------------
  f3_ee_cgrdp |   4.047939   .2707289    14.95   0.000      3.51732    4.578558
     f3_ahpvt |   .0202982   .0031424     6.46   0.000     .0141392    .0264573
f3_miss_ahpvt |   1.065335   .5034234     2.12   0.034     .0786437    2.052027
   f1_dad_sei |   .0058303   .0038174     1.53   0.127    -.0016518    .0133123
 f1_miss_dsei |   .0609812   .2278532     0.27   0.789    -.3856029    .5075654
    f1_dad_hs |   .7403606   .3482209     2.13   0.033     .0578603    1.422861
  f1_dad_mths |   .7225079   .3807479     1.90   0.058    -.0237443     1.46876
    f1_dad_cg |   .9572199   .3876585     2.47   0.014     .1974232    1.717017
  f1_dad_msed |   .3025091   .3530971     0.86   0.392    -.3895485    .9945668
    f1_mom_hs |   .1711304   .2397927     0.71   0.475    -.2988546    .6411153
  f1_mom_mths |   .5082509   .2680079     1.90   0.058    -.0170349    1.033537
    f1_mom_cg |   .6326994   .2877855     2.20   0.028     .0686503    1.196749
  f1_mom_msed |   .0396064    .489795     0.08   0.936    -.9203742     .999587
 f1_hshld_inc |   .0044152   .0031364     1.41   0.159     -.001732    .0105625
f1_miss_hhinc |   .3007872   .2160589     1.39   0.164    -.1226805    .7242548
     f3_black |    .679334   .2188012     3.10   0.002     .2504914    1.108177
      f3_hisp |   .2080029   .2619708     0.79   0.427    -.3054504    .7214562
```

```
     f3_other |   .3752752   .2202289     1.70   0.088    -.0563655     .806916
  f3_calcage3 |   .0338053   .0432443     0.78   0.434    -.0509519    .1185625
--------------+----------------------------------------------------------------
        /cut1 |   .5801734   1.020555                     -1.420078    2.580425
        /cut2 |   2.315303   1.018812                      .3184681    4.312138
        /cut3 |    6.27008   1.048066                      4.215908    8.324252
        /cut4 |   8.509885   1.076979                      6.399044    10.62073
------------------------------------------------------------------------------

. predict e1 e2 e3 e4 e5 ;
(option pr assumed; predicted probabilities)
(2 missing values generated)

.  sum e1 e2 e3 e4 e5 ;

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
          e1 |     16575    .0733756    .0776822   .0000311   .5108873
          e2 |     16575    .1822085    .1376154    .000145   .4084773
          e3 |     16575    .4855315    .2287272   .0089277    .756805
          e4 |     16575    .1499662    .1794361    .002881   .5079412
          e5 |     16575    .1089182     .190604   .0003444   .9205703

. gen f4_edu5p=1      if e1~=. & e1>e2 & e1>e3 & e1>e4 & e1>e5 ;
(16528 missing values generated)

. replace f4_edu5p=2  if e2~=. & e2>e1 & e2>e3 & e2>e4 & e2>e5 ;
(1046 real changes made)

. replace f4_edu5p=3  if e3~=. & e3>e1 & e3>e2 & e3>e4 & e3>e5 ;
(11188 real changes made)

. replace f4_edu5p=4  if e4~=. & e4>e1 & e4>e2 & e4>e3 & e4>e5 ;
(2597 real changes made)

. replace f4_edu5p=5  if e5~=. & e5>e1 & e5>e2 & e5>e3 & e5>e4 ;
(1695 real changes made)

. *tab1 f4_edu5 f4_edu5p ;
. drop e1 e2 e3 e4 e5 ;

. bysort imputed: sum f4_edu5p f4_seip f4_inc10p f4_ln_incp m4_edu5p m4_seip
m4_inc10p m4_l
> n_incp ;

-------------------------------------------------------------------------------
-------
-> imputed = 0

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
    f4_edu5p |      1505    3.196678    .6984897          1          5
     f4_seip |      1505    52.87745    11.54514   31.50831   92.95724
   f4_inc10p |      1505     4.17608     3.48709          1         10
  f4_ln_incp |      1505    8.786598    .9216047   5.896481   12.05224
    m4_edu5p |      1496    2.713235    .8324433          1          5
-------------+--------------------------------------------------------
     m4_seip |      1496     30.4974    15.52503   10.23551   90.49995
   m4_inc10p |      1496    5.179813    3.437413          1         10
  m4_ln_incp |      1496     10.1558    .5634031   8.336484   11.73541

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

```
-> imputed = 1

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
    f4_edu5p |     15070    3.301725     .749059          1          5
     f4_seip |     15070    46.94113    8.737311   29.39629    79.8087
   f4_inc10p |     15070    5.271002    3.612486          1         10
  f4_ln_incp |     15070    8.770556    .8599457   6.238518    11.6961
    m4_edu5p |     15070    3.143928     .710212          1          5
-------------+--------------------------------------------------------
     m4_seip |     15070    39.68517    11.72708    16.4264   73.72088
   m4_inc10p |     15070    5.330192    3.464456          1         10
  m4_ln_incp |     15070    10.16854    .5269094   8.137443   11.93744


. des, short ;

Contains data from ...\program1--prepare data.dta
  obs:        16,577                          National Longitudinal Study of
Adolescent
                                                Health (Add Health), 1994-2008: Wave
I
 vars:           259                          2 Sep 2014 16:04
 size:    17,140,618
Sorted by:  imputed
     Note:  dataset has changed since last saved

. save "...\program2--forecast SES.dta", replace ;
file ...\program2--forecast SES.dta saved

. clear ;

. log close ;
      name:  <unnamed>
       log:  ...\program2--forecast SES.log
  log type:  text
 closed on:   2 Sep 2014, 16:15:26
-------------------------------------------------------------------------------
-------
```