```
#### Biost 517: Applied Biostatistics I
#### Emerson, Fall 2007

#### Annotated Stata Log File: Homework #4
#### October 29, 2007

#### In this file I give the Stata commands I used to produce
#### the key to Homework #4. In order to properly format
#### a table useful to casual readers, I cut and pasted some
#### of the output into Excel.

#### Comments edited into the log file produced by Stata are
#### on the lines that start with the four '#' signs and are
#### printed in italics.

#### The Stata commands are put in bold face.

#### Stata output is displayed in regular typeface in blue.

#### Read in data: The infile command was typed all on one line
. infile date equip height age sex n35R p40R n50R p60R n35L p40L n50L p60L using SEP.txt
'date' cannot be read as a number for date[1]
'equip' cannot be read as a number for equip[1]
'height' cannot be read as a number for height[1]
'age' cannot be read as a number for age[1]
'sex' cannot be read as a number for sex[1]
'n35R' cannot be read as a number for n35R[1]
'p40R' cannot be read as a number for p40R[1]
'n50R' cannot be read as a number for n50R[1]
'p60R' cannot be read as a number for p60R[1]
'n35L' cannot be read as a number for n35L[1]
'p40L' cannot be read as a number for p40L[1]
'n50L' cannot be read as a number for n50L[1]
'p60L' cannot be read as a number for p60L[1]
(251 observations read)

#### Drop case corresponding to variable labels
. drop in 1
(1 observation deleted)

#### Examine range of data to see how to format output
. summ

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

```
-------------+--------------------------------------------------------
        date |       250     64010.9    31545.91      10290     123190
       equip |       250     1766.92    5.009389       1762       1772
      height |       250      66.272    4.209143         53         77
         age |       250      51.188    17.25292         20         84
         sex |       250        .452     .498689          0          1
-------------+--------------------------------------------------------
        n35R |       250     35.0072    3.638586       23.4       46.8
        p40R |       250     41.6132    3.774607         33       53.1
        n50R |       250     50.2416    4.307818       38.4         62
        p60R |       250      61.782    4.803893       46.2       76.6
        n35L |       250     35.1784    3.667399       25.2       47.4
-------------+--------------------------------------------------------
        p40L |       250     41.7464    3.740596       34.2       53.4
        n50L |       250     50.3548    4.100053       41.4       63.6
        p60L |       250       61.99     4.71732         51       76.8
```

```
. format height age n35R p40R n50R p60R n35L p40L n50L p60L %9.1f

. format sex %9.3f

#### Create variable measuring average p60
. g p60 = (p60L + p60R) / 2

#### Problem 1
. twoway  (lowess height age, col(black) xtitle("Age (years)") ytitle("Height (in)") t1("Height by Age
>  and Sex") ) (scatter height age if sex==1, jitter(2) col(blue)) (lowess height age if sex==1, col(b
> lue))  (scatter height age if sex==0, jitter(1) col(pink) msymb(D)) (lowess height age if sex==0, co
> l(pink))

#### Problem 2
####   Produce stratified (by sex) plot of p60 by age
####   Compute for combined sample and within sex strata
####         Correlation
####         SD of age
####         From regression: SD(p60 | age) and LS slope
. twoway (lowess p60 age, col(black) xtitle("Age (years)") ytitle("p60 (msec)") t1("Time to p60 SEP by
>  Age and Sex") ) (scatter p60 age if sex==1, jitter(2) col(blue)) (lowess p60 age if sex==1, col(blu
> e))  (scatter p60 age if sex==0, jitter(1) col(pink) msymb(D)) (lowess p60 age if sex==0, col(pink))

. cor p60 age
(obs=250)
```

```
             |      p60      age
-------------+------------------
         p60 |   1.0000
         age |   0.4563   1.0000
```

```
. bysort sex: cor p60 age
```

```
-------------------------------------------------------------------------------------------------------------
-> sex = 0.000
(obs=137)

             |      p60      age
-------------+------------------
         p60 |   1.0000
         age |   0.4823   1.0000


-------------------------------------------------------------------------------------------------------------
-> sex = 1.000
(obs=113)

             |      p60      age
-------------+------------------
         p60 |   1.0000
         age |   0.4901   1.0000
```

```
. tabstat age, stat(n mean sd min q max) col(stat) by(sex) format

Summary for variables: age
     by categories of: sex

     sex |         N      mean        sd       min       p25       p50       p75       max
---------+--------------------------------------------------------------------------------
       0 |     137.0      52.3      17.3      20.0      39.0      53.0      68.0      81.0
       1 |     113.0      49.8      17.2      20.0      36.0      48.0      65.0      84.0
---------+--------------------------------------------------------------------------------
   Total |     250.0      51.2      17.3      20.0      37.0      51.0      66.0      84.0
-------------------------------------------------------------------------------------------
```

```
. regress p60 age

      Source |       SS       df       MS              Number of obs =     250
-------------+------------------------------           F(  1,   248) =   65.22
       Model |  1081.52731     1  1081.52731            Prob > F      =  0.0000
    Residual |  4112.46342   248  16.5825138            R-squared     =  0.2082
-------------+------------------------------           Adj R-squared =  0.2050
       Total |  5193.99073   249  20.8594005            Root MSE      =  4.0722

------------------------------------------------------------------------------
         p60 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .1207971   .0149576     8.08   0.000     .0913369    .1502573
       _cons |   55.70264   .8078069    68.96   0.000      54.1116    57.29368
------------------------------------------------------------------------------

. bysort sex: regress p60 age

-------------------------------------------------------------------------------
-> sex = 0.000

      Source |       SS       df       MS              Number of obs =     137
-------------+------------------------------           F(  1,   135) =   40.91
       Model |  647.792464     1  647.792464            Prob > F      =  0.0000
    Residual |  2137.59773   135  15.8340572            R-squared     =  0.2326
-------------+------------------------------           Adj R-squared =  0.2269
       Total |  2785.39019   136  20.4808102            Root MSE      =  3.9792

------------------------------------------------------------------------------
         p60 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .1262287    .019735     6.40   0.000     .0871991    .1652584
       _cons |   54.36291   1.086947    50.01   0.000     52.21326    56.51255
------------------------------------------------------------------------------

-------------------------------------------------------------------------------
-> sex = 1.000

      Source |       SS       df       MS              Number of obs =     113
-------------+------------------------------           F(  1,   111) =   35.09
       Model |  516.940979     1  516.940979            Prob > F      =  0.0000
    Residual |  1635.35395   111  14.7329185            R-squared     =  0.2402
```

```
-------------+------------------------------           Adj R-squared =  0.2333
       Total |  2152.29493   112   19.216919           Root MSE      =  3.8383

------------------------------------------------------------------------------
         p60 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .1250109   .0211043     5.92   0.000     .0831912    .1668305
       _cons |   56.77247   1.111752    51.07   0.000     54.56945    58.97548
------------------------------------------------------------------------------


#### Problem 3
####   Produce stratified (by sex) plot of p60 by height
####   Compute for combined sample and within sex strata
####         Correlation
####         SD of height
####         From regression: SD(p60 | height) and LS slope
. twoway (lowess p60 height, col(black) xtitle("Height (in)") ytitle("p60 (msec)") t1("Time to p60 SEP
>  by Height and Sex") ) (scatter p60 height if sex==1, jitter(2) col(blue)) (lowess p60 height if sex
> ==1, col(blue))  (scatter p60 height if sex==0, jitter(1) col(pink) msymb(D)) (lowess p60 height if
> sex==0, col(pink))

. cor p60 height
(obs=250)

             |      p60   height
-------------+------------------
         p60 |   1.0000
      height |   0.2604   1.0000


. bysort sex: cor p60 height

-------------------------------------------------------------------------------------------------------
-> sex = 0.000
(obs=137)

             |      p60   height
-------------+------------------
         p60 |   1.0000
      height |   0.1098   1.0000
```

```
-------------------------------------------------------------------------------------------------
-> sex = 1.000
(obs=113)

             |      p60   height
-------------+------------------
         p60 |   1.0000
      height |   0.2072   1.0000
```

. tabstat height, stat(n mean sd min q max) col(stat) by(sex) format

```
Summary for variables: height
     by categories of: sex

     sex |         N      mean        sd       min       p25       p50       p75       max
---------+--------------------------------------------------------------------------------
       0 |     137.0      63.8       2.9      53.0      62.0      63.0      66.0      71.0
       1 |     113.0      69.3       3.5      59.0      67.0      69.0      72.0      77.0
---------+--------------------------------------------------------------------------------
   Total |     250.0      66.3       4.2      53.0      63.0      66.0      69.0      77.0
-------------------------------------------------------------------------------------------
```

. regress p60 height

```
      Source |       SS       df       MS              Number of obs =     250
-------------+------------------------------           F(  1,   248) =   18.03
       Model |  352.066811     1  352.066811           Prob > F      =  0.0000
    Residual |  4841.92392   248  19.5238868           R-squared     =  0.0678
-------------+------------------------------           Adj R-squared =  0.0640
       Total |  5193.99073   249  20.8594005           Root MSE      =  4.4186

------------------------------------------------------------------------------
         p60 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      height |   .2825005   .0665258     4.25   0.000      .151473     .413528
       _cons |   43.16413   4.417643     9.77   0.000     34.46325    51.86501
------------------------------------------------------------------------------
```

. bysort sex: regress p60 height

```
-------------------------------------------------------------------------------------------------
-> sex = 0.000

      Source |       SS       df       MS              Number of obs =     137
-------------+------------------------------           F(  1,   135) =    1.65
       Model |  33.6077438     1  33.6077438           Prob > F      =  0.2013
    Residual |  2751.78245   135  20.3835737           R-squared     =  0.0121
-------------+------------------------------           Adj R-squared =  0.0047
       Total |  2785.39019   136  20.4808102           Root MSE      =  4.5148

------------------------------------------------------------------------------
         p60 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      height |   .1698992   .1323159     1.28   0.201    -.0917808    .4315793
       _cons |    50.1276   8.449981     5.93   0.000     33.41613    66.83906
------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------
-> sex = 1.000

      Source |       SS       df       MS              Number of obs =     113
-------------+------------------------------           F(  1,   111) =    4.98
       Model |  92.4190029     1  92.4190029           Prob > F      =  0.0276
    Residual |  2059.87593   111  18.5574408           R-squared     =  0.0429
-------------+------------------------------           Adj R-squared =  0.0343
       Total |  2152.29493   112   19.216919           Root MSE      =  4.3078

------------------------------------------------------------------------------
         p60 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      height |   .2579933   .1156077     2.23   0.028     .0289089    .4870777
       _cons |   45.12857   8.018894     5.63   0.000      29.2386    61.01855
------------------------------------------------------------------------------


#### Problem 4
####   Produce stratified (by age) plot of p60 by height for each sex
####   Compute for combined sample and within age strata
####         Correlation
####         SD of height
####         From regression: SD(p60 | height) and LS slope
```

```
. g agectg=age

. recode agectg 20/34=27 35/49=42 50/64=57 65/84=74
(agectg: 234 changes made)

. twoway (lowess p60 height if sex==1, col(black) xtitle("Height (in)") ytitle("p60 (msec)") t1("Time
> to p60 SEP by Height and Age in Males") ) (scatter p60 height if sex==1 &  agectg==27, jitter(2) col
> (blue)) (lowess p60 height if sex==1 & agectg==27, col(blue))  (scatter p60 height if sex==1 &  agec
> tg==42, jitter(2) col(red)) (lowess p60 height if sex==1 & agectg==42, col(red)) (scatter p60 height
>  if sex==1 &  agectg==57, jitter(2) col(yellow)) (lowess p60 height if sex==1 & agectg==57, col(yell
> ow)) (scatter p60 height if sex==1 &  agectg==74, jitter(2) col(pink)) (lowess p60 height if sex==1
> & agectg==74, col(pink))

. twoway (lowess p60 height if sex==0, col(black) xtitle("Height (in)") ytitle("p60 (msec)") t1("Time
> to p60 SEP by Height and Age in Females") ) (scatter p60 height if sex==0 &  agectg==27, jitter(2) c
> ol(blue)) (lowess p60 height if sex==0 & agectg==27, col(blue))  (scatter p60 height if sex==0 &  ag
> ectg==42, jitter(2) col(red)) (lowess p60 height if sex==0 & agectg==42, col(red)) (scatter p60 heig
> ht if sex==0 &  agectg==57, jitter(2) col(yellow)) (lowess p60 height if sex==0 & agectg==57, col(ye
> llow)) (scatter p60 height if sex==0 &  agectg==74, jitter(2) col(pink)) (lowess p60 height if sex==
> 0 & agectg==74, col(pink))

. bysort agectg: cor p60 height

-------------------------------------------------------------------------------------------------------
-> agectg = 27
(obs=49)

             |      p60   height
-------------+------------------
         p60 |   1.0000
      height |   0.5886   1.0000


-------------------------------------------------------------------------------------------------------
-> agectg = 42
(obs=72)

             |      p60   height
-------------+------------------
         p60 |   1.0000
      height |   0.4133   1.0000
```

```
-------------------------------------------------------------------------------------------------------
-> agectg = 57
(obs=57)

             |      p60   height
-------------+------------------
         p60 |   1.0000
      height |   0.5379   1.0000


-------------------------------------------------------------------------------------------------------
-> agectg = 74
(obs=72)

             |      p60   height
-------------+------------------
         p60 |   1.0000
      height |   0.3013   1.0000
```

. tabstat height, stat(n mean sd min q max) col(stat) by(agectg) format

```
Summary for variables: height
     by categories of: agectg

  agectg |         N      mean        sd       min       p25       p50       p75       max
---------+--------------------------------------------------------------------------------
      27 |      49.0      68.0       3.7      61.0      66.0      68.0      71.0      76.0
      42 |      72.0      66.8       3.9      57.0      64.0      66.5      69.0      77.0
      57 |      57.0      65.9       4.4      59.0      62.0      66.0      69.0      75.0
      74 |      72.0      64.9       4.3      53.0      62.0      64.5      67.0      74.0
---------+--------------------------------------------------------------------------------
   Total |     250.0      66.3       4.2      53.0      63.0      66.0      69.0      77.0
-------------------------------------------------------------------------------------------
```

. bysort agectg: regress p60 height

```
-------------------------------------------------------------------------------------------------------
-> agectg = 27
```

```
      Source |       SS       df       MS              Number of obs =      49
-------------+------------------------------           F(  1,    47) =   24.91
       Model |  256.772713     1  256.772713            Prob > F      =  0.0000
    Residual |  484.404728    47  10.3064836            R-squared     =  0.3464
-------------+------------------------------           Adj R-squared =  0.3325
       Total |  741.177441    48  15.4411967            Root MSE      =  3.2104

------------------------------------------------------------------------------
         p60 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      height |   .6242211   .1250602     4.99   0.000     .3726323    .8758099
       _cons |   16.71468   8.513906     1.96   0.056     -.413086    33.84245
------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------------
-> agectg = 42

      Source |       SS       df       MS              Number of obs =      72
-------------+------------------------------           F(  1,    70) =   14.42
       Model |  212.455824     1  212.455824            Prob > F      =  0.0003
    Residual |   1031.6042    70  14.7372029            R-squared     =  0.1708
-------------+------------------------------           Adj R-squared =  0.1589
       Total |  1244.06003    71  17.5219722            Root MSE      =  3.8389

------------------------------------------------------------------------------
         p60 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      height |   .4450891    .117225     3.80   0.000     .2112912    .6788869
       _cons |   30.73627   7.841086     3.92   0.000     15.09772    46.37483
------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------------
-> agectg = 57

      Source |       SS       df       MS              Number of obs =      57
-------------+------------------------------           F(  1,    55) =   22.39
       Model |  306.940036     1  306.940036            Prob > F      =  0.0000
    Residual |   754.09137    55  13.7107522            R-squared     =  0.2893
-------------+------------------------------           Adj R-squared =  0.2764
       Total |  1061.03141    56  18.9469894            Root MSE      =  3.7028

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

```
         p60 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      height |   .5324766   .1125393     4.73   0.000     .3069427    .7580104
       _cons |   27.44097   7.433921     3.69   0.001     12.54306    42.33888
------------------------------------------------------------------------------

------------------------------------------------------------------------------------------------------------------------
-> agectg = 74

      Source |       SS       df       MS              Number of obs =      72
-------------+------------------------------           F(  1,    70) =    6.99
       Model |  95.8488852     1  95.8488852           Prob > F      =  0.0101
    Residual |  959.625642    70  13.7089377           R-squared     =  0.0908
-------------+------------------------------           Adj R-squared =  0.0778
       Total |  1055.47453    71  14.8658384           Root MSE      =  3.7026

------------------------------------------------------------------------------
         p60 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      height |   .2724656   .1030434     2.64   0.010     .0669521    .4779792
       _cons |   46.98042   6.700593     7.01   0.000     33.61651    60.34434
------------------------------------------------------------------------------


#### Obtain dataset for use in problem 5 (I previously saved it as a Stata dataset
. clear

. use inflamm

#### Replace ttodth to reflect survival in years rather than days
. replace ttodth=ttodth/365.25
(5000 real changes made)

#### Declare censored survival data for Stata
. stset ttodth death

     failure event:  death != 0 & death < .
obs. time interval:  (0, ttodth]
 exit on or before:  failure

------------------------------------------------------------------------------
     5000  total obs.
```

```
        0  exclusions
--------------------------------------------------------------------------
     5000  obs. remaining, representing
     1121  failures in single record/single failure data
 32421.37  total analysis time at risk, at risk from t =         0
                             earliest observed entry t =         0
                                  last observed exit t =  8.054757

#### Problem 5: Overall descriptive statistics
####   Kaplan-Meier plot
####   Survival probabilities at 2, 5, and 8 years
####   90th, 80th, and 75th percentiles of survival distribution (note the need to delete the voluminous output in
####         order to obtain the percentiles from sts list)
. sts graph, xtitle("Time from Study Accrual (years)") ytitle("Proportion Surviving") t1("Proportion S
> urviving by Time since Accrual")

         failure _d:  death
   analysis time _t:  ttodth

. sts list, at(2 5 8)

         failure _d:  death
   analysis time _t:  ttodth

              Beg.                    Survivor      Std.
    Time     Total     Fail            Function     Error     [95% Conf. Int.]
-------------------------------------------------------------------------------
       2      4795      206             0.9588    0.0028     0.9529    0.9640
       5      3839      461             0.8634    0.0049     0.8534    0.8728
       8       136      454             0.7408    0.0082     0.7242    0.7565
-------------------------------------------------------------------------------
Note:  Survivor function is calculated over full data and evaluated at
       indicated times; it is not calculated from aggregates shown at left.

. sts list

         failure _d:  death
   analysis time _t:  ttodth

           Beg.          Net            Survivor      Std.
  Time    Total   Fail   Lost            Function     Error     [95% Conf. Int.]
-------------------------------------------------------------------------------
```

```
 .0137      5000       1       0              0.9998    0.0002      0.9986    1.0000
...
(output deleted)
...
 4.014      4502       1       0              0.9002    0.0042      0.8916    0.9082
 4.019      4501       1       0              0.9000    0.0042      0.8914    0.9080
 4.022      4500       2       0              0.8996    0.0043      0.8909    0.9076
 4.052      4498       0       3              0.8996    0.0043      0.8909    0.9076
...
(output deleted)
...
 6.669      3559       2       0              0.8002    0.0058      0.7885    0.8113
 6.675      3557       1       0              0.8000    0.0058      0.7882    0.8111
 6.678      3556       1       0              0.7997    0.0058      0.7880    0.8109
  6.68      3555       1       0              0.7995    0.0058      0.7878    0.8107
...
(output deleted)
...
 7.773       950       0      21              0.7505    0.0068      0.7369    0.7635
 7.775       929       1      13              0.7497    0.0068      0.7360    0.7627
...
(output deleted)
...
 8.055         1       0       1              0.7408    0.0082      0.7242    0.7565
-------------------------------------------------------------------------------
```

Problem 5: Descriptive statistics by cholesterol strata
Kaplan-Meier plot
Survival probabilities at 2, 5, and 8 years
90^{th}, 80^{th}, and 75^{th} percentiles of survival distribution (note the need to delete the voluminous output in
order to obtain the percentiles from sts list)

First create variable measuring cholesterol group. Note that I prefer to label the categories by the mean
cholesterol level within those categories

```
. g cholctg= cholest
(47 missing values generated)

. recode cholctg 0/200=1 201/250=2 251/300=3 301/max=4
(cholctg: 4953 changes made)

. tabstat cholest, stat(n mean sd min q max) col(stat) format by(cholctg)
```

```
Summary for variables: cholest
     by categories of: cholctg

 cholctg |         N      mean        sd       min       p25       p50       p75       max
---------+--------------------------------------------------------------------------------
       1 |      1997       175        20        73       164       180       191       200
       2 |      2191       223        14       201       211       222       234       250
       3 |       671       268        13       251       257       265       277       300
       4 |        94       324        24       301       309       317       328       430
---------+--------------------------------------------------------------------------------
   Total |      4953       212        39        73       186       210       236       430
--------------------------------------------------------------------------------------------
```

```
. recode cholctg 1=175 2=225 3=270 4=325
(cholctg: 4953 changes made)

. sts graph, by(cholctg) col(red blue yellow pink)

         failure _d:  death
   analysis time _t:  ttodth

. sts list, by(cholctg) at(2 5 8)

         failure _d:  death
   analysis time _t:  ttodth

             Beg.                    Survivor      Std.
    Time     Total     Fail          Function     Error     [95% Conf. Int.]
-------------------------------------------------------------------------------
cholctg=175
       2      1909       89            0.9554    0.0046     0.9454    0.9636
       5      1476      241            0.8306    0.0085     0.8131    0.8465
       8        58      201            0.6984    0.0118     0.6746    0.7208
cholctg=225
       2      2108       84            0.9617    0.0041     0.9527    0.9689
       5      1726      163            0.8847    0.0069     0.8704    0.8976
       8        54      191            0.7653    0.0144     0.7357    0.7920
cholctg=270
       2       652       20            0.9702    0.0066     0.9542    0.9807
       5       554       49            0.8952    0.0120     0.8692    0.9163
       8        20       53            0.7861    0.0196     0.7447    0.8216
cholctg=325
```

```
       2         90         5              0.9468    0.0231     0.8769    0.9775
       5         70         7              0.8684    0.0355     0.7795    0.9232
       8          4         8              0.7678    0.0459     0.6625    0.8440
-------------------------------------------------------------------------------
Note:  Survivor function is calculated over full data and evaluated at
       indicated times; it is not calculated from aggregates shown at left.
```

```
. sts list, by(cholctg)

         failure _d:  death
   analysis time _t:  ttodth

           Beg.          Net            Survivor      Std.
  Time    Total    Fail   Lost           Function     Error     [95% Conf. Int.]
-------------------------------------------------------------------------------
cholctg=175
 .0137     1997       1      0             0.9995    0.0005     0.9965    0.9999
...
(output deleted)
...
 3.521     1800       1      0             0.9009    0.0067     0.8869    0.9132
 3.526     1799       1      0             0.9004    0.0067     0.8864    0.9127
 3.562     1798       1      0             0.8998    0.0067     0.8858    0.9122
...
(output deleted)
...
 5.848     1423       1      0             0.8007    0.0092     0.7821    0.8180
  5.87     1422       1      0             0.8001    0.0092     0.7815    0.8174
 5.873     1421       1      0             0.7996    0.0092     0.7809    0.8169
...
(output deleted)
...
 6.984     1334       1      0             0.7506    0.0100     0.7303    0.7696
 7.012     1333       1      0             0.7500    0.0100     0.7298    0.7690
 7.036     1332       1      0             0.7495    0.0100     0.7292    0.7685
 7.058     1331       2      0             0.7483    0.0100     0.7280    0.7674
...
(output deleted)
...
 8.052        2       0      2             0.6984    0.0118     0.6746    0.7208

cholctg=225
```

```
 .0192      2191       1       0              0.9995    0.0005      0.9968    0.9999
...
(output deleted)
...
 4.482      1780       0       3              0.9006    0.0064      0.8872    0.9125
 4.485      1777       1       1              0.9001    0.0064      0.8867    0.9120
 4.498      1775       0       1              0.9001    0.0064      0.8867    0.9120
 4.504      1774       1       1              0.8996    0.0065      0.8861    0.9115
 4.507      1772       2       0              0.8986    0.0065      0.8851    0.9106
...
(output deleted)
...
 7.187      1366       0      10              0.8014    0.0088      0.7834    0.8181
  7.19      1356       2       0              0.8002    0.0089      0.7822    0.8170
 7.195      1354       1      10              0.7997    0.0089      0.7816    0.8164
 7.198      1343       0       9              0.7997    0.0089      0.7816    0.8164
...
(output deleted)
...
 8.047         5       0       5              0.7653    0.0144      0.7357    0.7920

cholctg=270
 .1506       671       1       0              0.9985    0.0015      0.9895    0.9998
...
(output deleted)
...
 4.846       558       1       0              0.9017    0.0116      0.8763    0.9221
 4.873       557       1       0              0.9001    0.0117      0.8745    0.9206
  4.92       556       1       0              0.8985    0.0118      0.8728    0.9192
 4.928       555       1       0              0.8968    0.0119      0.8710    0.9178
...
(output deleted)
...
 7.647       175       0       1              0.8045    0.0166      0.7695    0.8348
 7.652       174       0       1              0.8045    0.0166      0.7695    0.8348
 7.655       173       1       1              0.7999    0.0172      0.7637    0.8312
 7.658       171       0       3              0.7999    0.0172      0.7637    0.8312
...
(output deleted)
...
 8.055         1       0       1              0.7861    0.0196      0.7447    0.8216
```

```
cholctg=325
 .6571       94      1      0             0.9894    0.0106     0.9269    0.9985
...
(output deleted)
...
  2.94       86      1      0             0.9043    0.0303     0.8241    0.9490
 3.644       85      1      0             0.8936    0.0318     0.8113    0.9413
...
(output deleted)
...
 6.166       65      1      0             0.8055    0.0427     0.7050    0.8748
 6.297       64      1      0             0.7929    0.0438     0.6907    0.8646
...
(output deleted)
...
 8.041        1      0      1             0.7678    0.0459     0.6625    0.8440
-------------------------------------------------------------------------------
```

```
. sts graph, by(cholctg male) col(red red blue blue yellow yellow gray gray) lp(solid dash solid dash
> solid dash solid dash)

         failure _d:  death
   analysis time _t:  ttodth
```

```
. sts list, at(2 5 8) by(cholctg male)

         failure _d:  death
   analysis time _t:  ttodth
```

Time	Beg. Total	Fail	Survivor Function	Std. Error	[95% Conf.	Int.]
cholctg=175 male=0						
2	838	27	0.9688	0.0059	0.9548	0.9785
5	655	72	0.8815	0.0112	0.8575	0.9017
8	24	73	0.7635	0.0173	0.7276	0.7953
cholctg=175 male=1						
2	1072	62	0.9453	0.0068	0.9304	0.9571
5	822	169	0.7922	0.0122	0.7671	0.8149
8	34	128	0.6503	0.0159	0.6181	0.6805
cholctg=225 male=0						
2	1354	36	0.9741	0.0043	0.9642	0.9812

```
       5      1142        71              0.9212    0.0073      0.9055    0.9344
       8        32       112              0.8172    0.0130      0.7901    0.8412
cholctg=225 male=1
       2       755        48              0.9401    0.0084      0.9214    0.9546
       5       585        92              0.8216    0.0137      0.7928    0.8467
       8        23        79              0.6793    0.0285      0.6198    0.7316
cholctg=270 male=0
       2       526        10              0.9813    0.0059      0.9655    0.9899
       5       444        38              0.9083    0.0126      0.8801    0.9301
       8        18        36              0.8100    0.0217      0.7630    0.8486
cholctg=270 male=1
       2       127        10              0.9265    0.0224      0.8677    0.9597
       5       111        11              0.8442    0.0313      0.7710    0.8955
       8         3        17              0.6989    0.0423      0.6072    0.7733
cholctg=325 male=0
       2        79         4              0.9512    0.0238      0.8752    0.9814
       5        61         6              0.8733    0.0376      0.7767    0.9300
       8         3         6              0.7860    0.0479      0.6735    0.8636
cholctg=325 male=1
       2        12         1              0.9167    0.0798      0.5390    0.9878
       5        10         1              0.8333    0.1076      0.4817    0.9555
       8         2         2              0.6481    0.1426      0.3097    0.8518
-------------------------------------------------------------------------------
Note:  Survivor function is calculated over full data and evaluated at
       indicated times; it is not calculated from aggregates shown at left.
```

```
. tabstat cholest, by(male) stat(n mean sd min q max) format col(stat)

Summary for variables: cholest
     by categories of: male

    male |         N      mean        sd       min       p25       p50       p75       max
---------+--------------------------------------------------------------------------------
       0 |      2870       221        39        88       195       219       245       430
       1 |      2083       198        36        73       174       197       221       407
---------+--------------------------------------------------------------------------------
   Total |      4953       212        39        73       186       210       236       430
--------------------------------------------------------------------------------------------


. log close
       log:  C:\Documents and Settings\sse\My Documents\teach\b517\f07\hw4stata.log
```

```
      log type:  text
    closed on:  30 Oct 2007, 17:56:14
-------------------------------------------------------------------------------
```