```
  ___  ____  ____  ____  ____(R)
 /__    /   ____/   /   ____/
___/   /   /___/   /   /___/
  Statistics/Data Analysis

    User: Andong_Yan_HW1
```

```
  ___  ____  ____  ____  ____ (R)
 /__    /   ____/   /   ____/
___/   /   /___/   /   /___/   14.0   Copyright 1985-2015 StataCorp LP
  Statistics/Data Analysis            StataCorp
                                      4905 Lakeway Drive
     MP - Parallel Edition            College Station, Texas 77845 USA
                                      800-STATA-PC        http://www.stata.com
                                      979-696-4600        stata@stata.com
                                      979-696-4601 (fax)

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                       University of Southern California

Notes:
      1.  Unicode is supported; see help unicode_advice.
      2.  More than 2 billion observations are allowed; see help obs_advice.
      3.  Maximum number of variables is set to 5000; see help set maxvar.

1 . doedit "C:\Users\yadto\Dropbox\USC\ECON513\HW2\hw2.do"

2 . use "C:\Users\yadto\Dropbox\USC\ECON513\HW2\hw2.dta", clear

3 . reg iq educyears

      Source |       SS           df       MS      Number of obs   =       935
-------------+----------------------------------   F(1, 933)       =    338.02
       Model |  56280.9277         1  56280.9277   Prob > F        =    0.0000
    Residual |  155346.531       933  166.502177   R-squared       =    0.2659
-------------+----------------------------------   Adj R-squared   =    0.2652
       Total |  211627.459       934  226.581862   Root MSE        =    12.904

------------------------------------------------------------------------------
          iq |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   educyears |   3.533829   .1922095    18.39   0.000     3.156616    3.911042
       _cons |   53.68715   2.622933    20.47   0.000     48.53962    58.83469
------------------------------------------------------------------------------

4 .
5 . reg iq educyears kww

      Source |       SS           df       MS      Number of obs   =       935
-------------+----------------------------------   F(2, 932)       =    218.83
       Model |  67623.0292         2  33811.5146   Prob > F        =    0.0000
    Residual |   144004.43       932  154.511191   R-squared       =    0.3195
-------------+----------------------------------   Adj R-squared   =    0.3181
       Total |  211627.459       934  226.581862   Root MSE        =     12.43

------------------------------------------------------------------------------
          iq |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   educyears |   2.865716   .2009098    14.26   0.000     2.471428    3.260004
         kww |   .4949999   .0577748     8.57   0.000     .3816161    .6083836
       _cons |   44.99213   2.722911    16.52   0.000     39.64839    50.33588
------------------------------------------------------------------------------
```

```
6 . * Kx is the coefficient of x in regression of z on x, LamdaX is the coefficient of x in regress
  >  of z on x and w *

7 . * we can see LamdaX is smaller than Kx, so the proxy's bias is smaller than the ommited variabl
  > ias*

8 . * we should use proxy KWW for IQ*

9 .
```