Statistics/Data Analysis

```
      name:  <unnamed>
       log:  C:\Users\Lara\Documents\Econo2\hw2\hw2_log.smcl
  log type:  smcl
 opened on:   3 Apr 2020, 01:50:36

1 .
2 . use "psu_data.dta", clear

3 .
4 . keep if qqt1 == 1
  (366,723 observations deleted)

5 . keep if psu475t1<46 & psu475t1>-46
  (66,419 observations deleted)

6 .
7 . regress enrolt1 m475t1 psu475t1 m475psut1, robust

  Linear regression                               Number of obs     =     42,023
                                                  F(3, 42019)       =    2218.00
                                                  Prob > F          =     0.0000
                                                  R-squared         =     0.1362
                                                  Root MSE          =     .41504

  ------------------------------------------------------------------------------
               |               Robust
       enrolt1 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
  -------------+----------------------------------------------------------------
        m475t1 |    .198555   .0080278    24.73   0.000     .1828203    .2142897
      psu475t1 |   .0013164   .0001661     7.92   0.000     .0009908     .001642
     m475psut1 |   .0027344   .0003037     9.00   0.000     .0021391    .0033297
         _cons |   .1438551   .0045917    31.33   0.000     .1348553     .152855
  ------------------------------------------------------------------------------

8 .
9 .
10. regress everelig1 m475t1 psu475t1 m475psut1, robust

  Linear regression                               Number of obs     =     42,023
                                                  F(1, 42019)       =          .
                                                  Prob > F          =          .
                                                  R-squared         =     0.8455
                                                  Root MSE          =     .19575

  ------------------------------------------------------------------------------
               |               Robust
     everelig1 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
  -------------+----------------------------------------------------------------
        m475t1 |   .8780681   .0041612   211.01   0.000      .869912    .8862241
      psu475t1 |   .0016461   .0001447    11.38   0.000     .0013625    .0019297
     m475psut1 |  -.0016461   .0001447   -11.38   0.000    -.0019297   -.0013625
         _cons |   .1219319   .0041612    29.30   0.000     .1137759     .130088
  ------------------------------------------------------------------------------

11.
12.
13. ivreg everenroll1 (everelig1 = m475t1) psu475t1 m475psut1, robust

  Instrumental variables (2SLS) regression        Number of obs     =     42,023
                                                  F(3, 42019)       =    1940.36
                                                  Prob > F          =     0.0000
                                                  R-squared         =     0.1456
                                                  Root MSE          =     .44936
```

everenroll1	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
everelig1	.182199	.0100394	18.15	0.000	.1625216	.2018764
psu475t1	.002128	.0002188	9.73	0.000	.0016992	.0025568
m475psut1	.0023699	.0003276	7.23	0.000	.0017278	.003012
_cons	.2563205	.0065318	39.24	0.000	.243518	.2691229

```
Instrumented:  everelig1
Instruments:   psu475t1 m475psut1
               m475t1
```

```
14.
15.
16.
17.
18. use "psu_figure_data.dta", clear

19.
20. gen x1=psu^3 if dd==1
  (140 missing values generated)

21. replace x1=0 if dd==0
  (140 real changes made)

22.
23. gen x2=psu^3 if dd==0
  (171 missing values generated)

24. replace x2=0 if dd==1
  (171 real changes made)

25.
26. reg enrolt1 dd x1 x2, robust
```

```
Linear regression                               Number of obs     =        311
                                                F(1, 307)         =          .
                                                Prob > F          =          .
                                                R-squared         =     0.9682
                                                Root MSE          =     .07149
```

enrolt1	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
dd	.4025818	.021948	18.34	0.000	.3593943	.4457692
x1	1.35e-09	6.59e-11	20.49	0.000	1.22e-09	1.48e-09
x2	1.07e-09	6.82e-11	15.66	0.000	9.34e-10	1.20e-09
_cons	.0139964	.0045083	3.10	0.002	.0051254	.0228675

```
27. predict eligible if dd==1
  (option xb assumed; fitted values)
  (140 missing values generated)

28. predict not_eligible if dd==0
  (option xb assumed; fitted values)
  (171 missing values generated)
```

```
29.
30. scatter enrolt1 psu, scheme(fondow) xline(475, lw(thin)) xline(550, lw(thin)) ms(oh)
  >  ||         line not_eligible eligible psu, lp(solid solid ) xtitle(PSU score in {it
  > :t=1}) ytitle(College enrollment) legend(off) title("Immediate Enrollment Quintile 1
  > ")
  (note: scheme fondow not found, using s2color)

31.
32.
33.
34.
35. log close
      name:  <unnamed>
       log:  C:\Users\Lara\Documents\Econo2\hw2\hw2_log.smcl
  log type:  smcl
 closed on:   3 Apr 2020, 01:50:44
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