



 (R)
Statistics/Data Analysis 14.0 Copyright 1985-2015 StataCorp LP
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 idle

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 "D:\THU\Sophomore\Econometrics\PS4\ps4-7.do"

2 . do "D:\THU\Sophomore\Econometrics\PS4\ps4-7.do"

3 . cd "D:\THU\Sophomore\Econometrics\PS4"
D:\THU\Sophomore\Econometrics\PS4

4 . clear

5 .

6 . log using "2022011545-7.log", replace

name: <unnamed>
 log: D:\THU\Sophomore\Econometrics\PS4\2022011545-7.log
 log type: text
 opened on: 21 May 2024, 21:59:21

7 .

8 . use card, clear

9 .

10 . ** (a)

11 . gen exper2 = exper * exper

12 . reg lwage educ exper exper2 smsa motheduc, robust

Linear regression	Number of obs	=	2,657
	F(5, 2651)	=	167.71
	Prob > F	=	0.0000
	R-squared	=	0.2354
	Root MSE	=	.38866

lwage	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
educ	.0813949	.0041776	19.48	0.000	.0732033	.0895866
exper	.0879387	.0074636	11.78	0.000	.0733035	.1025739
exper2	-.0022682	.0003686	-6.15	0.000	-.0029911	-.0015453
smsa	.1724038	.0167888	10.27	0.000	.1394833	.2053243
motheduc	.0143374	.0027643	5.19	0.000	.0089169	.0197578
_cons	4.352978	.0724876	60.05	0.000	4.21084	4.495116

```
13 .
14 . ** (b)
15 . reg educ nearc4, robust
```

Linear regression	Number of obs	=	3,010
	F(1, 3008)	=	60.37
	Prob > F	=	0.0000
	R-squared	=	0.0208
	Root MSE	=	2.6494

educ	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
nearc4	.829019	.1066941	7.77	0.000	.6198182	1.03822
_cons	12.69801	.0902199	140.75	0.000	12.52112	12.87491

```
16 .
17 . ** (c)
18 . ivreg lwage (educ = nearc4) exper exper2 smsa motheduc, robust
```

Instrumental variables (2SLS) regression	Number of obs	=	2,657
	F(5, 2651)	=	73.80
	Prob > F	=	0.0000
	R-squared	=	0.0895
	Root MSE	=	.42413

lwage	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
educ	.1703064	.0511423	3.33	0.001	.0700234	.2705893
exper	.1212062	.0210194	5.77	0.000	.0799902	.1624222
exper2	-.0023351	.0004198	-5.56	0.000	-.0031582	-.001512
smsa	.1355772	.0281664	4.81	0.000	.0803469	.1908075
motheduc	-.0050222	.0114884	-0.44	0.662	-.0275495	.017505
_cons	3.10564	.7194474	4.32	0.000	1.694905	4.516375

Instrumented: educ
Instruments: exper exper2 smsa motheduc nearc4

```
19 .
20 . log close
    name: <unnamed>
    log: D:\THU\Sophomore\Econometrics\PS4\2022011545-7.log
    log type: text
    closed on: 21 May 2024, 21:59:22
```

```
21 .
    end of do-file
```

```
22 .
```