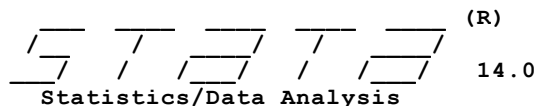


User: Andong_Yan_HW1



MP - Parallel Edition

14.0

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 StataCorp
 4905 Lakeway Drive
 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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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 . do "C:\Users\yadto\Dropbox\USC\ECON513\HW1\hw1.do"
2 . log using C:\Users\yadto\Dropbox\USC\ECON513\HW1\hw1.log, replace
```

```
name: <unnamed>
log: C:\Users\yadto\Dropbox\USC\ECON513\HW1\hw1.log
log type: text
opened on: 6 Sep 2016, 12:21:46
```

```
3 .
4 . use C:\Users\yadto\Dropbox\USC\ECON513\HW1\hw1
5 .
6 . *question 1*
7 . gen exp2 = expyears^2
8 . reg llearningswk educyears expyears exp2
```

Source	SS	df	MS	Number of obs	=	935
Model	26.0122513	3	8.67075042	F(3, 931)	=	51.49
Residual	156.787751	931	.168407895	Prob > F	=	0.0000
				R-squared	=	0.1423
				Adj R-squared	=	0.1395
Total	182.800002	934	.195717347	Root MSE	=	.41038

llearningswk	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
educyears	.0923143	.0075559	12.22	0.000	.0774857 .1071429
expyears	.079138	.024945	3.17	0.002	.030183 .128093
exp2	-.0019633	.0008706	-2.25	0.024	-.0036719 -.0002546
_cons	4.016274	.2222775	18.07	0.000	3.580051 4.452497

```

9 .
10 . *question 2*
11 . gen beta0 = _b[_cons]
12 . gen beta1 = _b[educyears]
13 . gen beta2 = _b[expyears]
14 . gen beta3 = _b[exp2]
15 . predict residual, res
16 . gen zeta = beta1 - beta2 - beta3*(2*expyears-1)
17 . su zeta

```

Variable	Obs	Mean	Std. Dev.	Min	Max
zeta	935	.0646605	.0150296	.0308459	.101524

```

18 .
19 . *question 3*
20 . gen educnew = educyears + 1
21 . gen expnew = expyears - 1
22 . gen exp2new = expnew^2
23 . gen newwage = beta0+beta1*educnew+beta2*expnew+beta3*exp2new
24 . egen avnewwage = mean(newwage)
25 . egen avwage = mean(lnearningswk)
26 . gen zetapredict = avnewwage - avwage
27 . su zetapredict

```

Variable	Obs	Mean	Std. Dev.	Min	Max
zetapredict	935	.0646601	0	.0646601	.0646601

```

28 . * the mean of zetapredict is the increasing effect of the policy*
29 . * compared to zeta, they are almost the same*
30 .
31 . *question 4*
32 . gen educmodify = educyears + (12 - educyears) if educyears <12
    (847 missing values generated)
33 . replace educmodify = educyears if educyears >= 12
    (847 real changes made)
34 . gen expmodify = expyears - (12 - educyears) if educyears < 12
    (847 missing values generated)

```

```

35 . replace expmodify = expyears if educyears >= 12
    (847 real changes made)

36 . gen exp2modify = expmodify ^2

37 . gen wagemodify = beta0+beta1*educmodify+beta2*expmodify+beta3*exp2modify

38 . egen avwagemodify = mean(wagemodify)

39 . gen zetamodify = avwagemodify - avwage

40 . su zetamodify

```

Variable	Obs	Mean	Std. Dev.	Min	Max
zetamodify	935	.0122766	0	.0122766	.0122766

```

41 . * the mean of zetamodify is the increasing effect of the policy*
42 .
    end of do-file

43 .

```