
name: <unnamed>
log: /Users/baum/Documents/EC228F2012/ec228_f2012_day1.smcl
log type: smcl
opened on: 4 Sep 2012, 09:52:27

```
1 .  
2 . // ec228_f2012_day1 cfb 4sep2012  
3 .  
4 . // read in the CRIME1 data with the bcuse command, which  
5 . // automatically does a describe  
6 . bcuse crime1, clear
```

Contains data from <http://fmwww.bc.edu/ec-p/data/wooldridge/crime1.dta>

obs: 2,725
vars: 16 10 Jan 2000 16:54
size: 174,400

variable name	storage type	display format	value label	variable label
narr86	float	%9.0g		
nfarr86	float	%9.0g		
nparr86	float	%9.0g		
pcnv	float	%9.0g		
avgsen	float	%9.0g		
tottime	float	%9.0g		
ptime86	float	%9.0g		
qemp86	float	%9.0g		
inc86	float	%9.0g		
durat	float	%9.0g		
black	float	%9.0g		
hispan	float	%9.0g		
born60	float	%9.0g		
pcnvsq	float	%9.0g		
pt86sq	float	%9.0g		
inc86sq	float	%9.0g		

Sorted by:

```
7 .  
8 . // calculate descriptive stats
```

9 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
narr86	2725	.4044037	.8590768	0	12
nfarr86	2725	.2333945	.5810142	0	6
nparr86	2725	.1255046	.4828473	0	8
pcnv	2725	.3577872	.395192	0	1
avgsen	2725	.6322936	3.508031	0	59.2
totttime	2725	.8387523	4.607019	0	63.4
ptime86	2725	.387156	1.950051	0	12
qemp86	2725	2.309028	1.610428	0	4
inc86	2725	54.96705	66.62721	0	541
durat	2725	2.251376	4.607063	0	25
black	2725	.1611009	.3676915	0	1
hispan	2725	.2176147	.4126997	0	1
born60	2725	.3625688	.48083	0	1
pcnvsq	2725	.284131	.3907343	0	1
pt86sq	2725	3.951193	22.08584	0	144
inc86sq	2725	7458.933	16361.24	0	292681

10 .

11 . // tabulate number of arrests

12 . tab narr86

narr86	Freq.	Percent	Cum.
0	1,970	72.29	72.29
1	559	20.51	92.81
2	121	4.44	97.25
3	42	1.54	98.79
4	12	0.44	99.23
5	13	0.48	99.71
6	4	0.15	99.85
7	1	0.04	99.89
9	1	0.04	99.93
10	1	0.04	99.96
12	1	0.04	100.00
Total	2,725	100.00	

```

13 .
14 . // test H0: average sentence for blacks = avg for non-blacks
15 . ttest avgsen, by(black)

```

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
0	2286	.4487752	.0587415	2.808555	.333583	.5639673
1	439	1.587927	.2794932	5.856033	1.038613	2.137242
combined	2725	.6322936	.0672017	3.508031	.5005221	.764065
diff		-1.139152	.1815257		-1.495094	-.7832099

diff = mean(0) - mean(1) t = -6.2754
Ho: diff = 0 degrees of freedom = 2723

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.0000 Pr(|T| > |t|) = 0.0000 Pr(T > t) = 1.0000

```

16 .
17 . // regression of number of arrests on legal income
18 . regress narr86 inc86

```

Source	SS	df	MS	Number of obs = 2725	
Model	72.5556076	1	72.5556076	F(1, 2723) =	101.96
Residual	1937.79155	2723	.711638468	Prob > F =	0.0000
Total	2010.34716	2724	.738012906	R-squared =	0.0361
				Adj R-squared =	0.0357
				Root MSE =	.84359

narr86	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
inc86	-.0024495	.0002426	-10.10	0.000	-.0029252	-.0019738
_cons	.5390463	.0209514	25.73	0.000	.4979641	.5801286

```

19 .
20 . // consider prior convictions, unemployment, race as well
21 . regress narr86 inc86 pcnv durat black hispan

```

Source	SS	df	MS	Number of obs = 2725	
Model	126.105393	5	25.2210787	F(5, 2719) =	36.39
Residual	1884.24176	2719	.692990718	Prob > F =	0.0000
Total	2010.34716	2724	.738012906	R-squared =	0.0627
				Adj R-squared =	0.0610
				Root MSE =	.83246

narr86	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
inc86	-.0021246	.0002572	-8.26	0.000	-.0026289	-.0016203
pcnv	-.1418213	.0404691	-3.50	0.000	-.2211747	-.0624679
durat	.002914	.0036923	0.79	0.430	-.0043259	.010154
black	.3257535	.0452257	7.20	0.000	.2370734	.4144337
hispan	.1804347	.039774	4.54	0.000	.1024443	.258425
_cons	.4736218	.0322772	14.67	0.000	.4103314	.5369122

22 .

23 . log close

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