

# EPPS 6316 : Recitation Session #7

Oct. 26. 2012

## Questions?

- You learned :  
 - REVIEW.  
 Any questions ?

## Problem 1

Fill the blanks

Y : 2,4,6,8,10

X1 :1,1,4,7,9

X2 :10,7,5,3,1

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. reg y x1 x2
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Source	SS	df	MS	
-----+-----				Number of obs = 5
Model	39.9809373	19	19.9904686	F( 2, 2) = 2097.33
Residual	.019062748	( )	( )	Prob > F = 0.0005
-----+-----				R-squared = 0.9995
Total	40	10		Adj R-squared = 0.9990
				Root MSE = .09763

y	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
-----+-----						
x1	( )	.0429793	( )	0.030	.0597134	.4295638
x2	( )	.0440235	-15.08	0.004	-.853437	-.4746011
_cons	( )	.4149433	20.19	0.002	6.591132	10.16185
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## Problem 2

Our main model is :

$$income = \beta_0 + \beta_1educ + \beta_2age$$

Sample size: 500 and RSS is 1600.

Another model is :

$$income = \beta_0 + \beta_1educ + \beta_2age + \beta_3female + \beta_4educ * female + \beta_5age * female$$

Sample size is same and RSS is 1500.

Construct appropriate  $H_0$  and  $H_1$  for a chow test, and test your null hypothesis.

## Problem 3(Review last session)

Source	SS	df	MS	Number of obs =	1941
Model	1.9309e+11	8	2.4137e+10	F( 8, 1932) =	86.16
Residual	5.4120e+11	1932	280125777	Prob > F =	0.0000
				R-squared =	0.2630
				Adj R-squared =	0.2599
Total	7.3430e+11	1940	378502579	Root MSE =	16737

realrinc	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
educ	3099.178	197.9623	15.66	0.000	2710.936 3487.42
age	406.0277	42.58114	9.54	0.000	322.5179 489.5376
female	15489.91	4703.047	3.29	0.001	6266.328 24713.49
married	5469.593	1103.49	4.96	0.000	3305.438 7633.749
white	643.3327	994.1187	0.65	0.518	-1306.326 2592.991
femage	-181.0588	61.17309	-2.96	0.003	-301.031 -61.08654
femeduc	-1089.988	285.0856	-3.82	0.000	-1649.095 -530.8797
femalemarr~d	-5221.796	1543	-3.38	0.001	-8247.915 -2195.677
_cons	-36511.18	3283.073	-11.12	0.000	-42949.92 -30072.44

Our model is :  $realincome = \beta_0 + \beta_1educ + \beta_2age + \beta_3female + \beta_4married + \beta_5white + \beta_6female * age + \beta_7female * educ + \beta_8female * married$

Interpret  $\beta_0, \beta_1, \beta_3,$  and  $\beta_7$