

Stata Textbook Examples

Introductory Econometrics: A Modern Approach by Jeffrey M. Wooldridge (1st & 2d eds.)

Chapter 5 - Multiple Regression Analysis: OLS Asymptotics

Example 5.2: Standard Errors in a Birth Weight Equation

use <http://fmwww.bc.edu/ec-p/data/wooldridge/BWGHT>

Regression with 694 observations

reg lbwght cigs lfaminc in 1/694

Source	SS	df	MS			
Model	.809213892	2	.404606946	Number of obs =	694	
Residual	26.5787089	691	.038464123	F(2, 691) =	10.52	
Total	27.3879228	693	.039520812	Prob > F =	0.0000	
				R-squared =	0.0295	
				Adj R-squared =	0.0267	
				Root MSE =	.19612	

lbwght	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
cigs	-.0046368	.0013319	-3.481	0.001	-.0072519	-.0020216
lfaminc	.0194044	.0081884	2.370	0.018	.0033274	.0354815
_cons	4.705583	.027053	173.939	0.000	4.652467	4.758699

Regression with 1388 observations

reg lbwght cigs lfaminc

Source	SS	df	MS			
Model	1.29879046	2	.64939523	Number of obs =	1388	
Residual	49.1215342	1385	.035466812	F(2, 1385) =	18.31	
Total	50.4203246	1387	.036352073	Prob > F =	0.0000	
				R-squared =	0.0258	
				Adj R-squared =	0.0244	
				Root MSE =	.18833	

lbwght	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
cigs	-.0040816	.0008582	-4.756	0.000	-.0057651	-.002398
lfaminc	.0162657	.0055833	2.913	0.004	.005313	.0272183
_cons	4.718594	.0182445	258.631	0.000	4.682804	4.754383

Example 5.3: Economic Model of Crime

use <http://fmwww.bc.edu/ec-p/data/wooldridge/CRIME1>

reg narr86 pcnv ptime86 qemp86

Source	SS	df	MS			
Model	83.0741941	3	27.691398	Number of obs =	2725	
Residual	1927.27296	2721	.708295833	F(3, 2721) =	39.10	
				Prob > F =	0.0000	
				R-squared =	0.0413	
				Adj R-squared =	0.0403	

Total | 2010.34716 2724 .738012906 Root MSE = .8416

narr86	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
pcnv	-.1499274	.0408653	-3.669	0.000	-.2300576	-.0697973
ptime86	-.0344199	.008591	-4.007	0.000	-.0512655	-.0175744
qemp86	-.104113	.0103877	-10.023	0.000	-.1244816	-.0837445
_cons	.7117715	.0330066	21.565	0.000	.647051	.776492

predict ubar, resid

reg ubar pcnv ptime86 qemp86 avgsen tottime

Source	SS	df	MS	Number of obs = 2725	
Model	2.87904835	5	.575809669	F(5, 2719) =	0.81
Residual	1924.39392	2719	.707757969	Prob > F =	0.5398
				R-squared =	0.0015
				Adj R-squared =	-0.0003
Total	1927.27297	2724	.707515773	Root MSE =	.84128

ubar	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
pcnv	-.0012971	.040855	-0.032	0.975	-.0814072	.0788129
ptime86	-.0048386	.0089166	-0.543	0.587	-.0223226	.0126454
qemp86	.0010221	.0103972	0.098	0.922	-.0193652	.0214093
avgsen	-.0070487	.0124122	-0.568	0.570	-.031387	.0172897
tottime	.0120953	.0095768	1.263	0.207	-.0066833	.030874
_cons	-.0057108	.0331524	-0.172	0.863	-.0707173	.0592956

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