

Test of surplus instruments.

regress Res female wexp ethblack ethhisp sm sf siblings

Source	SS	df	MS
Model	2.38452516	7	.340646452
Residual	136.894637	532	.257320746
Total	139.279162	539	.258402898

Number of obs = 540
 $F(7, 532) = 1.32$
 $\text{Prob} > F = 0.2366$
 $R\text{-squared} = 0.0171$
 $\text{Adj } R\text{-squared} = 0.0042$
 $\text{Root MSE} = .50727$

Res	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
female	-.0067906	.0449329	-0.15	0.880	-.0950584	.0814771
wexp	-.0001472	.0047783	-0.03	0.975	-.0095339	.0092396
ethblack	-.0034204	.0708567	-0.05	0.962	-.1426136	.1357728
ethhisp	-.0197119	.1048323	-0.19	0.851	-.225648	.1862241
sm	-.0206955	.0110384	-1.87	0.061	-.0423797	.0009887
sf	.0215956	.0082347	2.62	0.009	.0054191	.0377721
siblings	.0178537	.0110478	1.62	0.107	-.0038489	.0395563
_cons	-.0636028	.1585944	-0.40	0.689	-.3751508	.2479452

Earnings function, USA, 2000 data set.

regress lEarnings s female wexp ethblack ethhisp,robust

Linear regression Number of obs = 540

$F(5, 534) = 50.25$

$\text{Prob} > F = 0.0000$

$R\text{-squared} = 0.3633$

$\text{Root MSE} = .50515$

lEarnings	Robust					
	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
S	.1263493	.0097476	12.96	0.000	.1072009	.1454976
female	-.3014132	.0442441	-6.81	0.000	-.3883269	-.2144994
wexp	.0327931	.0050435	6.50	0.000	.0228856	.0427005
ethblack	-.2060033	.062988	-3.27	0.001	-.3297381	-.0822686
ethhisp	-.0997888	.088881	-1.12	0.262	-.2743881	.0748105
_cons	.6843875	.1870832	3.66	0.000	.3168782	1.051897

Note: Regress is Stata's command for OLS regression. This command is followed first by the dependent variables and then the regressors. Sometimes additional options are given, such as *robust*, which computes robust standard errors – in the present case standard errors corrected for heteroscedasticity, a topic we have discussed in the chapter on heteroscedasticity.

Second stage of 2SLS of the earnings function.

regress lEarnings s_hat female wexp ethblack ethhisp

Source	SS	df	MS
Model	39.6153236	5	7.92306472
Residual	174.395062	534	.326582514
Total	214.010386	539	.397050809

Number of obs = 540
 $F(5, 534) = 24.26$
 $\text{Prob} > F = 0.0000$
 $R\text{-squared} = 0.1851$
 $\text{Adj } R\text{-squared} = 0.1775$
 $\text{Root MSE} = .57147$

s	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
S_hat	.140068	.0253488	5.53	0.000	.0902724	.1898636
female	-.2997973	.0505153	-5.93	0.000	-.3990304	-.2005642
wexp	.0347099	.0064313	5.40	0.000	.0220762	.0473437
ethblack	-.1872501	.0851267	-2.20	0.028	.3544744	-.0200258
ethhisp	-.0858509	.1146507	-0.75	0.454	-.3110726	.1393708
_cons	.4607716	.4257416	1.08	0.280	-.3755621	1.297105