

### Hausman Test on Regional Impact

. hausman fe re

Note: the rank of the differenced variance matrix (14) does not equal the number of coefficients being tested (15); be sure this is what you expect, or there may be problems computing the test. Examine the output of your estimators for anything unexpected and possibly consider scaling your variables so that the coefficients are on a similar scale.

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fe	(B) re		
age	159070.6	158745.6	325.0199	.
sqage	-1577.41	-1613.452	36.04142	.
JunHS	1417116	1468633	-51517.33	25199.09
HS	265523	2695207	-39684.17	22494.15
Asoc	4432444	4431063	1380.96	19702.8
Univ	7429709	7610890	-181181.1	42082.01
healthy2	-135115.9	945369.7	-1080486	.
healthy3	1385125	2259816	-874690.9	.
healthy4	1096982	1762673	-665691	.
healthy5	1496199	1834638	-338439.4	.
healthy6	1247140	1556554	-309414.4	.
healthy7	1282999	1709655	-426656	.
healthy8	1789978	2096630	-306652.6	.
healthy9	1.06e+07	1.10e+07	-429875.8	.
urban	224946.3	125670.2	99276.14	35933.99

b = consistent under Ho and Ha; obtained from xtreg  
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\begin{aligned} \chi^2(14) &= (b-B)'[(V_b-V_B)^{-1}](b-B) \\ &= 82.72 \\ \text{Prob}>\chi^2 &= 0.0000 \\ (V_b-V_B \text{ is not positive definite}) \end{aligned}$$

### Regional Income Estimation

Source	SS	df	MS	Number of obs =	3402
Model	1.9374e+15	12	1.6145e+14	F( 12, 3389) =	11.57
Residual	4.7271e+16	3389	1.3948e+13	Prob > F =	0.0000
				R-squared =	0.0394
				Adj R-squared =	0.0360
Total	4.9209e+16	3401	1.4469e+13	Root MSE =	3.7e+06

income	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
Bali	1026929	367535.5	2.79	0.005	306315.6	1747543
CJav	-18285.19	314166.8	-0.06	0.954	-634260.8	597690.5
EJav	1114212	306804.6	3.63	0.000	512670.8	1715753
Lampung	-182114.8	509210.9	-0.36	0.721	-1180506	816276.9
Mksr	-149645.8	362559.2	-0.41	0.680	-860502.7	561211.1
NSum	-695383	387370.9	-1.80	0.073	-1454887	64121.34
SKal	-925877	367940.1	-2.52	0.012	-1647284	-204470.1
SSum	1020383	482695.1	2.11	0.035	73980.11	1966786
WJav	-169364.2	313901.9	-0.54	0.590	-784820.4	446092.1
WNT	-680494.3	350778	-1.94	0.052	-1368252	7263.448
WSum	123740.7	429191.8	0.29	0.773	-717760.2	965241.6
Yogykt	1678051	368348	4.56	0.000	955843.9	2400257
_cons	2445628	266090.2	9.19	0.000	1923915	2967342

Cohort 1 Education Estimation in 1997 –attempt 1

Ordered logistic regression

Number of obs = 3402  
 LR chi2(6) = 1164.90  
 Prob > chi2 = 0.0000  
 Pseudo R2 = 0.1546

Log likelihood = -3184.5167

edatt	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
income	4.49e-07	1.87e-08	24.04	0.000	4.13e-07	4.86e-07
sqin	-7.93e-15	5.70e-16	-13.90	0.000	-9.05e-15	-6.81e-15
Healthy1	-2.384634	.5908122	-4.04	0.000	-3.542604	-1.226663
Healthy2	-.8237468	.0765139	-10.77	0.000	-.9737113	-.6737824
urban	.0827331	.074807	1.11	0.269	-.063886	.2293521
regional1	-.6399996	.1060294	-6.04	0.000	-.8478134	-.4321858
regional2	.0181232	.0847959	0.21	0.831	-.1480738	.1843201
/cut1	.8591982	.1027864			.6577405	1.060656
/cut2	1.825279	.1079761			1.61365	2.036908
/cut3	3.692146	.1320854			3.433264	3.951029
/cut4	4.525287	.1517988			4.227767	4.822807

Cohort 1 Education Estimation in 1997 –attempt 2

Ordered logistic regression

Number of obs = 156  
 Wald chi2(13) = .  
 Prob > chi2 = .  
 Pseudo R2 = 0.2900

Log pseudolikelihood = -108.79663

edatt	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
age	1.159983	.1804661	6.43	0.000	.8062755	1.51369
parentinc	6.71e-07	3.09e-07	2.17	0.030	6.52e-08	1.28e-06
sqparinc	-7.38e-14	3.06e-14	-2.41	0.016	-1.34e-13	-1.37e-14
health	1.03734	.5266203	1.97	0.049	.0051837	2.069497
urban	-.2473372	.4130791	-0.60	0.549	-1.056957	.5622829
regional1	-.4459107	.5199221	-0.86	0.391	-1.464939	.5731178
regional3	-1.665082	.8425676	-1.98	0.048	-3.316485	-.0136803
distE1	.0596125	.0512362	1.16	0.245	-.0408087	.1600336
distJunHS	-.0346205	.0196766	-1.76	0.078	-.0731859	.0039448
distHS	.0213132	.0327227	0.65	0.515	-.0428221	.0854485
ParJHS	1.898846	.7839809	2.42	0.015	.3622718	3.43542
ParHS	2.38632	1.0955	2.18	0.029	.2391782	4.533461
ParAsoc	-1.276416	.5868968	-2.17	0.030	-2.426712	-.1261192
ParBach	-1.403393	.5380056	-2.61	0.009	-2.457864	-.3489211
/cut1	19.30718	2.981572			13.46341	25.15096
/cut2	23.06707	3.162864			16.86797	29.26617

Variance Inflation Factor

. vif

Variable	VIF	1/VIF
parinc00	1.09	0.916376
parinc97	1.09	0.916376
Mean VIF	1.09	



Cohort 1 Health Estimation in 2007 – attempt 1

Linear regression

Number of obs = 1695  
 F( 13, 1680) = .  
 Prob > F = .  
 R-squared = 0.1500  
 Root MSE = 6.0e+06

income07	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age07	431166.5	71749.28	6.01	0.000	290439.1	571893.9
JunHS07	1484192	360086	4.12	0.000	777927.7	2190456
HS07	3081181	321614	9.58	0.000	2450375	3711987
Asoc07	1740685	507527.2	3.43	0.001	745233.2	2736138
Bach07	2818870	548517.5	5.14	0.000	1743021	3894720
Grad07	5833904	495606.2	11.77	0.000	4861833	6805974
health07	340265.3	160033.1	2.13	0.034	26380.11	654150.5
parinc97	.2743541	.155724	1.76	0.078	-.0310793	.5797875
parinc00	.036932	.1440595	0.26	0.798	-.2456229	.319487
sqparinc97	-6.27e-09	1.39e-08	-0.45	0.653	-3.36e-08	2.11e-08
sqparinc00	1.06e-08	1.13e-08	0.94	0.346	-1.15e-08	3.27e-08
urban	2153897	277863	7.75	0.000	1608903	2698891
region1	-431513.2	370226.4	-1.17	0.244	-1157667	294640.4
region3	174335.9	343963	0.51	0.612	-500305.3	848977
_cons	-9664613	2068217	-4.67	0.000	-1.37e+07	-5608060

Cohort 1 Income Estimation in 2007 – attempt 2

Linear regression

Number of obs = 2821  
 F( 12, 2807) = .  
 Prob > F = .  
 R-squared = 0.3044  
 Root MSE = 1.4e+07

income07	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age07	587135.4	96405.05	6.09	0.000	398103.4	776167.3
JunHS07	2048158	325722.9	6.29	0.000	1409477	2686838
HS07	2594914	511402.6	5.07	0.000	1592151	3597677
Asoc07	-1253875	1400823	-0.90	0.371	-4000622	1492873
Bach07	3245929	1205866	2.69	0.007	881456.4	5610401
Grad07	4058580	1063087	3.82	0.000	1974070	6143091
parinc97	1.54475	.5305341	2.91	0.004	.5044734	2.585026
parinc00	-.5149718	.2260321	-2.28	0.023	-.9581777	-.0717658
sqparinc97	-1.73e-08	7.49e-09	-2.31	0.021	-3.20e-08	-2.59e-09
sqparinc00	5.99e-08	1.85e-08	3.23	0.001	2.36e-08	9.62e-08
urban	1061369	365016.5	2.91	0.004	345641.2	1777097
region1	74510.48	525626.4	0.14	0.887	-956142.7	1105164
region3	6767.367	313953	0.02	0.983	-608834.7	622369.5
_cons	-1.15e+07	2458645	-4.70	0.000	-1.64e+07	-6728460