(i)

Equation 01

Dependent Variable: KIDS
Method: Least Squares
Sample: 1 1129
Included observations: 1129

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-7.742457	3.051767	-2.537040	0.0113
Y74	0.268183	0.172716	1.552737	0.1208
Y76	-0.097379	0.179046	-0.543881	0.5866
Y78	-0.068666	0.181684	-0.377945	0.7055
Y80	-0.071305	0.182771	-0.390136	0.6965
Y82	-0.522484	0.172436	-3.030016	0.0025
Y84	-0.545166	0.174516	-3.123871	0.0018
BLACK	1.075658	0.173536	6.198484	0.0000
EAST	0.217324	0.132788	1.636626	0.1020
NORTHCEN	0.363114	0.120897	3.003501	0.0027
WEST	0.197603	0.166913	1.183867	0.2367
FARM	-0.052557	0.147190	-0.357072	0.7211
OTHRURAL	-0.162854	0.175442	-0.928248	0.3535
TOWN	0.084353	0.124531	0.677367	0.4983
SMCITY	0.211879	0.160296	1.321799	0.1865
EDUC	-0.128427	0.018349	-6.999272	0.0000
AGE	0.532135	0.138386	3.845283	0.0001
AGESQ	-0.005804	0.001564	-3.710324	0.0002

R-squared	0.129512	Mean dependent var	2.743136
Adjusted R-squared	0.116192	S.D. dependent var	1.653899
S.E. of regression	1.554847	Akaike info criterion	3.736447
Sum squared resid	2685.898	Schwarz criterion	3.816627
Log likelihood	-2091.224	Hannan-Quinn criter.	3.766741
F-statistic	9.723282	Durbin-Watson stat	2.010694
Prob(F-statistic)	0.000000		

Equation 02

Dependent Variable: KIDS
Method: Least Squares
Sample: 1 1129
Included observations: 1129

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	−7.952280	3.050039	−2.607271	0.0092
Y74	0.256079	0.172650	1.483230	0.1383
Y76	−0.106302	0.178570	−0.595296	0.5518
Y78	−0.070498	0.181359	−0.388721	0.6976
Y80	−0.078547	0.182615	−0.430124	0.6672
Y82	−0.532546	0.172305	−3.090720	0.0020
Y84	−0.542258	0.174363	−3.109940	0.0019
BLACK	1.090949	0.173109	6.302113	0.0000
EAST	0.252900	0.126854	1.993627	0.0464
NORTHCEN	0.385235	0.118527	3.250175	0.0012
WEST	0.232571	0.165322	1.406776	0.1598
EDUC	−0.122686	0.018027	−6.805605	0.0000
AGE	0.539043	0.138368	3.895711	0.0001
AGESQ	−0.005883	0.001564	−3.761666	0.0002

R-squared	0.125880	Mean dependent var	2.743136
Adjusted R-squared	0.115689	S.D. dependent var	1.653899
S.E. of regression	1.555290	Akaike info criterion	3.733524
Sum squared resid	2697.104	Schwarz criterion	3.795887
Log likelihood	−2093.574	Hannan-Quinn criter.	3.757086
F-statistic	12.35148	Durbin-Watson stat	2.016968
Prob(F-statistic)	0.000000		

Wald Test:
Equation: EQ01

Test Statistic	Value	df	Probability
F-statistic	1.158765	(4, 1111)	0.3275
Chi-square	4.635061	4	0.3268

Null Hypothesis: C(12)=C(13)=C(14)=C(15)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(12)	−0.052557	0.147190
C(13)	−0.162854	0.175442
C(14)	0.084353	0.124531
C(15)	0.211879	0.160296

Restrictions are linear in coefficients.

(ii)

Equation 03

Dependent Variable: KIDS
Method: Least Squares
Sample: 1 1129
Included observations: 1129

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	−7.346114	3.053186	−2.406048	0.0163
Y74	0.287778	0.172672	1.666618	0.0959
Y76	−0.085841	0.179178	−0.479083	0.6320
Y78	−0.051479	0.181865	−0.283061	0.7772
Y80	−0.048582	0.181928	−0.267040	0.7895
Y82	−0.524119	0.172363	−3.040784	0.0024
Y84	−0.532922	0.174568	−3.052802	0.0023
BLACK	0.973605	0.169515	5.743482	0.0000
FARM	−0.139376	0.141300	−0.986385	0.3242
OTHRURAL	−0.223130	0.174176	−1.281058	0.2004
TOWN	0.046397	0.123707	0.375055	0.7077
SMCITY	0.196120	0.160080	1.225138	0.2208
EDUC	−0.124467	0.018341	−6.786240	0.0000
AGE	0.521319	0.138536	3.763050	0.0002
AGESQ	−0.005674	0.001566	−3.623096	0.0003

R-squared	0.122433	Mean dependent var	2.743136
Adjusted R-squared	0.111404	S.D. dependent var	1.653899
S.E. of regression	1.559053	Akaike info criterion	3.739232
Sum squared resid	2707.741	Schwarz criterion	3.806049
Log likelihood	−2095.796	Hannan-Quinn criter.	3.764477
F-statistic	11.10135	Durbin-Watson stat	2.010152
Prob(F-statistic)	0.000000		

Wald Test:
Equation: EQ01

Test Statistic	Value	df	Probability
F-statistic	3.011656	(3, 1111)	0.0293
Chi-square	9.034968	3	0.0288

Null Hypothesis: C(9)=C(10)=C(11)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(9)	0.217324	0.132788
C(10)	0.363114	0.120897
C(11)	0.197603	0.166913

Restrictions are linear in coefficients.

(iii)

Equation 04

Dependent Variable: RES2
Method: Least Squares
Sample: 1 1129
Included observations: 1129

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.287325	0.262733	12.51204	0.0000
Y74	−1.072178	0.362318	−2.959219	0.0031
Y76	−0.769816	0.373997	−2.058349	0.0398
Y78	−0.955906	0.379911	−2.516129	0.0120
Y80	−1.211021	0.380609	−3.181801	0.0015
Y82	−0.922060	0.356263	−2.588142	0.0098
Y84	−1.371924	0.360371	−3.806974	0.0001

R-squared	0.015296	Mean dependent var	2.379007
Adjusted R-squared	0.010030	S.D. dependent var	3.298116
S.E. of regression	3.281534	Akaike info criterion	5.220680
Sum squared resid	12082.22	Schwarz criterion	5.251861
Log likelihood	−2940.074	Hannan-Quinn criter.	5.232461
F-statistic	2.904782	Durbin-Watson stat	2.014482
Prob(F-statistic)	0.008159		

Wald Test:
Equation: EQ04

Test Statistic	Value	df	Probability
F-statistic	2.904782	(6, 1122)	0.0082
Chi-square	17.42869	6	0.0078

Null Hypothesis: C(2)=C(3)=C(4)=C(5)=C(6)=C(7)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(2)	−1.072178	0.362318
C(3)	−0.769816	0.373997
C(4)	−0.955906	0.379911
C(5)	−1.211021	0.380609
C(6)	−0.922060	0.356263
C(7)	−1.371924	0.360371

Restrictions are linear in coefficients.

(iv)

Equation 05

Dependent Variable: KIDS
Method: Least Squares
Sample: 1 1129
Included observations: 1129

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	−8.477302	3.126360	−2.711556	0.0068
Y74	0.946915	0.904159	1.047288	0.2952
Y76	1.019963	0.882034	1.156376	0.2478
Y78	1.805985	0.951866	1.897311	0.0580
Y80	1.114183	0.897601	1.241290	0.2148
Y82	1.199807	0.876289	1.369191	0.1712
Y84	1.671261	0.899050	1.858918	0.0633
BLACK	1.074055	0.173701	6.183354	0.0000
EAST	0.206056	0.133143	1.547629	0.1220
NORTHCEN	0.348287	0.121099	2.876056	0.0041
WEST	0.177122	0.167452	1.057747	0.2904
FARM	−0.072162	0.147508	−0.489209	0.6248
OTHRURAL	−0.191154	0.175934	−1.086509	0.2775
TOWN	0.088229	0.124536	0.708468	0.4788
SMCITY	0.205358	0.160210	1.281799	0.2002
EDUC	−0.022515	0.053618	−0.419917	0.6746
AGE	0.507466	0.138922	3.652896	0.0003
AGESQ	−0.005525	0.001570	−3.519071	0.0005
Y74EDUC	−0.056425	0.072561	−0.777623	0.4370
Y76EDUC	−0.092100	0.070875	−1.299471	0.1941
Y78EDUC	−0.152387	0.075282	−2.024223	0.0432
Y80EDUC	−0.097905	0.070452	−1.389662	0.1649
Y82EDUC	−0.138945	0.068371	−2.032210	0.0424
Y84EDUC	−0.176097	0.069915	−2.518732	0.0119

R-squared	0.136468	Mean dependent var	2.743136
Adjusted R-squared	0.118494	S.D. dependent var	1.653899
S.E. of regression	1.552821	Akaike info criterion	3.739052
Sum squared resid	2664.435	Schwarz criterion	3.845959
Log likelihood	−2086.695	Hannan-Quinn criter.	3.779444
F-statistic	7.592560	Durbin-Watson stat	2.012728
Prob(F-statistic)	0.000000		

Wald Test:
Equation: EQ05

Test Statistic	Value	df	Probability
F-statistic	1.483569	(6, 1105)	0.1803
Chi-square	8.901416	6	0.1792

Null Hypothesis: C(19)=C(20)=C(21)=C(22)=C(23)=C(24)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(19)	-0.056425	0.072561
C(20)	-0.092100	0.070875
C(21)	-0.152387	0.075282
C(22)	-0.097905	0.070452
C(23)	-0.138945	0.068371
C(24)	-0.176097	0.069915

Restrictions are linear in coefficients.