An Economtric Analysis on The Causes of Employment and Unemployment in Korea

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Ⅰ. Introduction

It is a widely known fact that there are two different analytical tools for finding out the determining factors of the employed and unemployed, namely, cross tabulation method and econometric analysis.

Among the three econometric approaches, Linear Probability Model, Logit Model and Probit Model, this study adopted Linear Probability Model due to computer package availability and its simplicity. This study used the 1985 Population and Housing Census of Korea as the cross sectional data.

Ⅱ. Theoretical Background

In the case of dummy variable regression, we generally assume that dependent variable Y is quantitative whereas the independent variables are either quantitative or qualitative or a mixture thereof. Here in this study we are dealing with the regression models in which the dependent variable itself can be dichotomous in nature, taking a 1 or 0 value.

Supposing that labor force participation of adult males is a function of unemployment rate, average wage rate, family income, education, etc. Now a person is either in the labor force or not. Therefore, the dependent variable, labor force participation, can take only two values : 1 if the person is in the labor force and 0 if he or she is not in the labor force.

Let us take another example. Suppose we want to study the union membership status of college professors as a function of several quantitative and qualitative variables. Then, a col-

lege professor either belongs to a union or does not. Hence, the dependent variable, union membership status, is a dummy variable taking on values of 0 or 1, 0 implying no union membership and 1 implying union membership.

A typical feature of the above examples is that the dependent variale is of the type that elicits a yes or no respones; that is, it is dichotomous in nature. How can we handle models involving dichotomous response variables? To give an answer to these and related matters we could think of three commonly exploited approaches to estimating such models : namely, ① the Linear Probability Model(LPM), ② the Logit Model, ③ the Probit Model.

For the practical purpose, among the three different models, here we consider only the Linear Probability Model, since it is simple and easy to handle.

In order to understand the basic charcter-istcis of the Linear Probability Model, let us take a look at the simple example :

$$Y_i = \beta_1 + \beta_2 X_1 + U_i$$

Where X = family income

Y = 1 if the family owns a house

= 0 if the family does not own a house

The models which express the dichotomous Y_i as the linear function of the independent variables X_i, are called linear probability models (LPM) since $E(Y_1 \mid X_i)$, the conditional expectation of Y_1 given X_i, can be regarded as the conditional probability that the event will occur given X_i : that is, $Pr(Y_i = 1 \mid X_i)$.

Thus, in the above example, $E(Y_1 \mid X_i)$ gives the probability of a family owning a house whose income is the given amount X_i.

Ⅲ. Model Building and Specification

In accordance with the theoretical background, we decided to adopt the LPM for our regression analysis. Thus, in the case of the employed, the value of 1 is given while the value of 0 is given in the case of the unemployed. That is, dummy variable(1,0) is adopted as the dependent variable for this study. On the other hand, age, educational attainment, marital status, number of children, and ownership of dwellings are exploited as the explanatory variables, determining the dichotomous variable, namely, employment status(employed, unemployed). In the case of independent variables, quantitative variable as well as qualitative variables were used. As the quantitative variables, age and number of children variables were used whereas educational attainment, ownership of dwellings and marital status variables took the qualitative variables(dummy variables).

In order to find out more detailed regression results, similar methods were used for ① urban and rural areas ② 13 different provinces and special municipal cities ③ 6 different educational attainment categories ④ male and female ⑤ stepwise analysis.

Ⅳ. Interpretation of the Regression Results

Approximately over one million sample was used for the regression analysis, and therefore the R^2 value(0.4390) can be regarded as satisfactory considering the size of the observations. And also the F value(102,210) is significantly high, thereby guaranteeing the justification of the specification itself.

More than anything else, the coefficient values of the explanatory variables are extremely high, showing remarkably high statistical confidence.

The probability of the person who is married, owning a house, 40 year old, college graduate with two children can be calculated as follows :

0.6247(INTERCEPT) + 40 × (−0.0124)(AGE) + 0.1325(DUMED3) + 0.3821(DUMMAR) + (−0.0158)(NUMCHD) + 0.6144(HOUOWND)

$$= 0.9611$$

Distinct regressional results could be summarized as follows;

(i) the coefficient value of the intercept, marital status and ownership of dwellings are extraordinarily high while the sign of age as well as educational attainment variable is "−", to our surprise. The latter result could be attributable to the fact that the workers who belong to 20-29 age category are likely to be unemployed because of their high expectation to go on their studies and that in recent times, workers with the high educational attainment are having difficult times for finding jobs on account of excess supply situation.

(ii) The marital status and house ownership variables seem to have most significant effect for the determination of employment status. This can be explained as follows; Normally those who are married are expected to do their best to find jobs and those who try their best for finding jobs are likely to earn enough money to buy houses.

(iii) The absolute values of educational attainment are decreasing in spite of their "−",

signs, thereby proving the ever increasing probability for finding jobs of those with high educational attainments.

(iv) The "−" sign of the age variable could be attributable to the fact that in the case of the 50-59 age bracket the probability of being employed could be gradually decreased due to productivity decline.

(v) The independent variable, the number of children(NUMCHD) seems to have insignificant effect for the determination of employment status.

(vi) In the case of urban area, the probability of being employed is relatively high compared with that of the rural area.

And the probability of being employed of the male population is clearly high compared with that of the female population.

This can be explained by pointing out the phenomena that unequal treatment is widely practiced still in Korea and the fact that the probability of having an opportunity to take part in on the job training is extremely low in the case of female workers.

V. Limitations of the Study and Suggestions for further Research

This study is the first attempt to use Linear Probability Model for finding out determining factors of the employed and unemployed in Korea. In spite of the satisfactory regression results, it would be far more useful if we could experiment the model using Logit Model as well as Probit Model. And if the capacity of the computer could be extended and other computer package could be exploited, better regression results could be obtained.

Table 1. Regression Result for the Whole Country, Rural and Urban Area

Variable	Whole Country	Rural Area	Urban Area
INTERCEPT	0.6247(530.5)	0.5622(318.5)	0.6366(406.5)
AGE	−0.0124(−438.6)	−0.0133(−372.6)	−0.0117(−288.6)
DUMBER1	−0.1828(−187.9)	−0.1990(−146.0)	−0.1656(−124.6)
DUMBER2	−0.1548(−151.3)	−0.1721(−104.8)	−0.1384(−102.4)
DUMBER3	−0.1119(−41.9)	−0.0724(−16.1)	−0.1130(−33.9)
DUMBER4	−0.1325(−87.4)	−0.0651(−18.9)	−0.1327(−71.3)
DUMMAR	0.3821(362.7)	0.4459(276.5)	0.3649(265.0)
NUMCHD	−0.0158(−55.6)	−0.0088(−26.3)	−0.0270(−61.9)
HOUOWND	0.6144(641.0)	0.6740(543.3)	0.5663(395.5)
F VALUE	102210.525	635150.501	50042.076
R-SQUARE	0.4390	0.5812	0.3703

Note : figures in the parenthesis are t values.

Table 2. Regression Results by Provinces and Special Municipal Cities

Variable	Seoul	Pusan	Taegu	Incheon
INTERCEPT	0.6687(256.6)	0.6453(146.7)	0.6150(107.1)	0.7006(101.8)
AGE	−0.0111(−161.3)	−0.0116(−101.0)	−0.0122(−83.0)	−0.0129(−72.9)
DUMED1	−0.1761(−76.3)	−0.1465(−40.9)	−0.1386(−29.4)	−0.1651(−29.0)
DUMED2	−0.1542(−67.2)	−0.1239(−32.8)	−0.1264(−25.2)	−0.1478(−25.8)
DUMED3	−0.1235(−21.5)	−0.1156(−12.4)	−0.1088(−9.1)	−0.1267(−8.7)
DUMED4	−0.1517(−52.7)	−0.1342(−23.3)	−0.1598(−23.4)	−0.1404(−15.5)
DUMMAR	0.3299(−145.8)	0.3563(91.9)	0.3877(77.0)	0.3046(50.4)
NUMCHD	−0.0311(−40.6)	−0.0278(−22.4)	−0.0218(−13.8)	−0.0230(−11.8)
HOUOWND	0.5721(236.8)	0.5347(313.3)	0.5510(102.2)	0.5871(99.5)
F VALUE	17184.247	5870.095	3787.411	2740.373
R-SQUARE	0.3543	0.3393	0.3673	0.3830

Note : figures in the parenthesis are t values.

Variable	Kyunggi	Kangwon	Chunbuk	Chungnam
INTERCEPT	0.6783(191.0)	0.5266(96.6)	0.5620(96.9)	0.5617(141.3)
AGE	−0.0124(−144.8)	−0.0131(−109.0)	−0.0131(−107.2)	−0.0132(−148.4)
DUMED1	−0.1765(−60.8)	−0.1743(−40.1)	−0.1978(−42.7)	−0.1961(−61.1)
DUMED2	−0.1592(−53.6)	−0.1282(−25.9)	−0.1565(−29.8)	−0.1668(−45.9)
DUMED3	−0.1127(−13.9)	−0.0191(−1.4)	−0.1146(−8.0)	−0.1223(−13.3)
DUMED4	−0.1164(−23.2)	−0.0578(−6.5)	−0.1216(−13.5)	−0.1166(−19.7)
DUMMAR	0.3198(101.0)	0.4745(94.4)	0.4450(84.2)	0.4488(124.4)
NUMCHD	−0.0224(−25.0)	−0.0189(−16.1)	−0.0133(−11.2)	−0.0117(−13.9)
HOUOWND	0.6125(214.2)	0.6550(155.2)	0.6667(157.4)	0.6602(223.2)
F VALUE	10720.205	5628.778	5583.509	11836.839
R-SQUARE	0.4134	0.5006	0.5515	0.5510

Note : figures in the parenthesis are t values.

Variable	Chunbuk	Chunnam	Kyungbuk	Kyungnam	Cheju
INTERCEPT	0.5465(121.8)	0.5373(156.1)	0.5651(138.0)	0.6015(149.3)	0.5386(52.4)
AGE	−0.0134(−137.0)	−0.0128(−169.0)	−0.0130(−156.9)	−0.0128(−141.4)	−0.0112(−50.7)
DUMED1	−0.1979(−55.7)	−0.1960(−72.4)	−0.1932(−60.7)	−0.1953(−62.4)	−0.1730(−20.6)
DUMED2	−0.1657(−40.3)	−0.1676(− 53.0)	−0.1544(−42.2)	−0.1407(−41.4)	−0.1279(−14.4)
DUMED3	−0.1098(−11.0)	−0.0664(− 8.4)	−0.0679(−7.6)	−0.0885(−9.4)	−0.0676(−3.3)
DUMED4	−0.1250(−18.7)	−0.0793(− 15.0)	−0.0542(−7.6)	−0.0735(−12.2)	−0.1201(−8.0)
DUMMAR	0.4744(116.1)	0.4773(152.5)	0.4436(119.2)	0.4110(113.6)	0.4774(51.7)
NUMCHD	−0.0059(−6.7)	−0.0076(−10.9)	−0.0092(−11.5)	−0.0123(−13.8)	−0.0104(−4.6)
HOUOWND	0.6507(194.1)	0.6385(242.6)	0.6492(223.2)	0.6288(205.2)	0.5721(71.1)
F VALUE	0639.051	15613.013	11131.263	9848.329	1416.252
R-SQUARE	0.5709	0.5605	0.5371	0.4677	0.4708

Note : figures in the parenthesis are t values.

Table 3. Regression Results by Age Category

Variable	Age 14−19	Age 20−29	Age 30−39
INTERCEPT	0.3151(81.2)	0.3800(119.1)	0.4836(86.4)
DUMED1	−0.2015(−50.6)	0.0091(2.7)	−0.0039(−1.3)
DUMED2	−0.2672(−67.8)	0.0244(7.7)	0.0505(17.2)
DUMED3	−0.3053(−48.5)	−0.0791(−16.3)	0.1078(15.6)
DUMED4	−0.3137(−65.4)	−0.1780(−47.5)	0.0826(21.1)
DUMMAR	−0.1078(−58.5)	0.0146(6.1)	0.0518(9.5)
NUMCHD	−0.0238(−5.9)	−0.0554(−42.8)	−0.0470(−50.9)
HOUOWND	0.8691(290.0)	0.6300(278.6)	0.4981(213.1)
F VALUE	14980.0015	13221.550	7314.006
R-SQUARE	0.4402	0.3171	0.2542

Note : figures in the parenthesis are t values.

Variable	Age 40−49	Age 50−59	Age 60+
INTERCEPT	0.3993(27.9)	0.2549(9.0)	0.1527(3.8)
DUMED1	0.0131(4.5)	0.0250(6.1)	−0.0370(−6.2)
DUMED2	0.0535(18.0)	0.0523(12.4)	−0.0270(−3.7)
DUMED3	0.0886(8.6)	0.0894(6.7)	−0.0063(−0.4)
DUMED4	0.0835(21.0)	0.1166(20.6)	0.0388(3.8)
DUMMAR	0.0349(2.4)	−0.0388(−1.4)	−0.1500(−3.8)
NUMCHD	−0.0144(−21.8)	0.0070(11.5)	0.0138(26.8)
HOUOWND	0.5361(236.5)	0.6145(224.3)	0.5898(222.5)
F VALUE	8344.292	7505.693	7414.402
R-SQUARE	0.3381	0.4001	0.4151

Note : figures in the parenthesis are t values.

Table 4. Regression Results by Educational Attainment Category

Variable	Elementary School	Junior High School	Senior High School
INTERCEPT	0.8281(289.1)	0.3532(118.1)	0.0347(12.5)
AGE	−0.0161(−370.7)	−0.0033(−28.6)	0.0093(70.3)
DUMMAR	0.2722(97.0)	0.2153(83.6)	0.1477(59.5)
NUMCHD	−0.0105(−27.2)	−0.0344(−36.4)	−0.0551(−61.4)
HOUOWND	0.5967(398.7)	0.5900(213.0)	0.5680(270.0)
F VALUE	72142.327	12574.592	31177.863
R-SQUARE	0.5006	0.1949	0.3357

Note : figures in the parenthesis are t values.

Variable	Junior College	College or Unversity	No Education
INTERCEPT	0.2390(24.3)	0.0870(17.6)	0.6763(79.3)
AGE	−0.0014(−3.3)	0.0019(9.1)	−0.0150(−421.3)
DUMMAR	0.3339(43.4)	0.4018(99.8)	0.3830(44.9)
NUMCHD	−0.0291(−9.8)	−0.0317(−22.6)	0.0047(12.5)
HOUOWND	0.5672(87.7)	0.4903(151.8)	0.6156(331.2)
F VALUE	3191.608	17454.813	68164.267
R-SQUARE	0.3884	0.4877	0.7101

Note : figures in the parenthesis are t values.

Table 5. Regression Results by Sex

Variable	Male	Female
INTERCEPT	0.4927(341.2)	0.8414(517.0)
AGE	−0.0083(−213.2)	−0.0143(−413.2)
DUMED1	−0.0878(−67.1)	−0.3012(−247.9)
DUMED2	−0.0353(−26.9)	−0.3678(−270.3)
DUMED3	−0.0327(−10.5)	−0.3190(−81.6)
DUMED4	−0.0620(−35.6)	−0.3844(−160.4)
DUMMAR	0.5334(415.0)	0.1543(105.8)
NUMCHD	0.0144(37.4)	−0.0165(−46.8)
HOUOWND	0.3217(251.0)	0.6995(528.0)
F VALUE	45176.198	86213.998
R-SQUARE	0.4122	0.5658

Note : figures in the parenthesis are t values.

Table 6. Stepwise Regression Results

Variable	1st Step	2nd Step	3rd Step	4th Step	5th Step
INTERCEPT	0.7855(968.4)	0.9352(1056.3)	0.9457(1056.9)	0.6328(455.2)	0.7023(552.6)
AGE	−0.0061(−249.5)	−0.0058(−252.4)	−0.0076(−227.2)	−0.0077(−239.0)	−0.0104(−326.0)
DUMED1		−0.2747(−235.4)	−0.2664(−227.5)	−0.2040(−177.7)	−0.2054(−187.5)
DUMED2		−0.3346(−303.9)	−0.3197(−286.1)	−0.1626(−134.7)	−0.1816(−157.5)
DUMED3		−0.2636(−81.9)	−0.2434(−75.6)	−0.0781(−24.8)	−0.1090(−36.2)
DUMED4		−0.2491(−140.5)	−0.2302(−128.8)	−0.0911(−51.0)	−0.1506(−87.8)
NUMCHD			0.0245(72.6)	0.0034(10.1)	−0.0005(−1.7)
DUMMAR				0.3564(286.8)	0.3086(258.3)
HOUOWND					0.4262(320.8)
F VALUE	62267.197	37624.372	32390.642	41703.210	52953.732
R-SQUARE	0.0562	0.1526	0.1568	0.2184	0.2885

Note : figures in the parenthesis are t values.

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Appendix(Regression Results)

ANALYSIS OF VARIANCE(Whole Country)

SOURCE	DF	SUM DF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	108168.21	13521.02638	102210.525	0.0001
ERROR	104E4	138204.79	0.13228605		
C TOTAL	104E4	246373.00			

ROOT	MSE	0.3637115	R-SQUARE	0.4390	
DEP	MEAN	0.6190805	ADJ R-SQ	0.4390	
C.V.		58.75027			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB>	1	
INTERCEP	1	0.62469143	0.001177630	530.465	0.0001
AGE	1	−0.01239977	0.000028269	−438.640	0.0001
DUMED1	1	−0.18281895	0.000973086	−187.876	0.0001
DUMED2	1	−0.15475114	0.001022762	−151.307	0.0001
DUMED3	1	−0.11190452	0.002671972	−41.881	0.0001
DUMED4	1	−0.13246083	0.001515599	−87.398	0.0001
DUMMAR	1	0.38206015	0.001053426	362.683	0.0001
NUMCHD	1	−0.01580586	0.000284204	−55.615	0.0001
HOUOWND	1	0.61440066	0.000958437	614.044	0.0001

ANALYSIS OF VARIANCE(Rural Area)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	45339.83821	5667.47978	63150.501	0.0001
ERROR	364E3	32673.77145	0.08974560		
C TOTAL	364E3	78013.60966			

ROOT	MSE	0.2995757	R-SQUARE	0.5812	
DEP	MEAN	0.6890079	ADJ R-SQ	0.5812	
C.V.		43.47928			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB>	1	
INTERCEP	1	0.56215180	0.001765275	318.450	0.0001
AGE	1	−0.01334579	0.000035814	−372.644	0.0001
DUMED1	1	−0.19902763	0.001362849	−146.038	0.0001
DUMED2	1	−0.17208318	0.001641542	−104.830	0.0001
DUMED3	1	−0.07244095	0.004493965	−16.120	0.0001
DUMED4	1	−0.06507427	0.003434724	−18.946	0.0001
DUMMAR	1	0.44594107	0.001612523	276.549	0.0001
NUMCHD	1	−0.008784224	0.000333823	−26.314	0.0001
HOUOWND	1	0.67398396	0.001240473	543.328	0.0001

ANALYSIS OF VARIANCE(Urban Area)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	61338.18307	7667.27288	50042.076	0.0001
ERROR	681E3	104288.67	0.15321652		
C TOTAL	681E3	165626.85			

ROOT	MSE	0.3914288	R-SQUARE	0.3703	
DEP	MEAN	0.5816775	ADJ R-SQ	0.3703	
C.V.		67.2931			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER WSTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.63657301	0.001566023	406.490	0.0001
AGE	1	−0.01172122	0.000040615	−288.592	0.0001
DUMED1	1	−0.16550166	0.001328653	−124.639	0.0001
DUMED2	1	−0.13841158	0.001351301	−102.428	0.0001
DUMED3	1	−0.11297525	0.003334421	−33.882	0.0001
DUMED4	1	−0.13266913	0.001861244	−71.280	0.0001
DUMMAR	1	0.36493628	0.001377085	265.006	0.0001
NUMCHD	1	−0.02700970	0.000436571	−61.868	0.0001
HOUOWND	1	0.56630277	0.001431996	395.464	0.0001

ANALYSIS OF VARIANCE(Seoul)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	21715.77683	2714.47210	17184.247	0.0001
ERROR	251E3	39671.26487	0.15796282		
C TOTAL	251E3	61287.04170			

ROOT	MSE	0.3974454	R-SQUARE	0.3543	
DEP	MEAN	0.57321	ADJ R-SQ	0.3543	
C.V.		69.33678			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.66871501	0.002606510	256.556	0.0001
AGE	1	−0.01112519	0.000068985	−161.269	0.0001
DUMED1	1	−0.17613822	0.002307031	−76.348	0.0001
DUMED2	1	−0.15423780	0.002295798	−67.183	0.0001
DUMED3	1	−0.12353775	0.005742549	−21.513	0.0001
DUMED4	1	−0.15167145	0.002878971	−52.683	0.0001
DUMMAR	1	0.32987261	0.002261873	145.840	0.0001
NUMCHD	1	−0.03112510	0.000766736	−40.594	0.0001
HOUOWND	1	0.57211498	0.002416444	236.759	0.0001

ANALYSIS OF VARIANCE(Busan)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	7519.26375	939.90797	5870.095	0.0001
ERROR	91464	14645.03426	0.16011802		
C TOTAL	91472	22164.29801			

ROOT MSE		0.4001475	R-SQUARE	0.3393	
DEP MEAN		0.5877253	ADJ R-SQ	0.3392	
C.V.		68.0841			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.64534654	0.004399947	146.671	0.0001
AGE	1	−0.01160381	0.000114861	−101.025	0.0001
DUMED1	1	−0.14647833	0.003585014	−40.859	0.0001
DUMED2	1	−0.12389484	0.003776491	−32.807	0.0001
DUMED3	1	−0.11558577	0.009326554	−12.393	0.0001
DUMED4	1	−0.13417176	0.005751088	−23.330	0.0001
DUMMAR	1	0.35626868	0.003874697	91.947	0.0001
NUMCHD	1	−0.02783616	0.001244631	−22.365	0.0001
HOUOWND	1	0.53466189	0.004070783	131.341	0.0001

ANALYSIS OF VARIANCE(Taegu)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	4725.02801	590.62850	3787.411	0.0001
ERROR	52187	8138.31085	0.15594517		
C TOTAL	52195	12863.33886			

ROOT MSE		0.3948989	R-SQUARE	0.3673	
DEP MEAN		0.5596406	ADJ R-SQ	0.3672	
C.V.		70.56296			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.61500186	0.005741991	107.106	0.0001
AGE	1	−0.01219774	0.000146900	−83.034	0.0001
DUMED1	1	−0.13855243	0.004717477	−29.370	0.0001
DUMED2	1	−0.12642318	0.005024016	−25.164	0.0001
DUMED3	1	−0.10880486	0.01198521	−9.078	0.0001
DUMED4	1	−0.15975642	0.006813019	−23.449	0.0001
DUMMAR	1	0.38766063	0.005033385	77.018	0.0001
NUMCHD	1	−0.02178157	0.001580559	−13.781	0.0001
HOUOWND	1	0.55103584	0.005390623	102.221	0.0001

ANALYSIS OF VARIANCE(Incheon)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	3256.94370	407.11796	2740.373	0.0001
ERROR	35321	5247.39256	0.14856297		
C TOTAL	35329	8504.33626			

ROOT MSE		0.3854387	R-SQUARE	0.3830	
DEP MEAN		0.596377	ADJ R-SQ	0.3828	
C.V.		64.63003			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> |1|
INTERCEP	1	0.70057780	0.006881830	101.801	0.0001
AGE	1	−0.01289493	0.000177137	−72.797	0.0001
DUMED1	1	−0.16510589	0.005689960	−29.017	0.0001
DUMED2	1	−0.14783806	0.005725087	−25.823	0.0001
DUMED3	1	−0.12668543	0.01455271	−8.705	0.0001
DUMED4	1	−0.14037882	0.009038443	−15.531	0.0001
DUMMAR	1	0.30461402	0.006047345	50.372	0.0001
NUMCHD	1	−0.02295578	0.001951486	−11.763	0.0001
HOUOWND	1	0.58706330	0.005902118	99.467	0.0001

ANALYSIS OF VARIANCE(Kyunggi Province)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	11830.47938	1478.80992	10720.205	0.0001
ERROR	122E3	16784.03340	0.13794605		
C TOTAL	122E3	28614.51279			

ROOT MSE		0.3714109	R-SQUARE	0.4134	
DEP MEAN		0.6218113	ADJ R-SQ	0.4134	
C.V.		59.73048			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> |1|
INTERCEP	1	0.67825802	0.003551221	190993	0.0001
AGE	1	−0.01237923	0.000085470	−144.837	0.0001
DUMED1	1	−0.17652142	0.002901049	−60.847	0.0001
DUMED2	1	−0.15915385	0.00296898	−53.611	0.0001
DUMED3	1	−0.11271915	0.008101528	−13.913	0.0001
DUMED4	1	−0.11639286	0.005018932	−23.191	0.0001
DUMMAR	1	0.31984034	0.003165341	101.045	0.0001
NUMCHD	1	−0.02238787	0.000896092	−24.984	0.0001
HOUOWND	1	0.61249823	0.002860021	214.159	0.0001

ANALYSIS OF VARIANCE(Kangwon Province)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	5271.89728	658.98716	5628.778	0.0001
ERROR	44920	5258.99319	0.11707465		
C TOTAL	44928	10530.89047			

ROOT MSE	0.3421617	R-SQUARE	0.5006
DEP MEAN	0.6249416	ADJ R-SQ	0.5005
C.V.	54.75099		

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.52658077	0.005453565	96.557	0.0001
AGE	1	−0.01308044	0.000119982	−109.020	0.0001
DUMED1	1	−0.17429234	0.004344846	−40.116	0.0001
DUMED2	1	−0.12820575	0.004951120	−25.894	0.0001
DUMED3	1	−0.01914425	0.01334972	−1.434	0.1516
DUMED4	1	−0.05781765	0.008956393	−6.455	0.0001
DUMMAR	1	0.47449658	0.005010826	94.694	0.0001
NUMCHD	1	−0.01892527	0.001178316	−16.061	0.0001
HOUOWND	1	0.65498859	0.004220891	155.178	0.0001

ANALYSIS OF VARIANCE(Chungbuk Province)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	4554.50156	569.31270	5583.509	0.0001
ERROR	36331	3704.42686	0.10196325		
C TOTAL	36339	8258.92843			

ROOT MSE	0.3193169	R-SQUARE	0.5515
DEP MEAN	0.6507705	ADJ R-SQ	0.5514
C.V.	49.06751		

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.56198568	0.005797155	96.942	0.0001
AGE	1	−0.01310645	0.00012230	−107.228	0.0001
DUMED1	1	−0.19783374	0.004634046	−42.691	0.0001
DUMED2	1	−0.15652892	0.005260029	−29.758	0.0001
DUMED3	1	−0.11461789	0.01437994	−7.971	0.0001
DUMED4	1	−0.12159925	0.008977671	−13.545	0.0001
DUMMAR	1	0.44498290	0.005284007	84.213	0.0001
NUMCHD	1	−0.01331807	0.001185450	−11.235	0.0001
HOUOWND	1	0.66666244	0.004235258	157.408	0.0001

ANALYSIS OF VARIANCE(Chungnam Province)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	9805.00813	1225.62602	11836.839	0.0001
ERROR	77164	7989.81933	0.10354335		
C TOTAL	77172	17794.82747			

ROOT MSE		0.3217815	R-SQUARE	0.5510	
DEP MEAN		0.6393428	ADJ R-SQ	0.5510	
C.V.		50.33005			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.56166413	0.003974673	141.311	0.0001
AGE	1	−0.01320121	0.000088975	−148.370	0.0001
DUMED1	1	−0.19605962	0.003207877	−61.118	0.0001
DUMED2	1	−0.16681594	0.003635889	−45.380	0.0001
DUMED3	1	−0.12231146	0.009798192	−13.297	0.0001
DUMED4	1	−0.11656796	0.003607409	−19.702	0.0001
DUMMAR	1	0.44876190	0.003607409	124.400	0.0001
NUMCHD	1	−0.01174463	0.000843737	−13.920	0.0001
HOUOWND	1	0.66019307	0.002957851	223.200	0.0001

ANALYSIS OF VARIANCE(Chunbuk Province)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	7452.65882	931.58235	9639.051	0.0001
ERROR	57968	5602.41547	0.09664669		
C TOTAL	57976	13055.07429			

ROOT MSE		0.3108805	R-SQUARE	0.5709	
DEP MEAN		0.6575539	ADJ R-SQ	0.5708	
C.V.		47.27833			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.54650947	0.004488435	121.759	0.0001
AGE	1	−0.01335556	0.000097504	−136.975	0.0001
DUMED1	1	−0.19794709	0.003555049	−55.681	0.0001
DUMED2	1	−0.16566912	0.004108439	−40.324	0.0001
DUMED3	1	−0.10981122	0.009985939	−10.997	0.0001
DUMED4	1	−0.12498677	0.006691102	−18.680	0.0001
DUMMAR	1	0.47437583	0.004086492	116.084	0.0001
NUMCHD	1	−0.005925769	0.000886123	−6.687	0.0001
HOUOWND	1	0.65066701	0.003352594	194.079	0.0001

ANALYSIS OF VARIANCE(Chunnam Province)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	12183.47965	1522.93496	15613.013	0.0001
ERROR	97940	9553.32898	0.09754267		
C TOTAL	97948	21736.80862			

ROOT MSE		0.3123182	R-SQUARE	0.5605
DEP MEAN		0.6675719	ADJ R-SQ	0.5605
C.V.		46.78421		

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.53732188	0.003442341	156.092	0.0001
AGE	1	−0.01284892	0.000076024	−169.010	0.0001
DUMED1	1	−0.19601120	0.002707060	−72.407	0.0001
DUMED2	1	−0.16759437	0.003160163	−53.033	0.0001
DUMED3	1	−0.06640721	0.007952627	−8.350	0.0001
DUMED4	1	−0.07932445	0.005286844	−15.004	0.0001
DUMMAR	1	0.47733130	0.003129160	152.543	0.0001
NUMCHD	1	−0.007633917	0.000701840	−10.877	0.0001
HOUOWND	1	0.63854516	0.002632096	242.599	0.0001

ANALYSIS OF VARIANCE(Kyungbuk Province)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	9092.79858	1136.59982	11131.263	0.0001
ERROR	76762	7838.07511	0.10210879		
C TOTAL	76770	16930.87369			

ROOT MSE		0.3195447	R-SQUARE	0.5371
DEP MEAN		0.6716468	ADJ R-SQ	0.5370
C.V.		47.57629		

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.56511270	0.004095283	137.991	0.0001
AGE	1	−0.01304383	0.000083153	−156.866	0.0001
DUMED1	1	−0.19321149	0.003182146	−60.717	0.0001
DUMED2	1	−0.15442526	0.003055646	−42.243	0.0001
DUMED3	1	−0.06791462	0.008967921	−7.573	0.0001
DUMED4	1	−0.05421573	0.007156083	−7.576	0.0001
DUMMAR	1	0.44363283	0.003722104	119.189	0.0001
NUMCHD	1	−0.009176924	0.000799230	−11.482	0.0001
HOUOWND	1	0.64922865	0.002909005	223.179	0.0001

ANALYSIS OF VARIANCE(Kyungnam Province)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	9464.56293	1183.07037	9848.329	0.0001
ERROR	89661	10770.89019	0.12012904		
C TOTAL	89669	20235.45312			

ROOT	MSE	0.3465964	R-SQUARE	0.4677	
DEP	MEAN	0.6559942	ADJ R-SQ	0.4677	
C.V.		52.83528			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.60149635	0.004029116	149.287	0.0001
AGE	1	−0.01284948	0.000090890	−141.374	0.0001
DUMED1	1	−0.19525166	0.003127747	−62.426	0.0001
DUMED2	1	−0.14067608	0.003397630	−41.404	0.0001
DUMED3	1	−0.08853531	0.009418995	−9.400	0.0001
DUMED4	1	−0.07346237	0.006046057	−12.150	0.0001
DUMMAR	1	0.41098886	0.003618305	113.586	0.0001
NUMCHD	1	−0.01230612	0.000889110	−13.841	0.0001
HOUOWND	1	0.62878698	0.003064885	205.158	0.0001

ANALYSIS OF VARIANCE(Cheju Province)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	1330.01803	166.25225	1416.252	0.0001
ERROR	12735	1494.94737	0.11738888		
C TOTAL	12743	2824.96540			

ROOT	MSE	0.3426206	R-SQUARE	0.4708	
DEP	MEAN	0.6683145	ADJ R-SQ	0.4705	
C.V.		51.26637			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.53858230	0.01027390	52.422	0.0001
AGE	1	−0.01124138	0.000221520	−50.747	0.0001
DUMED1	1	−0.17295289	0.008376212	−20.648	0.0001
DUMED2	1	−0.12785426	0.008891505	−14.379	0.0001
DUMED3	1	−0.06761249	0.02046281	−3.304	0.0001
DUMED4	1	−0.12013639	0.01495494	−8.033	0.0001
DUMMAR	1	0.47743269	0.009232487	51.712	0.0001
NUMCHD	1	−0.01039089	0.002240219	−4.638	0.0001
HOUOWND	1	0.57206087	0.008049373	71.069	0.0001

ANALYSIS OF VARIANCE(Age 14−19)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	7	4911.07121	702.58160	14980.001	0.0001
ERROR	133E3	6246.51137	0.04683455		
C TOTAL	133E3	11157.58258			

ROOT	MSE	0.2164129	R-SQUARE	0.4402	
DEP	MEAN	0.09214137	ADJ R-SQ	0.4401	
C.V.		234.8705			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.31507149	0.003880405	81.196	0.0001
DUMED1	1	−0.20153040	0.003981459	−50.617	0.0001
DUMED2	1	−0.26723802	0.003939615	−67.834	0.0001
DUMED3	1	−0.30533131	0.006298889	−48.474	0.0001
DUMED4	1	−0.31365757	0.004797590	−65.378	0.0001
DUMMAR	1	−0.10781398	0.001842827	−58.505	0.0001
NUMCHD	1	−0.02378051	0.004043302	−5.881	0.0001
HOUOWND	1	0.86909405	0.002996699	290.017	0.0001

ANALYSIS OF VARIANCE(Age 20−29)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	7	15765.56540	2252.22363	13221.550	0.0001
ERROR	199E3	33955.01893	0.17034490		
C TOTAL	199E3	49720.58433			

ROOT	MSE	0.4127286	R-SQUARE	0.3171	
DEP	MEAN	0.4760684	ADJ R-SQ	0.3171	
C.V.		86.69523			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.37997289	0.003190554	119.093	0.0001
DUMED1	1	0.009104019	0.003379668	2.693	0.0071
DUMED2	1	0.02439117	0.003166083	7.704	0.0001
DUMED3	1	−0.07911227	0.004840192	−16.345	0.0001
DUMED4	1	−0.17796892	0.003742818	−47.549	0.0001
DUMMAR	1	0.01458425	0.002372577	6.147	0.0001
NUMCHD	1	−0.05540514	0.001294993	−42.784	0.0001
HOUOWND	1	0.62997387	0.002261209	278.600	0.0001

ANALYSIS OF VARIANCE(Age 30−39)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	7	8907.42223	1272.48889	7314.006	0.0001
ERROR	150E3	26136.62899	0.17397974		
C TOTAL	150E3	35044.05123			

ROOT	MSE	0.4171088	R-SQUARE	0.2542	
DEP	MEAN	0.6293831	ADJ R-SQ	0.2541	
C.V.		66.27264			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> ∣1∣
INTERCEP	1	0.48358167	0.005596480	86.408	0.0001
DUMED1	1	−0.003946338	0.003054024	−1.292	0.0001
DUMED2	1	0.05045378	0.002937000	17.179	0.0001
DUMED3	1	0.10781958	0.006899861	15.626	0.0001
DUMED4	1	0.08268297	0.003913101	21.109	0.0001
DUMMAR	1	0.05176138	0.005474377	9.455	0.0001
NUMCHD	1	−0.04696985	0.000923313	−50.871	0.0001
HOUOWND	1	0.49803816	0.002336971	213.113	0.0001

ANALYSIS OF VARIANCE(Age 40−49)

SOURCE	DF	SUM OF SQUARESg	MEAN SQUARE	F VALUE	PROB>F
MODEL	7	8311.49895	1187.35656	8344.292	0.0001
ERROR	114E3	16273.92765	0.14229566		
C TOTAL	114E3	24585.42860			

ROOT	MSE	0.377221	R-SQUARE	0.3381	
DEP	MEAN	0.6872044	ADJ R-SQ	0.3380	
C.V.		54.89211			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> ∣1∣
INTERCEP	1	0.39925271	0.014292400	27.931	0.0001
DUMED1	1	0.01313771	0.002946152	4.459	0.0001
DUMED2	1	0.53516380	0.002969815	18.020	0.0001
DUMED3	1	0.08855037	0.01025969	8.631	0.0001
DUMED4	1	0.08345280	0.003974061	20.999	0.0001
DUMMAR	1	0.03494418	0.01432474	2.439	0.0147
NUMCHD	1	−0.01443037	0.000660647	−21.843	0.0001
HOUOWND	1	0.53613663	0.002267202	236.475	0.0001

ANALYSIS OF VARIANCE(Age 50−59)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	7	7433.72763	1061.96109	7505.693	0.0001
ERROR	78799	11149.06732	0.14148742		
C TOTAL	78806	18582.79495			

ROOT MSE		0.3761481	R-SQUARE	0.4000	
DEP MEAN		0.6191682	ADJ R-SQ	0.4000	
C.V.		60.75154			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.25486113	0.02826048	9.018	0.0001
DUMED1	1	0.02501199	0.004073018	6.141	0.0001
DUMED2	1	0.05234974	0.004233214	12.366	0.0001
DUMED3	1	0.08937721	0.01329062	6.725	0.0001
DUMED4	1	0.11656118	0.005667071	20.568	0.0001
DUMMAR	1	−0.03875385	0.02829000	−1.370	0.1707
NUMCHD	1	0.006985481	0.000608479	41.480	0.0001
HOUOWND	1	0.61449295	0.002739836	224.281	0.0001

ANALYSIS OF VARIANCE(Age 60+)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	7	6414.32854	916.33265	7414.402	0.0001
ERROR	73134	9038.50028	0.12358821		
C TOTAL	73141	15452.82881			

ROOT MSE		0.3515512	R-SQUARE	0.4151	
DEP MEAN		0.3032047	ADJ R-SQ	0.4150	
C.V.		115.9451			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.15265047	0.03984374	3.831	0.0001
DUMED1	1	−0.03704666	0.005957454	−6.219	0.0001
DUMED2	1	−0.02704638	0.007373458	−3.668	0.0002
DUMED3	1	−0.006307585	0.01614927	−0.391	0.6961
DUMED4	1	0.03880321	0.01020508	3.802	0.0001
DUMMAR	1	−0.15003906	0.03985887	−3.764	0.0002
NUMCHD	1	0.01375873	0.000512528	26.845	0.0001
HOUOWND	1	0.58983211	0.002650608	222.527	0.0001

ANALYSIS OF VARIANCE(Elementary School)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	4	25239.74825	6309.93706	72142.327	0.0001
ERROR	288E3	25177.09614	0.08746512		
C TOTAL	288E3	50416.84439			

ROOT MSE		0.295745	R-SQUARE	0.5006	
DEP MEAN		0.7735967	ADJ R-SQ	0.5006	
C.V.		38.22987			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.82809661	0.002864338	289.106	0.0001
AGE	1	−0.01610382	0.000043438	−370.781	0.0001
DUMMAR	1	0.27222323	0.002807164	96.974	0.0001
NUMCHD	1	−0.01054763	0.000387688	−27.207	0.0001
HOUOWND	1	0.59668868	0.001496701	398.669	0.0001

ANALYSIS OF VARIANCE(Junior High School)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	4	10123.24231	2530.81058	12574.592	0.0001
ERROR	208E3	41809.94594	0.20126384		
C TOTAL	208E3	51933.18824			

ROOT MSE		0.4486244	R-SQUARE	0.1949	
DEP MEAN		0.5033359	ADJ R-SQ	0.1949	
C.V.		89.13022			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.35318397	0.002991401	118.066	0.0001
AGE	1	−0.003296107	0.000115233	−28.604	0.0001
DUMMAR	1	0.21532528	0.002576641	83.568	0.0001
NUMCHD	1	−0.03438126	0.000944858	−36.388	0.0001
HOUOWND	1	0.59001444	0.002769391	213.048	0.0001

ANALYSIS OF VARIANCE(Senior High School)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	4	20402.04024	5100.51006	31177.866	0.0001
ERROR	247E3	40375.96752	0.16359395		
C TOTAL	247E3	60778.00776			

ROOT	MSE	0.4044675	R-SQUARE	0.3357	
DEP	MEAN	0.4387892	ADJ R-SQ	0.3357	
C.V.		92.17809			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.03471632	0.002781924	12.479	0.0001
AGE	1	0.009285101	0.000132060	70.310	0.1963
DUMMAR	1	0.14772964	0.002484654	59.457	0.0001
NUMCHD	1	−0.05514947	0.00898104	−61.407	0.0001
HOUOWND	1	0.56801669	0.002103974	269.973	0.0001

ANALYSIS OF VARIANCE(Junior College)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	4	1952.49903	488.12476	3191.608	0.0001
ERROR	20104	3074.70769	0.15294010		
C TOTAL	20108	5027.20672			

ROOT	MSE	0.3910756	R-SQUARE	0.3884	
DEP	MEAN	0.501467	ADJ R-SQ	0.3883	
C.V.		77.9863			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.23902911	0.009828539	24.320	0.0001
AGE	1	−0.001351343	0.000413559	−3.268	0.0001
DUMMAR	1	0.33389538	0.007693294	43.401	0.0001
NUMCHD	1	−0.02914311	0.002970595	−9.811	0.0001
HOUOWND	1	0.56716849	0.006463850	87.745	0.0001

ANALYSIS OF VARIANCE(Male)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	39544.93864	4943.11733	45176.198	0.0001
ERROR	515E3	56398.95316	0.10941862		
C TOTAL	515E3	95943.89179			

ROOT	MSE	0.3307849	R-SQUARE	0.4122	
DEP	MEAN	0.7527136	ADJ R-SQ	0.4122	
C.V.		43.94564			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.49272867	0.001444215	341.174	0.0001
AGE	1	−0.008339880	0.000039124	−213.166	0.0001
DUMED1	1	−0.08776376	0.001307272	−67.135	0.0001
DUMED2	1	−0.03527307	0.001312587	−26.873	0.0001
DUMED3	1	−0.03265369	0.003117663	−10.474	0.0001
DUMED4	1	−0.06200378	0.001742252	−35.588	0.0001
DUMMAR	1	0.53339188	0.001285175	415.035	0.0001
NUMCHD	1	0.01441429	0.000385384	37.402	0.0001
HOUOWND	1	0.32172141	0.001282781	250.996	0.0001

ANALYSIS OF VARIANCE(Female)

SOURCE	DF	SUM OF SQUARES	MEANE SQUARE	F VALUE	PROB>F
MODEL	8	74832.88796	9354.11100	86213.998	0.0001
ERROR	529E3	57427.41167	0.10849875		
C TOTAL	529E3	132260.30			

ROOT	MSE	0.3293915	R-SQUARE	0.5658	
DEP	MEAN	0.4889439	ADJ R-SQ	0.5658	
C.V.		67.36795			

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.84144879	0.001627569	516.997	0.0001
AGE	1	−0.01428025	0.000034558	−413.228	0.0001
DUMED1	1	−0.30117920	0.001214859	−247.913	0.0001
DUMED2	1	−0.36784052	0.001361084	−270.256	0.0001
DUMED3	1	−0.31900707	0.003907230	−81.645	0.0001
DUMED4	1	−0.38441266	0.002396317	−160.418	0.0001
DUMMAR	1	0.15432284	0.001458578	105.804	0.0001
NUMCHD	1	−0.01648610	0.000352031	−46.831	0.0001
HOUOWND	1	0.69952272	0.001324740	528.045	0.0001

ANALYSIS OF VARIANCE(College or University)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	4	8941.98114	2235.49529	17454.813	0.0001
ERROR	73329	9391.48612	0.12807329		
C TOTAL	73333	18333.46726			

ROOT MSE	0.3578733	R-SQUARE	0.4877
DEP MEAN	0.5006682	ADJ R-SQ	0.4877
C.V.	71.47914		

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.08700831	0.004942039	17.606	0.0001
AGE	1	0.001863850	0.000204513	9.114	0.0001
DUMMAR	1	0.40181905	0.004026018	99.806	0.0001
NUMCHD	1	−0.03168091	0.001399843	−22.632	0.0001
HOUOWND	1	0.49031957	0.003229436	151.828	0.0001

ANALYSIS OF VARIANCE(No Education)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	4	18962.83050	4740.70763	68164.267	0.0001
ERROR	111E3	7742.87978	0.06954828		
C TOTAL	111E3	26705.71028			

ROOT MSE	0.2637201	R-SQUARE	0.7101
DEP MEAN	0.6006682	ADJ R-SQ	0.7101
C.V.	43.90445		

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.67629907	0.008524816	79.333	0.0001
AGE	1	−0.01499161	0.000035587	421.269	0.0001
DUMMAR	1	0.38292335	0.008526718	44.909	0.0001
NUMCHD	1	0.004739200	0.000378719	12.514	0.0001
HOUOWND	1	0.61564931	0.001858564	331.250	0.0001

ANALYSIS OF VARIANCE(Stepwise 1)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	1	13857.93291	13857.93291	62267.197	0.0001
ERROR	104E4	232515.07	0.22255591		
C TOTAL	104E4	246373.00			

ROOT	MSE	0.4717583	R-SQUARE	0.0562
DEP	MEAN	0.6190805	ADJ R-SQ	0.0562
C.V.		76.20306		

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.78552239	0.000811127	968.434	0.0001
AGE	1	−0.006083551	0.000024380	−249.534	0.0001

ANALYSIS OF VARIANCE(Stepwise 2)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	5	37593.79740	7518.75948	37624.372	0.0001
ERROR	104E4	208779.20	0.19983748		
C TOTAL	104E4	246373.00			

ROOT	MSE	0.4470319	R-SQUARE	0.1526
DEP	MEAN	0.6190805	ADJ R-SQ	0.1526
C.V.		72.209		

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.93520415	0.000885353	1056.306	0.0001
AGE	1	−0.005844388	0.000023157	−252.385	0.0001
DUMED1	1	−0.27469731	0.001168016	−235.183	0.0001
DUMED2	1	−0.33461005	0.001101141	−303.876	0.0001
DUMED3	1	−0.26355498	0.003216085	−81.949	0.0001
DUMED4	1	−0.24906420	0.001772300	−140.532	0.0001

ANALYSIS OF VARIANCE(Stepwise 3)

SOURCE	DF	SUM DF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	6	38642.19842	6440.36640	32390.642	0.0001
ERROR	104E4	207730.80	0.19883417		
C TOTAL	104E4	246373.00			

ROOT	MSE	0.4459082	R-SQUARE	0.1568
DEP	MEAN	0.6190805	ADJ R-SQ	0.1568
C.V.		72.0275		

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.94565873	0.000894787	1056.854	0.0001
AGE	1	−0.007603374	0.000033471	−227.160	0.0001
DUMED1	1	−0.26635185	0.001170735	−227.508	0.0001
DUMED2	1	−0.31967722	0.001117459	−286.075	0.0001
DUMED3	1	−0.24336102	0.003220033	−75.577	0.0001
DUMED4	1	−0.23021458	0.001786802	−128.842	0.0001
NUMCHD	1	0.02453681	0.000337909	72.614	

ANALYSIS OF VARIANCE(Stepwise 4)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	7	53806.89232	7686.69890	41703.210	0.0001
ERROR	104E4	192566.11	0.18431912		
C TOTAL	104E4	246373.00			

ROOT	MSE	0.429324	R-SQUARE	0.2184
DEP	MEAN	0.6190805	ADJ R-SQ	0.2184
C.V.		69.34866		

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER=0	PROB> | 1 |
INTERCEP	1	0.63277465	0.001389992	455.236	0.0001
AGE	1	−0.007703766	0.000032228	−239.036	0.0001
DUMED1	1	−0.20399585	0.001147965	−177.702	0.0001
DUMED2	1	−0.16264465	0.001207178	−134.731	0.0001
DUMED3	1	−0.07807241	0.003153373	−24.758	0.0001
DUMED4	1	−0.09111810	0.001787389	−50.978	0.0001
NUMCHD	1	0.003362469	0.000333611	10.079	0.0001
DUMMAR	1	0.35641038	0.001242564	286.835	0.0001

ANALYSIS OF VARIANCE(Stepwise 5)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	8	71079.37822	8884.92228	52953.732	0.0001
ERROR	104E4	175293.62	0.16778652		
C TOTAL	104E4	246373.00			

ROOT	MSE	0.4096175	R-SQUARE	0.2885
DEP	MEAN	0.6190805	ADJ R-SQ	0.2885
C.V.		66.16547		

PRAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO : PARAMETER$=0$	PROB> | 1 |
INTERCEP	1	0.70225887	0.001343755	522.609	0.0001
AGE	1	-0.01038732	0.000031866	-325.965	0.0001
DUMED1	1	-0.20538279	0.001095281	-187.516	0.0001
DUMED2	1	-0.18161345	0.001153283	-157.475	0.0001
DUMED3	1	-0.10903321	0.003010176	-36.222	0.0001
DUMED4	1	-0.15055723	0.001715378	-87.769	0.0001
NUMCHD	1	-0.000530511	0.000318529	-1.665	0.0001
DUMMAR	1	0.30864926	0.001194838	258.319	0.0001
HOUOWND	1	0.42622852	0.001328445	320.848	0.0001