



ภาคผนวก

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

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ภาคผนวก ก

Questionnaire

This surveying questionnaire is designed to study Factors Affecting Foreign Tourists' Satisfaction of Chiang Mai Night Safari Zoo, which is an educational use for Master degree in Economics at Chiang Mai University. Finally, I would like to extend my appreciation for all you help in filling out this form and your information will be kept in secret and use for educational purposes only .

Ms. Suchawadee Makprang

Economics Faculty, Chiang Mai University

1. Sex Male Female
2. Age.....years
3. Status Single Married
 Divorced Separated
4. Occupation
 Employee Government/State enterprise personal
 Firm owner Student
 Pensioner Teacher / Professor
 Others (please specify).....
5. Country of residence.....
6. Average income per month (estimated in \$US).....
 or (estimated in your local currency).....
7. Education
 School leaving certificate Bachelor degree
 Master degree or higher Others(please specify).....
8. How many times have you visited Chiang Mai Province?
 One time More than one time

9.Type of your transportation to Chiang Mai

- Rent Car Bus Travel Agency
 Train Plane
 Others(please specify).....

10.Have you ever been visited Night Zoo in other countries?

- Yes No

11.Main Purpose of visiting Chiang Mai (able to answer more than 1 choice)

- Business Leisure Shopping
 Visiting family/friends Education
 Others(please specify).....

12.Type of your transportation to Chiang Mai Night Safari Zoo.

- Rent Car or Moter bike Private Taxi (Ex. Red Cab, Tuk Tuk ,Taxi)
 Public Bus Travel Agency
 Other (please specify).....

13.How did you know about Chiang Mai Night Safari Zoo? (able to answer more than 1 choice)

- Internet Newspaper/Magazines
 Travel Agency Hotel/Accommodation
 Friends / Relatives Signboard/Poster
 Others(please specify).....

14.How is your satisfaction level of visiting Chiang Mai Night Safari Zoo in the following factors? (please ✓ your answer)

	☺ Satisfied	☹ Unsatisfied
Location		
Decoration		
Atmosphere		
Facilities (ex.ATM,bench,etc)		

	☺ Satisfied	☹ Unsatisfied
Car park		
Toilet		
Garbage		
Foods		
Staff services		
Cleanliness		
Security		
Variety of animals		
Souvenir		
Quality of foods and services		
Quality of Souvenir		
Ticket price		
Souvenir Price		
Price of Foods		
Period For English version (7.00 pm and 9.00 pm)		
Activities (Ex. Musical Fountain with Water Screen Music,etc.)		

15. Overall satisfaction of visiting Chiang Mai Night Safari Zoo

☺ Satisfied

☹ Unsatisfied

16. If you visit Chiang Mai for next time how would you like to go?

By Own Trip

By Travel Agency

17. Will you visit Chiang Mai Night Safari Zoo once again?

(If no, please specify where will you want to visit?)

Yes

No (please specify).....

18. Suggestion

.....

ภาคผนวก ข

ผลการประมาณสมการ Logit โดยเทคนิค MLE และ Marginal Effect ด้วยโปรแกรม

Limdep Version 7.0

```

+-----+
| Multinomial Logit Model
| Maximum Likelihood Estimates
| Dependent variable          Y
| Weighting variable         ONE
| Number of observations      300
| Iterations completed        5
| Log likelihood function     -157.1582
| Restricted log likelihood    -159.3284
| Chi-squared                 4.340451
| Degrees of freedom          1
| Significance level           .3721706E-01
+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
| Characteristics in numerator of Prob[Y = 1]
| Constant .8754687374 .21730675 4.029 .0001
| SEX .5950177150 .28365548 2.098 .0359 .66000000

```

Matrix: Las [2,4]

```

+-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
| Marginal effects on Prob[Y = 1]
| Constant .1500189164 .32631061E-01 4.597 .0000
| SEX .1019612797 .48088915E-01 2.120 .0340 .66000000

```

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```

+-----+
| Multinomial Logit Model
| Maximum Likelihood Estimates
| Dependent variable           Y
| Weighting variable          ONE
| Number of observations       300
| Iterations completed         5
| Log likelihood function      -156.8589
| Restricted log likelihood     -159.3284
| Chi-squared                  4.939034
| Degrees of freedom           1
| Significance level            .2625672E-01
+-----+

```

```

+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
|-----+
| Characteristics in numerator of Prob[Y = 1]
| Constant  2.180166259   .45443181   4.798   .0000
| AGE      -.2204487221E-01 .99401828E-02 -2.218   .0266  41.200000
+-----+

```

Matrix: Las
[2,4]

```

+-----+
| Partial derivatives of probabilities with
| respect to the vector of characteristics.
| They are computed at the means of the Xs.
| Observations used for means are All Obs.
+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
|-----+
| Marginal effects on Prob[Y = 1]
| Constant  .3728066738   .69358556E-01   5.375   .0000
| AGE      -.3769655388E-02 .16776910E-02  -2.247   .0246  41.200000
+-----+

```

```

+-----+
| Multinomial Logit Model
| Maximum Likelihood Estimates
| Dependent variable           Y
| Weighting variable          ONE
| Number of observations       300
| Iterations completed         5
| Log likelihood function      -155.9106
| Restricted log likelihood     -159.3284
| Chi-squared                  6.835595
| Degrees of freedom           1
| Significance level            .8935893E-02
+-----+

```

```

+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
|-----+
| Characteristics in numerator of Prob[Y = 1]
| Constant  .4462871026   .32015621   1.394   .1633
| PLACE1   .9594253443   .35625207   2.693   .0071  .86333333
+-----+

```

Matrix: Las
[2,4]

```

+-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
+-----+
+-----+-----+-----+-----+-----+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+-----+-----+-----+-----+-----+
          Marginal effects on Prob[Y = 1]
Constant  .7620003747E-01  .53103245E-01  1.435  .1513
PLACE1    .1638143849    .60401693E-01  2.712  .0067  .86333333
+-----+-----+-----+-----+-----+-----+
| Multinomial Logit Model
| Maximum Likelihood Estimates
| Dependent variable                Y
| Weighting variable                ONE
| Number of observations            300
| Iterations completed              6
| Log likelihood function           -157.5375
| Restricted log likelihood         -159.3284
| Chi-squared                       3.581827
| Degrees of freedom                1
| Significance level                 .5841490E-01
+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+-----+-----+-----+-----+-----+
          Characteristics in numerator of Prob[Y = 1]
Constant  2.397895273    .73854895    3.247  .0012
PLACE2   -1.220424409    .75204953   -1.623  .1046  .92000000

```

Matrix: Las
[2,4]

```

+-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
+-----+
+-----+-----+-----+-----+-----+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+-----+-----+-----+-----+-----+
          Marginal effects on Prob[Y = 1]
Constant  .4093034375    .11639984    3.516  .0004
PLACE2   -.2083176491    .12551883   -1.660  .0970  .92000000

```

```

+-----+
| Multinomial Logit Model
| Maximum Likelihood Estimates
| Dependent variable           Y
| Weighting variable           ONE
| Number of observations       300
| Iterations completed         5
| Log likelihood function      -157.6558
| Restricted log likelihood     -159.3284
| Chi-squared                  3.345194
| Degrees of freedom           1
| Significance level           .6740152E-01
+-----+

```

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Characteristics in numerator of Prob[Y = 1]					
Constant	-.4054651081	.91287093	-.444	.6569	
PLACE3	1.688999735	.92373553	1.828	.0675	.98333333

Matrix: Las
[2,4]

```

+-----+
| Partial derivatives of probabilities with
| respect to the vector of characteristics.
| They are computed at the means of the Xs.
| Observations used for means are All Obs.
+-----+

```

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Marginal effects on Prob[Y = 1]					
Constant	-.6997830961E-01	.15823527	-.442	.6583	
PLACE3	.2915006595	.16002894	1.822	.0685	.98333333

```

+-----+
| Multinomial Logit Model
| Maximum Likelihood Estimates
| Dependent variable           Y
| Weighting variable           ONE
| Number of observations       300
| Iterations completed         5
| Log likelihood function      -142.7778
| Restricted log likelihood     -159.3284
| Chi-squared                  33.10109
| Degrees of freedom           1
| Significance level           .0000000
+-----+

```

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Characteristics in numerator of Prob[Y = 1]					
Constant	-1.223775432	.50874702	-2.405	.0162	
PLACE4	2.741098055	.53217431	5.151	.0000	.92666667

Matrix: Las
[2,4]

```

+-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
Marginal effects on Prob[Y = 1]
Constant -.2040390122 .90829085E-01 -2.246 .0247
PLACE4 .4570208921 .95437687E-01 4.789 .0000 .92666667

```

```

+-----+
| Multinomial Logit Model |
| Maximum Likelihood Estimates |
| Dependent variable Y |
| Weighting variable ONE |
| Number of observations 300 |
| Iterations completed 6 |
| Log likelihood function -134.5431 |
| Restricted log likelihood -159.3284 |
| Chi-squared 49.57048 |
| Degrees of freedom 1 |
| Significance level .0000000 |
+-----+

```

```

+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
Characteristics in numerator of Prob[Y = 1]
Constant .2311117210 .18940173 1.220 .2224
GOOD1 2.071473372 .31714176 6.532 .0000 .62333333

```

Matrix: Las
[2,4]

```

+-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
Marginal effects on Prob[Y = 1]
Constant .3398154917E-01 .26519301E-01 1.281 .2001
GOOD1 .3045794214 .42282127E-01 7.204 .0000 .62333333

```

```

+-----+
| Multinomial Logit Model
| Maximum Likelihood Estimates
| Dependent variable           Y
| Weighting variable           ONE
| Number of observations       300
| Iterations completed         5
| Log likelihood function      -119.1352
| Restricted log likelihood     -159.3284
| Chi-squared                  80.38643
| Degrees of freedom           1
| Significance level           .0000000
+-----+

```

```

+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
|
| Characteristics in numerator of Prob[Y = 1]
| Constant -1.126011263      .33220530      -3.390  .0007
| GOOD2    3.122976558      .38499166      8.112  .0000  .83666667
+-----+

```

Matrix: Las
[2,4]

```

+-----+
| Partial derivatives of probabilities with
| respect to the vector of characteristics.
| They are computed at the means of the Xs.
| Observations used for means are All Obs.
+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
|
| Marginal effects on Prob[Y = 1]
| Constant -.1693416409      .58412644E-01  -2.899  .0037
| GOOD2    .4696666829      .68725259E-01  6.834  .0000  .83666667
+-----+

```

```

+-----+
| Multinomial Logit Model
| Maximum Likelihood Estimates
| Dependent variable           Y
| Weighting variable           ONE
| Number of observations       300
| Iterations completed         5
| Log likelihood function      -157.3405
| Restricted log likelihood     -159.3284
| Chi-squared                  3.975686
| Degrees of freedom           1
| Significance level           .4616167E-01
+-----+

```

```

+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
|
| Characteristics in numerator of Prob[Y = 1]
| Constant .3184537311      .46466019      .685  .4931
| SECURITY 1.006686207      .48719888      2.066  .0388  .93666667
+-----+

```

Matrix: Las
[2,4]

```

-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
-----+-----+-----+-----+-----+
Marginal effects on Prob[Y = 1]
Constant .5477772091E-01 .79137953E-01 .692 .4888
SECURITY .1731616580 .83627829E-01 2.071 .0384 .93666667

```

```

-----+-----+-----+-----+-----+
| Multinomial Logit Model |
| Maximum Likelihood Estimates |
| Dependent variable | Y |
| Weighting variable | ONE |
| Number of observations | 300 |
| Iterations completed | 5 |
| Log likelihood function | -118.3868 |
| Restricted log likelihood | -159.3284 |
| Chi-squared | 81.88311 |
| Degrees of freedom | 1 |
| Significance level | .0000000 |
-----+-----+-----+-----+-----+

```

```

-----+-----+-----+-----+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
-----+-----+-----+-----+-----+
Characteristics in numerator of Prob[Y = 1]
Constant -.9162907319 .29580399 -3.098 .0020
Q1 3.000351136 .35936796 8.349 .0000 .81333333

```

Matrix: Las
[2,4]

```

-----+-----+-----+-----+-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
-----+-----+-----+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
-----+-----+-----+-----+-----+
Marginal effects on Prob[Y = 1]
Constant -.1345830399 .50308825E-01 -2.675 .0075
Q1 .4406858683 .61473534E-01 7.169 .0000 .81333333

```

```

+-----+
| Multinomial Logit Model
| Maximum Likelihood Estimates
| Dependent variable           Y
| Weighting variable           ONE
| Number of observations       300
| Iterations completed         6
| Log likelihood function      -108.0046
| Restricted log likelihood     -159.3284
| Chi-squared                  102.6476
| Degrees of freedom           1
| Significance level            .0000000
+-----+

```

```

+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
|
| Characteristics in numerator of Prob[Y = 1]
| Constant -2.197224577   .52704628   -4.169   .0000
| Q2       4.196959376   .56071620   7.485   .0000   .86666667
+-----+

```

Matrix: Las
[2,4]

```

+-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
+-----+

```

```

+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
|
| Marginal effects on Prob[Y = 1]
| Constant -.3402233798   .10245572   -3.321   .0009
| Q2       .6498669816   .11580867   5.612   .0000   .86666667
+-----+

```

```

+-----+
| Multinomial Logit Model
| Maximum Likelihood Estimates
| Dependent variable           Y
| Weighting variable           ONE
| Number of observations       300
| Iterations completed         5
| Log likelihood function      -158.5014
| Restricted log likelihood     -159.3284
| Chi-squared                  1.653951
| Degrees of freedom           1
| Significance level            .1984220
+-----+

```

```

+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+-----+
|
| Characteristics in numerator of Prob[Y = 1]
| Constant 1.059772455   .19614387   5.403   .0000
| PRICE   .3572935644   .27802550   1.285   .1988   .54666667
+-----+

```

Matrix: Las
[2,4]

```

+-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
+-----+

```

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Marginal effects on Prob[Y = 1]					
Constant	.1829334287	.27122114E-01	6.745	.0000	
PRICE	.6167450048E-01	.47763354E-01	1.291	.1966	.54666667

```

+-----+
| Multinomial Logit Model |
| Maximum Likelihood Estimates |
| Dependent variable Y |
| Weighting variable ONE |
| Number of observations 300 |
| Iterations completed 5 |
| Log likelihood function -158.3290 |
| Restricted log likelihood -159.3284 |
| Chi-squared 1.998697 |
| Degrees of freedom 1 |
| Significance level .1574346 |
+-----+

```

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Characteristics in numerator of Prob[Y = 1]					
Constant	.7731898882	.34899122	2.215	.0267	
ACT	.5521957198	.38053595	1.451	.1468	.87333333

Matrix: Las
[2,4]

```

+-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
+-----+

```

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Marginal effects on Prob[Y = 1]					
Constant	.1334389289	.57790693E-01	2.309	.0209	
ACT	.9529923572E-01	.65440159E-01	1.456	.1453	.87333333-->

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```

+-----+
| Multinomial Logit Model
| Maximum Likelihood Estimates
| Dependent variable           Y
| Weighting variable           ONE
| Number of observations       300
| Iterations completed         6
| Log likelihood function      -134.6631
| Restricted log likelihood     -159.3284
| Chi-squared                  49.33050
| Degrees of freedom           4
| Significance level           .0000000
+-----+

```

```

+-----+
| Variable | Coefficient | Standard Error | b/St.Er. | P[|Z|>z] | Mean of X |
+-----+
| Characteristics in numerator of Prob[Y = 1]
| Constant -3.385493416   1.3377700   -2.531   .0114
| PLACE1   1.207943180   .38332991  3.151   .0016   .86333333
| PLACE2  -1.137846011   .78579869  -1.448   .1476   .92000000
| PLACE3   2.169942141   .98971279  2.192   .0283   .98333333
| PLACE4   2.871365231   .54276586  5.290   .0000   .92666667

```

Matrix: Las
[5,4]

```

+-----+
| Partial derivatives of probabilities with
| respect to the vector of characteristics.
| They are computed at the means of the Xs.
| Observations used for means are All Obs.
+-----+
+-----+
| Variable | Coefficient | Standard Error | b/St.Er. | P[|Z|>z] | Mean of X |
+-----+
| Marginal effects on Prob[Y = 1]
| Constant -.5355644013   .22241323  -2.408   .0160
| PLACE1   .1910892407   .59924983E-01  3.189   .0014   .86333333
| PLACE2  -.1800002962   .12197004  -1.476   .1400   .92000000
| PLACE3   .3432716064   .15711141  2.185   .0289   .98333333
| PLACE4   .4542324594   .93646088E-01  4.851   .0000   .92666667

```

```

+-----+
| Multinomial Logit Model
| Maximum Likelihood Estimates
| Dependent variable           Y
| Weighting variable           ONE
| Number of observations       300
| Iterations completed         6
| Log likelihood function      -83.09708
| Restricted log likelihood     -159.3284
| Chi-squared                  152.4626
| Degrees of freedom           2
| Significance level           .0000000
+-----+

```

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Characteristics in numerator of Prob[Y = 1]					
Constant	-4.320152471	.68471542	-6.309	.0000	
Q1	2.972061128	.43777169	6.789	.0000	.81333333
Q2	4.168247692	.61535733	6.774	.0000	.86666667

Matrix: Las
[3,4]

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Marginal effects on Prob[Y = 1]					
Constant	-.5604970620	.12719760	-4.407	.0000	
Q1	.3855955413	.65341784E-01	5.901	.0000	.81333333
Q2	.5407889190	.10954958	4.936	.0000	.86666667

Frequencies of actual & predicted outcomes

Multinomial Logit Model	
Maximum Likelihood Estimates	
Dependent variable	Y
Weighting variable	ONE
Number of observations	300
Iterations completed	5
Log likelihood function	-155.0192
Restricted log likelihood	-159.3284
Chi-squared	8.618450
Degrees of freedom	2
Significance level	.1344397E-01

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Characteristics in numerator of Prob[Y = 1]					
Constant	.2390549406	.35590476	.672	.5018	
PLACE1	.9725776155	.35796761	2.717	.0066	.86333333
PRICE	.3760394717	.28196195	1.334	.1823	.54666667

Matrix: Las
[3,4]

Partial derivatives of probabilities with respect to the vector of characteristics.	
They are computed at the means of the Xs.	
Observations used for means are All Obs.	

reserved

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Marginal effects on Prob[Y = 1]					
Constant	.4059400433E-01	.59752594E-01	.679	.4969	
PLACE1	.1651537502	.60350964E-01	2.737	.0062	.86333333
PRICE	.6385539619E-01	.47633322E-01	1.341	.1801	.54666667

Multinomial Logit Model	
Maximum Likelihood Estimates	
Dependent variable	Y
Weighting variable	ONE
Number of observations	300
Iterations completed	6
Log likelihood function	-131.7966
Restricted log likelihood	-159.3284
Chi-squared	55.06365
Degrees of freedom	2
Significance level	.0000000

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Characteristics in numerator of Prob[Y = 1]					
Constant	-.2571349776	.28303262	-.908	.3636	
SEX	.7426902777	.31734192	2.340	.0193	.66000000
GOOD1	2.123908895	.32317700	6.572	.0000	.62333333

Matrix: Las
[3,4]

Partial derivatives of probabilities with respect to the vector of characteristics. They are computed at the means of the Xs. Observations used for means are All Obs.

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Marginal effects on Prob[Y = 1]					
Constant	-.3697082115E-01	.41574012E-01	-.889	.3739	
SEX	.1067838755	.45244227E-01	2.360	.0183	.66000000
GOOD1	.3053752416	.42379201E-01	7.206	.0000	.62333333

Multinomial Logit Model	
Maximum Likelihood Estimates	
Dependent variable	Y
Weighting variable	ONE
Number of observations	300
Iterations completed	5
Log likelihood function	-158.0135
Restricted log likelihood	-159.3284
Chi-squared	2.629839
Degrees of freedom	2
Significance level	.2684960

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Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Characteristics in numerator of Prob[Y = 1]					
Constant	.9730952180	.21508065	4.524	.0000	
IN	.3996510431E-06	.42943000E-06	.931	.3520	230803.80
PRICE	.3589016353	.27846582	1.289	.1974	.54666667

Matrix: Las
[3,4]

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Marginal effects on Prob[Y = 1]					
Constant	.1673693522	.31885910E-01	5.249	.0000	
IN	.6873873693E-07	.73535786E-07	.935	.3499	230803.80
PRICE	.6172996547E-01	.47664334E-01	1.295	.1953	.54666667

Multinomial Logit Model	
Maximum Likelihood Estimates	
Dependent variable	Y
Weighting variable	ONE
Number of observations	300
Iterations completed	5
Log likelihood function	-153.9582
Restricted log likelihood	-159.3284
Chi-squared	10.74035
Degrees of freedom	2
Significance level	.4653316E-02

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Characteristics in numerator of Prob[Y = 1]					
Constant	-.4887875142	.56071368	-.872	.3834	
PLACE1	.9623068310	.35944120	2.677	.0074	.86333333
SECURITY	1.011922706	.49483394	2.045	.0409	.93666667

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Matrix: Las
[3,4]

-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
-----+

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Marginal effects on Prob[Y = 1]					
Constant	-.8273995957E-01	.95819987E-01	-.863	.3879	
PLACE1	.1628953809	.60422311E-01	2.696	.0070	.86333333
SECURITY	.1712941541	.83595134E-01	2.049	.0405	.93666667

Multinomial Logit Model	
Maximum Likelihood Estimates	
Dependent variable	Y
Weighting variable	ONE
Number of observations	300
Iterations completed	5
Log likelihood function	-141.7676
Restricted log likelihood	-159.3284
Chi-squared	35.12153
Degrees of freedom	2
Significance level	.0000000

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Characteristics in numerator of Prob[Y = 1]					
Constant	-1.436957313	.53473454	-2.687	.0072	
SEX	.4402009552	.30699801	1.434	.1516	.66000000
PLACE4	2.670269379	.53528929	4.988	.0000	.92666667

Matrix: Las
[3,4]

-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
-----+

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Marginal effects on Prob[Y = 1]					
Constant	-.2379626620	.95051774E-01	-2.504	.0123	
SEX	.7289805355E-01	.50545907E-01	1.442	.1492	.66000000
PLACE4	.4422013126	.95371796E-01	4.637	.0000	.92666667

```

+-----+
| Multinomial Logit Model |
| Maximum Likelihood Estimates |
| Dependent variable | Y |
| Weighting variable | ONE |
| Number of observations | 300 |
| Iterations completed | 6 |
| Log likelihood function | -117.0393 |
| Restricted log likelihood | -159.3284 |
| Chi-squared | 84.57817 |
| Degrees of freedom | 2 |
| Significance level | .0000000 |
+-----+

```

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+-----+
| Variable | Coefficient | Standard Error | b/St.Er. | P[|Z|>z] | Mean of X |
+-----+
| Characteristics in numerator of Prob[Y = 1] |
| Constant | -1.241365200 | .36465892 | -3.404 | .0007 | |
| Q1 | 3.051802894 | .36666717 | 8.323 | .0000 | .81333333 |
| PRICE | .5571619926 | .34234737 | 1.627 | .1036 | .54666667 |
+-----+

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Matrix: Las
[3,4]

```

+-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
+-----+
| Variable | Coefficient | Standard Error | b/St.Er. | P[|Z|>z] | Mean of X |
+-----+
| Marginal effects on Prob[Y = 1] |
| Constant | -.1798337565 | .59950021E-01 | -3.000 | .0027 | |
| Q1 | .4421077525 | .61845165E-01 | 7.149 | .0000 | .81333333 |
| PRICE | .8071479217E-01 | .49092891E-01 | 1.644 | .1002 | .54666667 |
+-----+

```

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+-----+
| Multinomial Logit Model |
| Maximum Likelihood Estimates |
| Dependent variable | Y |
| Weighting variable | ONE |
| Number of observations | 300 |
| Iterations completed | 5 |
| Log likelihood function | -139.0287 |
| Restricted log likelihood | -159.3284 |
| Chi-squared | 40.59930 |
| Degrees of freedom | 3 |
| Significance level | .0000000 |
+-----+

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+-----+
| Variable | Coefficient | Standard Error | b/St.Er. | P[|Z|>z] | Mean of X |
+-----+
| Characteristics in numerator of Prob[Y = 1] |
| Constant | -3.736982077 | 1.1166411 | -3.347 | .0008 | |
| PLACE3 | 1.811897074 | .94297241 | 1.921 | .0547 | .98333333 |
| PLACE4 | 2.880426635 | .53795242 | 5.354 | .0000 | .92666667 |
| ACT | .7282208895 | .40435473 | 1.801 | .0717 | .87333333 |
+-----+

```

Matrix: Las
[4,4]

-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
-----+
-----+
-----+

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Marginal effects on Prob[Y = 1]					
Constant	-.6109897807	.19178531	-3.186	.0014	
PLACE3	.2962418801	.15501392	1.911	.0560	.98333333
PLACE4	.4709445220	.94944336E-01	4.960	.0000	.92666667
ACT	.1190627925	.65635172E-01	1.814	.0697	.87333333

-----+
| Multinomial Logit Model |
| Maximum Likelihood Estimates |
| Dependent variable Y |
| Weighting variable ONE |
| Number of observations 300 |
| Iterations completed 9 |
| Log likelihood function -37.37034 |
| Restricted log likelihood -159.3284 |
| Chi-squared 243.9161 |
| Degrees of freedom 14 |
| Significance level .0000000 |
-----+

Variable	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Mean of X
Characteristics in numerator of Prob[Y = 1]					
Constant	-24.13430187	4.9058841	-4.919	.0000	
SEX	-.2043034630	.71022499	-.288	.7736	.66000000
AGE	-.2814016547E-01	.24780194E-01	-1.136	.2561	41.200000
IN	.1911035985E-05	.10281101E-05	1.859	.0631	230803.80
PLACE1	2.619867134	.92274282	2.839	.0045	.86333333
PLACE2	-4.843302858	2.8553969	-1.696	.0898	.92000000
PLACE3	5.289014950	2.0606157	2.567	.0103	.98333333
PLACE4	6.840652029	1.4771841	4.631	.0000	.92666667
GOOD1	1.262094263	.86455008	1.460	.1443	.62333333
GOOD2	-1.283924206	1.3378005	-.960	.3372	.83666667
SECURITY	2.942647980	1.1774790	2.499	.0125	.93666667
Q1	5.989314708	1.1607211	5.160	.0000	.81333333
Q2	6.348421345	1.6286564	3.898	.0001	.86666667
PRICE	4.425518239	1.0308863	4.293	.0000	.54666667
ACT	4.911905937	1.1283501	4.353	.0000	.87333333

Matrix: Las
[15,4]

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-----+
| Partial derivatives of probabilities with |
| respect to the vector of characteristics. |
| They are computed at the means of the Xs. |
| Observations used for means are All Obs. |
-----+
-----+-----+-----+-----+-----+
|Variable | Coefficient | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
-----+-----+-----+-----+-----+-----+
Marginal effects on Prob[Y = 1]
Constant -.4650846032 .26404484 -1.761 .0782
SEX -.3937068309E-02 .13545837E-01 -.291 .7713 .66000000
AGE -.5422803513E-03 .54100776E-03 -1.002 .3162 41.200000
IN .3682697837E-07 .27393799E-07 1.344 .1788 230803.80
PLACE1 .5048664234E-01 .28936664E-01 1.745 .0810 .86333333
PLACE2 -.9333377864E-01 .60537243E-01 -1.542 .1231 .92000000
PLACE3 .1019229573 .64709705E-01 1.575 .1152 .98333333
PLACE4 .1318240715 .70721672E-01 1.864 .0623 .92666667
GOOD1 .2432142486E-01 .20217077E-01 1.203 .2290 .62333333
GOOD2 -.2474210289E-01 .29874081E-01 -.828 .4075 .83666667
SECURITY .5670685134E-01 .35082918E-01 1.616 .1060 .93666667
Q1 .1154182155 .63191062E-01 1.826 .0678 .81333333
Q2 .1223384475 .73042919E-01 1.675 .0940 .86666667
PRICE .8528278156E-01 .42618850E-01 2.001 .0454 .54666667
ACT .9465580717E-01 .48975967E-01 1.933 .0533 .87333333

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ประวัติผู้เขียน

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