

```
--> RESET
Initializing NLOGIT Version 4.0.1 (January 1, 2007).
--> LOAD;file="C:\Users\Julian\Documents\My Dropbox\Aktuelle Studie\Auswertun...
.LPJ save file contained 14364 observations.
? Drop inconsistent Obsevation
--> REJECT;INCONSIS = 1$
```

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? Estimate Latent Class Logit Model
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--> lclogit;
    lhs = ALTERNAT ;
    rhs = SCHEDUDE,UNSCHEDE ,RENDEC, SERDU2, SERDU3, COSTDECO;
parameters;
WTP = SCHEDUDE/COSTDECO,UNSCHEDE/COSTDECO ,RENDEC/COSTDECO, SERDU2/COST...
choices = 1,2 ;
prob=problc;
pds = 9 ;
pts =3 $
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+-----+
| Discrete choice and multinomial logit models|
+-----+
Normal exit from iterations. Exit status=0.
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+-----+
| Discrete choice (multinomial logit) model |
| Maximum Likelihood Estimates              |
| Model estimated: Jan 28, 2011 at 07:58:59AM.|
| Dependent variable                        Choice |
| Weighting variable                        None   |
| Number of observations                    6723   |
| Iterations completed                      14     |
| Log likelihood function                   -3855.245 |
| Number of parameters                      6       |
| Info. Criterion: AIC =                    1.14867 |
|   Finite Sample: AIC =                    1.14867 |
| Info. Criterion: BIC =                    1.15475 |
| Info. Criterion:HQIC =                    1.15077 |
| R2=1-LogL/LogL*   Log-L fncn  R-sqrd  RsqAdj |
| Constants only   -4619.1094  .16537  .16288 |
| Response data are given as ind. choice.      |
| Number of obs.= 6723, skipped 0 bad obs.      |
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| Notes No coefficients=> P(i,j)=1/J(i).      |
|   Constants only => P(i,j) uses ASCs        |
|   only. N(j)/N if fixed choice set.         |
|   N(j) = total sample frequency for j      |
|   N    = total sample frequency.            |
|   These 2 models are simple MNL models.     |
|   R-sqrd = 1 - LogL(model)/logL(other)      |
|   RsqAdj=1-[nJ/(nJ-nparm)]*(1-R-sqrd)      |
|   nJ    = sum over i, choice set sizes     |
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+-----+-----+-----+-----+-----+
|Variable| Coefficient | Standard Error |b/St.Er.|P[|Z|>z]|
+-----+-----+-----+-----+-----+
SCHEDU|1|      -.02747777      .00174883      -15.712      .0000
```

UNSCHE 1	-.01026347	.00171641	-5.980	.0000
RENDEC 1	.01751889	.00560267	3.127	.0018
SERDU2 1	.00491342	.05272566	.093	.9258
SERDU3 1	-.16035684	.04793454	-3.345	.0008
COSTDE 1	-8.32362615	.24896015	-33.434	.0000

Normal exit from iterations. Exit status=0.

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+-----+
| Latent Class Logit Model |
| Maximum Likelihood Estimates |
| Model estimated: Jan 28, 2011 at 07:59:09AM. |
| Dependent variable          ALTERNAT |
| Weighting variable          None |
| Number of observations      6723 |
| Iterations completed        67 |
| Log likelihood function     -3433.515 |
| Number of parameters        20 |
| Info. Criterion: AIC =      1.02737 |
|   Finite Sample: AIC =      1.02739 |
| Info. Criterion: BIC =      1.04764 |
| Info. Criterion:HQIC =      1.03437 |
| Restricted log likelihood    -4660.028 |
| McFadden Pseudo R-squared   .2631988 |
| Chi squared                 2453.027 |
| Degrees of freedom          20 |
| Prob[ChiSqd > value] =      .0000000 |
| R2=1-LogL/LogL*   Log-L fncn  R-sqrd  RsqAdj |
| No coefficients    -4660.0285  .26320  .26100 |
| Constants only    -4619.1094  .25667  .25445 |
| At start values   -3855.2677  .10940  .10674 |
| Response data are given as ind. choice. |
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| Notes No coefficients=> P(i,j)=1/J(i). |
|   Constants only => P(i,j) uses ASCs |
|   only. N(j)/N if fixed choice set. |
|   N(j) = total sample frequency for j |
|   N    = total sample frequency. |
|   These 2 models are simple MNL models. |
|   R-sqrd = 1 - LogL(model)/logL(other) |
|   RsqAdj=1-[nJ/(nJ-nparm)]*(1-R-sqrd) |
|   nJ     = sum over i, choice set sizes |
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| Latent Class Logit Model |
| Number of latent classes =   3 |
| Average Class Probabilities |
|   .061  .454  .484 |
| ----- |
| LCM model with panel has  747 groups. |
| Fixed number of obsrvs./group=      9 |
| Discrete parameter variation specified. |
| ----- |
| Number of obs.=  6723, skipped   0 bad obs. |
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| Start values obtained using MNL model |
| Maximum Likelihood Estimates |
| Model estimated: Jan 28, 2011 at 11:25:01AM. |
| Dependent variable Choice |
| Weighting variable None |
| Number of observations 6723 |
| Iterations completed 14 |
| Log likelihood function -3855.245 |
| Number of parameters 6 |
| Info. Criterion: AIC = 1.14867 |
| Finite Sample: AIC = 1.14867 |
| Info. Criterion: BIC = 1.15475 |
| Info. Criterion:HQIC = 1.15077 |
| R2=1-LogL/LogL* Log-L fncn R-sqrd RsqAdj |
| Constants only -4619.1094 .16537 .16200 |
| Response data are given as ind. choice. |
| Number of obs.= 6723, skipped 0 bad obs. |
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| Notes No coefficients=> P(i,j)=1/J(i). |
| Constants only => P(i,j) uses ASCs |
| only. N(j)/N if fixed choice set. |
| N(j) = total sample frequency for j |
| N = total sample frequency. |
| These 2 models are simple MNL models. |
| R-sqrd = 1 - LogL(model)/logL(other) |
| RsqAdj=1-[nJ/(nJ-nparm)]*(1-R-sqrd) |
| nJ = sum over i, choice set sizes |
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+-----+-----+-----+-----+-----+
|Variable| Coefficient | Standard Error |b/St.Er.|P[|Z|>z]|
+-----+-----+-----+-----+-----+
| SCHEDUDE| -.02747777 | .00174883 | -15.712 | .0000 |
| UNSCHEDE| -.01026347 | .00171641 | -5.980 | .0000 |
| RENDEC | .01751889 | .00560267 | 3.127 | .0018 |
| SERDU2 | .00491342 | .05272566 | .093 | .9258 |
| SERDU3 | -.16035684 | .04793454 | -3.345 | .0008 |
| COSTDECO| -8.32362615 | .24896015 | -33.434 | .0000 |

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Normal exit from iterations. Exit status=0.

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| Random Parameters Logit Model |
| Maximum Likelihood Estimates |
| Model estimated: Jan 28, 2011 at 02:41:59PM. |
| Dependent variable ALTERNAT |
| Weighting variable None |
| Number of observations 6723 |
| Iterations completed 70 |
| Log likelihood function -3473.296 |
| Number of parameters 27 |
| Info. Criterion: AIC = 1.04129 |
| Finite Sample: AIC = 1.04132 |
| Info. Criterion: BIC = 1.06865 |
| Info. Criterion:HQIC = 1.05074 |
| Restricted log likelihood -4660.028 |
| McFadden Pseudo R-squared .2546620 |

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| Chi squared                2373.464 |
| Degrees of freedom         27       |
| Prob[ChiSqd > value] =     .0000000 |
| R2=1-LogL/LogL*   Log-L fncn  R-sqrd  RsqAdj |
| No coefficients   -4660.0285   .25466   .25166 |
| Constants only    -4619.1094   .24806   .24503 |
| At start values   -3855.2453   .09907   .09544 |
| Response data are given as ind. choice. |

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| Notes No coefficients=> P(i,j)=1/J(i). |
|      Constants only => P(i,j) uses ASCs |
|      only. N(j)/N if fixed choice set. |
|      N(j) = total sample frequency for j |
|      N      = total sample frequency. |
|      These 2 models are simple MNL models. |
|      R-sqrd = 1 - LogL(model)/logL(other) |
|      RsqAdj=1-[nJ/(nJ-nparm)]*(1-R-sqrd) |
|      nJ      = sum over i, choice set sizes |
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| Random Parameters Logit Model |
| Replications for simulated probs. =1000 |
| Halton sequences used for simulations |
| ----- |
| RPL model with panel has 747 groups. |
| Fixed number of obsrvs./group= 9 |
| Random parameters model was specified |
| ----- |
| RPL model has correlated parameters |
| Hessian was not PD. Using BHHH estimator. |
| Number of obs.= 6723, skipped 0 bad obs. |
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+-----+-----+-----+-----+-----+
|Variable| Coefficient | Standard Error |b/St.Er.|P[|Z|>z]|
+-----+-----+-----+-----+-----+

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-----+Random parameters in utility functions
SCHUDE|    -.05092095    .00365423   -13.935   .0000
UNSCHEDE|    -.01915311    .00327458    -5.849   .0000
RENDEC |     .07486785    .01218894     6.142   .0000
SERDU2 |    -.11287340    .10894124    -1.036   .3002
SERDU3 |    -.34590443    .10022161    -3.451   .0006
COSTDECO|   -16.4672706    .80717140   -20.401   .0000

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-----+Diagonal values in Cholesky matrix, L.
NsSCHUDE|    .04700412    .00448660   10.477   .0000
NsUNSCHE|    .00770684    .00549219     1.403   .1605
NsRENDEC|    .00884417    .05021474     .176   .8602
NsSERDU2|    .86935295    .27844877     3.122   .0018
NsSERDU3|    .12790891    1.00936288     .127   .8992
NsCOSTDE|    5.05336074    5.42906671     .931   .3520

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-----+Below diagonal values in L matrix. V = L*Lt
UNSC:SCH|    -.02170335    .00478384    -4.537   .0000
REND:SCH|    .04594639    .01784090     2.575   .0100
REND:UNS|    -.09223118    .01803174    -5.115   .0000
SERD:SCH|    -.20016908    .15368326    -1.302   .1928
SERD:UNS|    .28179795    .23859239     1.181   .2376

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SERD:REN	.39539777	.63066762	.627	.5307
SER0:SCH	-.48845238	.13031976	-3.748	.0002
SER0:UNS	.29934952	.20194473	1.482	.1383
SER0:REN	.10319486	.89664461	.115	.9084
SERD:SER	.53436382	.41990444	1.273	.2032
COST:SCH	-10.3869201	1.30347266	-7.969	.0000
COST:UNS	5.33587869	3.69757335	1.443	.1490
COST:REN	7.17353482	5.10267012	1.406	.1598
COST:SER	-.59472618	5.22429075	-.114	.9094
COS0:SER	5.96583409	5.64724236	1.056	.2908

-----+Standard deviations of parameter distributions

sdSCHEDU	.04700412	.00448660	10.477	.0000
sdUNSCHE	.02303108	.00516245	4.461	.0000
sdRENDEC	.10342089	.01946994	5.312	.0000
sdSERDU2	1.01567302	.18227719	5.572	.0000
sdSERDU3	.80046888	.33119492	2.417	.0157
sdCOSTDE	15.7892572	1.34686740	11.723	.0000

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