MNL1.26– ASC e número de automóveis particulares disponíveis per capita

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 03:11:35PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  6     |
| Log likelihood function       -111107.3     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.32887     |
|   Finite Sample: AIC =          2.32887     |
| Info. Criterion: BIC =          2.32986     |
| Info. Criterion:HQIC =          2.32917     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .10027  .10025 |
| Chi-squared[ 5]          =  24764.07937     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -1.68314593       .02952474   -57.008   .0000
 BP_NC1   |   -5.48865624       .12063196   -45.499   .0000
 A_B      |     .32955623       .01439045    22.901   .0000
 B_NC2    |   -5.00106005       .04829226  -103.558   .0000
 A_BO     |   -1.45021008       .02571518   -56.395   .0000
 BO_NC3   |   -4.14657538       .08770229   -47.280   .0000
 A_M      |    -.72880188       .01984530   -36.724   .0000
 M_NC4    |   -4.98577711       .07256989   -68.703   .0000
 A_P      |    -.09795415       .01617714    -6.055   .0000
 P_NC5    |   -5.11700897       .05724246   -89.392   .0000
```

MNL1.27 – ASC e rendimento mensal do agregado per capita

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,RC$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 03:14:16PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  6     |
| Log likelihood function       -120684.6     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.52960     |
|   Finite Sample: AIC =          2.52960     |
| Info. Criterion: BIC =          2.53059     |
| Info. Criterion:HQIC =          2.52990     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .02271  .02269 |
| Chi-squared[ 5]          =   5609.55645     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -2.04060498       .05264711   -38.760   .0000
 BP_RC1   |    -.00266808       .00012872   -20.728   .0000
 A_B      |    -.10541225       .02090814    -5.042   .0000
 B_RC2    |    -.00225406     .476564D-04   -47.298   .0000
 A_BO     |   -1.14352387       .04379370   -26.112   .0000
 BO_RC3   |    -.00387375       .00011616   -33.349   .0000
 A_M      |    -.88428970       .03304166   -26.763   .0000
 M_RC4    |    -.00299881     .817764D-04   -36.671   .0000
 A_P      |    -.72273781       .02432289   -29.714   .0000
 P_RC5    |    -.00181623     .541854D-04   -33.519   .0000
```

MNL1.28 – ASC e rendimento mensal do agregado por categorias

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,R$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 03:17:43PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  5     |
| Log likelihood function       -119964.7     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.51451     |
|   Finite Sample: AIC =          2.51451     |
| Info. Criterion: BIC =          2.51550     |
| Info. Criterion:HQIC =          2.51481     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .02854  .02852 |
| Chi-squared[ 5]          =   7049.31952     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP    |   -1.76658214       .05357816   -32.972   .0000
 BP_R1   |    -.00099406     .395065D-04   -25.162   .0000
 A_B     |     .22158625       .02211403    10.020   .0000
 B_R2    |    -.00091123     .153070D-04   -59.530   .0000
 A_BO    |   -1.61852618       .04315956   -37.501   .0000
 BO_R3   |    -.00074113     .298859D-04   -24.799   .0000
 A_M     |    -.84257680       .03344309   -25.194   .0000
 M_R4    |    -.00090455     .238268D-04   -37.963   .0000
 A_P     |    -.12392328       .02609519    -4.749   .0000
 P_R5    |    -.00099283     .186484D-04   -53.240   .0000
```

MNL1.29 – ASC e sexo

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,SX$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 03:19:18PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  5     |
| Log likelihood function       -121950.6     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.55613     |
|   Finite Sample: AIC =          2.55613     |
| Info. Criterion: BIC =          2.55712     |
| Info. Criterion:HQIC =          2.55643     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .01246  .01244 |
| Chi-squared[ 5]          =   3077.43949     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.66431350       .03697967   -99.090   .0000
 BP_SX1   |     .90711674       .04549637    19.938   .0000
 A_B      |   -1.48036180       .01357534  -109.048   .0000
 B_SX2    |     .76474558       .01766240    43.298   .0000
 A_BO     |   -2.69910563       .02328163  -115.933   .0000
 BO_SX3   |     .02732275       .03450194      .792   .4284
 A_M      |   -1.98360975       .01680732  -118.021   .0000
 M_SX4    |    -.33477827       .02739165   -12.222   .0000
 A_P      |   -1.81365639       .01561007  -116.185   .0000
 P_SX5    |     .58001438       .02072542    27.986   .0000
```

Modelo MNL1.32 – Disponibilidade diária de automóvel particular e ASC.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,DA$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 03:22:52PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  5     |
| Log likelihood function       -112883.5     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.36609     |
|   Finite Sample: AIC =          2.36609     |
| Info. Criterion: BIC =          2.36709     |
| Info. Criterion:HQIC =          2.36640     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .08589  .08587 |
| Chi-squared[ 5]          =  21211.83314     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -1.41653425       .03221888   -43.966   .0000
 BP_DA1   |   -2.39378706       .04467677   -53.580   .0000
 A_B      |     .63387676       .01761074    35.994   .0000
 B_DA2    |   -2.30949385       .02101764  -109.884   .0000
 A_BO     |   -1.24569579       .03011411   -41.366   .0000
 BO_DA3   |   -1.84192864       .03718292   -49.537   .0000
 A_M      |    -.44262108       .02276163   -19.446   .0000
 M_DA4    |   -2.26783911       .02916942   -77.747   .0000
 A_P      |     .24736654       .01899637    13.022   .0000
 P_DA5    |   -2.43613986       .02380752  -102.326   .0000
```

Modelo MNL1.33 – Licença de condução e ASC.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,LC$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 03:24:19PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  6     |
| Log likelihood function       -111414.3     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.33530     |
|   Finite Sample: AIC =          2.33530     |
| Info. Criterion: BIC =          2.33629     |
| Info. Criterion:HQIC =          2.33560     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .09778  .09776 |
| Chi-squared[ 5]           =  24150.14332    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -2.02045201       .02453822   -82.339   .0000
 BP_LC1   |   -2.60129028       .05691020   -45.709   .0000
 A_B      |    .01260874       .01183642     1.065   .2868
 B_LC2    |   -2.29914458       .02045723  -112.388   .0000
 A_BO     |   -1.60809946       .02055434   -78.237   .0000
 BO_LC3   |   -2.30623747       .04165528   -55.365   .0000
 A_M      |   -1.24346612       .01774630   -70.069   .0000
 M_LC4    |   -1.59262758       .02790054   -57.082   .0000
 A_P      |    -.47568731       .01356179   -35.076   .0000
 P_LC5    |   -2.12024559       .02353626   -90.084   .0000
```

Modelo MNL1.34 – Viagens de regresso a casa e ASC.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,RG$
Normal exit:   3 iterations. Status=0, F=    123486.7

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function   -123486.71444
Estimation based on N =  95426, K =  10
Inf.Cr.AIC  = 246993.4 AIC/N =    2.588
Model estimated: May 11, 2012, 14:34:06
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .0000 .0000
Chi-squared[ 5]           =      5.31034
Prob [ chi squared > value ] =   .37919
Response data are given as ind. choices
Number of obs.= 95426, skipped    0 obs
--------+-----------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+-----------------------------------------------------------------------
    A_BP|   -3.19383***       .03116  -102.49  .0000    -3.25490  -3.13275
  BP_RG1|     .07403*         .04298     1.72  .0850     -.01021    .15826
     A_B|   -1.06114***       .01220   -86.99  .0000    -1.08505  -1.03723
   B_RG2|    -.00664          .01714     -.39  .6982     -.04023    .02694
    A_BO|   -2.67113***       .02432  -109.84  .0000    -2.71879  -2.62347
  BO_RG3|    -.03097          .03436     -.90  .3674     -.09832    .03638
     A_M|   -2.10836***       .01880  -112.17  .0000    -2.14520  -2.07152
   M_RG4|    -.02361          .02651     -.89  .3732     -.07557    .02835
     A_P|   -1.50377***       .01450  -103.68  .0000    -1.53220  -1.47534
   P_RG5|    -.01501          .02041     -.74  .4621     -.05502    .02499
--------+-----------------------------------------------------------------------
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
--------------------------------------------------------------------------------
```

Modelo MNL1.35 – Viagens para trabalho e ASC.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,TR$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 04:37:29PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  5     |
| Log likelihood function       -122912.9     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.57630     |
|   Finite Sample: AIC =          2.57630     |
| Info. Criterion: BIC =          2.57729     |
| Info. Criterion:HQIC =          2.57660     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .00467  .00465 |
| Chi-squared[ 5]           =   1152.86114    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.07794922       .02367670  -129.999   .0000
 BP_TR1   |    -.37768559       .05614680    -6.727   .0000
 A_B      |    -.99790496       .00957226  -104.250   .0000
 B_TR2    |    -.31677729       .02159344   -14.670   .0000
 A_BO     |   -2.61486929       .01902494  -137.444   .0000
 BO_TR3   |    -.34564040       .04441460    -7.782   .0000
 A_M      |   -2.27839705       .01629682  -139.806   .0000
 M_TR4    |     .54337289       .02818761    19.277   .0000
 A_P      |   -1.40911056       .01121072  -125.693   .0000
 P_TR5    |    -.52693408       .02747267   -19.180   .0000
```

Modelo MNL1.35a – Viagens para trabalho (com motivo da viagem anterior nas viagens para casa) e ASC.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,TR2$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 04:40:03PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            87654     |
| Iterations completed                  5     |
| Log likelihood function       -113663.3     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.59368     |
|   Finite Sample: AIC =          2.59368     |
| Info. Criterion: BIC =          2.59475     |
| Info. Criterion:HQIC =          2.59401     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .01440  .01438 |
| Chi-squared[ 5]          =   3321.97506     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped7772 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_BP     |   -2.91987267       .02822462  -103.451   .0000
 BP_TR21  |    -.47821510       .04619033   -10.353   .0000
 A_B      |    -.81542516       .01152911   -70.728   .0000
 B_TR22   |    -.47751928       .01826968   -26.137   .0000
 A_BO     |   -2.40316866       .02217269  -108.384   .0000
 BO_TR23  |    -.51509964       .03654483   -14.095   .0000
 A_M      |   -2.60589537       .02435062  -107.016   .0000
 M_TR24   |     .92133744       .02948497    31.248   .0000
 A_P      |   -1.16585353       .01309935   -89.001   .0000
 P_TR25   |    -.72056749       .02236417   -32.220   .0000
```

Modelo MNL1.36 – Viagens para a escola e ASC.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,ES$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 04:41:43PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  6     |
| Log likelihood function       -121692.0     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.55071     |
|   Finite Sample: AIC =          2.55071     |
| Info. Criterion: BIC =          2.55170     |
| Info. Criterion:HQIC =          2.55101     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .01456  .01453 |
| Chi-squared[ 5]          =   3594.79179     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.30202046       .02362889  -139.745   .0000
 BP_ES1   |    1.41875523       .05821528    24.371   .0000
 A_B      |   -1.17743671       .00917406  -128.344   .0000
 B_ES2    |    1.21592414       .02859088    42.528   .0000
 A_BO     |   -2.93404718       .01981259  -148.090   .0000
 BO_ES3   |    1.88251528       .04284565    43.937   .0000
 A_M      |   -2.08904149       .01341358  -155.741   .0000
 M_ES4    |    -.94322453       .09113481   -10.350   .0000
 A_P      |   -1.58467278       .01079376  -146.814   .0000
 P_ES5    |     .92025686       .03487712    26.386   .0000
```

Modelo MNL1.36a – Viagens para Escola (com motivo da viagem anterior nas viagens para casa) e ASC.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,ES2$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 04:43:44PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            87654     |
| Iterations completed                  6     |
| Log likelihood function       -111059.5     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.53427     |
|   Finite Sample: AIC =          2.53427     |
| Info. Criterion: BIC =          2.53534     |
| Info. Criterion:HQIC =          2.53460     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .03698  .03696 |
| Chi-squared[ 5]          =   8529.64084     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped7772 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_BP     |   -3.50662001       .02827876  -124.002   .0000
 BP_ES21  |    1.74395122       .04743070    36.768   .0000
 A_B      |   -1.30140467       .01043409  -124.726   .0000
 B_ES22   |    1.45885663       .02241990    65.070   .0000
 A_BO     |   -3.27420282       .02527202  -129.558   .0000
 BO_ES23  |    2.33557919       .03733527    62.557   .0000
 A_M      |   -1.99429514       .01394296  -143.032   .0000
 M_ES24   |    -.91775826       .06567355   -13.975   .0000
 A_P      |   -1.64116858       .01197903  -137.003   .0000
 P_ES25   |    1.13196972       .02663106    42.506   .0000
```

Modelo MNL1.37 – Viagens para lazer e ASC.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Lz$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 04:45:11PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  6     |
| Log likelihood function       -123148.8     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.58124     |
|   Finite Sample: AIC =          2.58124     |
| Info. Criterion: BIC =          2.58223     |
| Info. Criterion:HQIC =          2.58154     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .00276  .00274 |
| Chi-squared[ 5]          =    681.09175     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.08275547       .02223699  -138.632   .0000
 BP_LZ1   |    -.76410242       .08572724    -8.913   .0000
 A_B      |   -1.02006095       .00904268  -112.805   .0000
 B_LZ2    |    -.40181606       .02861574   -14.042   .0000
 A_BO     |   -2.58449067       .01757681  -147.040   .0000
 BO_LZ3   |   -1.34633260       .08804249   -15.292   .0000
 A_M      |   -2.06930800       .01390271  -148.842   .0000
 M_LZ4    |    -.47522091       .04649053   -10.222   .0000
 A_P      |   -1.51670391       .01097388  -138.210   .0000
 P_LZ5    |     .03990157       .02985038     1.337   .1813
```

Modelo MNL1.37a – Viagens para Lazer (com motivo da viagem anterior nas viagens para casa) e ASC.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Lz2$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 04:47:11PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            87654     |
| Iterations completed                  6     |
| Log likelihood function       -114493.2     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.61262     |
|   Finite Sample: AIC =          2.61262     |
| Info. Criterion: BIC =          2.61369     |
| Info. Criterion:HQIC =          2.61294     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .00721  .00718 |
| Chi-squared[ 5]          =   1662.16223     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped7772 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_BP     |   -2.95400183       .02401720  -122.995    .0000
 BP_LZ21  |    -.88608279       .06582029   -13.462    .0000
 A_B      |    -.90313069       .00995476   -90.723    .0000
 B_LZ22   |    -.53106927       .02257601   -23.524    .0000
 A_BO     |   -2.37761026       .01834808  -129.584    .0000
 BO_LZ23  |   -1.67011373       .07028907   -23.761    .0000
 A_M      |   -1.93267959       .01503375  -128.556    .0000
 M_LZ24   |    -.57105040       .03565405   -16.016    .0000
 A_P      |   -1.44385130       .01223418  -118.018    .0000
 P_LZ25   |    -.03267765       .02397061    -1.363    .1728
```

Modelo MNL1.38 – Viagens para compras/serviços e ASC.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,CS$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 04:49:19PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  6     |
| Log likelihood function       -123329.8     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.58504     |
|   Finite Sample: AIC =          2.58504     |
| Info. Criterion: BIC =          2.58603     |
| Info. Criterion:HQIC =          2.58534     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .00129  .00127 |
| Chi-squared[ 5]           =    319.09007     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.13336464       .02205191  -142.090   .0000
 BP_CS1   |    -.35773542       .09601594    -3.726   .0002
 A_B      |   -1.05619735       .00887039  -119.070   .0000
 B_CS2    |    -.12052304       .03426956    -3.517   .0004
 A_BO     |   -2.63425698       .01741232  -151.287   .0000
 BO_CS3   |   -1.20868709       .11229238   -10.764   .0000
 A_M      |   -2.08835369       .01357144  -153.879   .0000
 M_CS4    |    -.56395919       .06407328    -8.802   .0000
 A_P      |   -1.52672654       .01066589  -143.141   .0000
 P_CS5    |     .19249976       .03677433     5.235   .0000
```

Modelo MNL1.38a – Viagens para Compras/Serviços (com motivo da viagem anterior nas viagens para casa) e ASC.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,CS2$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 03, 2012 at 04:51:08PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            87654     |
| Iterations completed                  6     |
| Log likelihood function       -114993.2     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.62403     |
|   Finite Sample: AIC =          2.62403     |
| Info. Criterion: BIC =          2.62510     |
| Info. Criterion:HQIC =          2.62435     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  **********  .00287  .00285 |
| Chi-squared[ 5]          =    662.17939     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped7772 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_BP     |   -3.08407619       .02375641  -129.821    .0000
 BP_CS21  |    -.29940692       .06942060    -4.313    .0000
 A_B      |   -1.00133464       .00958841  -104.432    .0000
 B_CS22   |    -.12416479       .02572656    -4.826    .0000
 A_BO     |   -2.50332990       .01807302  -138.512    .0000
 BO_CS23  |   -1.32978954       .08317375   -15.988    .0000
 A_M      |   -1.98169336       .01427982  -138.776    .0000
 M_CS24   |    -.64102238       .04760899   -13.464    .0000
 A_P      |   -1.47885655       .01153651  -128.189    .0000
 P_CS25   |     .16395374       .02815560     5.823    .0000
```

MNL1.39– ASC e duração total da viagem apreendida (não genérica).

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,TP$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 11:55:23AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  8     |
| Log likelihood function       -115286.8     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.41646     |
|   Finite Sample: AIC =          2.41646     |
| Info. Criterion: BIC =          2.41746     |
| Info. Criterion:HQIC =          2.41677     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .06642  .06640 |
| Chi-squared[ 5]          =  16405.23460     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -5.77258628       .04534259  -127.310   .0000
 BP_TP1   |     .10035333       .00109719    91.464   .0000
 A_B      |   -2.56335629       .01874895  -136.720   .0000
 B_TP2    |     .06974720       .00074247    93.940   .0000
 A_BO     |   -3.65567814       .03323184  -110.005   .0000
 BO_TP3   |     .04937986       .00126590    39.008   .0000
 A_M      |   -1.72929906       .02830705   -61.091   .0000
 M_TP4    |    -.02467307       .00165143   -14.940   .0000
 A_P      |   -2.06396785       .02049423  -100.710   .0000
 P_TP5    |     .03016203       .00092275    32.687   .0000
```

MNL1.40-1.45 – ASC e duração média apreendida da viagem por modo (genérica).

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1,T2,T3,T4,T5,T6
;Rh2=ONE$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 11:57:38AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                  4     |
| Log likelihood function       -39682.80     |
| Number of parameters                  6     |
| Info. Criterion: AIC =            2.59752   |
|   Finite Sample: AIC =            2.59752   |
| Info. Criterion: BIC =            2.59915   |
| Info. Criterion:HQIC =            2.59804   |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .00011  .00007 |
| Chi-squared[ 1]          =      8.56348     |
| Prob [ chi squared > value ] =    .00343     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 ATTRIB01|    -.00353054       .00121356    -2.909    .0036
 A_BP    |   -2.77525620       .04680846   -59.290    .0000
 A_B     |   -1.20586570       .01922281   -62.731    .0000
 A_BO    |   -2.52486112       .02895494   -87.200    .0000
 A_M     |   -2.08359669       .02270816   -91.755    .0000
 A_P     |   -1.62832128       .02116531   -76.934    .0000
```

MNL1.46-1.51 – ASC e duração apreendida da viagem se for o modo usado e duração média para os restantes pares GA (genérica).

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1a,T2a,T3a,T4a,T5a,T6a
:Rh2=ONE$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 00:02:02PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                  4     |
| Log likelihood function       -39684.64     |
| Number of parameters                  6     |
| Info. Criterion: AIC =          2.59764     |
|   Finite Sample: AIC =          2.59764     |
| Info. Criterion: BIC =          2.59928     |
| Info. Criterion:HQIC =          2.59816     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .00006  .00002 |
| Chi-squared[ 1]           =     4.86836     |
| Prob [ chi squared > value ] =   .02735     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 ATTRIB01|    -.00200031       .00090889    -2.201   .0277
 A_BP    |   -2.81776810       .04130566   -68.217   .0000
 A_B     |   -1.21953091       .01783526   -68.378   .0000
 A_BO    |   -2.53425154       .02854392   -88.784   .0000
 A_M     |   -2.08444870       .02270408   -91.809   .0000
 A_P     |   -1.64058158       .02021456   -81.158   .0000
```

MNL1.52 – ASC e distância mais curta entre centróides em km.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,D$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 00:07:27PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  7     |
| Log likelihood function       -118243.5     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.47843     |
|   Finite Sample: AIC =          2.47843     |
| Info. Criterion: BIC =          2.47942     |
| Info. Criterion:HQIC =          2.47873     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .04248  .04246 |
| Chi-squared[ 5]          =  10491.83297     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.41073265       .04371882   -78.015   .0000
 BP_D1    |     .04367047       .00628512     6.948   .0000
 A_B      |   -1.03749647       .01784071   -58.153   .0000
 B_D2     |    -.00482531       .00280095    -1.723   .0849
 A_BO     |   -2.87279134       .03522019   -81.567   .0000
 BO_D3    |     .03217701       .00518677     6.204   .0000
 A_M      |   -1.86954634       .02805092   -66.648   .0000
 M_D4     |    -.04630481       .00470040    -9.851   .0000
 A_P      |     .68835509       .02509851    27.426   .0000
 P_D5     |    -.53515785       .00666531   -80.290   .0000
```

MNL1.53 – ASC e distância mais curta entre centróides (dist a pé com vel 3,6km/h).

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,D2$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 00:10:25PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                 10     |
| Log likelihood function       -99549.00     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.08662     |
|   Finite Sample: AIC =          2.08662     |
| Info. Criterion: BIC =          2.08761     |
| Info. Criterion:HQIC =          2.08692     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .19387  .19385 |
| Chi-squared[ 5]          =  47880.73738     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.41433072       .04390224   -77.771   .0000
 BP_D21   |     .04428816       .00632001     7.008   .0000
 A_B      |   -1.03701220       .01796459   -57.725   .0000
 B_D22    |    -.00491182       .00282621    -1.738   .0822
 A_BO     |   -2.87558796       .03539324   -81.247   .0000
 BO_D23   |     .03266146       .00522029     6.257   .0000
 A_M      |   -1.86431141       .02830697   -65.860   .0000
 M_D24    |    -.04727343       .00475573    -9.940   .0000
 A_P      |    4.77199242       .04883090    97.725   .0000
 P_D25    |   -2.65568564       .02597634  -102.235   .0000
```

MNL1.54 – ASC e Razão entre o número total de lugares pagos e o número total de oferta de estacionamento PO.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,PO$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 00:13:12PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            18823     |
| Iterations completed                  6     |
| Log likelihood function       -23546.63     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.50296     |
|   Finite Sample: AIC =          2.50296     |
| Info. Criterion: BIC =          2.50713     |
| Info. Criterion:HQIC =          2.50433     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -23922.0417  .01569  .01559 |
| Chi-squared[ 5]          =    750.82781     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_BP     |   -2.81789558       .07280767   -38.703   .0000
 BP_PO1   |    1.22554015       .12827821     9.554   .0000
 A_B      |    -.69622603       .03068232   -22.691   .0000
 B_PO2    |    1.48595997       .05737984    25.897   .0000
 A_BO     |   -3.74659374       .13894856   -26.964   .0000
 BO_PO3   |   -1.44410574       .38982680    -3.704   .0002
 A_M      |   -4.04213669       .13754134   -29.389   .0000
 M_PO4    |     .67827954       .26031058     2.606   .0092
 A_P      |    -.58394198       .03066087   -19.045   .0000
 P_PO5    |     .80949337       .06022389    13.441   .0000
```

MNL1.55 – ASC e Razão entre a oferta total de estacionamento e o total de viagens extrapoladas para a zona de atracção OV.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,OV$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 00:16:04PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            18823     |
| Iterations completed                  5     |
| Log likelihood function       -23479.88     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.49587     |
|   Finite Sample: AIC =          2.49587     |
| Info. Criterion: BIC =          2.50004     |
| Info. Criterion:HQIC =          2.49724     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -23922.0417  .01848  .01838 |
| Chi-squared[ 5]           =    884.32083     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -1.43155065       .09489754   -15.085   .0000
 BP_OV1   |   -9.15139007       .97657032    -9.371   .0000
 A_B      |    1.00687233       .04209420    23.920   .0000
 B_OV2    |  -11.3784424        .41621437   -27.338   .0000
 A_BO     |   -4.68229935       .23701023   -19.756   .0000
 BO_OV3   |    4.49612797      1.81490093     2.477   .0132
 A_M      |   -3.19696023       .18879761   -16.933   .0000
 M_OV4    |   -5.86357882      1.83383068    -3.197   .0014
 A_P      |     .39040103       .04342607     8.990   .0000
 P_OV5    |   -6.65560646       .40574009   -16.404   .0000
```

MNL1.56 – ASC e frequência média horária de TC no pico da manhã.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,FM$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 00:17:42PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            41329     |
| Iterations completed                  6     |
| Log likelihood function       -51556.73     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.49543     |
|   Finite Sample: AIC =          2.49543     |
| Info. Criterion: BIC =          2.49751     |
| Info. Criterion:HQIC =          2.49609     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -52160.0860  .01157  .01152 |
| Chi-squared[ 5]           =   1206.70353    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.16683244       .04289508   -73.827   .0000
 BP_FM1   |     .02054957       .00451874     4.548   .0000
 A_B      |   -1.04581365       .01655116   -63.187   .0000
 B_FM2    |     .04453910       .00165573    26.900   .0000
 A_BO     |   -2.91311053       .04542842   -64.125   .0000
 BO_FM3   |    -.09549917       .00918135   -10.401   .0000
 A_M      |   -2.53641728       .03700065   -68.551   .0000
 M_FM4    |    -.07301578       .00667490   -10.939   .0000
 A_P      |   -1.19030137       .01797887   -66.206   .0000
 P_FM5    |     .02249825       .00194058    11.594   .0000
```

MNL1.57 – ASC e frequência média horária de TC no pico do almoço.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Fa$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 00:19:01PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            41329     |
| Iterations completed                  6     |
| Log likelihood function       -51613.75     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.49819     |
|   Finite Sample: AIC =          2.49819     |
| Info. Criterion: BIC =          2.50027     |
| Info. Criterion:HQIC =          2.49885     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -52160.0860  .01047  .01043 |
| Chi-squared[ 5]           =   1092.66232    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.15912286       .04178635   -75.602   .0000
 BP_FA1   |     .02547695       .00559894     4.550   .0000
 A_B      |   -1.00411072       .01604101   -62.596   .0000
 B_FA2    |     .05093459       .00206400    24.678   .0000
 A_BO     |   -2.93556015       .04498175   -65.261   .0000
 BO_FA3   |    -.12180584       .01221626    -9.971   .0000
 A_M      |   -2.54294577       .03644486   -69.775   .0000
 M_FA4    |    -.09781614       .00893702   -10.945   .0000
 A_P      |   -1.19108552       .01753508   -67.926   .0000
 P_FA5    |     .02978185       .00239272    12.447   .0000
```

MNL1.58 – ASC e frequência média horária de TC no pico da tarde.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Ft$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 00:20:31PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            41329     |
| Iterations completed                  6     |
| Log likelihood function       -51636.87     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.49930     |
|   Finite Sample: AIC =          2.49930     |
| Info. Criterion: BIC =          2.50139     |
| Info. Criterion:HQIC =          2.49996     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -52160.0860  .01003  .00998 |
| Chi-squared[ 5]           =   1046.43964    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.15903356       .04314095   -73.226   .0000
 BP_FT1   |     .01828770       .00438873     4.167   .0000
 A_B      |   -1.03001804       .01662063   -61.972   .0000
 B_FT2    |     .04036784       .00160550    25.144   .0000
 A_BO     |   -2.94106283       .04585043   -64.145   .0000
 BO_FT3   |    -.08082334       .00835118    -9.678   .0000
 A_M      |   -2.54336635       .03724889   -68.280   .0000
 M_FT4    |    -.06661742       .00627300   -10.620   .0000
 A_P      |   -1.16692036       .01803981   -64.686   .0000
 P_FT5    |     .01779430       .00189481     9.391   .0000
```

MNL1.59 – ASC e frequência média horária de TC diária.

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Ftl$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 00:21:54PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            41329     |
| Iterations completed                  6     |
| Log likelihood function       -51633.09     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.49912     |
|   Finite Sample: AIC =          2.49912     |
| Info. Criterion: BIC =          2.50121     |
| Info. Criterion:HQIC =          2.49978     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -52160.0860  .01010  .01006 |
| Chi-squared[ 5]           =   1053.98275    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.16021777       .04313134   -73.270   .0000
 BP_FTL1  |     .01532281       .00363286     4.218   .0000
 A_B      |   -1.02143289       .01659961   -61.534   .0000
 B_FTL2   |     .03258985       .00133465    24.418   .0000
 A_BO     |   -2.91304211       .04571717   -63.719   .0000
 BO_FTL3  |    -.07466112       .00726669   -10.274   .0000
 A_M      |   -2.53295223       .03714015   -68.200   .0000
 M_FTL4   |    -.05795405       .00529128   -10.953   .0000
 A_P      |   -1.17718432       .01804979   -65.219   .0000
 P_FTL5   |     .01605935       .00155886    10.302   .0000
```

MNL1.63 – ASC e velocidade comercial equivalente em Bus (V2)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,V2$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 00:24:13PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            89305     |
| Iterations completed                  9     |
| Log likelihood function       -95406.87     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.13688     |
|   Finite Sample: AIC =          2.13688     |
| Info. Criterion: BIC =          2.13793     |
| Info. Criterion:HQIC =          2.13720     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .17517  .17515 |
| Chi-squared[ 5]          =  40522.50926     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped6121 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.07677590       .05119766   -60.096    .0000
 BP_V21   |    -.00055322       .00368671     -.150    .8807
 A_B      |    -.59407406       .02078323   -28.584    .0000
 B_V22    |    -.03227481       .00159413   -20.246    .0000
 A_BO     |   -3.11046171       .04230164   -73.531    .0000
 BO_V23   |     .03037258       .00279439    10.869    .0000
 A_M      |   -2.38805916       .03403832   -70.158    .0000
 M_V24    |     .01314046       .00236553     5.555    .0000
 A_P      |    4.13731446       .04245316    97.456    .0000
 P_V25    |    -.89274720       .00833168  -107.151    .0000
```

MNL1.64 – ASC e razão entre o tempo médio de viagem em BUS e o tempo médio de viagem em AUTO (TBA)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,TBA$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 00:27:38PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            89305     |
| Iterations completed                  5     |
| Log likelihood function       -114898.5     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.57339     |
|   Finite Sample: AIC =          2.57339     |
| Info. Criterion: BIC =          2.57445     |
| Info. Criterion:HQIC =          2.57372     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  **********  .00665  .00663 |
| Chi-squared[ 5]          =   1539.25302     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped6121 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_BP     |   -2.24184800       .08292693   -27.034    .0000
 BP_TBA1  |    -.52358689       .05128655   -10.209    .0000
 A_B      |     .00947339       .03348168      .283    .7772
 B_TBA2   |    -.62163574       .02062303   -30.143    .0000
 A_BO     |   -2.91719310       .06329965   -46.085    .0000
 BO_TBA3  |     .12317889       .03585260     3.436    .0006
 A_M      |   -2.55963207       .04996055   -51.233    .0000
 M_TBA4   |     .20155520       .02798905     7.201    .0000
 A_P      |    -.64235339       .04020583   -15.977    .0000
 P_TBA5   |    -.52346785       .02465939   -21.228    .0000
```

MNL1.65 – ASC e variável continua escalão estário em 5 escalões (Idb)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,IDB$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 00:30:47PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  5     |
| Log likelihood function       -122753.5     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.57296     |
|   Finite Sample: AIC =          2.57296     |
| Info. Criterion: BIC =          2.57395     |
| Info. Criterion:HQIC =          2.57326     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .00596  .00594 |
| Chi-squared[ 5]          =   1471.72539     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -2.59371880       .06667663   -38.900   .0000
 BP_IDB1  |    -.17721051       .02047480    -8.655   .0000
 A_B      |    -.73974490       .02786941   -26.543   .0000
 B_IDB2   |    -.10114117       .00832388   -12.151   .0000
 A_BO     |    -.97425475       .04642626   -20.985   .0000
 BO_IDB3  |    -.58171533       .01616749   -35.981   .0000
 A_M      |   -2.30730579       .04583305   -50.342   .0000
 M_IDB4   |     .05679888       .01323347     4.292   .0000
 A_P      |   -1.38501888       .03386181   -40.902   .0000
 P_IDB5   |    -.03895337       .00999353    -3.898   .0001
```

MNL1.66 – ASC e variável continua número de viagens diárias (nV)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NV$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 04, 2012 at 11:50:22PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  6     |
| Log likelihood function       -119661.3     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.50815     |
|   Finite Sample: AIC =          2.50815     |
| Info. Criterion: BIC =          2.50914     |
| Info. Criterion:HQIC =          2.50845     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .03100  .03098 |
| Chi-squared[ 5]          =   7656.11067     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -1.45705942       .05406052   -26.952   .0000
 BP_NV1   |    -.49140803       .01679160   -29.265   .0000
 A_B      |     .40026149       .02180575    18.356   .0000
 B_NV2    |    -.41313469       .00614014   -67.284   .0000
 A_BO     |   -1.05275805       .04321382   -24.362   .0000
 BO_NV3   |    -.46945570       .01317250   -35.639   .0000
 A_M      |   -1.93069216       .03085633   -62.570   .0000
 M_NV4    |    -.04633472       .00692725    -6.689   .0000
 A_P      |    -.80836092       .02442060   -33.102   .0000
 P_NV5    |    -.18214624       .00605091   -30.102   .0000
```

MNL1.67 – ASC e variável binária modo utilizado igual ao modo de transporte utilizado na 1ª viagem do dia (se não for a 1ª viagem) (M1b)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,M1B$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 05, 2012 at 00:04:33PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            65796     |
| Iterations completed                  6     |
| Log likelihood function       -81213.45     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.46895     |
|   Finite Sample: AIC =          2.46895     |
| Info. Criterion: BIC =          2.47033     |
| Info. Criterion:HQIC =          2.46938     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -81790.1222  .00705  .00702 |
| Chi-squared[ 5]          =   1153.34768     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_BP    |   -2.29289979       .05150677   -44.516   .0000
 BP_M1B1 |   -1.32550727       .06135332   -21.604   .0000
 A_B     |    -.69314718       .02701716   -25.656   .0000
 B_M1B2  |    -.61266016       .02942967   -20.818   .0000
 A_BO    |   -2.58460601       .05889920   -43.882   .0000
 BO_M1B3 |    -.37254222       .06369306    -5.849   .0000
 A_M     |   -2.27144485       .05100784   -44.531   .0000
 M_M1B4  |     .10655579       .05370106     1.984   .0472
 A_P     |    -.88338319       .02884251   -30.628   .0000
 P_M1B5  |    -.80941740       .03191709   -25.360   .0000
```

MNL1.68 – ASC e variável binária modo utilizado igual ao modo de transporte utilizado na viagem anterior (se não for a 1ª viagem) (MVB)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,MVb$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 05, 2012 at 00:12:35PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            65796     |
| Iterations completed                  6     |
| Log likelihood function       -81123.24     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.46621     |
|   Finite Sample: AIC =          2.46621     |
| Info. Criterion: BIC =          2.46759     |
| Info. Criterion:HQIC =          2.46663     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -81790.1222  .00815  .00812 |
| Chi-squared[ 5]          =   1333.76146     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_BP     |   -1.93059590       .05202885   -37.106   .0000
 BP_MVB1  |   -1.73058356       .06186084   -27.975   .0000
 A_B      |    -.51632770       .03029271   -17.045   .0000
 B_MVB2   |    -.79036220       .03239376   -24.399   .0000
 A_BO     |   -2.37954613       .06361320   -37.406   .0000
 BO_MVB3  |    -.58957844       .06797901    -8.673   .0000
 A_M      |   -2.31500761       .06176696   -37.480   .0000
 M_MVB4   |     .14986751       .06393571     2.344   .0191
 A_P      |    -.87136196       .03409703   -25.555   .0000
 P_MVB5   |    -.78265910       .03656992   -21.402   .0000
```

MNL1.69 –

- ASC
- Ti - Variável continua tempo médio de viagem apreendido em minutos entre GA no modo i (Especifica para cada modo)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Attr=Ti
;Rhs=T1,T2,T3,T4,T5,T6
;Rh2=ONE$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 06, 2012 at 04:24:28PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                  4     |
| Log likelihood function       -39682.80     |
| Number of parameters                  6     |
| Info. Criterion: AIC =          2.59752     |
|   Finite Sample: AIC =          2.59752     |
| Info. Criterion: BIC =          2.59915     |
| Info. Criterion:HQIC =          2.59804     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .00011  .00007 |
| Chi-squared[ 1]           =     8.56348     |
| Prob [ chi squared > value ] =   .00343     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 TI      |    -.00353054       .00121356    -2.909   .0036
 A_BP    |   -2.77525620       .04680846   -59.290   .0000
 A_B     |   -1.20586570       .01922281   -62.731   .0000
 A_BO    |   -2.52486112       .02895494   -87.200   .0000
 A_M     |   -2.08359669       .02270816   -91.755   .0000
 A_P     |   -1.62832128       .02116531   -76.934   .0000
```

MNL1.70 –

- ASC
- Tia - Variável continua tempo médio de viagem apreendido em minutos entre GA no modo i e o tempo apreendido quando é modo utilizado (Especifica para cada modo)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Attr=Tia
;Rhs=T1a,T2a,T3a,T4a,T5a,T6a
;Rh2=ONE$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 06, 2012 at 04:29:19PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                  4     |
| Log likelihood function       -39684.64     |
| Number of parameters                  6     |
| Info. Criterion: AIC =            2.59764   |
|   Finite Sample: AIC =            2.59764   |
| Info. Criterion: BIC =            2.59928   |
| Info. Criterion:HQIC =            2.59816   |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .00006  .00002 |
| Chi-squared[ 1]           =       4.86836   |
| Prob [ chi squared > value ] =    .02735    |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 TIA     |    -.00200031       .00090889    -2.201    .0277
 A_BP    |   -2.81776810       .04130566   -68.217    .0000
 A_B     |   -1.21953091       .01783526   -68.378    .0000
 A_BO    |   -2.53425154       .02854392   -88.784    .0000
 A_M     |   -2.08444870       .02270408   -91.809    .0000
 A_P     |   -1.64058158       .02021456   -81.158    .0000
```

MNL1.71 –

- ASC
- De : variável continua duração em minutos da estadia no destino

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,DE$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 11, 2012 at 07:08:27PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            61358     |
| Iterations completed                  5     |
| Log likelihood function       -78298.37     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.55251     |
|   Finite Sample: AIC =          2.55251     |
| Info. Criterion: BIC =          2.55398     |
| Info. Criterion:HQIC =          2.55296     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -79151.8564  .01078  .01075 |
| Chi-squared[ 5]           =   1706.96996    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.72790933       .04718840   -79.001   .0000
 BP_DE1   |     .00179182       .00012544    14.284   .0000
 A_B      |   -1.42338305       .01750400   -81.318   .0000
 B_DE2    |     .00121746     .518639D-04    23.474   .0000
 A_BO     |   -3.51471853       .03947482   -89.037   .0000
 BO_DE3   |     .00273425     .950984D-04    28.752   .0000
 A_M      |   -2.17571250       .02497420   -87.118   .0000
 M_DE4    |     .00056951     .779611D-04     7.305   .0000
 A_P      |   -1.32340786       .01902391   -69.565   .0000
 P_DE5    |    -.00086219     .702601D-04   -12.271   .0000
```

MNL1.72 –

- ASC

- Fm0 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 7:30 e as 9:30 (nfreq730930/2) ***sem zeros***

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,FM0$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 14, 2012 at 05:53:10PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            36041     |
| Iterations completed                  6     |
| Log likelihood function       -43123.27     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.39357     |
|   Finite Sample: AIC =          2.39357     |
| Info. Criterion: BIC =          2.39592     |
| Info. Criterion:HQIC =          2.39432     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -44220.4226  .02481  .02476 |
| Chi-squared[ 5]           =   2194.29796    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.37368583       .04970562   -67.873   .0000
 BP_FM01  |     .03690415       .00484035     7.624   .0000
 A_B      |   -1.26197572       .01893629   -66.643   .0000
 B_FM02   |     .06137175       .00182463    33.635   .0000
 A_BO     |   -2.76031111       .05066165   -54.485   .0000
 BO_FM03  |    -.12384686       .01067795   -11.598   .0000
 A_M      |   -2.49241198       .04198708   -59.361   .0000
 M_FM04   |    -.08402054       .00752122   -11.171   .0000
 A_P      |   -1.78191136       .02287405   -77.901   .0000
```

P_FM05	.06309247	.00209127	30.169	.0000

MNL1.73 –

- ASC

- Fa0 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 10:30 e as 12:30 (nfreq10301230/2) ***sem zeros***

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Fa0$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 14, 2012 at 05:56:06PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            36041     |
| Iterations completed                  7     |
| Log likelihood function       -43222.79     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.39909     |
|   Finite Sample: AIC =          2.39909     |
| Info. Criterion: BIC =          2.40145     |
| Info. Criterion:HQIC =          2.39984     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -44220.4226  .02256  .02251 |
| Chi-squared[ 5]           =   1995.25905    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.34846274       .04795570   -69.824   .0000
 BP_FA01  |     .04379297       .00593270     7.382   .0000
 A_B      |   -1.19176863       .01812960   -65.736   .0000
 B_FA02   |     .06898279       .00224016    30.794   .0000
 A_BO     |   -2.79271671       .05023068   -55.598   .0000
 BO_FA03  |    -.15796239       .01433505   -11.019   .0000
 A_M      |   -2.50113525       .04126861   -60.606   .0000
 M_FA04   |    -.11255064       .01010428   -11.139   .0000
 A_P      |   -1.74346658       .02207808   -78.968   .0000
```

P_FA05	.07594540	.00255114	29.769	.0000

MNL1.74 –

- ASC

- Ft0 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 17:00 e as 19:30 (nfreq17001930/2,5) ***sem zeros***

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Ft0$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 14, 2012 at 05:57:40PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            36041     |
| Iterations completed                  6     |
| Log likelihood function       -43248.93     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.40054     |
|   Finite Sample: AIC =          2.40054     |
| Info. Criterion: BIC =          2.40290     |
| Info. Criterion:HQIC =          2.40129     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -44220.4226  .02197  .02192 |
| Chi-squared[ 5]           =   1942.99069    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.36462058       .05000703   -67.283   .0000
 BP_FT01  |     .03381444       .00469464     7.203   .0000
 A_B      |   -1.24139011       .01899186   -65.364   .0000
 B_FT02   |     .05609054       .00176082    31.855   .0000
 A_BO     |   -2.79910097       .05125831   -54.608   .0000
 BO_FT03  |    -.10479027       .00971798   -10.783   .0000
 A_M      |   -2.50309694       .04237042   -59.077   .0000
 M_FT04   |    -.07628620       .00708298   -10.770   .0000
 A_P      |   -1.75596599       .02295177   -76.507   .0000
```

P_FT05	.05718657	.00203267	28.134	.0000

MNL1.74a –

- ASC

- Ftl0 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 7:30 e as 19:30 (nfreq7301930/12) ***sem zeros***

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Ftl0$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 14, 2012 at 05:59:15PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            36041     |
| Iterations completed                  6     |
| Log likelihood function       -43225.56     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.39924     |
|   Finite Sample: AIC =          2.39924     |
| Info. Criterion: BIC =          2.40160     |
| Info. Criterion:HQIC =          2.39999     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -44220.4226  .02250  .02244 |
| Chi-squared[ 5]           =   1989.73056    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -3.36438813       .04997054   -67.327   .0000
 BP_FTL1  |     .02800027       .00388193     7.213   .0000
 A_B      |   -1.22826405       .01892880   -64.889   .0000
 B_FTL2   |     .04527663       .00145629    31.090   .0000
 A_BO     |   -2.75700626       .05143654   -53.600   .0000
 BO_FTL3  |    -.09765751       .00859012   -11.369   .0000
 A_M      |   -2.48847072       .04232135   -58.799   .0000
 M_FTL4   |    -.06668961       .00600769   -11.101   .0000
 A_P      |   -1.77087499       .02303314   -76.884   .0000
```

P_FTL5	.04871656	.00167634	29.061	.0000

MNL1.75 –

- ASC

- Fm1 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 7:30 e as 9:30 (nfreq730930/2) ***com valores em GA muito proximas***

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Fm1$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 14, 2012 at 06:01:58PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            41329     |
| Iterations completed                  6     |
| Log likelihood function       -50974.95     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.46727     |
|   Finite Sample: AIC =          2.46727     |
| Info. Criterion: BIC =          2.46936     |
| Info. Criterion:HQIC =          2.46793     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -52160.0860  .02272  .02267 |
| Chi-squared[ 5]          =   2370.27629     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_BP     |   -3.36611850       .04587319   -73.379   .0000
 BP_FM11  |     .04701771       .00413021    11.384   .0000
 A_B      |   -1.20038266       .01763339   -68.074   .0000
 B_FM12   |     .06141804       .00167920    36.576   .0000
 A_BO     |   -2.85545594       .04753884   -60.066   .0000
 BO_FM13  |    -.10085308       .00925309   -10.899   .0000
 A_M      |   -2.49373551       .03871522   -64.412   .0000
 M_FM14   |    -.07634340       .00674010   -11.327   .0000
```

A_P	-1.44850997	.01943371	-74.536	.0000
P_FM15	.05558844	.00183654	30.268	.0000

MNL1.76 –

- ASC

- Fa1 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 10:30 e as 12:30 (nfreq10301230/2) ***com valores em GA muito proximas***

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Fa1$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 14, 2012 at 06:03:35PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            41329     |
| Iterations completed                  6     |
| Log likelihood function       -51049.47     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.47088     |
|   Finite Sample: AIC =          2.47088     |
| Info. Criterion: BIC =          2.47297     |
| Info. Criterion:HQIC =          2.47154     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -52160.0860  .02129  .02124 |
| Chi-squared[ 5]          =   2221.22291     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_BP     |   -3.33818117       .04449485   -75.024   .0000
 BP_FA11  |     .05661168       .00508856    11.125   .0000
 A_B      |   -1.14051365       .01697786   -67.177   .0000
 B_FA12   |     .07070445       .00207225    34.120   .0000
 A_BO     |   -2.88420746       .04705999   -61.288   .0000
 BO_FA13  |    -.12694462       .01222937   -10.380   .0000
 A_M      |   -2.50152469       .03809903   -65.658   .0000
 M_FA14   |    -.10166994       .00898609   -11.314   .0000
```

A_P	-1.43116424	.01887264	-75.833	.0000
P_FA15	.06938552	.00224902	30.851	.0000

MNL1.77 –

- ASC

- Ft1 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 17:00 e as 19:30 (nfreq17001930/2,5) ***com valores em GA muito proximas***

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Ft1$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 14, 2012 at 06:05:49PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            41329     |
| Iterations completed                  6     |
| Log likelihood function       -51109.49     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.47378     |
|   Finite Sample: AIC =          2.47378     |
| Info. Criterion: BIC =          2.47587     |
| Info. Criterion:HQIC =          2.47444     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -52160.0860  .02014  .02009 |
| Chi-squared[ 5]          =   2101.18727     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_BP     |   -3.35249537       .04616228   -72.624   .0000
 BP_FT11  |     .04324705       .00405752    10.658   .0000
 A_B      |   -1.17939336       .01768620   -66.684   .0000
 B_FT12   |     .05646959       .00163148    34.613   .0000
 A_BO     |   -2.88406546       .04807400   -59.992   .0000
 BO_FT13  |    -.08702997       .00854961   -10.179   .0000
 A_M      |   -2.49843273       .03904275   -63.992   .0000
 M_FT14   |    -.07092198       .00641606   -11.054   .0000
```

A_P	-1.42391579	.01949652	-73.034	.0000
P_FT15	.05033858	.00179310	28.073	.0000

MNL1.78 –

- ASC

- Ftl1 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 7:30 e as 19:30 (nfreq7301930/12) ***com valores em GA muito proximas***

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Ftl1$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 14, 2012 at 06:07:17PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            41329     |
| Iterations completed                  6     |
| Log likelihood function       -51066.88     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.47172     |
|   Finite Sample: AIC =          2.47172     |
| Info. Criterion: BIC =          2.47381     |
| Info. Criterion:HQIC =          2.47238     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -52160.0860  .02096  .02091 |
| Chi-squared[ 5]           =   2186.41741    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_BP     |   -3.35805834       .04619953   -72.686   .0000
 BP_FTL1  |     .03622869       .00333075    10.877   .0000
 A_B      |   -1.17074901       .01762660   -66.419   .0000
 B_FTL2   |     .04579381       .00133965    34.183   .0000
 A_BO     |   -2.85630588       .04793356   -59.589   .0000
 BO_FTL3  |    -.07895772       .00736767   -10.717   .0000
 A_M      |   -2.49007144       .03889205   -64.025   .0000
 M_FTL4   |    -.06076221       .00536902   -11.317   .0000
```

A_P	-1.44613201	.01954827	-73.978	.0000
P_FTL5	.04358966	.00146340	29.787	.0000

MNL1.63 (BWA) – ASC e velocidade comercial equivalente em Bus (V2)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=B,W,A[1]
;Rh2=ONE,V2$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 00:38:22PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            78470     |
| Iterations completed                  9     |
| Log likelihood function       -52212.46     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.33086     |
|   Finite Sample: AIC =          1.33086     |
| Info. Criterion: BIC =          1.33134     |
| Info. Criterion:HQIC =          1.33101     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -71433.7281  .26908  .26906 |
| Chi-squared[ 2]           =  38442.53671    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped4699 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_B     |    -.59816841       .02074515   -28.834   .0000
 B_V21   |    -.03193844       .00159071   -20.078   .0000
 A_W     |    4.06818489       .04309058    94.410   .0000
 W_V22   |    -.87931868       .00837105  -105.043   .0000
```

MNL1.64 (BWA) – ASC e razão entre o tempo médio de viagem em BUS e o tempo médio de viagem em AUTO (TBA)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=B,W,A[1]
;Rh2=ONE,TBA$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 00:39:43PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            78470     |
| Iterations completed                  5     |
| Log likelihood function       -70821.02     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.80515     |
|   Finite Sample: AIC =          1.80515     |
| Info. Criterion: BIC =          1.80562     |
| Info. Criterion:HQIC =          1.80529     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -71433.7281  .00858  .00855 |
| Chi-squared[ 2]           =   1225.42506    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped4699 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_B     |     .00534776       .03349462      .160   .8731
 B_TBA1  |    -.61905260       .02062938   -30.008   .0000
 A_W     |    -.64582097       .04017457   -16.075   .0000
 W_TBA2  |    -.52130956       .02463732   -21.159   .0000
```

MNL1.56 (BWA) – ASC e frequência média horária de TC no pico da manhã.

- Fm : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 7:30 e as 9:30 (nfreq730930/2)

```
DISCRETECHOICE;Lhs=MTRP;Choices=B,W,A[1];Rh2=ONE,Fm$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 04:50:31PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            38310     |
| Iterations completed                  5     |
| Log likelihood function       -37719.50     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.96938     |
|   Finite Sample: AIC =          1.96938     |
| Info. Criterion: BIC =          1.97027     |
| Info. Criterion:HQIC =          1.96966     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -38086.8580  .00965  .00959 |
| Chi-squared[ 2]           =    734.71590     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_B     |   -1.04604050       .01655914   -63.170   .0000
 B_FM1   |     .04457702       .00165788    26.888   .0000
 A_W     |   -1.19047482       .01798428   -66.195   .0000
 W_FM2   |     .02252827       .00194203    11.600   .0000
```

MNL1.57 (BWA) – ASC e frequência média horária de TC no pico do almoço.

- Fa : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 10:30 e as 12:30 (nfreq10301230/2)

```
DISCRETECHOICE;Lhs=MTRP;Choices=B,W,A[1];Rh2=ONE,Fa$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 04:51:31PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            38310     |
| Iterations completed                  5     |
| Log likelihood function       -37772.82     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.97216     |
|   Finite Sample: AIC =          1.97217     |
| Info. Criterion: BIC =          1.97306     |
| Info. Criterion:HQIC =          1.97245     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -38086.8580  .00825  .00819 |
| Chi-squared[ 2]           =    628.07549     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_B     |   -1.00458844       .01605045   -62.589   .0000
 B_FA1   |     .05103860       .00206753    24.686   .0000
 A_W     |   -1.19143426       .01754414   -67.911   .0000
 W_FA2   |     .02986129       .00239601    12.463   .0000
```

MNL1.58 (BWA) – ASC e frequência média horária de TC no pico da tarde.

- Ft : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 17:00 e as 19:30 (nfreq17001930/2,5)

```
DISCRETECHOICE;Lhs=MTRP;Choices=B,W,A[1];Rh2=ONE,Ft$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 04:52:24PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            38310     |
| Iterations completed                  5     |
| Log likelihood function       -37771.43     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.97209     |
|   Finite Sample: AIC =          1.97209     |
| Info. Criterion: BIC =          1.97299     |
| Info. Criterion:HQIC =          1.97238     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -38086.8580  .00828  .00823 |
| Chi-squared[ 2]           =    630.84986     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_B     |   -1.02968253       .01662042   -61.953   .0000
 B_FT1   |     .04031768       .00160553    25.112   .0000
 A_W     |   -1.16678264       .01803552   -64.694   .0000
 W_FT2   |     .01777162       .00189379     9.384   .0000
```

MNL1.59 (BWA) – ASC e frequência média horária de TC diária.

- Ftl : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 7:30 e as 19:30 (nfreq7301930/12)

```
DISCRETECHOICE;Lhs=MTRP;Choices=B,W,A[1];Rh2=ONE,Ftl$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 04:53:29PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            38310     |
| Iterations completed                  5     |
| Log likelihood function       -37787.05     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.97291     |
|   Finite Sample: AIC =          1.97291     |
| Info. Criterion: BIC =          1.97380     |
| Info. Criterion:HQIC =          1.97319     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -38086.8580  .00787  .00782 |
| Chi-squared[ 2]           =    599.61953     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_B     |   -1.02164240       .01660580   -61.523   .0000
 B_FTL1  |     .03261746       .00133598    24.415   .0000
 A_W     |   -1.17733572       .01805482   -65.209   .0000
 W_FTL2  |     .01608008       .00155992    10.308   .0000
```

MNL1.56a (BWA) – ASC e frequência média horária de TC no pico da manhã.

- Fm0 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 7:30 e as 9:30 (nfreq730930/2) ***sem zeros***

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=B,W,A[1]
;Rh2=ONE,FM0$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 04:41:22PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            33353     |
| Iterations completed                  4     |
| Log likelihood function       -30962.73     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.85691     |
|   Finite Sample: AIC =          1.85691     |
| Info. Criterion: BIC =          1.85792     |
| Info. Criterion:HQIC =          1.85723     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -31742.6137  .02457  .02451 |
| Chi-squared[ 2]           =   1559.77468    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_B     |   -1.26397494       .01897005   -66.630   .0000
 B_FM01  |     .06166577       .00183221    33.657   .0000
 A_W     |   -1.78393563       .02290551   -77.882   .0000
 W_FM02  |     .06338929       .00209837    30.209   .0000
```

MNL1.57a (BWA) – ASC e frequência média horária de TC no pico do almoço.

- Fa0 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 10:30 e as 12:30 (nfreq10301230/2) ***sem zeros***

```
DISCRETECHOICE;Lhs=MTRP;Choices=B,W,A[1];Rh2=ONE,FA0$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 04:44:20PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            33353     |
| Iterations completed                  4     |
| Log likelihood function       -31050.85     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.86219     |
|   Finite Sample: AIC =          1.86219     |
| Info. Criterion: BIC =          1.86320     |
| Info. Criterion:HQIC =          1.86251     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -31742.6137  .02179  .02173 |
| Chi-squared[ 2]           =   1383.52412    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_B     |   -1.19384458       .01816008   -65.740   .0000
 B_FA01  |     .06938944       .00224975    30.843   .0000
 A_W     |   -1.74563793       .02210713   -78.963   .0000
 W_FA02  |     .07636614       .00256032    29.827   .0000
```

MNL1.58a (BWA) – ASC e frequência média horária de TC no pico da tarde.

- Ft0 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 17:00 e as 19:30 (nfreq17001930/2,5) ***sem zeros***

```
DISCRETECHOICE;Lhs=MTRP;Choices=B,W,A[1];Rh2=ONE,Ft0$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 04:47:03PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            33353     |
| Iterations completed                  4     |
| Log likelihood function       -31054.54     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.86241     |
|   Finite Sample: AIC =          1.86241     |
| Info. Criterion: BIC =          1.86342     |
| Info. Criterion:HQIC =          1.86274     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -31742.6137  .02168  .02162 |
| Chi-squared[ 2]           =   1376.14055    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_B     |   -1.24224528       .01901151   -65.342   .0000
 B_FT01  |     .05621109       .00176495    31.849   .0000
 A_W     |   -1.75682813       .02296966   -76.485   .0000
 W_FT02  |     .05730788       .00203648    28.141   .0000
```

MNL1.59a (BWA) – ASC e frequência média horária de TC diária.

- Ftl0 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 7:30 e as 19:30 (nfreq7301930/12) ***sem zeros***

```
DISCRETECHOICE;Lhs=MTRP;Choices=B,W,A[1];Rh2=ONE,Ftl0$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 04:48:03PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            33353     |
| Iterations completed                  4     |
| Log likelihood function       -31054.95     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.86244     |
|   Finite Sample: AIC =          1.86244     |
| Info. Criterion: BIC =          1.86345     |
| Info. Criterion:HQIC =          1.86276     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -31742.6137  .02166  .02160 |
| Chi-squared[ 2]           =   1375.31755    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_B     |   -1.23018173       .01895837   -64.889   .0000
 B_FTL1  |     .04549989       .00146151    31.132   .0000
 A_W     |   -1.77286460       .02306164   -76.875   .0000
 W_FTL2  |     .04894632       .00168135    29.111   .0000
```

MNL1.56b (BWA) – ASC e frequência média horária de TC no pico da manhã.

- Fm1 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 7:30 e as 9:30 (nfreq730930/2) ***com valores em GA muito proximas***

```
DISCRETECHOICE;Lhs=MTRP;Choices=B,W,A[1];Rh2=ONE,Fm1$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 04:54:46PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            38310     |
| Iterations completed                  5     |
| Log likelihood function       -37224.55     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.94354     |
|   Finite Sample: AIC =          1.94354     |
| Info. Criterion: BIC =          1.94444     |
| Info. Criterion:HQIC =          1.94383     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -38086.8580  .02264  .02259 |
| Chi-squared[ 2]           =   1724.60823    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_B     |   -1.20417139       .01768801   -68.078   .0000
 B_FM11  |     .06195232       .00168994    36.659   .0000
 A_W     |   -1.45191789       .01948643   -74.509   .0000
 W_FM12  |     .05607953       .00184699    30.363   .0000
```

MNL1.57b (BWA) – ASC e frequência média horária de TC no pico do almoço.

- Fa1 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 10:30 e as 12:30 (nfreq10301230/2) ***com valores em GA muito proximas***

```
DISCRETECHOICE;Lhs=MTRP;Choices=B,W,A[1];Rh2=ONE,Fa1$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 04:55:57PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            38310     |
| Iterations completed                  4     |
| Log likelihood function       -37290.70     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.94700     |
|   Finite Sample: AIC =          1.94700     |
| Info. Criterion: BIC =          1.94789     |
| Info. Criterion:HQIC =          1.94728     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -38086.8580  .02090  .02085 |
| Chi-squared[ 2]          =   1592.31941     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_B     |   -1.14406866       .01702536   -67.198   .0000
 B_FA11  |     .07137551       .00208544    34.226   .0000
 A_W     |   -1.43465319       .01892147   -75.821   .0000
 W_FA12  |     .07004678       .00226236    30.962   .0000
```

MNL1.58b (BWA) – ASC e frequência média horária de TC no pico da tarde.

- Ft1 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 17:00 e as 19:30 (nfreq17001930/2,5) ***com valores em GA muito proximas***

```
DISCRETECHOICE;Lhs=MTRP;Choices=B,W,A[1];Rh2=ONE,Ft1$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 04:57:05PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            38310     |
| Iterations completed                  5     |
| Log likelihood function       -37329.89     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.94904     |
|   Finite Sample: AIC =          1.94904     |
| Info. Criterion: BIC =          1.94993     |
| Info. Criterion:HQIC =          1.94932     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -38086.8580  .01987  .01982 |
| Chi-squared[ 2]           =   1513.94045    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_B     |   -1.18165961       .01772376   -66.671   .0000
 B_FT11  |     .05677536       .00163840    34.653   .0000
 A_W     |   -1.42589691       .01953204   -73.003   .0000
 W_FT12  |     .05061257       .00179974    28.122   .0000
```

MNL1.59b (BWA) – ASC e frequência média horária de TC diária.

- Ftl1 : Frequencia média horária de TC potencialmente à disposição entre a zona de geração e de atracção entre as 7:30 e as 19:30 (nfreq7301930/12) ***com valores em GA muito proximas***

```
DISCRETECHOICE;Lhs=MTRP;Choices=B,W,A[1];Rh2=ONE,Ftl1$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 15, 2012 at 04:58:12PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            38310     |
| Iterations completed                  4     |
| Log likelihood function       -37309.53     |
| Number of parameters                  4     |
| Info. Criterion: AIC =          1.94798     |
|   Finite Sample: AIC =          1.94798     |
| Info. Criterion: BIC =          1.94887     |
| Info. Criterion:HQIC =          1.94826     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -38086.8580  .02041  .02036 |
| Chi-squared[ 2]           =   1554.66463    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 83169, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_B     |   -1.17401246       .01767299   -66.430   .0000
 B_FTL1  |     .04616050       .00134685    34.273   .0000
 A_W     |   -1.44922352       .01959566   -73.956   .0000
 W_FTL2  |     .04394066       .00147070    29.877   .0000
```

MNL1.53a –
- ASC

- dx1: Variável binária para distâncias mais curtas D2<=1,0km
- *dx2a: Variável binária para distâncias mais curtas D2>1,0km (excluída)*

```
DISCRETECHOICE;Lhs=MTRP;Choices=Bp,B,Bo,M,P,A[1];Rh2=ONE,DX1$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 17, 2012 at 07:42:12AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                 30     |
| Log likelihood function       -109013.1     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.28498     |
|   Finite Sample: AIC =          2.28498     |
| Info. Criterion: BIC =          2.28597     |
| Info. Criterion:HQIC =          2.28528     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .11723  .11721 |
| Chi-squared[ 5]          =  28952.54256     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+-------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+-------------+----------------+--------+--------+
 A_BP     |   -3.15473198       .02146481  -146.972   .0000
 BP_DX11  |   -1.03492276      1.00777589    -1.027   .3044
 A_B      |   -1.06457694       .00857289  -124.180   .0000
 B_DX12   |     .05297602       .23851976      .222   .8242
 A_BO     |   -2.68550196       .01718262  -156.292   .0000
 BO_DX13  |   -30.9573991     .248709D+07      .000  1.0000
 A_M      |   -2.11903926       .01325554  -159.861   .0000
 M_DX14   |   -30.9573991     .187364D+07      .000  1.0000
 A_P      |   -2.26922396       .01418199  -160.007   .0000
 P_DX15   |    6.81734267       .12455141    54.735   .0000
```

MNL1.79 –

- ASC

- Rb : Variável discreta com o escalão de rendimento liquido mensais do agregado familiar em euros (1:0-500€, 2:501-1000€, 3:1001-1500€, 4:1501-2000€, 5: >2000€)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,RB$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 26, 2012 at 11:31:36AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  5     |
| Log likelihood function       -119964.7     |
| Number of parameters                 10     |
| Info. Criterion: AIC =          2.51451     |
|   Finite Sample: AIC =          2.51451     |
| Info. Criterion: BIC =          2.51550     |
| Info. Criterion:HQIC =          2.51481     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .02854  .02852 |
| Chi-squared[ 5]          =   7049.31952     |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped   0 bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 A_BP     |   -1.76658214       .05357816   -32.972   .0000
 BP_RB1   |    -.49702919       .01975323   -25.162   .0000
 A_B      |     .22158625       .02211403    10.020   .0000
 B_RB2    |    -.45561487       .00765348   -59.530   .0000
 A_BO     |   -1.61852618       .04315956   -37.501   .0000
 BO_RB3   |    -.37056620       .01494295   -24.799   .0000
 A_M      |    -.84257680       .03344309   -25.194   .0000
 M_RB4    |    -.45227300       .01191339   -37.963   .0000
 A_P      |    -.12392328       .02609519    -4.749   .0000
```

P_RB5	-.49641732	.00932418	-53.240	.0000

MNL1.80 –

- ASC

- Til – Variável continua genérica **Ln**(duração média apreendida da viagem por modo (min) entre GA com a duração apreendida real qd é o modo escolhido)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Attr=Til;Rhs=T1L,T2L,T3L,T4L,T5L,T6L;Rh2=ONE$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Mar 02, 2012 at 05:57:57PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                  5     |
| Log likelihood function       -39013.39     |
| Number of parameters                  6     |
| Info. Criterion: AIC =          2.55371     |
|   Finite Sample: AIC =          2.55371     |
| Info. Criterion: BIC =          2.55534     |
| Info. Criterion:HQIC =          2.55423     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .01697  .01694 |
| Chi-squared[ 1]           =   1347.37503    |
| Prob [ chi squared > value ] =   .00000     |
| Response data are given as ind. choice.     |
| Number of obs.= 95426, skipped**** bad obs. |
+---------------------------------------------+

+---------------------------------------------+
| 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 |
+---------------------------------------------+
+--------+--------------+----------------+--------+--------+
|Variable| Coefficient  | Standard Error |b/St.Er.|P[|Z|>z]|
+--------+--------------+----------------+--------+--------+
 TIL     |    -.75246620       .02062249   -36.488   .0000
 A_BP    |   -2.07047472       .03902642   -53.053   .0000
 A_B     |    -.87052585       .01867334   -46.619   .0000
 A_BO    |   -2.29597433       .02871018   -79.971   .0000
 A_M     |   -2.05213806       .02278532   -90.064   .0000
 A_P     |   -1.38464682       .01997667   -69.313   .0000
```

MNL1.81 –

- ASC

- In : Variável discreta sobre o nível de instrução do inquirido assumido no PhD (1- Analfabeto (original 1); 2- Básico (originais 2, 3, 4 e 5); 3- Secundário (originais 6 e 7); 4- Superior (originais 8,9 e 10)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,IN$
Normal exit:   5 iterations. Status=0, F=    121836.3

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function   -121836.26380
Estimation based on N =  95426, K =  10
Inf.Cr.AIC  = 243692.5 AIC/N =    2.554
Model estimated: Mar 06, 2012, 10:54:07
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .0134 .0134
Chi-squared[ 5]           =   3306.21161
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 95426, skipped    0 obs
--------+------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+------------------------------------------------------------------
    A_BP|   -1.83181***       .08123   -22.55  .0000    -1.99103  -1.67259
  BP_IN1|    -.59249***       .03685   -16.08  .0000     -.66472   -.52026
     A_B|    -.17768***       .03104    -5.72  .0000     -.23852   -.11684
   B_IN2|    -.38967***       .01338   -29.12  .0000     -.41590   -.36345
    A_BO|    -.63782***       .06847    -9.32  .0000     -.77201   -.50362
  BO_IN3|    -.94396***       .03267   -28.90  .0000    -1.00798   -.87993
     A_M|    -.20176***       .05260    -3.84  .0001     -.30486   -.09867
   M_IN4|    -.87942***       .02475   -35.53  .0000     -.92793   -.83092
     A_P|    -.47112***       .03757   -12.54  .0000     -.54476   -.39749
   P_IN5|    -.46011***       .01648   -27.92  .0000     -.49240   -.42781
--------+------------------------------------------------------------------
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
---------------------------------------------------------------------------
```

MNL1.82 –

- ASC

- Del : variável continua ln da duração em minutos da estadia no destino

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,DEL$
Normal exit:   5 iterations. Status=0, F=    77911.04

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -77911.03992
Estimation based on N =  60954, K =  10
Inf.Cr.AIC  = 155842.1 AIC/N =    2.557
Model estimated: Mar 12, 2012, 09:51:54
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .0098 .0097
Chi-squared[ 5]           =   1534.68017
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 95426, skipped34472 obs
--------+-----------------------------------------------------------------------
        |                  Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+-----------------------------------------------------------------------
    A_BP|   -5.21272***       .16020   -32.54  .0000    -5.52671  -4.89872
 BP_DEL1|     .37965***       .02952    12.86  .0000      .32179    .43751
     A_B|   -2.50241***       .05713   -43.80  .0000    -2.61439  -2.39043
  B_DEL2|     .27181***       .01080    25.16  .0000      .25063    .29298
    A_BO|   -5.95944***       .14144   -42.14  .0000    -6.23664  -5.68223
 BO_DEL3|     .61353***       .02532    24.24  .0000      .56392    .66315
     A_M|   -2.52956***       .07706   -32.83  .0000    -2.68059  -2.37853
   M_DEL4|     .09840***       .01491     6.60  .0000      .06919    .12762
     A_P|   -1.18179***       .05642   -20.95  .0000    -1.29237  -1.07122
  P_DEL5|    -.06644***       .01125    -5.91  .0000     -.08848   -.04439
--------+-----------------------------------------------------------------------
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
--------------------------------------------------------------------------------
```

MNL1.83 –

- ASC

- De1m : variável continua duração em minutos da estadia no destino com zeros modificados para 1 minuto

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,DE1M$
Normal exit:   5 iterations. Status=0, F=    78298.40

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -78298.39593
Estimation based on N =  61358, K =  10
Inf.Cr.AIC  = 156616.8 AIC/N =    2.553
Model estimated: Mar 12, 2012, 17:19:49
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .0108 .0108
Chi-squared[ 5]           =   1706.92089
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 95426, skipped34068 obs
--------+------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+------------------------------------------------------------------
    A_BP|   -3.72794***       .04719   -79.00  .0000    -3.82043  -3.63545
 BP_DE11|     .00179***       .00013    14.28  .0000      .00155    .00204
     A_B|   -1.42339***       .01750   -81.32  .0000    -1.45770  -1.38909
  B_DE12|     .00122***    .5187D-04    23.47  .0000      .00112    .00132
    A_BO|   -3.51474***       .03948   -89.04  .0000    -3.59211  -3.43737
 BO_DE13|     .00273***    .9510D-04    28.75  .0000      .00255    .00292
     A_M|   -2.17570***       .02498   -87.12  .0000    -2.22465  -2.12675
  M_DE14|     .00057***    .7796D-04     7.30  .0000      .00042    .00072
     A_P|   -1.32340***       .01902   -69.56  .0000    -1.36068  -1.28611
  P_DE15|    -.00086***    .7026D-04   -12.27  .0000     -.00100   -.00072
--------+------------------------------------------------------------------
Note: nnnnn.D-xx or D+xx => multiply by 10 to -xx or +xx.
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
---------------------------------------------------------------------------
```

MNL1.84 –

- ASC

- De5m : variável continua duração em minutos da estadia no destino com zeros modificados para 5 minutos

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,DE5M$
Normal exit:   5 iterations. Status=0, F=    78298.50

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -78298.49612
Estimation based on N =  61358, K =  10
Inf.Cr.AIC  = 156617.0 AIC/N =    2.553
Model estimated: Mar 12, 2012, 17:24:28
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .0108 .0107
Chi-squared[ 5]           =   1706.72051
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 95426, skipped34068 obs
--------+------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+------------------------------------------------------------------
    A_BP|   -3.72807***       .04719   -78.99  .0000    -3.82057  -3.63557
 BP_DE51|     .00179***       .00013    14.29  .0000      .00155    .00204
     A_B|   -1.42344***       .01751   -81.31  .0000    -1.45775  -1.38912
  B_DE52|     .00122***   .5187D-04    23.47  .0000      .00112    .00132
    A_BO|   -3.51484***       .03948   -89.03  .0000    -3.59222  -3.43747
 BO_DE53|     .00273***   .9511D-04    28.75  .0000      .00255    .00292
     A_M|   -2.17567***       .02498   -87.10  .0000    -2.22463  -2.12672
  M_DE54|     .00057***   .7798D-04     7.30  .0000      .00042    .00072
     A_P|   -1.32335***       .01903   -69.54  .0000    -1.36065  -1.28606
  P_DE55|    -.00086***   .7028D-04   -12.27  .0000     -.00100   -.00072
--------+------------------------------------------------------------------
Note: nnnnn.D-xx or D+xx => multiply by 10 to -xx or +xx.
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
---------------------------------------------------------------------------
```

MNL1.85 –

- ASC

- DeL1 : variável continua ln da duração em minutos da estadia no destino com zeros modificados para 1 minuto

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,DEL1$
Normal exit:   5 iterations. Status=0, F=    78393.21

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -78393.21423
Estimation based on N =  61358, K =  10
Inf.Cr.AIC  = 156806.4 AIC/N =    2.556
Model estimated: Mar 12, 2012, 17:26:49
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .0096 .0096
Chi-squared[ 5]          =   1517.28428
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 95426, skipped34068 obs
--------+-----------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+-----------------------------------------------------------------------
    A_BP|   -5.04391***       .15388   -32.78  .0000    -5.34550  -4.74231
 BP_DEL1|     .34885***       .02849    12.25  .0000      .29301    .40468
     A_B|   -2.42335***       .05471   -44.29  .0000    -2.53058  -2.31612
  B_DEL2|     .25713***       .01037    24.79  .0000      .23680    .27746
    A_BO|   -5.84296***       .13869   -42.13  .0000    -6.11478  -5.57114
 BO_DEL3|     .59272***       .02488    23.83  .0000      .54397    .64148
     A_M|   -2.54468***       .07305   -34.83  .0000    -2.68786  -2.40150
  M_DEL4|     .10120***       .01415     7.15  .0000      .07347    .12894
     A_P|   -1.19435***       .05156   -23.17  .0000    -1.29540  -1.09331
  P_DEL5|    -.06396***       .01032    -6.20  .0000     -.08418   -.04373
--------+-----------------------------------------------------------------------
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
--------------------------------------------------------------------------------
```

MNL1.86 –

- ASC

- DeL5 : variável continua ln da duração em minutos da estadia no destino com zeros modificados para 5 minutos

```
DISCRETECHOICE
    ;Lhs=MTRP
    ;Choices=Bp,B,Bo,M,P,A[1]
    ;Rh2=ONE,DEL5$
Normal exit:   5 iterations. Status=0, F=    78377.58

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -78377.58494
Estimation based on N =  61358, K =  10
Inf.Cr.AIC  = 156775.2 AIC/N =    2.555
Model estimated: Mar 12, 2012, 17:28:49
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .0098 .0097
Chi-squared[ 5]           =   1548.54287
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 95426, skipped34068 obs
--------+-----------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+-----------------------------------------------------------------------
    A_BP|   -5.11553***      .15564   -32.87  .0000    -5.42058  -4.81049
 BP_DEL1|     .36219***      .02877    12.59  .0000      .30579    .41858
     A_B|   -2.46907***      .05559   -44.41  .0000    -2.57802  -2.36011
  B_DEL2|     .26571***      .01054    25.22  .0000      .24506    .28636
    A_BO|   -5.89576***      .13915   -42.37  .0000    -6.16849  -5.62304
 BO_DEL3|     .60230***      .02494    24.15  .0000      .55341    .65119
     A_M|   -2.55442***      .07496   -34.08  .0000    -2.70133  -2.40751
  M_DEL4|     .10299***      .01452     7.09  .0000      .07453    .13145
     A_P|   -1.17709***      .05412   -21.75  .0000    -1.28316  -1.07102
  P_DEL5|    -.06731***      .01083    -6.21  .0000     -.08855   -.04608
--------+-----------------------------------------------------------------------
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
--------------------------------------------------------------------------------
```

MNL1.87 –

- ASC

- Mt: Variável discreta sobre o motivo da viagem PhD (1-Trabalho, 2-Casa, 3- Escola, 4-Lazer, 5- Compras/Serviços)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Mt$
Normal exit:   5 iterations. Status=0, F=    123003.6

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function   -123003.55002
Estimation based on N =  95426, K =  10
Inf.Cr.AIC  = 246027.1 AIC/N =    2.578
Model estimated: Mar 13, 2012, 18:43:10
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********   .0039 .0039
Chi-squared[ 5]           =    971.63917
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 95426, skipped    0 obs
--------+------------------------------------------------------------------
        |                   Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+------------------------------------------------------------------
    A_BP|   -3.15093***       .04853   -64.92  .0000     -3.24605  -3.05581
  BP_MT1|    -.00201          .01899     -.11  .9158      -.03923     .03522
     A_B|   -1.15635***       .01939   -59.65  .0000     -1.19435  -1.11835
   B_MT2|     .03958***       .00746     5.31  .0000      .02497    .05419
    A_BO|   -2.55540***       .03890   -65.69  .0000     -2.63164  -2.47916
  BO_MT3|    -.05817***       .01567    -3.71  .0002      -.08888   -.02745
     A_M|   -1.48399***       .03073   -48.30  .0000     -1.54422  -1.42377
   M_MT4|    -.29966***       .01387   -21.61  .0000      -.32683   -.27248
     A_P|   -1.85893***       .02326   -79.93  .0000     -1.90451  -1.81335
   P_MT5|     .14527***       .00851    17.07  .0000      .12859    .16195
--------+------------------------------------------------------------------
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
---------------------------------------------------------------------------
```

MNL1.88 –

- ASC

- Mot : Variável binária sobre a disponibilidade diária de motociclos no agregado

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,Mot$

Hessian is not definite at current values.
Switching to BFGS (gradient based) method.
(Not a failure. Just looking for a better algorithm.)
Line search at iteration    1 does not improve fn. Exiting optimization.
With < 4 iterations, this may not be a good solution to the
optimization. (The log-likelihood is flat.) Try refitting
with ;Output=3 and examining the derivatives.

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function  -2250956.04607
Estimation based on N =  95426, K =  10
Inf.Cr.AIC  =4501932.1 AIC/N =   47.177
Model estimated: May 28, 2012, 08:11:10
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  ********** ************
Response data are given as ind. choices
Number of obs.= 95426, skipped    0 obs
--------+-----------------------------------------------------------------------
        |                  Standard            Prob.      95% Confidence
    MTRP|  Coefficient       Error       z    |z|>Z*         Interval
--------+-----------------------------------------------------------------------
    A_BP|   -3.23905***     1.00000    -3.24  .0012    -5.19901  -1.27908
 BP_MOT1|-.92825D+43    .....(Fixed Parameter).....
     A_B|   -1.06014    .....(Fixed Parameter).....
  B_MOT2| .33058D+43    .....(Fixed Parameter).....
    A_BO|   -2.88124***     1.00000    -2.88  .0040    -4.84121   -.92128
 BO_MOT3|-.29034D+43    .....(Fixed Parameter).....
     A_M|   -4.07385    .....(Fixed Parameter).....
  M_MOT4|-.40591D+42    .....(Fixed Parameter).....
     A_P|   -1.47998    .....(Fixed Parameter).....
  P_MOT5|-.37055D+43    .....(Fixed Parameter).....
--------+-----------------------------------------------------------------------
Note: nnnnn.D-xx or D+xx => multiply by 10 to -xx or +xx.
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
Fixed parameter ... is constrained to equal the value or
had a nonpositive st.error because of an earlier problem.
--------------------------------------------------------------------------------
```