MNL7.1 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h) (d2)
- Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km (dx1)
- Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km (dx2)
- Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km (dx3)
- *Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (dx4) (excluída)*

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE, NC0,NC1,NC2,NC3, R1,R2,R3,R4, SEXO, ID2,ID3,ID4,ID5,
IN1,IN2,IN3,LC,D2,DX1,DX2,DX3$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 09, 2012 at 03:05:51PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                 31     |
| Log likelihood function       -76448.02     |
| Number of parameters                110     |
| Info. Criterion: AIC =          1.60455     |
|   Finite Sample: AIC =          1.60456     |
| Info. Criterion: BIC =          1.61546     |
| Info. Criterion:HQIC =          1.60787     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .38093  .38079 |
| Chi-squared[**]          =  94082.69856     |
| 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	-9.12958346	.63300632	-14.423	.0000
BP_NC01	4.39717001	.58116296	7.566	.0000
BP_NC11	2.65713674	.58184458	4.567	.0000
BP_NC21	2.26217202	.58110320	3.893	.0001
BP_NC31	1.27548254	.59907529	2.129	.0332
BP_R11	.33473303	.10965768	3.053	.0023
BP_R21	.32965078	.08981710	3.670	.0002
BP_R31	.42524828	.09218076	4.613	.0000
BP_R41	.19174484	.11352141	1.689	.0912
BP_SX1	.57881925	.04925106	11.752	.0000
BP_ID21	2.88557094	.17591925	16.403	.0000
BP_ID31	1.98368954	.18131311	10.941	.0000
BP_ID41	2.13620459	.17584029	12.149	.0000
BP_ID51	2.32319094	.18314050	12.685	.0000
BP_IN11	.26509277	.22153925	1.197	.2315
BP_IN21	.48082661	.18322815	2.624	.0087
BP_IN31	.74729790	.18915019	3.951	.0001
BP_LC1	-2.08568541	.06705457	-31.104	.0000
BP_D21	.09888640	.00881418	11.219	.0000
BP_DX11	-.08612671	1.01126075	-.085	.9321
BP_DX21	.78003787	.10244441	7.614	.0000
BP_DX31	.28377886	.06415756	4.423	.0000
A_B	-3.84233900	.13602600	-28.247	.0000
B_NC02	3.28438382	.10828025	30.332	.0000
B_NC12	1.63739686	.10827052	15.123	.0000
B_NC22	1.20655412	.10726767	11.248	.0000
B_NC32	.62337230	.11480196	5.430	.0000
B_R12	.33629111	.05013875	6.707	.0000
B_R22	.28423710	.03612956	7.867	.0000
B_R32	.29293413	.03725989	7.862	.0000
B_R42	.29157010	.04351714	6.700	.0000
B_SX2	.40818373	.02235610	18.258	.0000
B_ID22	2.08966421	.06221650	33.587	.0000
B_ID32	1.52311071	.06394240	23.820	.0000
B_ID42	1.65346849	.06161975	26.833	.0000
B_ID52	1.88965919	.06887946	27.434	.0000
B_IN12	-.72233679	.07900408	-9.143	.0000
B_IN22	-.30871274	.05058672	-6.103	.0000
B_IN32	.23354707	.05330529	4.381	.0000
B_LC2	-2.05728429	.02782636	-73.933	.0000
B_D22	.01252601	.00520606	2.406	.0161
B_DX12	.34033248	.24477848	1.390	.1644
B_DX22	-.07815822	.05334184	-1.465	.1429
B_DX32	.03127192	.03105678	1.007	.3140
A_BO	-5.31147045	.29235494	-18.168	.0000
BO_NC03	2.00806811	.17444178	11.511	.0000
BO_NC13	.76635479	.17404713	4.403	.0000
BO_NC23	.12761861	.17340963	.736	.4618

BO_NC33	-.26756737	.19114680	-1.400	.1616
BO_R13	.30565209	.08510733	3.591	.0003
BO_R23	.15173101	.06279776	2.416	.0157
BO_R33	.07274629	.06613573	1.100	.2714
BO_R43	-.06261729	.08219622	-.762	.4462
BO_SX3	-.17115367	.03791721	-4.514	.0000
BO_ID23	1.74227779	.08931537	19.507	.0000
BO_ID33	.55401664	.09877807	5.609	.0000
BO_ID43	.31942816	.09423711	3.390	.0007
BO_ID53	-.42053482	.13359356	-3.148	.0016
BO_IN13	1.62853208	.24349155	6.688	.0000
BO_IN23	1.71759197	.22324303	7.694	.0000
BO_IN33	.96198069	.23079532	4.168	.0000
BO_LC3	-1.47696608	.05451187	-27.094	.0000
BO_D23	.05340575	.00809303	6.599	.0000
BO_DX13	-30.2295859	.222159D+07	.000	1.0000
BO_DX23	-.46189303	.11017728	-4.192	.0000
BO_DX33	.10754918	.05187958	2.073	.0382
A_M	-7.46920418	.33318237	-22.418	.0000
M_NC04	2.62871973	.14299505	18.383	.0000
M_NC14	1.19944053	.14325724	8.373	.0000
M_NC24	.71738503	.14231523	5.041	.0000
M_NC34	.15055420	.15787873	.954	.3403
M_R14	-.01675873	.07077522	-.237	.8128
M_R24	.11473189	.05328233	2.153	.0313
M_R34	.05377370	.05620291	.957	.3387
M_R44	.09228693	.06706964	1.376	.1688
M_SX4	-.77169982	.03210456	-24.037	.0000
M_ID24	1.98946791	.11175307	17.802	.0000
M_ID34	3.12947187	.10978404	28.506	.0000
M_ID44	2.67025951	.10840037	24.633	.0000
M_ID54	1.82649095	.12124905	15.064	.0000
M_IN14	3.27725420	.29295271	11.187	.0000
M_IN24	3.31885587	.27956769	11.871	.0000
M_IN34	2.49702219	.28331396	8.814	.0000
M_LC4	-1.87574177	.03653095	-51.347	.0000
M_D24	-.05812178	.00824577	-7.049	.0000
M_DX14	-30.8177200	.178521D+07	.000	1.0000
M_DX24	-.39400163	.07954972	-4.953	.0000
M_DX34	.04344048	.04432484	.980	.3271
A_P	1.77113588	.36141885	4.901	.0000
P_NC05	2.70059213	.14974155	18.035	.0000
P_NC15	.95408753	.15184713	6.283	.0000
P_NC25	.60888445	.14899462	4.087	.0000
P_NC35	-.14498503	.17555834	-.826	.4089
P_R15	.35404364	.08892220	3.981	.0001
P_R25	.32358830	.07220359	4.482	.0000
P_R35	.23081491	.07480434	3.086	.0020
P_R45	.12573055	.08771598	1.433	.1517
P_SX5	.17040610	.04191558	4.065	.0000
P_ID25	1.74451415	.10277135	16.975	.0000
P_ID35	1.31852462	.10729674	12.289	.0000
P_ID45	1.56580488	.10124961	15.465	.0000
P_ID55	1.73579390	.11150327	15.567	.0000
P_IN15	-.30734191	.13662379	-2.250	.0245
P_IN25	-.07854176	.09160125	-.857	.3912

P_IN35	.01197938	.09882700	.121	.9035
P_LC5	-2.03442057	.05442002	-37.384	.0000
P_D25	-1.57634277	.05029558	-31.342	.0000
P_DX15	2.26679116	.30318220	7.477	.0000
P_DX25	-.96640638	.23824824	-4.056	.0000
P_DX35	-2.16099597	.19120566	-11.302	.0000

MNL7.1a –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h) (d2)
- Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km (dx1)
- Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km (dx2)
- Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km (dx3)
- *Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (dx4) (excluída)*

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,D2,DX1,DX2,DX3$
+---------------------------------------------+
| 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 05:26:20PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                 30     |
| Log likelihood function       -81122.13     |
| Number of parameters                 50     |
| Info. Criterion: AIC =          1.70126     |
|   Finite Sample: AIC =          1.70126     |
| Info. Criterion: BIC =          1.70622     |
| Info. Criterion:HQIC =          1.70277     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .34308  .34302 |
| Chi-squared[45]          =  84734.47892     |
| 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	-5.84347188	.58433076	-10.000	.0000
BP_NC01	4.46591807	.57976510	7.703	.0000
BP_NC11	2.81098017	.58059224	4.842	.0000
BP_NC21	2.31717437	.58034446	3.993	.0001
BP_NC31	1.28500306	.59833063	2.148	.0317
BP_LC1	-2.25655400	.05799707	-38.908	.0000
BP_D21	.09717375	.00870952	11.157	.0000
BP_DX11	-.17499579	1.01109294	-.173	.8626
BP_DX21	.72527005	.10124369	7.164	.0000
BP_DX31	.27584136	.06353233	4.342	.0000
A_B	-1.93463313	.11311055	-17.104	.0000
B_NC02	3.22702069	.10653306	30.291	.0000
B_NC12	1.58932186	.10673822	14.890	.0000
B_NC22	1.11726170	.10627677	10.513	.0000
B_NC32	.52972487	.11371480	4.658	.0000
B_LC2	-1.96560469	.02185015	-89.958	.0000
B_D22	.01138214	.00505701	2.251	.0244
B_DX12	.29979444	.24436885	1.227	.2199
B_DX22	-.10369059	.05168798	-2.006	.0448
B_DX32	.02240133	.03001283	.746	.4554
A_BO	-3.05129657	.18132460	-16.828	.0000
BO_NC03	2.25844325	.17064430	13.235	.0000
BO_NC13	1.24688415	.17059690	7.309	.0000
BO_NC23	.42743294	.17093658	2.501	.0124
BO_NC33	-.02297711	.18860731	-.122	.9030
BO_LC3	-2.02714862	.04283745	-47.322	.0000
BO_D23	.04705789	.00798480	5.893	.0000
BO_DX13	-29.7919077	.170933D+07	.000	1.0000
BO_DX23	-.56181283	.10906711	-5.151	.0000
BO_DX33	.10637899	.05114879	2.080	.0375
A_M	-2.79488283	.15259724	-18.315	.0000
M_NC04	3.16096073	.14004861	22.570	.0000
M_NC14	1.54304995	.14092437	10.949	.0000
M_NC24	.99521099	.14038026	7.089	.0000
M_NC34	.23234496	.15603998	1.489	.1365
M_LC4	-1.23275134	.02935967	-41.988	.0000
M_D24	-.04505957	.00804828	-5.599	.0000
M_DX14	-30.2659770	.128785D+07	.000	1.0000
M_DX24	-.48032324	.07775314	-6.178	.0000
M_DX34	.03595119	.04322696	.832	.4056
A_P	3.47254382	.33769957	10.283	.0000
P_NC05	2.78010869	.14563958	19.089	.0000
P_NC15	.90921462	.14747729	6.165	.0000
P_NC25	.54271030	.14564829	3.726	.0002
P_NC35	-.27546391	.17162799	-1.605	.1085
P_LC5	-1.89076265	.04405025	-42.923	.0000
P_D25	-1.58662615	.05011798	-31.658	.0000
P_DX15	2.16403487	.30195556	7.167	.0000
P_DX25	-1.04111827	.23730925	-4.387	.0000
P_DX35	-2.20415599	.19076124	-11.555	.0000

MNL7.2 – Combinação de Variáveis socioeconómicas e sobre TC

- ASC

- Lc - Var. binária de disponibilidade de Licença de condução (Lc)
- NCia - Var. binária nº auto disponíveis diariamente no agregado per capita (expto NC4a).

- Ti – Variável continua genérica duração média apreendida da viagem por modo (min)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1,T2,T3,T4,T5,T6
;Rh2=ONE,NC0,NC1,NC2,NC3,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 09, 2012 at 03:15:52PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                  8     |
| Log likelihood function       -33517.26     |
| Number of parameters                 31     |
| Info. Criterion: AIC =          2.19564     |
|   Finite Sample: AIC =          2.19564     |
| Info. Criterion: BIC =          2.20409     |
| Info. Criterion:HQIC =          2.19835     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .15546  .15529 |
| Chi-squared[26]          =  12339.63061     |
| 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]|
+--------+--------------+----------------+--------+--------+
 ATTRIB01|    -.00726187       .00128297    -5.660    .0000
 A_BP    |   -3.76112155       .71318633    -5.274    .0000
```

BP_NC01	3.40767314	.71349733	4.776	.0000
BP_NC11	2.11314964	.71417161	2.959	.0031
BP_NC21	1.54028248	.71402735	2.157	.0310
BP_NC31	.36785882	.74926313	.491	.6235
BP_LC1	-2.67706326	.10582284	-25.298	.0000
A_B	-1.63840939	.21261720	-7.706	.0000
B_NC02	2.72506999	.21394336	12.737	.0000
B_NC12	1.40827847	.21385015	6.585	.0000
B_NC22	.87572094	.21334555	4.105	.0000
B_NC32	.29333111	.22571367	1.300	.1937
B_LC2	-2.33084019	.04439200	-52.506	.0000
A_BO	-2.56245420	.29697851	-8.628	.0000
BO_NC03	2.07234848	.29939773	6.922	.0000
BO_NC13	1.26677741	.29851110	4.244	.0000
BO_NC23	.36521752	.29935390	1.220	.2225
BO_NC33	-.43803046	.33616634	-1.303	.1926
BO_LC3	-2.01677103	.07191517	-28.044	.0000
A_M	-2.86600148	.22520452	-12.726	.0000
M_NC04	2.88652979	.22581029	12.783	.0000
M_NC14	1.30668448	.22709004	5.754	.0000
M_NC24	.66182312	.22655978	2.921	.0035
M_NC34	-.05803160	.25275763	-.230	.8184
M_LC4	-1.01810860	.04977284	-20.455	.0000
A_P	-1.47930138	.16986590	-8.709	.0000
P_NC05	2.12890794	.17138253	12.422	.0000
P_NC15	.59324307	.17234827	3.442	.0006
P_NC25	.23723759	.17085610	1.389	.1650
P_NC35	-.57918170	.19565504	-2.960	.0031
P_LC5	-1.88492737	.04733286	-39.823	.0000

MNL7.3 – Combinação de Variáveis socioeconómicas e sobre TC

- ASC

- Lc - Var. binária de disponibilidade de Licença de condução (Lc)
- NCia - Var. binária nº auto disponíveis diariamente no agregado per capita (expto NC4a).

- Tia – Variável continua genérica 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]
;Rhs=T1A,T2A,T3A,T4A,T5A,T6A
;Rh2=ONE,NC0,NC1,NC2,NC3,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 09, 2012 at 03:43:24PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                  8     |
| Log likelihood function       -33524.95     |
| Number of parameters                 31     |
| Info. Criterion: AIC =          2.19614     |
|   Finite Sample: AIC =          2.19614     |
| Info. Criterion: BIC =          2.20459     |
| Info. Criterion:HQIC =          2.19885     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .15527  .15510 |
| Chi-squared[26]          =  12324.25333     |
| 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]|
+--------+--------------+----------------+--------+--------+
 ATTRIB01|    -.00402175       .00096899    -4.150   .0000
```

A_BP	-3.85260343	.71280310	-5.405	.0000
BP_NC01	3.40758249	.71348827	4.776	.0000
BP_NC11	2.11572524	.71415875	2.963	.0031
BP_NC21	1.54402686	.71401774	2.162	.0306
BP_NC31	.37263104	.74925563	.497	.6190
BP_LC1	-2.67624498	.10581760	-25.291	.0000
A_B	-1.66430660	.21249421	-7.832	.0000
B_NC02	2.72117477	.21392305	12.720	.0000
B_NC12	1.40493603	.21383252	6.570	.0000
B_NC22	.87238172	.21332645	4.089	.0000
B_NC32	.29541280	.22569452	1.309	.1906
B_LC2	-2.33125792	.04439440	-52.512	.0000
A_BO	-2.58672062	.29691012	-8.712	.0000
BO_NC03	2.07445255	.29939867	6.929	.0000
BO_NC13	1.27010028	.29851108	4.255	.0000
BO_NC23	.37071999	.29935149	1.238	.2156
BO_NC33	-.42898925	.33616168	-1.276	.2019
BO_LC3	-2.01595692	.07191329	-28.033	.0000
A_M	-2.86853109	.22520511	-12.737	.0000
M_NC04	2.88688200	.22581240	12.784	.0000
M_NC14	1.30715026	.22709258	5.756	.0000
M_NC24	.66255301	.22656048	2.924	.0035
M_NC34	-.05462110	.25276091	-.216	.8289
M_LC4	-1.01830899	.04977422	-20.459	.0000
A_P	-1.50426255	.16972033	-8.863	.0000
P_NC05	2.12749862	.17133854	12.417	.0000
P_NC15	.59209989	.17230528	3.436	.0006
P_NC25	.23560085	.17080997	1.379	.1678
P_NC35	-.57534422	.19561180	-2.941	.0033
P_LC5	-1.88378216	.04733102	-39.800	.0000

MNL7.5 – Combinação de Variáveis socioeconómicas e sobre Viagem

- ASC

- Lc - Var. binária de disponibilidade de Licença de condução (Lc)
- NCia - Var. binária nº auto disponíveis diariamente no agregado per capita (expto NC4a).

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

- D2 - Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- Dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- Dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- Dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *Dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1A,T2A,T3A,T4A,T5A,T6A
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,D2,DX1,DX2,DX3$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 09, 2012 at 03:51:20PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                 31     |
| Log likelihood function       -26289.30     |
| Number of parameters                 51     |
| Info. Criterion: AIC =          1.72390     |
|   Finite Sample: AIC =          1.72390     |
| Info. Criterion: BIC =          1.73780     |
| Info. Criterion:HQIC =          1.72835     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .33759  .33736 |
| Chi-squared[46]          =  26795.54675     |
| 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]
ATTRIB01	.01265697	.00114186	11.085	.0000
A_BP	-4.41787647	.74122695	-5.960	.0000
BP_NC01	3.43593514	.71383404	4.813	.0000
BP_NC11	2.16693841	.71449727	3.033	.0024
BP_NC21	1.59199564	.71437463	2.229	.0258
BP_NC31	.39535156	.74964420	.527	.5979
BP_LC1	-2.68214197	.10593756	-25.318	.0000
BP_D21	.02694644	.02725671	.989	.3229
BP_DX11	.07928411	.626318D+07	.000	1.0000
BP_DX21	.15648054	.18791481	.833	.4050
BP_DX31	-.20906769	.12055355	-1.734	.0829
A_B	-1.60385329	.24059309	-6.666	.0000
B_NC02	2.72568693	.21498311	12.679	.0000
B_NC12	1.43407393	.21489216	6.673	.0000
B_NC22	.88928660	.21439578	4.148	.0000
B_NC32	.32222078	.22682156	1.421	.1554
B_LC2	-2.34950691	.04474984	-52.503	.0000
B_D22	-.00672388	.01510671	-.445	.6563
B_DX12	-.19186670	.313665D+07	.000	1.0000
B_DX22	-1.33693828	.12067007	-11.079	.0000
B_DX32	-.19290398	.06475110	-2.979	.0029
A_BO	-2.72574548	.34569724	-7.885	.0000
BO_NC03	2.09299594	.29967715	6.984	.0000
BO_NC13	1.30944250	.29879362	4.382	.0000
BO_NC23	.40878198	.29967126	1.364	.1725
BO_NC33	-.39174304	.33645896	-1.164	.2443
BO_LC3	-2.02519430	.07201589	-28.121	.0000
BO_D23	.02087171	.02391647	.873	.3828
BO_DX13	-.06037690	.574022D+07	.000	1.0000
BO_DX23	-.69998230	.18246249	-3.836	.0001
BO_DX33	-.08056098	.10255385	-.786	.4321
A_M	-2.96165411	.27499891	-10.770	.0000
M_NC04	2.91194733	.22596635	12.887	.0000
M_NC14	1.33716273	.22724091	5.884	.0000
M_NC24	.67622719	.22672773	2.983	.0029
M_NC34	-.03312386	.25292826	-.131	.8958
M_LC4	-1.02681338	.05009519	-20.497	.0000
M_D24	-.01988076	.02143892	-.927	.3538
M_DX14	.09769990	.446429D+07	.000	1.0000
M_DX24	-.23159129	.14915421	-1.553	.1205
M_DX34	.30131456	.09011213	3.344	.0008
A_P	10.9872303	.70379976	15.611	.0000
P_NC05	2.34751029	.29713245	7.901	.0000
P_NC15	.49843446	.29933006	1.665	.0959
P_NC25	.22898554	.29620067	.773	.4395
P_NC35	-.78161872	.34321355	-2.277	.0228
P_LC5	-2.06682505	.08852560	-23.347	.0000
P_D25	-2.95064387	.11278461	-26.162	.0000
P_DX15	27.7847387	.151212D+07	.000	1.0000

P_DX25	-6.56075067	.47700080	-13.754	.0000
P_DX35	-5.44630924	.37173007	-14.651	.0000

MNL7.6 – Combinação de Variáveis socioeconómicas e sobre Viagem

- ASC

- Lc - Var. binária de disponibilidade de Licença de condução (Lc)
- NCia - Var. binária nº auto disponíveis diariamente no agregado per capita (expto NC4a).

- Ti – Variável continua genérica duração média apreendida da viagem por modo (min)

- D2 - Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- Dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- Dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- Dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *Dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1,T2,T3,T4,T5,T6
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,D2,DX1,DX2,DX3$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 09, 2012 at 04:03:51PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                 31     |
| Log likelihood function       -26349.61     |
| Number of parameters                 51     |
| Info. Criterion: AIC =          1.72785     |
|   Finite Sample: AIC =          1.72785     |
| Info. Criterion: BIC =          1.74174     |
| Info. Criterion:HQIC =          1.73230     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .33607  .33584 |
| Chi-squared[46]          =  26674.93608     |
| 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]|
+--------+--------------+----------------+--------+--------+
 ATTRIB01|     .00147878       .00169224      .874   .3822
 A_BP    |   -4.16456585       .74157230    -5.616   .0000
 BP_NC01 |    3.41874068       .71362463     4.791   .0000
 BP_NC11 |    2.13118552       .71429898     2.984   .0028
 BP_NC21 |    1.56217961       .71416702     2.187   .0287
 BP_NC31 |     .37902407       .74943557      .506   .6130
 BP_LC1  |   -2.68305071       .10589637   -25.337   .0000
 BP_D21  |     .04477599       .02726169     1.642   .1005
 BP_DX11 |     .15184633     .654103D+07      .000  1.0000
 BP_DX21 |     .14833642       .18773354      .790   .4294
 BP_DX31 |    -.17123841       .12068015    -1.419   .1559
 A_B     |   -1.52666522       .24035155    -6.352   .0000
 B_NC02  |    2.72119193       .21476560    12.671   .0000
 B_NC12  |    1.42093669       .21467221     6.619   .0000
 B_NC22  |     .88064792       .21417868     4.112   .0000
 B_NC32  |     .31618573       .22660577     1.395   .1629
 B_LC2   |   -2.34775379       .04470995   -52.511   .0000
 B_D22   |    -.00093337       .01511219     -.062   .9508
 B_DX12  |    -.18514436     .322499D+07      .000  1.0000
 B_DX22  |   -1.33124538       .12062691   -11.036   .0000
 B_DX32  |    -.17921725       .06473829    -2.768   .0056
 A_BO    |   -2.58158592       .34539148    -7.474   .0000
 BO_NC03 |    2.08097897       .29961307     6.946   .0000
 BO_NC13 |    1.28844247       .29873130     4.313   .0000
 BO_NC23 |     .38576226       .29962192     1.287   .1979
 BO_NC33 |    -.40796126       .33642694    -1.213   .2253
 BO_LC3  |   -2.02688771       .07199026   -28.155   .0000
 BO_D23  |     .01266705       .02377393      .533   .5942
 BO_DX13 |    -.11642659     .590254D+07      .000  1.0000
 BO_DX23 |    -.75168924       .18193040    -4.132   .0000
 BO_DX33 |    -.09273840       .10235128     -.906   .3649
 A_M     |   -2.97622205       .27500976   -10.822   .0000
 M_NC04  |    2.90306564       .22593028    12.849   .0000
 M_NC14  |    1.32456150       .22719950     5.830   .0000
 M_NC24  |     .66788219       .22669401     2.946   .0032
 M_NC34  |    -.03362773       .25289324     -.133   .8942
 M_LC4   |   -1.02288547       .05006908   -20.429   .0000
 M_D24   |    -.01507860       .02147471     -.702   .4826
 M_DX14  |     .10932293     .460312D+07      .000  1.0000
 M_DX24  |    -.20659712       .14922829    -1.384   .1662
 M_DX34  |     .30987427       .09008717     3.440   .0006
 A_P     |    10.9662599       .70207845    15.620   .0000
 P_NC05  |    2.34672521       .29665740     7.911   .0000
 P_NC15  |     .47881090       .29889211     1.602   .1092
 P_NC25  |     .20465193       .29570882      .692   .4889
 P_NC35  |    -.80269803       .34291166    -2.341   .0192
 P_LC5   |   -2.08723069       .08855500   -23.570   .0000
 P_D25   |   -2.92387470       .11272787   -25.937   .0000
 P_DX15  |    27.7903066     .149305D+07      .000  1.0000
 P_DX25  |   -6.46409995       .47526457   -13.601   .0000
```

```
 P_DX35  |    -5.34407743       .37009333   -14.440   .0000
```

MNL7.12 – Combinação de Variáveis socioeconómicas e sobre Viagem

- ASC

- Lc - Var. binária de disponibilidade de Licença de condução (Lc)
- NCia - Var. binária nº auto disponíveis diariamente no agregado per capita (expto NC4a).

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

- D2 - Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- Dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- Dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- Dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *Dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

- *Rg:Variável binária para viagens de Regresso a casa (exluída)*
- Tr: Variável binária para viagens para trabalho
- Es: Variável binária para viagens para a escola
- Lz: Variável binária para viagens em lazer
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1A,T2A,T3A,T4A,T5A,T6A
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,TR,ES,LZ,CS,D2,DX1,DX2,DX3$
Maximum of   100 iterations. Exit iterations with status=1.

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -28696.88611
Estimation based on N =  30559, K =  71
Inf.Cr.AIC  =  57535.8 AIC/N =    1.883
Model estimated: May 09, 2012, 15:10:50
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .2769 .2766
Chi-squared[66]           =  21980.38441
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 95426, skipped64867 obs
--------+-----------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
    MTRP|  Coefficient       Error       z    |z|>Z*         Interval
--------+-----------------------------------------------------------------------
     Tia|     .01290***       .00110    11.75  .0000       .01075     .01505
    A_BP|   -4.44602***       .47756    -9.31  .0000    -5.38203   -3.51001
  BP_NC01|    3.49365***       .43193     8.09  .0000     2.64708    4.34021
  BP_NC11|    2.09367***       .43281     4.84  .0000     1.24538    2.94196
  BP_NC21|    1.53967***       .43194     3.56  .0004      .69309    2.38625
  BP_NC31|     .33869          .46837      .72  .4696     -.57931    1.25668
```

BP_LC1	-2.60320***	.08867	-29.36	.0000	-2.77699	-2.42941
BP_TR1	.14927	.09264	1.61	.1071	-.03230	.33084
BP_ES1	.67440***	.08429	8.00	.0000	.50920	.83961
BP_LZ1	-1.37319***	.12895	-10.65	.0000	-1.62593	-1.12044
BP_CS1	-.52579***	.13174	-3.99	.0001	-.78400	-.26759
BP_D21	.03423	.02736	1.25	.2109	-.01939	.08785
BP_DX11	2176.34	83752.18	.03	.9793	-161974.93	166327.60
BP_DX21	.22745	.18912	1.20	.2291	-.14322	.59813
BP_DX31	-.21357*	.12137	-1.76	.0785	-.45145	.02431
A_B	-1.64723***	.23080	-7.14	.0000	-2.09959	-1.19488
B_NC02	2.76974***	.20247	13.68	.0000	2.37290	3.16658
B_NC12	1.38598***	.20235	6.85	.0000	.98937	1.78258
B_NC22	.85870***	.20175	4.26	.0000	.46327	1.25413
B_NC32	.29148	.21446	1.36	.1741	-.12885	.71182
B_LC2	-2.30326***	.04567	-50.43	.0000	-2.39278	-2.21374
B_TR2	.19720***	.05373	3.67	.0002	.09189	.30251
B_ES2	.55889***	.05489	10.18	.0000	.45132	.66647
B_LZ2	-.79482***	.06744	-11.79	.0000	-.92700	-.66263
B_CS2	-.20627***	.07628	-2.70	.0068	-.35577	-.05676
B_D22	-.00191	.01523	-.13	.9000	-.03177	.02794
B_DX12	2176.03	83752.18	.03	.9793	-161975.23	166327.29
B_DX22	-1.28913***	.12136	-10.62	.0000	-1.52699	-1.05127
B_DX32	-.19935***	.06540	-3.05	.0023	-.32752	-.07118
A_BO	-2.88220***	.32048	-8.99	.0000	-3.51033	-2.25408
BO_NC03	2.18803***	.26620	8.22	.0000	1.66629	2.70978
BO_NC13	1.23780***	.26569	4.66	.0000	.71707	1.75854
BO_NC23	.36276	.26588	1.36	.1724	-.15836	.88388
BO_NC33	-.44209	.29922	-1.48	.1396	-1.02856	.14438
BO_LC3	-1.88833***	.06913	-27.32	.0000	-2.02381	-1.75284
BO_TR3	.27502***	.07888	3.49	.0005	.12041	.42963
BO_ES3	.92593***	.07404	12.51	.0000	.78081	1.07104
BO_LZ3	-1.31744***	.11956	-11.02	.0000	-1.55177	-1.08312
BO_CS3	-.82711***	.13412	-6.17	.0000	-1.08999	-.56423
BO_D23	.03285	.02414	1.36	.1736	-.01447	.08018
BO_DX13	2176.39	83752.18	.03	.9793	-161974.88	166327.65
BO_DX23	-.59775***	.18437	-3.24	.0012	-.95910	-.23640
BO_DX33	-.07279	.10398	-.70	.4839	-.27660	.13101
A_M	-2.89790***	.26413	-10.97	.0000	-3.41558	-2.38021
M_NC04	2.89102***	.21116	13.69	.0000	2.47715	3.30488
M_NC14	1.34392***	.21203	6.34	.0000	.92835	1.75949
M_NC24	.67443***	.21129	3.19	.0014	.26030	1.08856
M_NC34	-.04010	.23616	-.17	.8652	-.50297	.42277
M_LC4	-1.28745***	.05073	-25.38	.0000	-1.38688	-1.18802
M_TR4	.79624***	.05681	14.01	.0000	.68489	.90759
M_ES4	-1.21763***	.11445	-10.64	.0000	-1.44194	-.99332
M_LZ4	-.44294***	.07991	-5.54	.0000	-.59956	-.28632
M_CS4	-.35703***	.09802	-3.64	.0003	-.54914	-.16491
M_D24	-.01836	.02157	-.85	.3946	-.06063	.02391
M_DX14	2176.29	83752.18	.03	.9793	-161974.97	166327.55
M_DX24	-.21745	.15004	-1.45	.1473	-.51153	.07663
M_DX34	.30448***	.09072	3.36	.0008	.12668	.48228
A_P	11.2285***	.65674	17.10	.0000	9.9413	12.5157
P_NC05	2.37556***	.26397	9.00	.0000	1.85819	2.89294
P_NC15	.48875*	.26575	1.84	.0659	-.03211	1.00960
P_NC25	.22639	.26291	.86	.3892	-.28891	.74168
P_NC35	-.79615***	.30316	-2.63	.0086	-1.39034	-.20196

```
   P_LC5|   -2.09772***       .07886   -26.60   .0000    -2.25228   -1.94316
   P_TR5|    -.04734          .09582     -.49   .6213     -.23516     .14047
   P_ES5|    -.14622          .10406    -1.41   .1600     -.35017     .05773
   P_LZ5|    -.28794***       .10315    -2.79   .0052     -.49011    -.08576
   P_CS5|    -.38373***       .12684    -3.03   .0025     -.63233    -.13512
   P_D25|   -2.98316***       .10535   -28.32   .0000    -3.18965   -2.77668
  P_DX15|    2529.74        83752.18      .03   .9759  -161621.52  166681.01
  P_DX25|   -6.64312***       .45317   -14.66   .0000    -7.53131   -5.75493
  P_DX35|   -5.50317***       .35695   -15.42   .0000    -6.20278   -4.80356
--------+------------------------------------------------------------------
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
-------------------------------------------------------------------------------
```

MNL7.12a – Combinação de Variáveis socioeconómicas e sobre Viagem

- ASC

- Lc - Var. binária de disponibilidade de Licença de condução (Lc)
- NCia - Var. binária nº auto disponíveis diariamente no agregado per capita (expto NC4a).

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

- D2 - Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- Dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- Dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- Dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *Dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

- *Tr2: Variável binária para viagens para o trabalho (com motivo da viagem anterior nas viagens para casa) (excluída)*
- Es2: Variável binária para viagens para a Escola (com motivo da viagem anterior nas viagens para casa)
- Lz2: Variável binária para viagens para Lazer (com motivo da viagem anterior nas viagens para casa)
- CS2: Variável binária para viagens para Compras/Serviços (com motivo da viagem anterior nas viagens para casa)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1A,T2A,T3A,T4A,T5A,T6A
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,ES2,Lz2,CS2,D2,DX1,DX2,DX3$

+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 09, 2012 at 05:29:11PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            27749     |
| Iterations completed                 31     |
| Log likelihood function       -23236.40     |
| Number of parameters                 66     |
| Info. Criterion: AIC =          1.67951     |
|   Finite Sample: AIC =          1.67952     |
| Info. Criterion: BIC =          1.69909     |
| Info. Criterion:HQIC =          1.68582     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -36808.1443  .36872  .36842 |
| Chi-squared[61]          =  27143.48171     |
| 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]
ATTRIB01	.01260201	.00121056	10.410	.0000
A_BP	-4.47116514	.75176720	-5.948	.0000
BP_NC01	3.59906638	.71552329	5.030	.0000
BP_NC11	1.99086270	.71611703	2.780	.0054
BP_NC21	1.45771296	.71596037	2.036	.0417
BP_NC31	.16326764	.75589180	.216	.8290
BP_LC1	-2.35969488	.11867241	-19.884	.0000
BP_ES21	.79513694	.09485393	8.383	.0000
BP_LZ21	-1.47816116	.13588972	-10.878	.0000
BP_CS21	-.52353705	.12230958	-4.280	.0000
BP_D21	.04930711	.02943636	1.675	.0939
BP_DX11	.40950037	.516408D+07	.000	1.0000
BP_DX21	.40262618	.20114856	2.002	.0453
BP_DX31	-.18399784	.12951997	-1.421	.1554
A_B	-1.62345754	.24995907	-6.495	.0000
B_NC02	2.85556488	.21788253	13.106	.0000
B_NC12	1.31478856	.21755543	6.043	.0000
B_NC22	.80823672	.21696945	3.725	.0002
B_NC32	.21465850	.23035726	.932	.3514
B_LC2	-2.13769073	.05245655	-40.752	.0000
B_ES22	.59480857	.05531509	10.753	.0000
B_LZ22	-1.05246787	.06128695	-17.173	.0000
B_CS22	-.37707990	.06415952	-5.877	.0000
B_D22	.01909993	.01620709	1.178	.2386
B_DX12	.04975489	.277701D+07	.000	1.0000
B_DX22	-1.16556461	.12830629	-9.084	.0000
B_DX32	-.17387047	.06935263	-2.507	.0122
A_BO	-3.05915850	.37220476	-8.219	.0000
BO_NC03	2.49182245	.31567294	7.894	.0000
BO_NC13	1.24405085	.31466288	3.954	.0001
BO_NC23	.39670932	.31542042	1.258	.2085
BO_NC33	-.54557568	.35662826	-1.530	.1261
BO_LC3	-1.55466377	.08661346	-17.949	.0000
BO_ES23	1.01215299	.08233382	12.293	.0000
BO_LZ23	-1.62383936	.12383289	-13.113	.0000
BO_CS23	-1.09310946	.12810627	-8.533	.0000
BO_D23	.05660076	.02558676	2.212	.0270
BO_DX13	.56013691	.427549D+07	.000	1.0000

BO_DX23	-.44341902	.19393159	-2.286	.0222
BO_DX33	-.04726814	.10957569	-.431	.6662
A_M	-2.20751967	.28638233	-7.708	.0000
M_NC04	2.92727633	.23325345	12.550	.0000
M_NC14	1.38771690	.23386734	5.934	.0000
M_NC24	.74735368	.23310753	3.206	.0013
M_NC34	.00526274	.25992704	.020	.9838
M_LC4	-1.46818848	.05690733	-25.800	.0000
M_ES24	-1.95248399	.10469686	-18.649	.0000
M_LZ24	-1.32965320	.06823314	-19.487	.0000
M_CS24	-1.19022790	.08026309	-14.829	.0000
M_D24	.01019930	.02236191	.456	.6483
M_DX14	.55962965	.371924D+07	.000	1.0000
M_DX24	-.06637410	.15617145	-.425	.6708
M_DX34	.38374037	.09452335	4.060	.0000
A_P	10.9250599	.74790833	14.607	.0000
P_NC05	2.52769883	.29955114	8.438	.0000
P_NC15	.52156790	.30181798	1.728	.0840
P_NC25	.23481067	.29814850	.788	.4310
P_NC35	-.77896975	.34737945	-2.242	.0249
P_LC5	-1.92459880	.09897921	-19.444	.0000
P_ES25	.27377870	.11000758	2.489	.0128
P_LZ25	-.28752977	.10626749	-2.706	.0068
P_CS25	-.35006875	.12170785	-2.876	.0040
P_D25	-2.97248099	.11974524	-24.823	.0000
P_DX15	27.6679305	.140452D+07	.000	1.0000
P_DX25	-6.40706188	.51184408	-12.518	.0000
P_DX35	-5.39771406	.40161345	-13.440	.0000

MNL7.13 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

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

- D2 - Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- Dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- Dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- Dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *Dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

Tr - Trab viagens com motivo ir para o trabalho (excluída)
Es - Escola viagens com motivo ir para a escola
Lz - Lazer viagens com motivo lazer
CS - Cp_Sv viagens com motivo ir para às compras ou a serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1A,T2A,T3A,T4A,T5A,T6A
;Rh2=ONE,NC0,NC1,NC2,NC3,R1,R2,R3,R4,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,ES,LZ,CS,D2,
DX1,DX2,DX3$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 09, 2012 at 06:16:06PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                 31     |
| Log likelihood function       -24500.89     |
| Number of parameters                126     |
| Info. Criterion: AIC =          1.61176     |
|   Finite Sample: AIC =          1.61179     |
| Info. Criterion: BIC =          1.64610     |
| Info. Criterion:HQIC =          1.62277     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .38265  .38214 |
| Chi-squared[**]          =  30372.38609     |
| 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]
ATTRIB01	.01369219	.00117652	11.638	.0000
A_BP	-8.05598674	.89101587	-9.041	.0000
BP_NC01	3.43341762	.71883744	4.776	.0000
BP_NC11	2.05178977	.71890868	2.854	.0043
BP_NC21	1.59657863	.71755058	2.225	.0261
BP_NC31	.42566773	.75243478	.566	.5716
BP_R11	.34135181	.16090557	2.121	.0339
BP_R21	.16667527	.12789872	1.303	.1925
BP_R31	.11338660	.13472698	.842	.4000
BP_R41	-.36910347	.18524255	-1.993	.0463
BP_SX1	.63770767	.07760978	8.217	.0000
BP_ID21	2.96959209	.27530759	10.786	.0000
BP_ID31	1.98072956	.28992939	6.832	.0000
BP_ID41	2.30328380	.27885626	8.260	.0000
BP_ID51	2.25042964	.29251051	7.694	.0000
BP_IN11	.70897410	.46366396	1.529	.1262
BP_IN21	.78150877	.42085169	1.857	.0633
BP_IN31	.80816814	.43018434	1.879	.0603
BP_LC1	-2.30630342	.12001909	-19.216	.0000
BP_ES1	.43943135	.10056158	4.370	.0000
BP_LZ1	-1.30200210	.16822739	-7.740	.0000
BP_CS1	-.54854724	.15731259	-3.487	.0005
BP_D21	.02989454	.02807478	1.065	.2870
BP_DX11	.42657135	.531804D+07	.000	1.0000
BP_DX21	.31036187	.19404295	1.599	.1097
BP_DX31	-.20307534	.12397878	-1.638	.1014
A_B	-3.95543837	.29658225	-13.337	.0000
B_NC02	2.70701657	.21988171	12.311	.0000
B_NC12	1.32190118	.21921426	6.030	.0000
B_NC22	.87667542	.21774467	4.026	.0001
B_NC32	.33541427	.23018359	1.457	.1451
B_R12	.48738440	.09264166	5.261	.0000
B_R22	.33559745	.06834316	4.910	.0000
B_R32	.36919908	.07074087	5.219	.0000
B_R42	.27363650	.08551536	3.200	.0014
B_SX2	.37726224	.04184123	9.017	.0000
B_ID22	2.32166439	.11959067	19.413	.0000
B_ID32	1.80717008	.12584421	14.360	.0000

B_ID42	1.94347806	.12135110	16.015	.0000
B_ID52	1.72524647	.13531080	12.750	.0000
B_IN12	-.15135220	.16624220	-.910	.3626
B_IN22	-.04114456	.12554518	-.328	.7431
B_IN32	.28656002	.13158098	2.178	.0294
B_LC2	-2.29076083	.05531311	-41.414	.0000
B_ES2	.42155002	.06315649	6.675	.0000
B_LZ2	-.72104463	.07108585	-10.143	.0000
B_CS2	-.21371643	.07982163	-2.677	.0074
B_D22	-.00718721	.01575975	-.456	.6484
B_DX12	-.03261838	.290361D+07	.000	1.0000
B_DX22	-1.23280149	.12507861	-9.856	.0000
B_DX32	-.20779614	.06777442	-3.066	.0022
A_BO	-4.84155812	.51747173	-9.356	.0000
BO_NC03	1.98153376	.30780267	6.438	.0000
BO_NC13	.97154506	.30581818	3.177	.0015
BO_NC23	.23610411	.30489511	.774	.4387
BO_NC33	-.47445449	.34108319	-1.391	.1642
BO_R13	.28323778	.13968717	2.028	.0426
BO_R23	.15157033	.10184536	1.488	.1367
BO_R33	.01734705	.10825627	.160	.8727
BO_R43	-.33035204	.14545446	-2.271	.0231
BO_SX3	-.27879297	.06285394	-4.436	.0000
BO_ID23	1.65214109	.15392906	10.733	.0000
BO_ID33	.87230415	.17228040	5.063	.0000
BO_ID43	.68745609	.16516938	4.162	.0000
BO_ID53	-.20289185	.23258741	-.872	.3830
BO_IN13	1.30719510	.39822584	3.283	.0010
BO_IN23	1.27862721	.36240343	3.528	.0004
BO_IN33	.66383069	.37487279	1.771	.0766
BO_LC3	-1.59994577	.09297538	-17.208	.0000
BO_ES3	.49470136	.08415855	5.878	.0000
BO_LZ3	-1.28259604	.14739958	-8.701	.0000
BO_CS3	-.58404009	.16067990	-3.635	.0003
BO_D23	.04069268	.02475457	1.644	.1002
BO_DX13	.55063218	.465388D+07	.000	1.0000
BO_DX23	-.45076128	.18776661	-2.401	.0164
BO_DX33	-.02130435	.10612050	-.201	.8409
A_M	-6.74943432	.52643555	-12.821	.0000
M_NC04	2.59815509	.23194449	11.202	.0000
M_NC14	1.12534442	.23144778	4.862	.0000
M_NC24	.53304509	.23005533	2.317	.0205
M_NC34	-.07668821	.25575679	-.300	.7643
M_R14	-.10771520	.11932207	-.903	.3667
M_R24	-.07684845	.09082188	-.846	.3975
M_R34	.06100213	.09460148	.645	.5190
M_R44	.15078831	.11276458	1.337	.1812
M_SX4	-.95549992	.05606819	-17.042	.0000
M_ID24	1.94761733	.18974892	10.264	.0000
M_ID34	2.79239034	.18832077	14.828	.0000
M_ID44	2.52387954	.18516413	13.630	.0000
M_ID54	1.32842181	.20763129	6.398	.0000
M_IN14	2.97997384	.43859427	6.794	.0000
M_IN24	2.80033346	.41377632	6.768	.0000
M_IN34	2.14880860	.42139933	5.099	.0000
M_LC4	-1.76877020	.06392067	-27.671	.0000

M_ES4	-1.10116743	.14615053	-7.534	.0000
M_LZ4	-.50079002	.08513380	-5.882	.0000
M_CS4	-.35604055	.10585092	-3.364	.0008
M_D24	-.03613978	.02209296	-1.636	.1019
M_DX14	.52495479	.374411D+07	.000	1.0000
M_DX24	-.13316090	.15333898	-.868	.3852
M_DX34	.28008852	.09270222	3.021	.0025
A_P	9.56467985	.77021430	12.418	.0000
P_NC05	2.46794654	.30727021	8.032	.0000
P_NC15	.68596372	.30803011	2.227	.0260
P_NC25	.36483964	.30191344	1.208	.2269
P_NC35	-.76169587	.34941064	-2.180	.0293
P_R15	-.40960220	.16630648	-2.463	.0138
P_R25	-.33465288	.13397073	-2.498	.0125
P_R35	-.34802472	.14263670	-2.440	.0147
P_R45	-.48399722	.17268073	-2.803	.0051
P_SX5	.08082369	.07987919	1.012	.3116
P_ID25	1.87313675	.19121923	9.796	.0000
P_ID35	1.67130929	.20643404	8.096	.0000
P_ID45	1.80506216	.19478787	9.267	.0000
P_ID55	1.98052557	.21702006	9.126	.0000
P_IN15	-.04967364	.28991752	-.171	.8640
P_IN25	.19561996	.22346044	.875	.3813
P_IN35	.08825462	.24367558	.362	.7172
P_LC5	-2.32500757	.10859010	-21.411	.0000
P_ES5	-.07711543	.12964114	-.595	.5520
P_LZ5	-.22222955	.11995747	-1.853	.0639
P_CS5	-.44428335	.15192380	-2.924	.0035
P_D25	-2.97867678	.11571237	-25.742	.0000
P_DX15	27.8305085	.150376D+07	.000	1.0000
P_DX25	-6.54228261	.48654062	-13.447	.0000
P_DX35	-5.51276637	.37757547	-14.600	.0000

MNL7.13a –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

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

- D2 - Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- Dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- Dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- Dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *Dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

- *Tr2: Variável binária para viagens para o trabalho (com motivo da viagem anterior nas viagens para casa) (excluída)*
- Es2: Variável binária para viagens para a Escola (com motivo da viagem anterior nas viagens para casa)
- Lz2: Variável binária para viagens para Lazer (com motivo da viagem anterior nas viagens para casa)
- CS2: Variável binária para viagens para Compras/Serviços (com motivo da viagem anterior nas viagens para casa)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1A,T2A,T3A,T4A,T5A,T6A
;Rh2=ONE,NC0,NC1,NC2,NC3,R1,R2,R3,R4,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,ES2,LZ2,CS2,
D2,DX1,DX2,DX3$

+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 09, 2012 at 06:38:34PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            27749     |
| Iterations completed                 31     |
| Log likelihood function       -22217.22     |
| Number of parameters                126     |
| Info. Criterion: AIC =          1.61038     |
|   Finite Sample: AIC =          1.61042     |
| Info. Criterion: BIC =          1.64775     |
```

```
| Info. Criterion:HQIC =          1.62242     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -36808.1443  .39640  .39586 |
| Chi-squared[**]          =  29181.84727     |
| 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]
ATTRIB01	.01329918	.00122894	10.822	.0000
A_BP	-8.65076594	.92981478	-9.304	.0000
BP_NC01	3.43251718	.72012573	4.767	.0000
BP_NC11	1.97286201	.71997489	2.740	.0061
BP_NC21	1.50205653	.71848631	2.091	.0366
BP_NC31	.26504106	.75789070	.350	.7266
BP_R11	.46971059	.17306098	2.714	.0066
BP_R21	.22129363	.13512488	1.638	.1015
BP_R31	.14864472	.14176157	1.049	.2944
BP_R41	-.40898076	.19479044	-2.100	.0358
BP_SX1	.70767539	.08133702	8.701	.0000
BP_ID21	2.93389183	.29872731	9.821	.0000
BP_ID31	2.50272203	.32903069	7.606	.0000
BP_ID41	2.92958650	.32121143	9.120	.0000
BP_ID51	2.95915922	.34079666	8.683	.0000
BP_IN11	1.12309733	.50873588	2.208	.0273
BP_IN21	.83361158	.46016329	1.812	.0701
BP_IN31	.86195891	.46875029	1.839	.0659
BP_LC1	-2.18809360	.12629168	-17.326	.0000
BP_ES21	1.04144371	.15345805	6.787	.0000
BP_LZ21	-1.33783983	.14654898	-9.129	.0000
BP_CS21	-.63637461	.13380851	-4.756	.0000
BP_D21	.04120680	.03003105	1.372	.1700
BP_DX11	.58845941	.482801D+07	.000	1.0000
BP_DX21	.47159353	.20522211	2.298	.0216
BP_DX31	-.17052029	.13182530	-1.294	.1958
A_B	-4.48886527	.31257518	-14.361	.0000
B_NC02	2.76926918	.22212569	12.467	.0000
B_NC12	1.33279199	.22113556	6.027	.0000
B_NC22	.86897906	.21951864	3.959	.0001
B_NC32	.30732249	.23275741	1.320	.1867
B_R12	.58842279	.09909251	5.938	.0000
B_R22	.32091808	.07172620	4.474	.0000

B_R32	.35141779	.07406788	4.745	.0000
B_R42	.19400531	.08988550	2.158	.0309
B_SX2	.44257158	.04429812	9.991	.0000
B_ID22	2.30631999	.12921959	17.848	.0000
B_ID32	2.30967127	.14334683	16.112	.0000
B_ID42	2.54461537	.14044807	18.118	.0000
B_ID52	2.35674224	.15601252	15.106	.0000
B_IN12	.08184274	.17778378	.460	.6453
B_IN22	-.10385818	.12948361	-.802	.4225
B_IN32	.18492014	.13588161	1.361	.1735
B_LC2	-2.19811092	.05849463	-37.578	.0000
B_ES22	1.00831709	.08119771	12.418	.0000
B_LZ22	-.81032070	.06639102	-12.205	.0000
B_CS22	-.35484298	.06854976	-5.176	.0000
B_D22	.01066803	.01675071	.637	.5242
B_DX12	.11818499	.266775D+07	.000	1.0000
B_DX22	-1.11844364	.13181997	-8.485	.0000
B_DX32	-.18214693	.07178548	-2.537	.0112
A_BO	-5.33231002	.54384776	-9.805	.0000
BO_NC03	2.16320343	.32257495	6.706	.0000
BO_NC13	1.06943244	.32037332	3.338	.0008
BO_NC23	.30269330	.31934219	.948	.3432
BO_NC33	-.49239729	.35975450	-1.369	.1711
BO_R13	.43796122	.14790656	2.961	.0031
BO_R23	.17126167	.10611795	1.614	.1066
BO_R33	-.00796770	.11287930	-.071	.9437
BO_R43	-.40360234	.15161292	-2.662	.0078
BO_SX3	-.20186490	.06559817	-3.077	.0021
BO_ID23	1.50618154	.15809454	9.527	.0000
BO_ID33	1.35272436	.20083429	6.736	.0000
BO_ID43	1.29659562	.19772654	6.558	.0000
BO_ID53	.54442185	.28075883	1.939	.0525
BO_IN13	1.43968654	.40669659	3.540	.0004
BO_IN23	1.19192262	.36368580	3.277	.0010
BO_IN33	.56109383	.37635020	1.491	.1360
BO_LC3	-1.53794392	.09782944	-15.721	.0000
BO_ES23	1.04905248	.13221585	7.934	.0000
BO_LZ23	-1.45843790	.13238829	-11.016	.0000
BO_CS23	-.90755847	.13433188	-6.756	.0000
BO_D23	.05997944	.02599651	2.307	.0210
BO_DX13	.77025863	.411528D+07	.000	1.0000
BO_DX23	-.33195467	.19618925	-1.692	.0906
BO_DX33	.00177470	.11108453	.016	.9873
A_M	-6.04862594	.54078260	-11.185	.0000
M_NC04	2.64805089	.23835158	11.110	.0000
M_NC14	1.17575118	.23788901	4.942	.0000
M_NC24	.62702386	.23625251	2.654	.0080
M_NC34	-.07524794	.26293004	-.286	.7747
M_R14	.03378475	.12489549	.271	.7868
M_R24	-.15735581	.09423451	-1.670	.0950
M_R34	-.04878193	.09852882	-.495	.6205
M_R44	.06854322	.11694755	.586	.5578
M_SX4	-.90718756	.05845418	-15.520	.0000
M_ID24	2.08742961	.20775055	10.048	.0000
M_ID34	2.18839513	.20898350	10.472	.0000
M_ID44	1.98763726	.20582602	9.657	.0000

M_ID54	1.11666930	.22386443	4.988	.0000
M_IN14	3.19023160	.44460400	7.175	.0000
M_IN24	2.76404343	.41494731	6.661	.0000
M_IN34	2.16853707	.42305782	5.126	.0000
M_LC4	-1.75745424	.06642150	-26.459	.0000
M_ES24	-1.94509155	.12781987	-15.217	.0000
M_LZ24	-1.10545184	.07490925	-14.757	.0000
M_CS24	-.82434077	.08521348	-9.674	.0000
M_D24	-.00553494	.02293497	-.241	.8093
M_DX14	.77888044	.338508D+07	.000	1.0000
M_DX24	.01126749	.15961059	.071	.9437
M_DX34	.36745300	.09648561	3.808	.0001
A_P	8.85839463	.81651016	10.849	.0000
P_NC05	2.59936723	.30882948	8.417	.0000
P_NC15	.70840559	.30964824	2.288	.0222
P_NC25	.34818695	.30282445	1.150	.2502
P_NC35	-.76887465	.35332885	-2.176	.0295
P_R15	-.38668434	.17580339	-2.200	.0278
P_R25	-.30578709	.14036967	-2.178	.0294
P_R35	-.29214078	.14886750	-1.962	.0497
P_R45	-.45203454	.17958885	-2.517	.0118
P_SX5	.11556340	.08379968	1.379	.1679
P_ID25	1.83941028	.20078285	9.161	.0000
P_ID35	2.07600052	.23342765	8.894	.0000
P_ID45	2.28239699	.22565181	10.115	.0000
P_ID55	2.52000514	.24815367	10.155	.0000
P_IN15	-.07419143	.30815521	-.241	.8097
P_IN25	.17860321	.23026058	.776	.4380
P_IN35	.06727795	.25055043	.269	.7883
P_LC5	-2.19172490	.11337322	-19.332	.0000
P_ES25	.80594986	.15871129	5.078	.0000
P_LZ25	-.04198609	.11747169	-.357	.7208
P_CS25	-.35474766	.13341349	-2.659	.0078
P_D25	-2.98279102	.12175005	-24.499	.0000
P_DX15	27.7319383	.139663D+07	.000	1.0000
P_DX25	-6.35224919	.51885411	-12.243	.0000
P_DX35	-5.44781100	.40644115	-13.404	.0000

MNL7.14 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para indisponibilidade diária de automóvel ligeiro no agregado (NC0).

- D2 - Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- Dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- Dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- Dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *Dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

- M1B – Var. binária modo utilizado igual ao modo de transp utilizado na 1ª viag. do dia (se não for a 1ª viagem)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,LC,M1B,D2,DX1,DX2,DX3$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 06, 2012 at 00:10:29AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            65796     |
| Iterations completed                 30     |
| Log likelihood function       -53159.15     |
| Number of parameters                 40     |
| Info. Criterion: AIC =          1.61709     |
|   Finite Sample: AIC =          1.61709     |
| Info. Criterion: BIC =          1.62262     |
| Info. Criterion:HQIC =          1.61880     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -81790.1222  .35005  .34998 |
| Chi-squared[35]          =  57261.95161     |
| 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	-2.95225211	.11791716	-25.037	.0000
BP_NC01	2.05321630	.05916213	34.705	.0000
BP_LC1	-2.37056535	.07414651	-31.971	.0000
BP_M1B1	-.78786332	.06421347	-12.269	.0000
BP_D21	.09840996	.01151207	8.548	.0000
BP_DX11	.30092509	1.01562503	.296	.7670
BP_DX21	.74103350	.13095911	5.659	.0000
BP_DX31	.27184084	.08272812	3.286	.0010
A_B	-.64142796	.06120538	-10.480	.0000
B_NC02	2.00850659	.02802354	71.672	.0000
B_LC2	-2.15834814	.02701392	-79.898	.0000
B_M1B2	-.08108424	.03395768	-2.388	.0169
B_D22	.00054489	.00654585	.083	.9337
B_DX12	.18091417	.30158916	.600	.5486
B_DX22	-.09067720	.06377644	-1.422	.1551
B_DX32	.02962809	.03762029	.788	.4310
A_BO	-2.56598606	.10788338	-23.785	.0000
BO_NC03	1.50604301	.04990699	30.177	.0000
BO_LC3	-2.16296038	.05374387	-40.246	.0000
BO_M1B3	.15621422	.06575678	2.376	.0175
BO_D23	.04386976	.01061952	4.131	.0000
BO_DX13	-29.9243541	.228940D+07	.000	1.0000
BO_DX23	-.56570943	.14130700	-4.003	.0001
BO_DX33	.11871356	.06660794	1.782	.0747
A_M	-2.02993621	.09618630	-21.104	.0000
M_NC04	2.05600634	.03627573	56.677	.0000
M_LC4	-1.48937900	.03532277	-42.165	.0000
M_M1B4	.57431528	.05610919	10.236	.0000
M_D24	-.06130715	.01025687	-5.977	.0000
M_DX14	-30.3991307	.153748D+07	.000	1.0000
M_DX24	-.51685927	.09399008	-5.499	.0000
M_DX34	.03972365	.05299634	.750	.4535
A_P	3.80769002	.37456587	10.166	.0000
P_NC05	2.19048122	.05058732	43.301	.0000
P_LC5	-2.06402286	.05245396	-39.349	.0000
P_M1B5	-.41822751	.05909452	-7.077	.0000
P_D25	-1.50055296	.05959930	-25.177	.0000
P_DX15	2.68780929	.36315966	7.401	.0000
P_DX25	-.58211360	.28973221	-2.009	.0445
P_DX35	-1.81682086	.23500339	-7.731	.0000

MNL7.15 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para indisponibilidade diária de automóvel ligeiro no agregado (NC0).

- D2 - Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- Dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- Dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- Dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *Dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,LC,D2,DX1,DX2,DX3$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 06, 2012 at 00:23:57AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                 30     |
| Log likelihood function       -81949.44     |
| Number of parameters                 35     |
| Info. Criterion: AIC =          1.71828     |
|   Finite Sample: AIC =          1.71828     |
| Info. Criterion: BIC =          1.72175     |
| Info. Criterion:HQIC =          1.71934     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .33638  .33634 |
| Chi-squared[30]          =  83079.86643     |
| 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	-3.41246088	.08344929	-40.893	.0000
BP_NC01	2.09006472	.04596570	45.470	.0000
BP_LC1	-2.40400886	.05772787	-41.644	.0000
BP_D21	.09803482	.00868897	11.283	.0000
BP_DX11	-.22664189	1.01083532	-.224	.8226
BP_DX21	.72987196	.10104119	7.224	.0000
BP_DX31	.27810942	.06339724	4.387	.0000
A_B	-.69005048	.04261754	-16.192	.0000
B_NC02	2.03707095	.02277910	89.427	.0000
B_LC2	-2.09008128	.02154040	-97.031	.0000
B_D22	.01205441	.00502341	2.400	.0164
B_DX12	.25104810	.24347750	1.031	.3025
B_DX22	-.09903845	.05137305	-1.928	.0539
B_DX32	.02448038	.02980275	.821	.4114
A_BO	-2.30188839	.07011459	-32.830	.0000
BO_NC03	1.56620243	.03851589	40.664	.0000
BO_LC3	-2.17174793	.04218275	-51.484	.0000
BO_D23	.04777112	.00793624	6.019	.0000
BO_DX13	-29.8468414	.172026D+07	.000	1.0000
BO_DX23	-.55322386	.10875190	-5.087	.0000
BO_DX33	.10830507	.05088024	2.129	.0333
A_M	-1.65001752	.06581252	-25.071	.0000
M_NC04	2.07739396	.02997798	69.297	.0000
M_LC4	-1.36359239	.02902615	-46.978	.0000
M_D24	-.04445510	.00802318	-5.541	.0000
M_DX14	-30.3107599	.128379D+07	.000	1.0000
M_DX24	-.47467880	.07748324	-6.126	.0000
M_DX34	.03847855	.04302786	.894	.3712
A_P	4.13316162	.30831865	13.405	.0000
P_NC05	2.21821643	.04178272	53.089	.0000
P_LC5	-1.99590596	.04349420	-45.889	.0000
P_D25	-1.59486943	.05011601	-31.824	.0000
P_DX15	2.07618450	.30110302	6.895	.0000
P_DX25	-1.06852649	.23713393	-4.506	.0000
P_DX35	-2.22170491	.19067455	-11.652	.0000

MNL7.17 – ASC e combinação de variáveis binárias modo utilizado na 1ª viagem do dia (se não for a 1ª viagem), número total de viagens diárias pelo individuo e distância mais curta

Genéricas
- M11: Variável binária modo da 1ª viagem do dia for Walk+BUS (se não for a 1ª viagem)
- M12: Variável binária modo da 1ª viagem do dia for BUS (se não for a 1ª viagem)
- M13: Variável binária modo da 1ª viagem do dia for Outro BUS (se não for a 1ª viagem)
- M14: Variável binária modo da 1ª viagem do dia for MOTO (se não for a 1ª viagem)
- M15: Variável binária modo da 1ª viagem do dia for Walk (se não for a 1ª viagem)
- M16: Variável binária modo da 1ª viagem do dia for Auto (se não for a 1ª viagem)

- nV: ntotalviag Número total de viagens de cada individuo por dia

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h
- dx1: Variável binária para distâncias mais curtas D2<=1,0km
- dx2: Variável binária para distâncias mais curtas D2>1,0km e <=2,0km
- dx3: Variável binária para distâncias mais curtas D2>2,0km e <=5,0km
- *dx4: Variável binária para distâncias mais curtas D2>5,0km (Excluída)*

- NC0: Variável binária Automóveis ligeiros disponiveis per capita = 0 (indisponibilidade AUTO)
- Lc: Variável binária sobre a existência de licença de condução (S=1, N=0)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=M11,M12,M13,M14,M15,M16
;Rh2=ONE,NC0,LC,NV,D2,DX1,DX2,DX3$

+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 07, 2012 at 00:23:05AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                 32     |
| Log likelihood function       -53019.13     |
| Number of parameters                 41     |
| Info. Criterion: AIC =          1.11207     |
|   Finite Sample: AIC =          1.11207     |
| Info. Criterion: BIC =          1.11614     |
| Info. Criterion:HQIC =          1.11331     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .57066  .57062 |
| Chi-squared[36]          = 140940.48203     |
| 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]
ATTRIB01	3.08271458	.01631548	188.944	.0000
A_BP	-2.17440164	.10942031	-19.872	.0000
BP_NC01	1.55576287	.05148957	30.215	.0000
BP_LC1	-1.78959331	.06202527	-28.853	.0000
BP_NV1	-.20898658	.01841449	-11.349	.0000
BP_D21	.07372265	.00990773	7.441	.0000
BP_DX11	1.01836120	1.01500838	1.003	.3157
BP_DX21	.78947657	.11317152	6.976	.0000
BP_DX31	.26244541	.07135366	3.678	.0002
A_B	.08248576	.06165919	1.338	.1810
B_NC02	1.53810729	.02922740	52.626	.0000
B_LC2	-1.56149713	.02812248	-55.525	.0000
B_NV2	-.20068707	.00903612	-22.209	.0000
B_D22	.00283987	.00629856	.451	.6521
B_DX12	1.15258027	.25869621	4.455	.0000
B_DX22	-.08458733	.06684665	-1.265	.2057
B_DX32	.07166911	.03861472	1.856	.0635
A_BO	-1.18528659	.09264416	-12.794	.0000
BO_NC03	1.12317677	.04464245	25.159	.0000
BO_LC3	-1.60387292	.04764828	-33.661	.0000
BO_NV3	-.20598850	.01485750	-13.864	.0000
BO_D23	.02225559	.00917876	2.425	.0153
BO_DX13	-29.1607358	.249721D+07	.000	1.0000
BO_DX23	-.35043092	.11940417	-2.935	.0033
BO_DX33	.09555911	.05898762	1.620	.1052
A_M	-1.57555004	.08912269	-17.678	.0000
M_NC04	1.50518716	.03758987	40.042	.0000
M_LC4	-1.04075843	.03650923	-28.507	.0000
M_NV4	.05667070	.00992694	5.709	.0000
M_D24	-.04780294	.00981252	-4.872	.0000
M_DX14	-29.6292985	.181374D+07	.000	1.0000
M_DX24	-.28584428	.09408160	-3.038	.0024
M_DX34	.01916509	.05343868	.359	.7199
A_P	5.29982969	.36143769	14.663	.0000
P_NC05	1.58063724	.05291708	29.870	.0000
P_LC5	-1.53796135	.05687006	-27.043	.0000
P_NV5	-.27605689	.01631790	-16.917	.0000
P_D25	-1.63143563	.05892088	-27.689	.0000

P_DX15	3.28982820	.34597802	9.509	.0000
P_DX25	-1.02932256	.27013326	-3.810	.0001
P_DX35	-2.28429183	.20919543	-10.919	.0000

MNL7.17a – ASC e combinação de variáveis binárias modo utilizado na 1ª viagem do dia (se não for a 1ª viagem) e distância mais curta

Genéricas
- M11a: Variável binária modo da 1ª viagem do dia for Walk+BUS (se não for a 1ª viagem) (excluindo 1ª viagens)
- M12a: Variável binária modo da 1ª viagem do dia for BUS (se não for a 1ª viagem) (excluindo 1ª viagens)
- M13a: Variável binária modo da 1ª viagem do dia for Outro BUS (se não for a 1ª viagem) (excluindo 1ª viagens)
- M14a: Variável binária modo da 1ª viagem do dia for MOTO (se não for a 1ª viagem) (excluindo 1ª viagens)
- M15a: Variável binária modo da 1ª viagem do dia for Walk (se não for a 1ª viagem) (excluindo 1ª viagens)
- M16a: Variável binária modo da 1ª viagem do dia for Auto (se não for a 1ª viagem) (excluindo 1ª viagens)

- nV: ntotalviag Número total de viagens de cada individuo por dia

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h
- dx1: Variável binária para distâncias mais curtas D2<=1,0km
- dx2: Variável binária para distâncias mais curtas D2>1,0km e <=2,0km
- dx3: Variável binária para distâncias mais curtas D2>2,0km e <=5,0km
- *dx4: Variável binária para distâncias mais curtas D2>5,0km (Excluída)*

- NC0: Variável binária Automóveis ligeiros disponiveis per capita = 0 (indisponibilidade AUTO)
- Lc: Variável binária sobre a existência de licença de condução (S=1, N=0)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=M11a,M12a,M13a,M14a,M15a,M16a
;Rh2=ONE,NC0,LC,NV,D2,DX1,DX2,DX3$

+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Jan 07, 2012 at 00:31:17AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            64877     |
| Iterations completed                 33     |
| Log likelihood function       -23156.43     |
| Number of parameters                 41     |
| Info. Criterion: AIC =           .71512     |
```

```
|   Finite Sample: AIC =           .71512     |
| Info. Criterion: BIC =           .72086     |
| Info. Criterion:HQIC =           .71690     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -80575.9206  .71261  .71258 |
| Chi-squared[36]          = 114838.97948     |
| 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]
ATTRIB01	3.08541183	.01620221	190.432	.0000
A_BP	-.97744266	.17794650	-5.493	.0000
BP_NC01	.79779050	.07838974	10.177	.0000
BP_LC1	-1.30709679	.09055350	-14.435	.0000
BP_NV1	-.36537341	.02622177	-13.934	.0000
BP_D21	.04692171	.01672082	2.806	.0050
BP_DX11	-28.3682560	.299310D+07	.000	1.0000
BP_DX21	.73863729	.17258230	4.280	.0000
BP_DX31	.21644151	.11239615	1.926	.0541
A_B	.47939660	.10847279	4.420	.0000
B_NC02	.77493228	.04700561	16.486	.0000
B_LC2	-1.22948607	.04616952	-26.630	.0000
B_NV2	-.26193885	.01375917	-19.037	.0000
B_D22	-.01407833	.01110779	-1.267	.2050
B_DX12	1.04920665	.33416302	3.140	.0017
B_DX22	-.00981461	.10590887	-.093	.9262
B_DX32	.21110167	.06575837	3.210	.0013
A_BO	-.16820314	.15107086	-1.113	.2655
BO_NC03	.42943821	.06936086	6.191	.0000
BO_LC3	-1.06112890	.07184353	-14.770	.0000
BO_NV3	-.35182211	.02177337	-16.158	.0000
BO_D23	-.01056602	.01508754	-.700	.4837
BO_DX13	-28.8512294	.289930D+07	.000	1.0000
BO_DX23	-.26171086	.17667188	-1.481	.1385
BO_DX33	.07212211	.09376020	.769	.4418
A_M	-.38235762	.14078195	-2.716	.0066
M_NC04	.75427175	.05515745	13.675	.0000
M_LC4	-.83411491	.05364870	-15.548	.0000
M_NV4	-.09570196	.01445511	-6.621	.0000
M_D24	-.08498921	.01553884	-5.469	.0000
M_DX14	-29.2169343	.180764D+07	.000	1.0000

M_DX24	-.19576399	.13744175	-1.424	.1543
M_DX34	.01761105	.08167917	.216	.8293
A_P	5.29819384	.48129393	11.008	.0000
P_NC05	.71359740	.07737245	9.223	.0000
P_LC5	-1.37963442	.08323121	-16.576	.0000
P_NV5	-.42887866	.02278413	-18.824	.0000
P_D25	-1.49847323	.07748886	-19.338	.0000
P_DX15	4.30414016	.45036074	9.557	.0000
P_DX25	-.28940536	.35909266	-.806	.4203
P_DX35	-1.69534234	.27258992	-6.219	.0000

MNL7.18 –
- ASC

- Lc - Var. binária de disponibilidade de Licença de condução (Lc)
- NCia - Var. binária nº auto disponíveis diariamente no agregado per capita (expto NC4a).

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

- D2 - Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- Dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- Dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- Dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *Dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

- *Rg:Variável binária para viagens de Regresso a casa (exluída)*
- Tr: Variável binária para viagens para trabalho
- Es: Variável binária para viagens para a escola
- Lz: Variável binária para viagens em lazer
- CS: Variável binária para viagens para compras/serviços

- nV: ntotalviag Número total de viagens de cada individuo por dia

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1A,T2A,T3A,T4A,T5A,T6A
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,TR,ES,LZ,CS,NV,D2,DX1,DX2,DX3$
Maximum of   100 iterations. Exit iterations with status=1.

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -28305.60922
Estimation based on N =  30559, K =  76
Inf.Cr.AIC  =  56763.2 AIC/N =    1.857
Model estimated: May 09, 2012, 15:32:08
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .2868 .2864
Chi-squared[71]           =  22762.93820
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 95426, skipped64867 obs
--------+-----------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
    MTRP|  Coefficient       Error       z    |z|>Z*         Interval
--------+-----------------------------------------------------------------------
     TiA|     .01279***      .00110    11.61  .0000      .01063    .01495
    A_BP|   -3.65862***      .48213    -7.59  .0000    -4.60358  -2.71365
  BP_NC01|    3.42197***      .43221     7.92  .0000     2.57485   4.26909
  BP_NC11|    2.04585***      .43315     4.72  .0000     1.19690   2.89481
  BP_NC21|    1.50829***      .43228     3.49  .0005      .66104   2.35554
```

BP_NC31	.32997	.46882	.70	.4815	-.58891	1.24885
BP_LC1	-2.41413***	.08971	-26.91	.0000	-2.58995	-2.23830
BP_TR1	.14347	.09288	1.54	.1224	-.03858	.32551
BP_ES1	.63280***	.08460	7.48	.0000	.46699	.79860
BP_LZ1	-1.32616***	.12921	-10.26	.0000	-1.57940	-1.07291
BP_CS1	-.49141***	.13211	-3.72	.0002	-.75034	-.23249
BP_NV1	-.26609***	.02241	-11.87	.0000	-.31001	-.22217
BP_D21	.04746*	.02747	1.73	.0840	-.00638	.10130
BP_DX11	790.340	83731.32	.01	.9925	-163320.031	164900.712
BP_DX21	.28964	.18977	1.53	.1269	-.08231	.66159
BP_DX31	-.15123	.12205	-1.24	.2153	-.39045	.08798
A_B	-.88322***	.23536	-3.75	.0002	-1.34452	-.42193
B_NC02	2.70002***	.20381	13.25	.0000	2.30055	3.09949
B_NC12	1.34197***	.20375	6.59	.0000	.94262	1.74132
B_NC22	.83134***	.20315	4.09	.0000	.43317	1.22952
B_NC32	.27845	.21611	1.29	.1976	-.14512	.70202
B_LC2	-2.11498***	.04653	-45.46	.0000	-2.20618	-2.02379
B_TR2	.18945***	.05412	3.50	.0005	.08337	.29552
B_ES2	.51832***	.05538	9.36	.0000	.40977	.62687
B_LZ2	-.74639***	.06806	-10.97	.0000	-.87979	-.61298
B_CS2	-.16876**	.07703	-2.19	.0285	-.31973	-.01779
B_NV2	-.25987***	.01285	-20.22	.0000	-.28506	-.23469
B_D22	.01130	.01540	.73	.4630	-.01888	.04149
B_DX12	790.045	83731.32	.01	.9925	-163320.327	164900.416
B_DX22	-1.22383***	.12235	-10.00	.0000	-1.46363	-.98403
B_DX32	-.13961**	.06624	-2.11	.0351	-.26944	-.00977
A_BO	-2.02682***	.32644	-6.21	.0000	-2.66663	-1.38702
BO_NC03	2.08977***	.26675	7.83	.0000	1.56696	2.61259
BO_NC13	1.16808***	.26632	4.39	.0000	.64611	1.69005
BO_NC23	.31400	.26652	1.18	.2387	-.20838	.83637
BO_NC33	-.47103	.30005	-1.57	.1165	-1.05912	.11707
BO_LC3	-1.68408***	.07022	-23.98	.0000	-1.82171	-1.54646
BO_TR3	.26175***	.07923	3.30	.0010	.10646	.41703
BO_ES3	.88031***	.07442	11.83	.0000	.73444	1.02617
BO_LZ3	-1.26725***	.11986	-10.57	.0000	-1.50217	-1.03232
BO_CS3	-.79006***	.13448	-5.87	.0000	-1.05364	-.52648
BO_NV3	-.28495***	.01999	-14.25	.0000	-.32414	-.24576
BO_D23	.04684*	.02429	1.93	.0538	-.00076	.09444
BO_DX13	790.304	83731.32	.01	.9925	-163320.068	164900.676
BO_DX23	-.52409***	.18519	-2.83	.0047	-.88705	-.16113
BO_DX33	-.00673	.10487	-.06	.9488	-.21227	.19881
A_M	-3.20953***	.26787	-11.98	.0000	-3.73454	-2.68452
M_NC04	2.92116***	.21133	13.82	.0000	2.50696	3.33537
M_NC14	1.36917***	.21207	6.46	.0000	.95353	1.78481
M_NC24	.68853***	.21130	3.26	.0011	.27439	1.10267
M_NC34	-.04988	.23619	-.21	.8327	-.51280	.41303
M_LC4	-1.35197***	.05221	-25.89	.0000	-1.45430	-1.24964
M_TR4	.79851***	.05693	14.03	.0000	.68692	.91010
M_ES4	-1.19061***	.11462	-10.39	.0000	-1.41526	-.96596
M_LZ4	-.45828***	.08008	-5.72	.0000	-.61523	-.30134
M_CS4	-.38173***	.09835	-3.88	.0001	-.57450	-.18896
M_NV4	.09126***	.01253	7.28	.0000	.06670	.11582
M_D24	-.02501	.02165	-1.15	.2481	-.06744	.01743
M_DX14	790.054	83731.32	.01	.9925	-163320.317	164900.426
M_DX24	-.25137*	.15050	-1.67	.0949	-.54635	.04361
M_DX34	.28152***	.09075	3.10	.0019	.10366	.45939

A_P	12.4139***	.67758	18.32	.0000	11.0859	13.7420
P_NC05	2.26813***	.26615	8.52	.0000	1.74649	2.78977
P_NC15	.42188	.26797	1.57	.1154	-.10333	.94710
P_NC25	.17256	.26510	.65	.5151	-.34703	.69214
P_NC35	-.81330***	.30541	-2.66	.0077	-1.41189	-.21472
P_LC5	-1.92355***	.08032	-23.95	.0000	-2.08097	-1.76614
P_TR5	-.05249	.09620	-.55	.5853	-.24104	.13606
P_ES5	-.19777*	.10441	-1.89	.0582	-.40241	.00687
P_LZ5	-.25223**	.10338	-2.44	.0147	-.45485	-.04960
P_CS5	-.38813***	.12728	-3.05	.0023	-.63759	-.13866
P_NV5	-.22063***	.02181	-10.11	.0000	-.26338	-.17788
P_D25	-3.06264***	.10741	-28.51	.0000	-3.27316	-2.85213
P_DX15	1143.28	83731.32	.01	.9891	-162967.09	165253.65
P_DX25	-6.90866***	.45873	-15.06	.0000	-7.80775	-6.00957
P_DX35	-5.68869***	.36125	-15.75	.0000	-6.39673	-4.98065

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.19 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

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

- D2 - Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- Dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- Dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- Dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *Dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

Tr - Trab viagens com motivo ir para o trabalho (excluída)
Es - Escola viagens com motivo ir para a escola
Lz - Lazer viagens com motivo lazer
CS - Cp_Sv viagens com motivo ir para às compras ou a serviços

- nV: ntotalviag Número total de viagens de cada individuo por dia

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1A,T2A,T3A,T4A,T5A,T6A
;Rh2=ONE,NC0,NC1,NC2,NC3,R1,R2,R3,R4,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,ES,LZ,CS,NV,
D2,DX1,DX2,DX3$
+---------------------------------------------+
| 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 11:33:40PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                 31     |
| Log likelihood function       -24116.92     |
| Number of parameters                131     |
| Info. Criterion: AIC =          1.58696     |
|   Finite Sample: AIC =          1.58699     |
| Info. Criterion: BIC =          1.62266     |
| Info. Criterion:HQIC =          1.59840     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .39232  .39180 |
```

```
| Chi-squared[**]           =  31140.31381     |
| 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]
ATTRIB01	.01351250	.00118074	11.444	.0000
A_BP	-7.17281032	.89462537	-8.018	.0000
BP_NC01	3.38282631	.71884051	4.706	.0000
BP_NC11	2.00047539	.71900943	2.782	.0054
BP_NC21	1.56193138	.71767439	2.176	.0295
BP_NC31	.41883163	.75266371	.556	.5779
BP_R11	.28780634	.16144255	1.783	.0746
BP_R21	.12538727	.12846961	.976	.3291
BP_R31	.09528714	.13525375	.705	.4811
BP_R41	-.38406027	.18588350	-2.066	.0388
BP_SX1	.59208958	.07792211	7.598	.0000
BP_ID21	3.04543265	.27606437	11.032	.0000
BP_ID31	2.11266920	.29112285	7.257	.0000
BP_ID41	2.36461026	.27970761	8.454	.0000
BP_ID51	2.17153819	.29309812	7.409	.0000
BP_IN11	.63459044	.46419193	1.367	.1716
BP_IN21	.72058343	.42125012	1.711	.0872
BP_IN31	.80908557	.43064992	1.879	.0603
BP_LC1	-2.16222119	.12042852	-17.954	.0000
BP_ES1	.38340960	.10093063	3.799	.0001
BP_LZ1	-1.23033204	.16861931	-7.297	.0000
BP_CS1	-.49096618	.15801629	-3.107	.0019
BP_NV1	-.28388408	.02654392	-10.695	.0000
BP_D21	.04515268	.02819319	1.602	.1093
BP_DX11	.68344078	.519615D+07	.000	1.0000
BP_DX21	.39613691	.19492007	2.032	.0421
BP_DX31	-.13136937	.12480974	-1.053	.2925
A_B	-3.06145180	.30176674	-10.145	.0000
B_NC02	2.66728976	.22162461	12.035	.0000
B_NC12	1.28509926	.22099878	5.815	.0000
B_NC22	.85316584	.21951268	3.887	.0001
B_NC32	.33608488	.23213562	1.448	.1477
B_R12	.42816893	.09336177	4.586	.0000
B_R22	.28772340	.06917741	4.159	.0000
B_R32	.34286975	.07165092	4.785	.0000
B_R42	.25290456	.08664218	2.919	.0035

B_SX2	.32817731	.04236289	7.747	.0000
B_ID22	2.40061529	.12030563	19.954	.0000
B_ID32	1.94462099	.12699888	15.312	.0000
B_ID42	2.00598370	.12215987	16.421	.0000
B_ID52	1.64071061	.13569122	12.092	.0000
B_IN12	-.22848699	.16806389	-1.360	.1740
B_IN22	-.10587251	.12759332	-.830	.4067
B_IN32	.28394002	.13369110	2.124	.0337
B_LC2	-2.14262860	.05588099	-38.343	.0000
B_ES2	.36419905	.06378222	5.710	.0000
B_LZ2	-.64522634	.07182730	-8.983	.0000
B_CS2	-.14590208	.08083305	-1.805	.0711
B_NV2	-.28711052	.01378827	-20.823	.0000
B_D22	.00693383	.01595896	.434	.6639
B_DX12	.22432736	.284365D+07	.000	1.0000
B_DX22	-1.14956987	.12635321	-9.098	.0000
B_DX32	-.14152011	.06883516	-2.056	.0398
A_BO	-3.86517275	.52342801	-7.384	.0000
BO_NC03	1.91570513	.30885712	6.203	.0000
BO_NC13	.91130320	.30691306	2.969	.0030
BO_NC23	.20043589	.30606272	.655	.5125
BO_NC33	-.49266652	.34240256	-1.439	.1502
BO_R13	.22656800	.14021626	1.616	.1061
BO_R23	.10480906	.10248977	1.023	.3065
BO_R33	-.00454473	.10884675	-.042	.9667
BO_R43	-.36150449	.14628959	-2.471	.0135
BO_SX3	-.33218754	.06331637	-5.246	.0000
BO_ID23	1.74994380	.15534966	11.265	.0000
BO_ID33	1.04451201	.17429508	5.993	.0000
BO_ID43	.77216905	.16675581	4.631	.0000
BO_ID53	-.28353700	.23364086	-1.214	.2249
BO_IN13	1.21974848	.39933758	3.054	.0023
BO_IN23	1.20610148	.36300153	3.323	.0009
BO_IN33	.65013520	.37538313	1.732	.0833
BO_LC3	-1.43898614	.09363208	-15.369	.0000
BO_ES3	.43681756	.08470806	5.157	.0000
BO_LZ3	-1.19209061	.14789862	-8.060	.0000
BO_CS3	-.49652171	.16152753	-3.074	.0021
BO_NV3	-.31365461	.02291700	-13.687	.0000
BO_D23	.05505598	.02494873	2.207	.0273
BO_DX13	.81842720	.455518D+07	.000	1.0000
BO_DX23	-.36775052	.18897156	-1.946	.0516
BO_DX33	.04727448	.10728584	.441	.6595
A_M	-6.88322827	.52782104	-13.041	.0000
M_NC04	2.59701703	.23201585	11.193	.0000
M_NC14	1.12186573	.23146082	4.847	.0000
M_NC24	.52310711	.23002000	2.274	.0230
M_NC34	-.09813058	.25589536	-.383	.7014
M_R14	-.09320968	.11974619	-.778	.4363
M_R24	-.04896772	.09115998	-.537	.5912
M_R34	.08523204	.09489581	.898	.3691
M_R44	.17541153	.11314511	1.550	.1211
M_SX4	-.94560310	.05629529	-16.797	.0000
M_ID24	1.92640703	.18955131	10.163	.0000
M_ID34	2.71832662	.18827003	14.438	.0000
M_ID44	2.48388411	.18491056	13.433	.0000

M_ID54	1.32663117	.20735186	6.398	.0000
M_IN14	2.95398939	.43859162	6.735	.0000
M_IN24	2.78571473	.41362584	6.735	.0000
M_IN34	2.13842614	.42123622	5.077	.0000
M_LC4	-1.79126907	.06484830	-27.622	.0000
M_ES4	-1.09845675	.14644678	-7.501	.0000
M_LZ4	-.51948830	.08544007	-6.080	.0000
M_CS4	-.38920351	.10641989	-3.657	.0003
M_NV4	.05159492	.01356954	3.802	.0001
M_D24	-.03939211	.02218260	-1.776	.0758
M_DX14	.52738609	.370769D+07	.000	1.0000
M_DX24	-.15165466	.15392857	-.985	.3245
M_DX34	.26795081	.09280510	2.887	.0039
A_P	10.7950607	.79777434	13.531	.0000
P_NC05	2.38857935	.31060707	7.690	.0000
P_NC15	.61403573	.31158243	1.971	.0488
P_NC25	.31618254	.30531297	1.036	.3004
P_NC35	-.77447148	.35299883	-2.194	.0282
P_R15	-.42256072	.16711986	-2.528	.0115
P_R25	-.31725335	.13455893	-2.358	.0184
P_R35	-.31519061	.14356983	-2.195	.0281
P_R45	-.44630179	.17417456	-2.562	.0104
P_SX5	.03407311	.08058334	.423	.6724
P_ID25	1.94464248	.19320688	10.065	.0000
P_ID35	1.79715090	.20914806	8.593	.0000
P_ID45	1.86498475	.19686615	9.473	.0000
P_ID55	1.91891185	.21841443	8.786	.0000
P_IN15	-.19086591	.29238213	-.653	.5139
P_IN25	.08343006	.22540782	.370	.7113
P_IN35	.03224583	.24498754	.132	.8953
P_LC5	-2.18952312	.10961236	-19.975	.0000
P_ES5	-.14425589	.13014752	-1.108	.2677
P_LZ5	-.16915793	.12048632	-1.404	.1603
P_CS5	-.41860987	.15249556	-2.745	.0060
P_NV5	-.24015679	.02647673	-9.070	.0000
P_D25	-3.04469585	.11815826	-25.768	.0000
P_DX15	27.6854069	.149265D+07	.000	1.0000
P_DX25	-6.75347631	.49343950	-13.687	.0000
P_DX35	-5.66306074	.38276610	-14.795	.0000

MNL7.20 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

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

- *Rg:Variável binária para viagens de Regresso a casa (exluída)*
- Tr: Variável binária para viagens para trabalho
- Es: Variável binária para viagens para a escola
- Lz: Variável binária para viagens em lazer
- CS: Variável binária para viagens para compras/serviços

- nV: ntotalviag Número total de viagens de cada individuo por dia

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1A,T2A,T3A,T4A,T5A,T6A
;Rh2=ONE,NC0,NC1,NC2,NC3,R1,R2,R3,R4,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,TR,ES,LZ,CS,
NV$
Normal exit:   8 iterations. Status=0, F=    31196.33

------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -31196.33435
Estimation based on N =  30559, K = 116
Inf.Cr.AIC  =  62624.7 AIC/N =    2.049
Model estimated: May 09, 2012, 13:18:08
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .2139 .2133
Chi-squared[**]           =  16981.48793
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 95426, skipped64867 obs
--------+---------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
    MTRP|  Coefficient       Error       z    |z|>Z*         Interval
--------+---------------------------------------------------------------------
     TiA|    -.00362***       .00098    -3.68  .0002     -.00555    -.00169
    A_BP|   -6.56804***       .86775    -7.57  .0000    -8.26880   -4.86728
  BP_NC01|    3.35865***       .71810     4.68  .0000     1.95120    4.76610
  BP_NC11|    1.97411***       .71825     2.75  .0060      .56636    3.38186
  BP_NC21|    1.52614**        .71691     2.13  .0333      .12103    2.93125
  BP_NC31|      .39708          .75194      .53  .5974    -1.07670    1.87086
   BP_R11|     .31023*          .15941     1.95  .0516     -.00222     .62267
```

BP_R21|	.09267	.12758	.73	.4676	-.15739	.34273
BP_R31|	.07338	.13442	.55	.5851	-.19008	.33683
BP_R41|	-.39324**	.18477	-2.13	.0333	-.75539	-.03109
BP_SX1|	.61766***	.07728	7.99	.0000	.46619	.76913
BP_ID21|	3.09147***	.27218	11.36	.0000	2.55801	3.62493
BP_ID31|	2.15486***	.28913	7.45	.0000	1.58817	2.72155
BP_ID41|	2.42920***	.27743	8.76	.0000	1.88546	2.97295
BP_ID51|	2.25278***	.28981	7.77	.0000	1.68476	2.82080
BP_IN11|	.70539	.46158	1.53	.1265	-.19930	1.61008
BP_IN21|	.76919*	.42046	1.83	.0673	-.05490	1.59327
BP_IN31|	.88679**	.42962	2.06	.0390	.04475	1.72883
BP_LC1|	-2.19190***	.12010	-18.25	.0000	-2.42729	-1.95650
BP_TR1|	.18523*	.11042	1.68	.0934	-.03118	.40165
BP_ES1|	.39237***	.10041	3.91	.0001	.19557	.58918
BP_LZ1|	-1.15263***	.16895	-6.82	.0000	-1.48377	-.82150
BP_CS1|	-.40297**	.15849	-2.54	.0110	-.71361	-.09233
BP_NV1|	-.28911***	.02675	-10.81	.0000	-.34154	-.23668
A_B|	-3.12420***	.27395	-11.40	.0000	-3.66113	-2.58726
B_NC02|	2.69109***	.21940	12.27	.0000	2.26107	3.12110
B_NC12|	1.26908***	.21878	5.80	.0000	.84028	1.69787
B_NC22|	.83779***	.21730	3.86	.0001	.41189	1.26368
B_NC32|	.29939	.22993	1.30	.1929	-.15126	.75004
B_R12|	.35210***	.09102	3.87	.0001	.17371	.53049
B_R22|	.20571***	.06806	3.02	.0025	.07232	.33910
B_R32|	.29312***	.07042	4.16	.0000	.15510	.43115
B_R42|	.17700**	.08493	2.08	.0372	.01053	.34346
B_SX2|	.34306***	.04126	8.32	.0000	.26220	.42392
B_ID22|	2.51918***	.11652	21.62	.0000	2.29082	2.74755
B_ID32|	2.03819***	.12404	16.43	.0000	1.79508	2.28130
B_ID42|	2.10706***	.11918	17.68	.0000	1.87347	2.34065
B_ID52|	1.74415***	.13191	13.22	.0000	1.48562	2.00267
B_IN12|	-.15006	.16347	-.92	.3586	-.47045	.17033
B_IN22|	-.03356	.12575	-.27	.7896	-.28003	.21290
B_IN32|	.36399***	.13161	2.77	.0057	.10603	.62194
B_LC2|	-2.13974***	.05518	-38.78	.0000	-2.24789	-2.03159
B_TR2|	.11929**	.05693	2.10	.0361	.00771	.23087
B_ES2|	.38081***	.06266	6.08	.0000	.25799	.50363
B_LZ2|	-.60624***	.07087	-8.55	.0000	-.74515	-.46733
B_CS2|	-.15673**	.07964	-1.97	.0491	-.31284	-.00063
B_NV2|	-.29727***	.01359	-21.88	.0000	-.32390	-.27064
A_BO|	-3.64827***	.48852	-7.47	.0000	-4.60576	-2.69078
BO_NC03|	1.94877***	.30842	6.32	.0000	1.34427	2.55326
BO_NC13|	.93372***	.30663	3.05	.0023	.33273	1.53471
BO_NC23|	.19885	.30570	.65	.5154	-.40031	.79800
BO_NC33|	-.50319	.34211	-1.47	.1413	-1.17372	.16734
BO_R13|	.14681	.13872	1.06	.2899	-.12508	.41870
BO_R23|	.00447	.10177	.04	.9650	-.19499	.20392
BO_R33|	-.08021	.10824	-.74	.4587	-.29236	.13194
BO_R43|	-.43362***	.14539	-2.98	.0029	-.71857	-.14866
BO_SX3|	-.31140***	.06271	-4.97	.0000	-.43431	-.18850
BO_ID23|	1.88679***	.15148	12.46	.0000	1.58989	2.18368
BO_ID33|	1.09093***	.17293	6.31	.0000	.75200	1.42986
BO_ID43|	.84766***	.16483	5.14	.0000	.52461	1.17071
BO_ID53|	-.15448	.23040	-.67	.5025	-.60606	.29709
BO_IN13|	1.36737***	.39722	3.44	.0006	.58883	2.14592
BO_IN23|	1.25302***	.36271	3.45	.0006	.54212	1.96391
BO_IN33|	.71356*	.37498	1.90	.0571	-.02139	1.44850

BO_LC3	-1.44910***	.09342	-15.51	.0000	-1.63221	-1.26599
BO_TR3	.36691***	.09127	4.02	.0001	.18802	.54579
BO_ES3	.48833***	.08435	5.79	.0000	.32301	.65364
BO_LZ3	-1.10052***	.14857	-7.41	.0000	-1.39171	-.80933
BO_CS3	-.40316**	.16286	-2.48	.0133	-.72236	-.08396
BO_NV3	-.31851***	.02297	-13.87	.0000	-.36353	-.27348
A_M	-7.02141***	.50226	-13.98	.0000	-8.00583	-6.03700
M_NC04	2.62168***	.23189	11.31	.0000	2.16718	3.07618
M_NC14	1.11912***	.23131	4.84	.0000	.66577	1.57248
M_NC24	.52607**	.22982	2.29	.0221	.07564	.97650
M_NC34	-.14816	.25582	-.58	.5625	-.64957	.35324
M_R14	-.13363	.11828	-1.13	.2586	-.36545	.09819
M_R24	-.11535	.09064	-1.27	.2032	-.29300	.06231
M_R34	.02005	.09440	.21	.8318	-.16498	.20508
M_R44	.16562	.11220	1.48	.1399	-.05428	.38553
M_SX4	-.91795***	.05559	-16.51	.0000	-1.02691	-.80899
M_ID24	1.94208***	.18587	10.45	.0000	1.57778	2.30638
M_ID34	2.58694***	.18551	13.95	.0000	2.22335	2.95053
M_ID44	2.39104***	.18210	13.13	.0000	2.03413	2.74795
M_ID54	1.33465***	.20402	6.54	.0000	.93478	1.73451
M_IN14	2.96046***	.43678	6.78	.0000	2.10439	3.81654
M_IN24	2.79346***	.41338	6.76	.0000	1.98326	3.60366
M_IN34	2.18405***	.42100	5.19	.0000	1.35891	3.00919
M_LC4	-1.81412***	.06414	-28.28	.0000	-1.93983	-1.68840
M_TR4	.55336***	.06051	9.14	.0000	.43476	.67196
M_ES4	-.98532***	.14638	-6.73	.0000	-1.27222	-.69842
M_LZ4	-.36650***	.08638	-4.24	.0000	-.53580	-.19719
M_CS4	-.20912*	.10684	-1.96	.0503	-.41853	.00029
M_NV4	.06312***	.01350	4.68	.0000	.03666	.08958
A_P	-1.78608***	.22241	-8.03	.0000	-2.22200	-1.35016
P_NC05	2.13865***	.17629	12.13	.0000	1.79314	2.48417
P_NC15	.63842***	.17598	3.63	.0003	.29349	.98334
P_NC25	.30007*	.17317	1.73	.0831	-.03934	.63947
P_NC35	-.51954***	.19707	-2.64	.0084	-.90580	-.13328
P_R15	.29734***	.09585	3.10	.0019	.10949	.48519
P_R25	.08318	.07396	1.12	.2608	-.06179	.22814
P_R35	.12370	.07705	1.61	.1084	-.02731	.27471
P_R45	.19395**	.09134	2.12	.0337	.01494	.37297
P_SX5	.24471***	.04485	5.46	.0000	.15681	.33260
P_ID25	.80825***	.09641	8.38	.0000	.61929	.99721
P_ID35	.42557***	.10693	3.98	.0001	.21599	.63516
P_ID45	.79316***	.09898	8.01	.0000	.59916	.98715
P_ID55	.73842***	.11463	6.44	.0000	.51376	.96308
P_IN15	-.83860***	.15018	-5.58	.0000	-1.13296	-.54425
P_IN25	-.37691***	.11153	-3.38	.0007	-.59550	-.15833
P_IN35	-.23280*	.12211	-1.91	.0566	-.47213	.00654
P_LC5	-1.92059***	.05920	-32.44	.0000	-2.03662	-1.80456
P_TR5	.01383	.06344	.22	.8275	-.11051	.13817
P_ES5	.11988	.07438	1.61	.1070	-.02590	.26565
P_LZ5	-.16410**	.06716	-2.44	.0146	-.29574	-.03246
P_CS5	-.13006	.08259	-1.57	.1153	-.29194	.03182
P_NV5	-.06354***	.01298	-4.90	.0000	-.08897	-.03810

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.21 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- ~~Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

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

- D2 - Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- Dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- Dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- Dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *Dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

Tr - Trab viagens com motivo ir para o trabalho (excluída)
Es - Escola viagens com motivo ir para a escola
Lz - Lazer viagens com motivo lazer
CS - Cp_Sv viagens com motivo ir para às compras ou a serviços

- nV: ntotalviag Número total de viagens de cada individuo por dia

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1A,T2A,T3A,T4A,T5A,T6A
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,ES,LZ,CS,NV,D2,DX1,DX2,D
X3$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 07, 2012 at 10:33:50AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                 31     |
| Log likelihood function       -24158.73     |
| Number of parameters                111     |
| Info. Criterion: AIC =          1.58838     |
|   Finite Sample: AIC =          1.58841     |
| Info. Criterion: BIC =          1.61863     |
| Info. Criterion:HQIC =          1.59808     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .39127  .39083 |
```

```
| Chi-squared[**]           =  31056.70374     |
| 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]
ATTRIB01	.01344587	.00117917	11.403	.0000
A_BP	-7.18073704	.89387138	-8.033	.0000
BP_NC01	3.49559943	.71598976	4.882	.0000
BP_NC11	2.03465795	.71682492	2.838	.0045
BP_NC21	1.58406601	.71651197	2.211	.0270
BP_NC31	.36455122	.75233056	.485	.6280
BP_SX1	.59485836	.07786330	7.640	.0000
BP_ID21	3.05035364	.27619083	11.044	.0000
BP_ID31	2.13736378	.29102273	7.344	.0000
BP_ID41	2.39104415	.27956010	8.553	.0000
BP_ID51	2.25622556	.28911957	7.804	.0000
BP_IN11	.73340880	.46241694	1.586	.1127
BP_IN21	.79469524	.41994927	1.892	.0584
BP_IN31	.86563683	.42970178	2.015	.0440
BP_LC1	-2.17216182	.12025791	-18.063	.0000
BP_ES1	.38070483	.10083364	3.776	.0002
BP_LZ1	-1.21496330	.16850623	-7.210	.0000
BP_CS1	-.47824641	.15778880	-3.031	.0024
BP_NV1	-.28570667	.02657595	-10.751	.0000
BP_D21	.03952870	.02815985	1.404	.1604
BP_DX11	.62572440	.523288D+07	.000	1.0000
BP_DX21	.37325785	.19474454	1.917	.0553
BP_DX31	-.16090737	.12455458	-1.292	.1964
A_B	-2.94006106	.30052395	-9.783	.0000
B_NC02	2.80981365	.22002642	12.770	.0000
B_NC12	1.38738065	.21996909	6.307	.0000
B_NC22	.92966478	.21912351	4.243	.0000
B_NC32	.34480765	.23226476	1.485	.1377
B_SX2	.32918708	.04230870	7.781	.0000
B_ID22	2.40965886	.12023469	20.041	.0000
B_ID32	1.97878712	.12680442	15.605	.0000
B_ID42	2.03897226	.12196502	16.718	.0000
B_ID52	1.71398244	.13301116	12.886	.0000
B_IN12	-.14181166	.16661172	-.851	.3947
B_IN22	-.04058556	.12635449	-.321	.7481
B_IN32	.33277212	.13299623	2.502	.0123

B_LC2	-2.14499757	.05577766	-38.456	.0000
B_ES2	.36161953	.06364868	5.681	.0000
B_LZ2	-.64085928	.07167813	-8.941	.0000
B_CS2	-.14706071	.08068817	-1.823	.0684
B_NV2	-.28879200	.01377443	-20.966	.0000
B_D22	.00370312	.01591310	.233	.8160
B_DX12	.20304801	.285747D+07	.000	1.0000
B_DX22	-1.15323651	.12611542	-9.144	.0000
B_DX32	-.15746495	.06860626	-2.295	.0217
A_BO	-3.88700692	.52270519	-7.436	.0000
BO_NC03	2.00593931	.30466880	6.584	.0000
BO_NC13	.92563938	.30390657	3.046	.0023
BO_NC23	.20439625	.30447264	.671	.5020
BO_NC33	-.55162505	.34167617	-1.614	.1064
BO_SX3	-.32828663	.06323646	-5.191	.0000
BO_ID23	1.74539122	.15568702	11.211	.0000
BO_ID33	1.05583798	.17430640	6.057	.0000
BO_ID43	.78614816	.16673830	4.715	.0000
BO_ID53	-.21975954	.22948313	-.958	.3383
BO_IN13	1.29588514	.39821113	3.254	.0011
BO_IN23	1.26539374	.36203076	3.495	.0005
BO_IN33	.68974701	.37470267	1.841	.0657
BO_LC3	-1.44350345	.09342307	-15.451	.0000
BO_ES3	.43438580	.08460145	5.134	.0000
BO_LZ3	-1.17988559	.14780485	-7.983	.0000
BO_CS3	-.48704543	.16135206	-3.019	.0025
BO_NV3	-.31506245	.02293718	-13.736	.0000
BO_D23	.05179612	.02493474	2.077	.0378
BO_DX13	.77892966	.459346D+07	.000	1.0000
BO_DX23	-.37798845	.18889425	-2.001	.0454
BO_DX33	.02567384	.10710145	.240	.8106
A_M	-6.83184570	.52594488	-12.990	.0000
M_NC04	2.55399764	.22927321	11.140	.0000
M_NC14	1.12817383	.22973134	4.911	.0000
M_NC24	.52415729	.22896007	2.289	.0221
M_NC34	-.06025763	.25540825	-.236	.8135
M_SX4	-.94802922	.05628041	-16.845	.0000
M_ID24	1.91304223	.18897628	10.123	.0000
M_ID34	2.70433228	.18747500	14.425	.0000
M_ID44	2.46768647	.18400623	13.411	.0000
M_ID54	1.28710458	.20401186	6.309	.0000
M_IN14	2.88524704	.43714988	6.600	.0000
M_IN24	2.74806871	.41266602	6.659	.0000
M_IN34	2.11459296	.42062348	5.027	.0000
M_LC4	-1.78796130	.06463566	-27.662	.0000
M_ES4	-1.10132997	.14642552	-7.521	.0000
M_LZ4	-.52552328	.08535490	-6.157	.0000
M_CS4	-.39679270	.10637420	-3.730	.0002
M_NV4	.05211835	.01353858	3.850	.0001
M_D24	-.03722822	.02214829	-1.681	.0928
M_DX14	.52667370	.373709D+07	.000	1.0000
M_DX24	-.14418988	.15378444	-.938	.3484
M_DX34	.27947586	.09262821	3.017	.0026
A_P	10.6348395	.79463337	13.383	.0000
P_NC05	2.25690379	.30571126	7.382	.0000
P_NC15	.51603291	.30741895	1.679	.0932

P_NC25	.26307676	.30382399	.866	.3866
P_NC35	-.78874528	.35255440	-2.237	.0253
P_SX5	.03979062	.08050309	.494	.6211
P_ID25	1.90584911	.19263021	9.894	.0000
P_ID35	1.73755351	.20759315	8.370	.0000
P_ID45	1.80413365	.19530736	9.237	.0000
P_ID55	1.85326705	.21385123	8.666	.0000
P_IN15	-.25297229	.28794892	-.879	.3797
P_IN25	.04629966	.22136179	.209	.8343
P_IN35	.00767097	.24281301	.032	.9748
P_LC5	-2.16555752	.10877848	-19.908	.0000
P_ES5	-.15249620	.13025690	-1.171	.2417
P_LZ5	-.16224421	.12031091	-1.349	.1775
P_CS5	-.42156133	.15230268	-2.768	.0056
P_NV5	-.24250472	.02645143	-9.168	.0000
P_D25	-3.03645911	.11778587	-25.779	.0000
P_DX15	27.6938177	.149989D+07	.000	1.0000
P_DX25	-6.74696609	.49264525	-13.695	.0000
P_DX35	-5.64038692	.38192421	-14.768	.0000

MNL7.22 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
~~- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

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

- D2 - Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
~~- Dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km~~
~~- Dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km~~
~~- Dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km~~
~~*- Dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*~~

Tr - Trab viagens com motivo ir para o trabalho (excluída)
Es - Escola viagens com motivo ir para a escola
Lz - Lazer viagens com motivo lazer
CS - Cp_Sv viagens com motivo ir para às compras ou a serviços

- nV: ntotalviag Número total de viagens de cada individuo por dia

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rhs=T1A,T2A,T3A,T4A,T5A,T6A
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,ES,LZ,CS,NV,D2$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 07, 2012 at 10:50:03AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                  9     |
| Log likelihood function       -24641.01     |
| Number of parameters                 96     |
| Info. Criterion: AIC =          1.61897     |
|   Finite Sample: AIC =          1.61899     |
| Info. Criterion: BIC =          1.64513     |
| Info. Criterion:HQIC =          1.62735     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .37912  .37873 |
| Chi-squared[91]          =  30092.13991     |
```

```
| 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]
ATTRIB01	.01164720	.00118187	9.855	.0000
A_BP	-7.16127600	.87273908	-8.206	.0000
BP_NC01	3.49704155	.71593148	4.885	.0000
BP_NC11	2.04037573	.71680747	2.846	.0044
BP_NC21	1.58491636	.71650055	2.212	.0270
BP_NC31	.37983138	.75232106	.505	.6136
BP_SX1	.60464228	.07774862	7.777	.0000
BP_ID21	3.02487402	.27618917	10.952	.0000
BP_ID31	2.11480856	.29102452	7.267	.0000
BP_ID41	2.37529651	.27969932	8.492	.0000
BP_ID51	2.24181100	.28873534	7.764	.0000
BP_IN11	.73593811	.46272645	1.590	.1117
BP_IN21	.78574522	.41991563	1.871	.0613
BP_IN31	.85439664	.42959027	1.989	.0467
BP_LC1	-2.17001038	.12015291	-18.060	.0000
BP_ES1	.37132497	.10067960	3.688	.0002
BP_LZ1	-1.20723947	.16855106	-7.162	.0000
BP_CS1	-.45598894	.15756310	-2.894	.0038
BP_NV1	-.28451347	.02654608	-10.718	.0000
BP_D21	.04040103	.01583683	2.551	.0107
A_B	-3.44594976	.27948358	-12.330	.0000
B_NC02	2.81418991	.21992921	12.796	.0000
B_NC12	1.38289774	.21983675	6.291	.0000
B_NC22	.93039720	.21899482	4.248	.0000
B_NC32	.34458256	.23201567	1.485	.1375
B_SX2	.32833425	.04205512	7.807	.0000
B_ID22	2.44431293	.11955952	20.444	.0000
B_ID32	2.00721762	.12611339	15.916	.0000
B_ID42	2.06112985	.12131645	16.990	.0000
B_ID52	1.72388231	.13235816	13.024	.0000
B_IN12	-.11065424	.16582201	-.667	.5046
B_IN22	-.02235898	.12589239	-.178	.8590
B_IN32	.34742720	.13243111	2.623	.0087
B_LC2	-2.13399965	.05556559	-38.405	.0000
B_ES2	.37408888	.06332812	5.907	.0000
B_LZ2	-.64352134	.07125879	-9.031	.0000
B_CS2	-.16631256	.08011839	-2.076	.0379

B_NV2	-.28862326	.01368525	-21.090	.0000
B_D22	.06796341	.00872919	7.786	.0000
A_BO	-3.98159255	.49268171	-8.081	.0000
BO_NC03	1.99944299	.30453388	6.566	.0000
BO_NC13	.91735831	.30378534	3.020	.0025
BO_NC23	.19849615	.30434170	.652	.5143
BO_NC33	-.55538382	.34153092	-1.626	.1039
BO_SX3	-.32710621	.06312930	-5.182	.0000
BO_ID23	1.76275791	.15540065	11.343	.0000
BO_ID33	1.06993154	.17402645	6.148	.0000
BO_ID43	.80046614	.16652243	4.807	.0000
BO_ID53	-.21358853	.22925192	-.932	.3515
BO_IN13	1.31781463	.39810703	3.310	.0009
BO_IN23	1.27264015	.36200461	3.516	.0004
BO_IN33	.69559829	.37464279	1.857	.0634
BO_LC3	-1.43478778	.09337515	-15.366	.0000
BO_ES3	.44429624	.08447914	5.259	.0000
BO_LZ3	-1.18203398	.14772009	-8.002	.0000
BO_CS3	-.49140258	.16118115	-3.049	.0023
BO_NV3	-.31276434	.02288295	-13.668	.0000
BO_D23	.06480352	.01364608	4.749	.0000
A_M	-6.59420416	.50356744	-13.095	.0000
M_NC04	2.53985874	.22911033	11.086	.0000
M_NC14	1.11096901	.22958184	4.839	.0000
M_NC24	.50979571	.22881002	2.228	.0259
M_NC34	-.08153988	.25532895	-.319	.7495
M_SX4	-.94654439	.05610004	-16.872	.0000
M_ID24	1.95374127	.18885477	10.345	.0000
M_ID34	2.73785597	.18731581	14.616	.0000
M_ID44	2.50513877	.18389904	13.622	.0000
M_ID54	1.30422174	.20379987	6.400	.0000
M_IN14	2.91646667	.43704270	6.673	.0000
M_IN24	2.75731650	.41269354	6.681	.0000
M_IN34	2.12568646	.42063671	5.053	.0000
M_LC4	-1.78280990	.06444653	-27.663	.0000
M_ES4	-1.08596273	.14633244	-7.421	.0000
M_LZ4	-.53079870	.08510864	-6.237	.0000
M_CS4	-.39446345	.10599135	-3.722	.0002
M_NV4	.05452707	.01344946	4.054	.0001
M_D24	-.06488820	.01201484	-5.401	.0000
A_P	4.18255643	.34572554	12.098	.0000
P_NC05	2.38373743	.24620372	9.682	.0000
P_NC15	.58627925	.24477360	2.395	.0166
P_NC25	.29623315	.24025219	1.233	.2176
P_NC35	-.54370359	.27377828	-1.986	.0470
P_SX5	.07636529	.07393907	1.033	.3017
P_ID25	1.89463942	.17044800	11.116	.0000
P_ID35	1.73179310	.18381468	9.421	.0000
P_ID45	1.82403062	.17322994	10.530	.0000
P_ID55	1.81862821	.19718393	9.223	.0000
P_IN15	-.21554354	.24189135	-.891	.3729
P_IN25	.01716192	.17068736	.101	.9199
P_IN35	.03201551	.18856037	.170	.8652
P_LC5	-2.09130556	.09738669	-21.474	.0000
P_ES5	-.03529866	.12517558	-.282	.7779
P_LZ5	-.15350059	.10978312	-1.398	.1620

P_CS5	-.37401701	.13574088	-2.755	.0059
P_NV5	-.19841378	.02304990	-8.608	.0000
P_D25	-2.97798954	.05559237	-53.568	.0000

MNL7.23 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*
- De2 : variável binária duracão da estadia >60min & <=240min (média duração)
- De3 : variável binária duracão da estadia >240min & <=480min (longa duração)
- De4: variável binária duracão da estadia >480min (muito longa duração)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,DE2,DE3,DE4$
+---------------------------------------------+
| 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 07:14:08PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            61358     |
| Iterations completed                  8     |
| Log likelihood function       -65054.88     |
| Number of parameters                 45     |
| Info. Criterion: AIC =          2.12197     |
|   Finite Sample: AIC =          2.12197     |
| Info. Criterion: BIC =          2.12859     |
| Info. Criterion:HQIC =          2.12402     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -79151.8564  .17810  .17798 |
| Chi-squared[40]          =  28193.94505     |
| 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	-5.46494555	.71330461	-7.661	.0000
BP_NC01	4.46688033	.71036630	6.288	.0000
BP_NC11	2.74095754	.71143152	3.853	.0001
BP_NC21	2.26566812	.71103832	3.186	.0014
BP_NC31	.93074178	.74311076	1.252	.2104
BP_LC1	-2.27903388	.07411486	-30.750	.0000
BP_DE21	.22460664	.09015375	2.491	.0127
BP_DE31	.63617138	.09697272	6.560	.0000
BP_DE41	.84067308	.09239718	9.098	.0000
A_B	-2.20792044	.13283786	-16.621	.0000
B_NC02	3.28108182	.13069835	25.104	.0000
B_NC12	1.56866254	.13086242	11.987	.0000
B_NC22	1.09509695	.13023297	8.409	.0000
B_NC32	.46091976	.14007059	3.291	.0010
B_LC2	-2.02870160	.02755309	-73.629	.0000
B_DE22	.39259621	.03666844	10.707	.0000
B_DE32	.59199925	.04133068	14.323	.0000
B_DE42	.61386506	.04123227	14.888	.0000
A_BO	-3.22428211	.20809119	-15.495	.0000
BO_NC03	2.22915099	.20124408	11.077	.0000
BO_NC13	1.08974607	.20116803	5.417	.0000
BO_NC23	.31894992	.20142165	1.583	.1133
BO_NC33	-.19047047	.22589068	-.843	.3991
BO_LC3	-1.98302138	.05334496	-37.174	.0000
BO_DE23	.09149108	.07807770	1.172	.2413
BO_DE33	.88694925	.07890018	11.241	.0000
BO_DE43	1.31492719	.07436476	17.682	.0000
A_M	-2.81267671	.16382253	-17.169	.0000
M_NC04	3.20979985	.16128708	19.901	.0000
M_NC14	1.53391064	.16216756	9.459	.0000
M_NC24	.95798067	.16152408	5.931	.0000
M_NC34	.20635380	.17990839	1.147	.2514
M_LC4	-1.33107860	.03524987	-37.761	.0000
M_DE24	-.22929228	.04535716	-5.055	.0000
M_DE34	.24824405	.04978145	4.987	.0000
M_DE44	-.01233711	.05234191	-.236	.8137
A_P	-1.27545520	.10408495	-12.254	.0000
P_NC05	2.51741890	.10179840	24.729	.0000
P_NC15	.64988029	.10293079	6.314	.0000
P_NC25	.21509510	.10174054	2.114	.0345
P_NC35	-.52178376	.12080077	-4.319	.0000
P_LC5	-1.90981146	.03111821	-61.373	.0000
P_DE25	-.00137579	.03642630	-.038	.9699
P_DE35	-.00020517	.04318772	-.005	.9962
P_DE45	-.82309596	.05111889	-16.102	.0000

MNL7.24 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

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

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,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 07:17:45PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            61358     |
| Iterations completed                  8     |
| Log likelihood function       -65248.67     |
| Number of parameters                 35     |
| Info. Criterion: AIC =          2.12796     |
|   Finite Sample: AIC =          2.12796     |
| Info. Criterion: BIC =          2.13311     |
| Info. Criterion:HQIC =          2.12956     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -79151.8564  .17565  .17556 |
| Chi-squared[30]          =  27806.37354     |
| 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    |   -5.42915298       .71093801    -7.637   .0000
 BP_NC01 |    4.46829392       .71035941     6.290   .0000
 BP_NC11 |    2.74669502       .71142085     3.861   .0001
 BP_NC21 |    2.26956495       .71103294     3.192   .0014
```

BP_NC31	.93601307	.74310899	1.260	.2078
BP_LC1	-2.28722923	.07404387	-30.890	.0000
BP_DE1	.00140902	.00013258	10.628	.0000
A_B	-2.01257275	.13070469	-15.398	.0000
B_NC02	3.27577657	.13069884	25.064	.0000
B_NC12	1.56589637	.13086134	11.966	.0000
B_NC22	1.09254522	.13023938	8.389	.0000
B_NC32	.46161851	.14007726	3.295	.0010
B_LC2	-2.03295550	.02751018	-73.898	.0000
B_DE2	.00084510	.611735D-04	13.815	.0000
A_BO	-3.32835655	.20205352	-16.473	.0000
BO_NC03	2.23674378	.20124169	11.115	.0000
BO_NC13	1.10493183	.20115793	5.493	.0000
BO_NC23	.32776566	.20142739	1.627	.1037
BO_NC33	-.18106641	.22589632	-.802	.4228
BO_LC3	-2.00450024	.05323793	-37.652	.0000
BO_DE3	.00239193	.00010128	23.617	.0000
A_M	-2.92333903	.16201170	-18.044	.0000
M_NC04	3.21102206	.16123379	19.915	.0000
M_NC14	1.54461582	.16211875	9.528	.0000
M_NC24	.96479982	.16147914	5.975	.0000
M_NC34	.21369697	.17985010	1.188	.2348
M_LC4	-1.32797481	.03518262	-37.745	.0000
M_DE4	.00028688	.832749D-04	3.445	.0006
A_P	-1.11386068	.10202953	-10.917	.0000
P_NC05	2.50890562	.10178158	24.650	.0000
P_NC15	.64754355	.10290872	6.292	.0000
P_NC25	.20974765	.10172977	2.062	.0392
P_NC35	-.52247525	.12078213	-4.326	.0000
P_LC5	-1.90965599	.03110951	-61.385	.0000
P_DE5	-.00124922	.780750D-04	-16.000	.0000

MNL7.25 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*
- De2 : variável binária duracão da estadia >60min & <=240min (média duração)
- De3 : variável binária duracão da estadia >240min & <=480min (longa duração)
- De4: variável binária duracão da estadia >480min (muito longa duração)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,R1,R2,R3,R4,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,DE2,DE3,DE4$
+---------------------------------------------+
| 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 07:26:21PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            61358     |
| Iterations completed                  9     |
| Log likelihood function       -61993.29     |
| Number of parameters                105     |
| Info. Criterion: AIC =          2.02413     |
|   Finite Sample: AIC =          2.02414     |
| Info. Criterion: BIC =          2.03957     |
| Info. Criterion:HQIC =          2.02892     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -79151.8564  .21678  .21651 |
| Chi-squared[**]          =  34317.13614     |
| 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	-8.94509633	.78644489	-11.374	.0000
BP_NC01	4.42868821	.71209144	6.219	.0000
BP_NC11	2.66695562	.71302576	3.740	.0002
BP_NC21	2.26811782	.71199214	3.186	.0014
BP_NC31	.95392369	.74408175	1.282	.1998
BP_R11	.42080222	.14062271	2.992	.0028
BP_R21	.23077775	.11464047	2.013	.0441
BP_R31	.38616097	.11699443	3.301	.0010
BP_R41	.03176720	.14748984	.215	.8295
BP_SX1	.61883162	.06325610	9.783	.0000
BP_ID21	3.03489930	.25315706	11.988	.0000
BP_ID31	2.22341396	.25894800	8.586	.0000
BP_ID41	2.38132811	.25349724	9.394	.0000
BP_ID51	2.76204599	.26449531	10.443	.0000
BP_IN11	.22201255	.29120294	.762	.4458
BP_IN21	.42542357	.23521255	1.809	.0705
BP_IN31	.84493266	.24132760	3.501	.0005
BP_LC1	-2.14346869	.08594896	-24.939	.0000
BP_DE21	.19390567	.09069263	2.138	.0325
BP_DE31	.59766261	.09846216	6.070	.0000
BP_DE41	.91650999	.09426582	9.723	.0000
A_B	-4.21801029	.16442635	-25.653	.0000
B_NC02	3.36601797	.13286364	25.334	.0000
B_NC12	1.66465542	.13282181	12.533	.0000
B_NC22	1.22018706	.13151148	9.278	.0000
B_NC32	.57072853	.14146882	4.034	.0001
B_R12	.42157191	.06341866	6.647	.0000
B_R22	.25155647	.04510878	5.577	.0000
B_R32	.26936721	.04635970	5.810	.0000
B_R42	.22225836	.05425851	4.096	.0000
B_SX2	.46397858	.02785107	16.659	.0000
B_ID22	2.18146508	.08228268	26.512	.0000
B_ID32	1.62857373	.08433927	19.310	.0000
B_ID42	1.75774769	.08189858	21.462	.0000
B_ID52	2.11965302	.09244604	22.929	.0000
B_IN12	-.82723318	.10194612	-8.114	.0000
B_IN22	-.38471763	.06161469	-6.244	.0000
B_IN32	.22130508	.06453555	3.429	.0006
B_LC2	-2.11217113	.03518711	-60.027	.0000
B_DE22	.35970468	.03755944	9.577	.0000
B_DE32	.57570749	.04267520	13.490	.0000
B_DE42	.70412077	.04274433	16.473	.0000
A_BO	-5.30399422	.33794125	-15.695	.0000
BO_NC03	1.96918342	.20552474	9.581	.0000
BO_NC13	.68241443	.20529329	3.324	.0009
BO_NC23	.06641721	.20430898	.325	.7451
BO_NC33	-.37448062	.22881968	-1.637	.1017
BO_R13	.37109170	.10924482	3.397	.0007
BO_R23	.14308316	.07993656	1.790	.0735
BO_R33	.08573923	.08372633	1.024	.3058
BO_R43	-.13902022	.10523273	-1.321	.1865
BO_SX3	-.15585547	.04803434	-3.245	.0012

BO_ID23	1.70666350	.11432670	14.928	.0000
BO_ID33	.66352024	.12514863	5.302	.0000
BO_ID43	.41062406	.12120657	3.388	.0007
BO_ID53	.06651483	.17479289	.381	.7035
BO_IN13	1.42010613	.28802039	4.931	.0000
BO_IN23	1.52419840	.25704226	5.930	.0000
BO_IN33	.93045758	.26609384	3.497	.0005
BO_LC3	-1.48881158	.06827838	-21.805	.0000
BO_DE23	.07328561	.07862447	.932	.3513
BO_DE33	.72460845	.08000891	9.057	.0000
BO_DE43	1.24465502	.07542413	16.502	.0000
A_M	-7.81773480	.38340473	-20.390	.0000
M_NC04	2.70691093	.16480188	16.425	.0000
M_NC14	1.22753874	.16496179	7.441	.0000
M_NC24	.70021445	.16384521	4.274	.0000
M_NC34	.13080054	.18218499	.718	.4728
M_R14	.04772390	.08444965	.565	.5720
M_R24	.06625582	.06243007	1.061	.2886
M_R34	-.00165695	.06587433	-.025	.9799
M_R44	.03607056	.07868932	.458	.6467
M_SX4	-.71121002	.03835427	-18.543	.0000
M_ID24	2.25493291	.14981792	15.051	.0000
M_ID34	3.37216558	.14779606	22.816	.0000
M_ID44	2.93138711	.14642808	20.019	.0000
M_ID54	2.09452399	.16336709	12.821	.0000
M_IN14	3.29662263	.33749146	9.768	.0000
M_IN24	3.26251909	.31891973	10.230	.0000
M_IN34	2.43577296	.32334684	7.533	.0000
M_LC4	-1.92816412	.04377085	-44.051	.0000
M_DE24	-.18669866	.04648822	-4.016	.0001
M_DE34	.26843849	.05118896	5.244	.0000
M_DE44	-.06406165	.05402852	-1.186	.2357
A_P	-1.93546551	.13650197	-14.179	.0000
P_NC05	2.54447244	.10484057	24.270	.0000
P_NC15	.75253437	.10546646	7.135	.0000
P_NC25	.32332136	.10327223	3.131	.0017
P_NC35	-.41897067	.12198769	-3.435	.0006
P_R15	.47111666	.06745881	6.984	.0000
P_R25	.19816931	.05045329	3.928	.0001
P_R35	.16623245	.05230533	3.178	.0015
P_R45	.16463436	.06126985	2.687	.0072
P_SX5	.29747947	.03068207	9.696	.0000
P_ID25	.91170026	.07277386	12.528	.0000
P_ID35	.43347564	.07605501	5.700	.0000
P_ID45	.75583520	.07187387	10.516	.0000
P_ID55	.96362440	.08452648	11.400	.0000
P_IN15	-.97408561	.10236951	-9.515	.0000
P_IN25	-.43164666	.06562121	-6.578	.0000
P_IN35	-.01538861	.07012557	-.219	.8263
P_LC5	-2.00285272	.03923105	-51.053	.0000
P_DE25	-.02754738	.03689891	-.747	.4553
P_DE35	-.00131772	.04399720	-.030	.9761
P_DE45	-.73974578	.05186640	-14.263	.0000

MNL7.26 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

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

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,R1,R2,R3,R4,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,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 07:33:28PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            61358     |
| Iterations completed                  9     |
| Log likelihood function       -62131.40     |
| Number of parameters                 95     |
| Info. Criterion: AIC =          2.02831     |
|   Finite Sample: AIC =          2.02831     |
| Info. Criterion: BIC =          2.04228     |
| Info. Criterion:HQIC =          2.03264     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -79151.8564  .21504  .21479 |
| Chi-squared[90]          =  34040.92207     |
| 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	-8.97688271	.78435690	-11.445	.0000
BP_NC01	4.43564317	.71209785	6.229	.0000
BP_NC11	2.67256294	.71303023	3.748	.0002
BP_NC21	2.27386381	.71199816	3.194	.0014
BP_NC31	.95995414	.74409025	1.290	.1970
BP_R11	.42143601	.14062172	2.997	.0027
BP_R21	.23237362	.11462203	2.027	.0426
BP_R31	.38618465	.11699721	3.301	.0010
BP_R41	.03109954	.14748114	.211	.8330
BP_SX1	.62306057	.06325597	9.850	.0000
BP_ID21	3.05232321	.25319808	12.055	.0000
BP_ID31	2.22354338	.25896140	8.586	.0000
BP_ID41	2.37718662	.25351357	9.377	.0000
BP_ID51	2.75956294	.26447679	10.434	.0000
BP_IN11	.20141105	.29115495	.692	.4891
BP_IN21	.42454137	.23517756	1.805	.0710
BP_IN31	.83819095	.24132373	3.473	.0005
BP_LC1	-2.14375535	.08586826	-24.966	.0000
BP_DE1	.00161798	.00013858	11.675	.0000
A_B	-4.07411786	.16252451	-25.068	.0000
B_NC02	3.36820623	.13288956	25.346	.0000
B_NC12	1.66687142	.13285424	12.547	.0000
B_NC22	1.22301009	.13154671	9.297	.0000
B_NC32	.57509597	.14150234	4.064	.0000
B_R12	.42376820	.06339607	6.684	.0000
B_R22	.24866205	.04509085	5.515	.0000
B_R32	.26676170	.04633609	5.757	.0000
B_R42	.22076557	.05423497	4.071	.0000
B_SX2	.46525852	.02784134	16.711	.0000
B_ID22	2.19430829	.08223226	26.684	.0000
B_ID32	1.62290554	.08426009	19.261	.0000
B_ID42	1.75247702	.08180910	21.422	.0000
B_ID52	2.13062454	.09230429	23.083	.0000
B_IN12	-.85532608	.10175553	-8.406	.0000
B_IN22	-.39549199	.06157557	-6.423	.0000
B_IN32	.21531040	.06450882	3.338	.0008
B_LC2	-2.11167641	.03515479	-60.068	.0000
B_DE2	.00106674	.642771D-04	16.596	.0000
A_BO	-5.46193783	.33401082	-16.353	.0000
BO_NC03	1.98187123	.20548575	9.645	.0000
BO_NC13	.69129779	.20522948	3.368	.0008
BO_NC23	.07358728	.20424232	.360	.7186
BO_NC33	-.36908086	.22873863	-1.614	.1066
BO_R13	.36955671	.10915571	3.386	.0007
BO_R23	.14292540	.07985357	1.790	.0735
BO_R33	.08360628	.08365791	.999	.3176
BO_R43	-.14109975	.10512943	-1.342	.1795
BO_SX3	-.14826913	.04799128	-3.090	.0020
BO_ID23	1.73028617	.11446167	15.117	.0000
BO_ID33	.66397147	.12515508	5.305	.0000
BO_ID43	.40176589	.12122102	3.314	.0009
BO_ID53	.03420091	.17462846	.196	.8447
BO_IN13	1.39276536	.28800424	4.836	.0000
BO_IN23	1.52890902	.25700758	5.949	.0000
BO_IN33	.92031969	.26607668	3.459	.0005

BO_LC3	-1.49765689	.06815491	-21.974	.0000
BO_DE3	.00231895	.00010493	22.100	.0000
A_M	-7.87022029	.38237944	-20.582	.0000
M_NC04	2.70597181	.16467840	16.432	.0000
M_NC14	1.22850821	.16484379	7.453	.0000
M_NC24	.70033826	.16372356	4.278	.0000
M_NC34	.13049579	.18204434	.717	.4735
M_R14	.04295529	.08437894	.509	.6107
M_R24	.06708521	.06235745	1.076	.2820
M_R34	-.00351402	.06580584	-.053	.9574
M_R44	.03951006	.07858328	.503	.6151
M_SX4	-.71420980	.03830545	-18.645	.0000
M_ID24	2.26394554	.14996680	15.096	.0000
M_ID34	3.35752077	.14792517	22.697	.0000
M_ID44	2.90826602	.14654569	19.845	.0000
M_ID54	2.04054319	.16335460	12.491	.0000
M_IN14	3.27540660	.33744296	9.707	.0000
M_IN24	3.26710988	.31889223	10.245	.0000
M_IN34	2.42833791	.32330932	7.511	.0000
M_LC4	-1.91301563	.04364068	-43.836	.0000
M_DE4	.00015396	.849368D-04	1.813	.0699
A_P	-1.78424204	.13460868	-13.255	.0000
P_NC05	2.54471230	.10482467	24.276	.0000
P_NC15	.75326039	.10545011	7.143	.0000
P_NC25	.32153758	.10326112	3.114	.0018
P_NC35	-.41955391	.12196361	-3.440	.0006
P_R15	.47235931	.06742717	7.005	.0000
P_R25	.19252017	.05042862	3.818	.0001
P_R35	.16205067	.05226157	3.101	.0019
P_R45	.16589456	.06122216	2.710	.0067
P_SX5	.29715746	.03065775	9.693	.0000
P_ID25	.91339966	.07266095	12.571	.0000
P_ID35	.41260501	.07591194	5.435	.0000
P_ID45	.73374793	.07170121	10.233	.0000
P_ID55	.94238750	.08433844	11.174	.0000
P_IN15	-1.01890729	.10221559	-9.968	.0000
P_IN25	-.44637809	.06558548	-6.806	.0000
P_IN35	-.02330713	.07007254	-.333	.7394
P_LC5	-1.99745455	.03920351	-50.951	.0000
P_DE5	-.00108449	.799354D-04	-13.567	.0000

MNL7.27 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*
- De2 : variável binária duracão da estadia >60min & <=240min (média duração)
- De3 : variável binária duracão da estadia >240min & <=480min (longa duração)
- De4: variável binária duracão da estadia >480min (muito longa duração)

- d2 -Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,D2,DX1,DX2,DX3,DE2,DE3,DE4$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 12, 2012 at 01:06:14AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            61358     |
| Iterations completed                 30     |
| Log likelihood function       -50550.39     |
| Number of parameters                 65     |
| Info. Criterion: AIC =          1.64984     |
|   Finite Sample: AIC =          1.64984     |
| Info. Criterion: BIC =          1.65940     |
| Info. Criterion:HQIC =          1.65280     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -79151.8564  .36135  .36121 |
| Chi-squared[60]          =  57202.94086     |
| 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	-6.12728986	.72089635	-8.500	.0000
BP_NC01	4.45210055	.71044412	6.267	.0000
BP_NC11	2.74458646	.71149142	3.858	.0001
BP_NC21	2.25738742	.71110609	3.174	.0015
BP_NC31	.92330588	.74317817	1.242	.2141
BP_LC1	-2.28821445	.07433660	-30.782	.0000
BP_D21	.08452935	.01205061	7.015	.0000
BP_DX11	.40731366	1.01823280	.400	.6891
BP_DX21	.76988141	.13219338	5.824	.0000
BP_DX31	.27765010	.08353493	3.324	.0009
BP_DE21	.24171063	.09064849	2.666	.0077
BP_DE31	.66395401	.09750209	6.810	.0000
BP_DE41	.85569708	.09294108	9.207	.0000
A_B	-2.29367996	.14321857	-16.015	.0000
B_NC02	3.27621438	.13081421	25.045	.0000
B_NC12	1.57746673	.13096639	12.045	.0000
B_NC22	1.09230988	.13033798	8.381	.0000
B_NC32	.45978455	.14017647	3.280	.0010
B_LC2	-2.01922541	.02776210	-72.733	.0000
B_D22	.00922660	.00673052	1.371	.1704
B_DX12	.45784175	.30222199	1.515	.1298
B_DX22	-.00413485	.06607715	-.063	.9501
B_DX32	.03356577	.03884395	.864	.3875
B_DE22	.40928276	.03750696	10.912	.0000
B_DE32	.61452205	.04214153	14.582	.0000
B_DE42	.63450512	.04188037	15.150	.0000
A_BO	-3.50960092	.22454327	-15.630	.0000
BO_NC03	2.21102108	.20149923	10.973	.0000
BO_NC13	1.07601755	.20135237	5.344	.0000
BO_NC23	.29295741	.20161751	1.453	.1462
BO_NC33	-.20642968	.22602566	-.913	.3611
BO_LC3	-1.99271152	.05360325	-37.175	.0000
BO_D23	.04809945	.01026582	4.685	.0000
BO_DX13	-29.1701734	.174582D+07	.000	1.0000
BO_DX23	-.48683470	.14002214	-3.477	.0005
BO_DX33	.12036080	.06528015	1.844	.0652
BO_DE23	.10251105	.07845277	1.307	.1913
BO_DE33	.91129336	.07932604	11.488	.0000
BO_DE43	1.30382682	.07478167	17.435	.0000
A_M	-2.58035364	.18067531	-14.282	.0000
M_NC04	3.20817741	.16136471	19.882	.0000
M_NC14	1.54619705	.16221508	9.532	.0000
M_NC24	.96023198	.16158395	5.943	.0000
M_NC34	.21408886	.17996271	1.190	.2342
M_LC4	-1.30920939	.03550422	-36.875	.0000
M_D24	-.04536516	.01000032	-4.536	.0000
M_DX14	-29.8749709	.128306D+07	.000	1.0000
M_DX24	-.41789813	.09324040	-4.482	.0000

M_DX34	.00257026	.05267149	.049	.9611
M_DE24	-.20539657	.04585630	-4.479	.0000
M_DE34	.26882089	.05028786	5.346	.0000
M_DE44	.02356531	.05282327	.446	.6555
A_P	3.76666479	.44069813	8.547	.0000
P_NC05	2.93276168	.18496794	15.856	.0000
P_NC15	1.01853110	.18723361	5.440	.0000
P_NC25	.60494361	.18482925	3.273	.0011
P_NC35	-.33385241	.21820268	-1.530	.1260
P_LC5	-1.96923948	.05603357	-35.144	.0000
P_D25	-1.65270585	.06546757	-25.245	.0000
P_DX15	2.01755806	.39041970	5.168	.0000
P_DX25	-1.31134721	.30880793	-4.246	.0000
P_DX35	-2.47423275	.24871181	-9.948	.0000
P_DE25	.08900388	.06554867	1.358	.1745
P_DE35	-.00171952	.07693881	-.022	.9822
P_DE45	-.09037664	.08579901	-1.053	.2922

MNL7.28 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*
- De2 : variável binária duracão da estadia >60min & <=240min (média duração)
- De3 : variável binária duracão da estadia >240min & <=480min (longa duração)
- De4: variável binária duracão da estadia >480min (muito longa duração)

- *Rg:Variável binária para viagens de Regresso a casa (exluída)*
- Tr: Variável binária para viagens para trabalho
- Es: Variável binária para viagens para a escola
- Lz: Variável binária para viagens em lazer
- CS: Variável binária para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,TR,ES,LZ,CS,DE2,DE3,DE4$
Normal exit:   8 iterations. Status=0, F=    64059.62

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -64059.61584
Estimation based on N =  61358, K =  65
Inf.Cr.AIC  = 128249.2 AIC/N =    2.090
Model estimated: May 09, 2012, 01:23:51
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .1907 .1905
Chi-squared[60]           =  30184.48107
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|   -5.06770***       .71332    -7.10  .0000    -6.46578  -3.66963
 BP_NC01|    4.55571***       .71046     6.41  .0000     3.16324   5.94818
 BP_NC11|    2.68557***       .71157     3.77  .0002     1.29092   4.08023
 BP_NC21|    2.25544***       .71112     3.17  .0015      .86168   3.64920
 BP_NC31|      .88480         .74323     1.19  .2339     -.57191   2.34151
  BP_LC1|   -2.26117***       .07784   -29.05  .0000    -2.41374  -2.10860
  BP_TR1|     .27273***       .08597     3.17  .0015      .10424    .44122
  BP_ES1|     .71256***       .08950     7.96  .0000      .53714    .88798
  BP_LZ1|    -.75145***       .10778    -6.97  .0000     -.96269   -.54020
  BP_CS1|    -.46989***       .11569    -4.06  .0000     -.69665   -.24314
 BP_DE21|    -.14775         .09581    -1.54  .1230     -.33553    .04002
 BP_DE31|    -.06557         .07774     -.84  .3990     -.21795    .08680
 BP_DE41|    -.10451         .07745    -1.35  .1772     -.25630    .04729
```

A_B	-1.95193***	.13327	-14.65	.0000	-2.21314	-1.69071
B_NC02	3.34978***	.13080	25.61	.0000	3.09341	3.60615
B_NC12	1.54038***	.13095	11.76	.0000	1.28371	1.79704
B_NC22	1.09644***	.13027	8.42	.0000	.84111	1.35177
B_NC32	.43740***	.14019	3.12	.0018	.16263	.71217
B_LC2	-2.04040***	.02975	-68.58	.0000	-2.09871	-1.98209
B_TR2	.26844***	.03678	7.30	.0000	.19636	.34052
B_ES2	.52988***	.04297	12.33	.0000	.44566	.61410
B_LZ2	-.46962***	.04222	-11.12	.0000	-.55237	-.38688
B_CS2	-.28288***	.04789	-5.91	.0000	-.37674	-.18902
B_DE22	.08217**	.03953	2.08	.0376	.00469	.15964
B_DE32	.22847***	.03337	6.85	.0000	.16306	.29388
B_DE42	.06841*	.03572	1.92	.0555	-.00160	.13842
A_BO	-2.55212***	.20683	-12.34	.0000	-2.95749	-2.14675
BO_NC03	2.38282***	.20144	11.83	.0000	1.98800	2.77764
BO_NC13	1.00267***	.20154	4.98	.0000	.60767	1.39768
BO_NC23	.29945	.20161	1.49	.1375	-.09570	.69461
BO_NC33	-.26686	.22630	-1.18	.2383	-.71040	.17669
BO_LC3	-1.82840***	.05850	-31.25	.0000	-1.94306	-1.71374
BO_TR3	.21753***	.06741	3.23	.0013	.08541	.34965
BO_ES3	1.08017***	.06922	15.60	.0000	.94449	1.21585
BO_LZ3	-1.22474***	.10297	-11.89	.0000	-1.42656	-1.02293
BO_CS3	-1.24642***	.12403	-10.05	.0000	-1.48951	-1.00332
BO_DE23	-.46399***	.08418	-5.51	.0000	-.62898	-.29900
BO_DE33	-.53146***	.06645	-8.00	.0000	-.66169	-.40122
BO_DE43	-.31877***	.05873	-5.43	.0000	-.43389	-.20366
A_M	-2.37554***	.16480	-14.41	.0000	-2.69855	-2.05254
M_NC04	3.20719***	.16198	19.80	.0000	2.88972	3.52466
M_NC14	1.56723***	.16256	9.64	.0000	1.24863	1.88584
M_NC24	.97453***	.16189	6.02	.0000	.65722	1.29184
M_NC34	.23627	.18030	1.31	.1901	-.11712	.58966
M_LC4	-1.71013***	.03731	-45.83	.0000	-1.78326	-1.63700
M_TR4	.23336***	.04294	5.44	.0000	.14921	.31752
M_ES4	-2.06177***	.09882	-20.86	.0000	-2.25545	-1.86810
M_LZ4	-1.00588***	.05795	-17.36	.0000	-1.11946	-.89230
M_CS4	-1.14181***	.07323	-15.59	.0000	-1.28535	-.99827
M_DE24	-.26095***	.05661	-4.61	.0000	-.37191	-.14999
M_DE34	.00591	.04532	.13	.8963	-.08291	.09472
M_DE44	.22149***	.04581	4.83	.0000	.13170	.31129
A_P	-1.41759***	.10581	-13.40	.0000	-1.62498	-1.21020
P_NC05	2.54444***	.10180	25.00	.0000	2.34492	2.74395
P_NC15	.60072***	.10295	5.83	.0000	.39893	.80250
P_NC25	.18735*	.10173	1.84	.0655	-.01203	.38673
P_NC35	-.55273***	.12081	-4.58	.0000	-.78951	-.31595
P_LC5	-1.86582***	.03287	-56.77	.0000	-1.93024	-1.80140
P_TR5	-.21352***	.04134	-5.17	.0000	-.29454	-.13250
P_ES5	.03695	.04865	.76	.4476	-.05841	.13231
P_LZ5	-.38237***	.04382	-8.73	.0000	-.46825	-.29649
P_CS5	-.25793***	.05026	-5.13	.0000	-.35643	-.15943
P_DE25	.18691***	.04260	4.39	.0000	.10342	.27040
P_DE35	.39901***	.03716	10.74	.0000	.32618	.47184
P_DE45	.27532***	.04113	6.69	.0000	.19472	.35593

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.29 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*
- De2 : variável binária duracão da estadia >60min & <=240min (média duração)
- De3 : variável binária duracão da estadia >240min & <=480min (longa duração)
- De4: variável binária duracão da estadia >480min (muito longa duração)

- *Rg:Variável binária para viagens de Regresso a casa (exluída)*
- Tr: Variável binária para viagens para trabalho
- Es: Variável binária para viagens para a escola
- Lz: Variável binária para viagens em lazer
- CS: Variável binária para viagens para compras/serviços

- d2 -Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,TR,ES,LZ,CS,D2,DX1,DX2,DX3,DE2,DE3,DE4$
Maximum of   100 iterations. Exit iterations with status=1.

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -49255.46174
Estimation based on N =  61358, K =  85
Inf.Cr.AIC  =  98680.9 AIC/N =    1.608
Model estimated: May 09, 2012, 14:09:04
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .3777 .3775
Chi-squared[80]          =  59792.78927
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|   -5.73890***       .72091    -7.96  .0000    -7.15187   -4.32594
 BP_NC01|    4.57199***       .71058     6.43  .0000     3.17927    5.96471
 BP_NC11|    2.69333***       .71166     3.78  .0002     1.29850    4.08816
 BP_NC21|    2.25102***       .71122     3.17  .0016      .85706    3.64498
 BP_NC31|      .87271         .74335     1.17  .2404     -.58423    2.32965
  BP_LC1|   -2.27728***       .07829   -29.09  .0000    -2.43073   -2.12383
```

BP_TR1|	.24072***	.08668	2.78	.0055	.07083	.41061
BP_ES1|	.72300***	.09038	8.00	.0000	.54586	.90014
BP_LZ1|	-.81453***	.10844	-7.51	.0000	-1.02707	-.60199
BP_CS1|	-.57012***	.11688	-4.88	.0000	-.79919	-.34105
BP_D21|	.08968***	.01206	7.44	.0000	.06604	.11331
BP_DX11|	.42004	1.01848	.41	.6800	-1.57613	2.41622
BP_DX21|	.77191***	.13244	5.83	.0000	.51232	1.03149
BP_DX31|	.23989***	.08361	2.87	.0041	.07602	.40376
BP_DE21|	-.10764	.09752	-1.10	.2697	-.29879	.08350
BP_DE31|	.01407	.07866	.18	.8581	-.14010	.16824
BP_DE41|	-.06581	.07759	-.85	.3964	-.21787	.08626
A_B|	-2.04810***	.14397	-14.23	.0000	-2.33028	-1.76593
B_NC02|	3.36800***	.13103	25.70	.0000	3.11118	3.62482
B_NC12|	1.55014***	.13114	11.82	.0000	1.29310	1.80717
B_NC22|	1.09573***	.13046	8.40	.0000	.84003	1.35144
B_NC32|	.43046***	.14042	3.07	.0022	.15525	.70568
B_LC2|	-2.04012***	.03018	-67.60	.0000	-2.09927	-1.98097
B_TR2|	.26821***	.03749	7.15	.0000	.19474	.34168
B_ES2|	.55315***	.04378	12.63	.0000	.46734	.63896
B_LZ2|	-.52208***	.04330	-12.06	.0000	-.60694	-.43722
B_CS2|	-.36096***	.04943	-7.30	.0000	-.45785	-.26408
B_D22|	.01355**	.00679	2.00	.0458	.00025	.02685
B_DX12|	.49543	.30300	1.64	.1020	-.09844	1.08931
B_DX22|	.00593	.06664	.09	.9291	-.12469	.13654
B_DX32|	.01252	.03914	.32	.7490	-.06419	.08924
B_DE22|	.11222***	.04073	2.76	.0059	.03240	.19205
B_DE32|	.28170***	.03412	8.26	.0000	.21483	.34858
B_DE42|	.08483**	.03619	2.34	.0191	.01390	.15575
A_BO|	-2.90842***	.22379	-13.00	.0000	-3.34704	-2.46979
BO_NC03|	2.41174***	.20190	11.95	.0000	2.01602	2.80746
BO_NC13|	1.00709***	.20185	4.99	.0000	.61147	1.40271
BO_NC23|	.28915	.20195	1.43	.1522	-.10665	.68496
BO_NC33|	-.28074	.22664	-1.24	.2155	-.72495	.16347
BO_LC3|	-1.84178***	.05902	-31.20	.0000	-1.95747	-1.72610
BO_TR3|	.17072**	.06802	2.51	.0121	.03740	.30403
BO_ES3|	1.06763***	.07008	15.24	.0000	.93028	1.20497
BO_LZ3|	-1.27399***	.10350	-12.31	.0000	-1.47686	-1.07113
BO_CS3|	-1.30201***	.12482	-10.43	.0000	-1.54665	-1.05737
BO_D23|	.05808***	.01024	5.67	.0000	.03801	.07815
BO_DX13|	-99.7622	.7990D+21	.00	1.0000	**********	**********
BO_DX23|	-.47386***	.14058	-3.37	.0007	-.74938	-.19833
BO_DX33|	.06750	.06556	1.03	.3032	-.06099	.19599
BO_DE23|	-.39563***	.08545	-4.63	.0000	-.56310	-.22816
BO_DE33|	-.40055***	.06709	-5.97	.0000	-.53204	-.26906
BO_DE43|	-.23749***	.05910	-4.02	.0001	-.35333	-.12166
A_M|	-2.10827***	.18228	-11.57	.0000	-2.46554	-1.75101
M_NC04|	3.21014***	.16214	19.80	.0000	2.89235	3.52793
M_NC14|	1.58162***	.16266	9.72	.0000	1.26282	1.90043
M_NC24|	.97647***	.16200	6.03	.0000	.65895	1.29399
M_NC34|	.24761	.18040	1.37	.1699	-.10598	.60119
M_LC4|	-1.71231***	.03774	-45.38	.0000	-1.78627	-1.63835
M_TR4|	.23955***	.04350	5.51	.0000	.15429	.32480
M_ES4|	-2.05986***	.09920	-20.77	.0000	-2.25429	-1.86544
M_LZ4|	-1.04518***	.05872	-17.80	.0000	-1.16026	-.93009
M_CS4|	-1.16784***	.07416	-15.75	.0000	-1.31320	-1.02249
M_D24|	-.04657***	.01012	-4.60	.0000	-.06640	-.02674

M_DX14	-100.577	.7973D+21	.00	1.0000	**********	**********
M_DX24	-.37482***	.09440	-3.97	.0001	-.55983	-.18981
M_DX34	.00266	.05339	.05	.9602	-.10198	.10731
M_DE24	-.25734***	.05743	-4.48	.0000	-.36989	-.14478
M_DE34	.02943	.04587	.64	.5212	-.06048	.11933
M_DE44	.21918***	.04625	4.74	.0000	.12853	.30984
A_P	3.88567***	.44290	8.77	.0000	3.01759	4.75375
P_NC05	2.96231***	.18497	16.02	.0000	2.59979	3.32484
P_NC15	.98075***	.18731	5.24	.0000	.61364	1.34786
P_NC25	.58061***	.18476	3.14	.0017	.21848	.94274
P_NC35	-.37100*	.21797	-1.70	.0887	-.79821	.05621
P_LC5	-2.01721***	.05865	-34.39	.0000	-2.13216	-1.90226
P_TR5	.09260	.07278	1.27	.2033	-.05005	.23524
P_ES5	.09353	.08498	1.10	.2711	-.07303	.26009
P_LZ5	-.39288***	.07705	-5.10	.0000	-.54389	-.24187
P_CS5	-.34262***	.08938	-3.83	.0001	-.51780	-.16744
P_D25	-1.65989***	.06559	-25.31	.0000	-1.78844	-1.53133
P_DX15	2.05366***	.39138	5.25	.0000	1.28658	2.82075
P_DX25	-1.32007***	.30929	-4.27	.0000	-1.92628	-.71387
P_DX35	-2.50454***	.24910	-10.05	.0000	-2.99277	-2.01631
P_DE25	.06730	.07460	.90	.3670	-.07892	.21352
P_DE35	.23793***	.06512	3.65	.0003	.11030	.36557
P_DE45	-.07808	.07253	-1.08	.2816	-.22023	.06406

Note: nnnnn.D-xx or D+xx => multiply by 10 to -xx or +xx.
Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.30 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*
- De2 : variável binária duracão da estadia >60min & <=240min (média duração)
- De3 : variável binária duracão da estadia >240min & <=480min (longa duração)
- De4: variável binária duracão da estadia >480min (muito longa duração)

- *Rg: Regresso a casa (exluída)*
- Tr: Variável binária para viagens para trabalho
- Es: Variável binária para viagens para a escola
- Lz: Variável binária para viagens em lazer
- CS: Variável binária para viagens para compras/serviços

- nV: ntotalviag Número total de viagens de cada individuo por dia

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NV,NC0,NC1,NC2,NC3,LC,TR,ES,LZ,CS,DE2,DE3,DE4$
Normal exit:   8 iterations. Status=0, F=    63434.80

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -63434.80018
Estimation based on N =  61358, K =  70
Inf.Cr.AIC  = 127009.6 AIC/N =    2.070
Model estimated: May 09, 2012, 01:30:42
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .1986 .1984
Chi-squared[65]          =  31434.11240
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|   -3.78495***      .72013    -5.26  .0000    -5.19638  -2.37351
  BP_NV1|    -.30290***      .02411   -12.57  .0000     -.35014   -.25565
 BP_NC01|    4.51276***      .71050     6.35  .0000     3.12020   5.90532
 BP_NC11|    2.68258***      .71166     3.77  .0002     1.28775   4.07741
 BP_NC21|    2.25510***      .71120     3.17  .0015      .86116   3.64903
 BP_NC31|     .89621         .74338     1.21  .2280     -.56078   2.35320
  BP_LC1|   -2.11544***      .07834   -27.00  .0000    -2.26898  -1.96189
  BP_TR1|    -.11355         .09158    -1.24  .2150     -.29305    .06595
  BP_ES1|     .23541**       .09734     2.42  .0156      .04464    .42619
  BP_LZ1|   -1.10408***      .11274    -9.79  .0000    -1.32505   -.88311
```

BP_CS1	-.85254***	.12120	-7.03	.0000	-1.09010	-.61499
BP_DE21	.01465	.09828	.15	.8815	-.17799	.20728
BP_DE31	.16682**	.08080	2.06	.0390	.00845	.32519
BP_DE41	.05808	.07821	.74	.4577	-.09520	.21136
A_B	-.84441***	.13904	-6.07	.0000	-1.11692	-.57190
B_NV2	-.26129***	.00928	-28.17	.0000	-.27947	-.24311
B_NC02	3.30853***	.13120	25.22	.0000	3.05138	3.56568
B_NC12	1.54043***	.13139	11.72	.0000	1.28292	1.79795
B_NC22	1.09871***	.13069	8.41	.0000	.84256	1.35485
B_NC32	.45163***	.14071	3.21	.0013	.17583	.72742
B_LC2	-1.90538***	.03018	-63.13	.0000	-1.96453	-1.84623
B_TR2	-.04544	.03861	-1.18	.2392	-.12112	.03023
B_ES2	.13254***	.04532	2.92	.0034	.04372	.22137
B_LZ2	-.76311***	.04411	-17.30	.0000	-.84958	-.67665
B_CS2	-.60727***	.05004	-12.14	.0000	-.70535	-.50920
B_DE22	.22381***	.04062	5.51	.0000	.14420	.30342
B_DE32	.41530***	.03441	12.07	.0000	.34785	.48274
B_DE42	.19853***	.03611	5.50	.0000	.12776	.26930
A_BO	-1.60466***	.22053	-7.28	.0000	-2.03690	-1.17243
BO_NV3	-.21974***	.01818	-12.09	.0000	-.25536	-.18411
BO_NC03	2.34768***	.20156	11.65	.0000	1.95264	2.74273
BO_NC13	1.00091***	.20172	4.96	.0000	.60555	1.39626
BO_NC23	.29912	.20178	1.48	.1382	-.09637	.69460
BO_NC33	-.25643	.22655	-1.13	.2577	-.70046	.18760
BO_LC3	-1.71114***	.05902	-28.99	.0000	-1.82682	-1.59545
BO_TR3	-.08564	.07222	-1.19	.2357	-.22718	.05590
BO_ES3	.71899***	.07553	9.52	.0000	.57095	.86703
BO_LZ3	-1.46517***	.10560	-13.88	.0000	-1.67214	-1.25821
BO_CS3	-1.50026***	.12650	-11.86	.0000	-1.74820	-1.25233
BO_DE23	-.34058***	.08568	-3.98	.0001	-.50850	-.17266
BO_DE33	-.34857***	.06893	-5.06	.0000	-.48366	-.21347
BO_DE43	-.18919***	.05977	-3.17	.0015	-.30634	-.07204
A_M	-2.66746***	.17057	-15.64	.0000	-3.00178	-2.33315
M_NV4	.06266***	.00968	6.47	.0000	.04369	.08164
M_NC04	3.20460***	.16201	19.78	.0000	2.88706	3.52213
M_NC14	1.56710***	.16253	9.64	.0000	1.24854	1.88566
M_NC24	.97138***	.16188	6.00	.0000	.65411	1.28866
M_NC34	.22767	.18029	1.26	.2067	-.12569	.58103
M_LC4	-1.73522***	.03803	-45.63	.0000	-1.80976	-1.66068
M_TR4	.31638***	.04492	7.04	.0000	.22834	.40443
M_ES4	-1.94372***	.10009	-19.42	.0000	-2.13988	-1.74755
M_LZ4	-.92937***	.05871	-15.83	.0000	-1.04444	-.81431
M_CS4	-1.07002***	.07389	-14.48	.0000	-1.21484	-.92520
M_DE24	-.28907***	.05648	-5.12	.0000	-.39976	-.17838
M_DE34	-.04468	.04581	-.98	.3295	-.13447	.04512
M_DE44	.16598***	.04663	3.56	.0004	.07459	.25736
A_P	-1.17347***	.11310	-10.38	.0000	-1.39513	-.95180
P_NV5	-.05690***	.00895	-6.36	.0000	-.07444	-.03935
P_NC05	2.53023***	.10185	24.84	.0000	2.33062	2.72985
P_NC15	.60665***	.10299	5.89	.0000	.40479	.80851
P_NC25	.19282*	.10176	1.89	.0581	-.00663	.39227
P_NC35	-.54338***	.12085	-4.50	.0000	-.78025	-.30652
P_LC5	-1.82189***	.03328	-54.75	.0000	-1.88711	-1.75667
P_TR5	-.29052***	.04262	-6.82	.0000	-.37404	-.20699
P_ES5	-.05638	.05039	-1.12	.2632	-.15515	.04238
P_LZ5	-.43107***	.04484	-9.61	.0000	-.51896	-.34318

```
   P_CS5|    -.30865***      .05143    -6.00  .0000     -.40945    -.20785
  P_DE25|     .21725***      .04279     5.08  .0000      .13339     .30111
  P_DE35|     .43729***      .03748    11.67  .0000      .36383     .51075
  P_DE45|     .30797***      .04131     7.46  .0000      .22701     .38894
--------+------------------------------------------------------------------
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
-----------------------------------------------------------------------------
```

MNL7.31 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*
- De2 : variável binária duracão da estadia >60min & <=240min (média duração)
- De3 : variável binária duracão da estadia >240min & <=480min (longa duração)
- De4: variável binária duracão da estadia >480min (muito longa duração)

- *Rg:Variável binária para viagens de Regresso a casa (exluída)*
- Tr: Variável binária para viagens para trabalho
- Es: Variável binária para viagens para a escola
- Lz: Variável binária para viagens em lazer
- CS: Variável binária para viagens para compras/serviços

- nV: ntotalviag Número total de viagens de cada individuo por dia

- d2 -Var. continua para distância + curta entre centróides (excepto pedonais 3,6km/h)
- dx1 - Var.bin distância + curta entre centróides (expto ped.3,6km/h) <=1,0km
- dx2 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >1,0km e <= 2,0km
- dx3 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >2,0km e <=5,0km
- *dx4 - Var.bin dist. + curta entre centróides (expto ped.3,6km/h) >5,0km (excluída)*

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NV,NC0,NC1,NC2,NC3,LC,TR,ES,LZ,CS,D2,DX1,DX2,DX3,DE2,DE3,DE4$
Maximum of   100 iterations. Exit iterations with status=1.

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -48648.64469
Estimation based on N =  61358, K =  90
Inf.Cr.AIC  =  97477.3 AIC/N =    1.589
Model estimated: May 09, 2012, 14:51:23
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .3854 .3852
Chi-squared[85]           =  61006.42337
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 |   -4.45837***      .72803    -6.12  .0000    -5.88528  -3.03145
 BP_NV1 |    -.28650***      .02393   -11.97  .0000     -.33340   -.23961
```

BP_NC01|	4.52604***	.71063	6.37	.0000	3.13323	5.91886
BP_NC11|	2.68741***	.71176	3.78	.0002	1.29239	4.08243
BP_NC21|	2.24470***	.71131	3.16	.0016	.85056	3.63885
BP_NC31|	.88204	.74349	1.19	.2355	-.57517	2.33925
BP_LC1|	-2.13182***	.07878	-27.06	.0000	-2.28623	-1.97741
BP_TR1|	-.12613	.09236	-1.37	.1721	-.30716	.05490
BP_ES1|	.26426***	.09827	2.69	.0072	.07165	.45687
BP_LZ1|	-1.15151***	.11346	-10.15	.0000	-1.37389	-.92913
BP_CS1|	-.92628***	.12246	-7.56	.0000	-1.16630	-.68625
BP_D21|	.07795***	.01211	6.44	.0000	.05422	.10169
BP_DX11|	.54385	1.01897	.53	.5935	-1.45329	2.54100
BP_DX21|	.76635***	.13286	5.77	.0000	.50595	1.02675
BP_DX31|	.25103***	.08391	2.99	.0028	.08657	.41550
BP_DE21|	.04945	.09991	.49	.6206	-.14637	.24526
BP_DE31|	.22148***	.08164	2.71	.0067	.06148	.38149
BP_DE41|	.08554	.07845	1.09	.2755	-.06821	.23930
A_B|	-.90430***	.15005	-6.03	.0000	-1.19840	-.61021
B_NV2|	-.25501***	.00941	-27.10	.0000	-.27345	-.23657
B_NC02|	3.32564***	.13141	25.31	.0000	3.06808	3.58320
B_NC12|	1.54941***	.13156	11.78	.0000	1.29156	1.80726
B_NC22|	1.09410***	.13085	8.36	.0000	.83764	1.35057
B_NC32|	.44405***	.14091	3.15	.0016	.16787	.72023
B_LC2|	-1.90188***	.03063	-62.08	.0000	-1.96192	-1.84184
B_TR2|	-.04118	.03939	-1.05	.2959	-.11839	.03603
B_ES2|	.15614***	.04627	3.37	.0007	.06546	.24683
B_LZ2|	-.81248***	.04528	-17.94	.0000	-.90124	-.72373
B_CS2|	-.66869***	.05161	-12.96	.0000	-.76985	-.56754
B_D22|	.00192	.00683	.28	.7784	-.01147	.01532
B_DX12|	.60443**	.30438	1.99	.0471	.00786	1.20100
B_DX22|	-.00505	.06722	-.08	.9401	-.13681	.12670
B_DX32|	.01792	.03947	.45	.6499	-.05945	.09528
B_DE22|	.25571***	.04189	6.10	.0000	.17361	.33780
B_DE32|	.45992***	.03523	13.05	.0000	.39087	.52898
B_DE42|	.21410***	.03666	5.84	.0000	.14225	.28595
A_BO|	-1.97133***	.23742	-8.30	.0000	-2.43667	-1.50598
BO_NV3|	-.20425***	.01808	-11.30	.0000	-.23968	-.16882
BO_NC03|	2.37144***	.20199	11.74	.0000	1.97555	2.76733
BO_NC13|	1.00051***	.20201	4.95	.0000	.60459	1.39644
BO_NC23|	.28238	.20209	1.40	.1623	-.11371	.67846
BO_NC33|	-.27537	.22684	-1.21	.2248	-.71997	.16924
BO_LC3|	-1.72533***	.05955	-28.97	.0000	-1.84204	-1.60861
BO_TR3|	-.10786	.07277	-1.48	.1383	-.25049	.03478
BO_ES3|	.72982***	.07644	9.55	.0000	.58000	.87964
BO_LZ3|	-1.50191***	.10626	-14.13	.0000	-1.71018	-1.29365
BO_CS3|	-1.53339***	.12735	-12.04	.0000	-1.78299	-1.28379
BO_D23|	.04883***	.01027	4.76	.0000	.02871	.06895
BO_DX13|	-99.6763	.7989D+21	.00	1.0000	**********	**********
BO_DX23|	-.48135***	.14077	-3.42	.0006	-.75725	-.20544
BO_DX33|	.07126	.06572	1.08	.2783	-.05755	.20007
BO_DE23|	-.28174***	.08688	-3.24	.0012	-.45201	-.11146
BO_DE33|	-.24460***	.06941	-3.52	.0004	-.38063	-.10856
BO_DE43|	-.12015**	.06018	-2.00	.0459	-.23810	-.00220
A_M|	-2.37343***	.18835	-12.60	.0000	-2.74260	-2.00427
M_NV4|	.05185***	.00978	5.30	.0000	.03268	.07102
M_NC04|	3.20224***	.16217	19.75	.0000	2.88439	3.52008
M_NC14|	1.58413***	.16262	9.74	.0000	1.26539	1.90286

M_NC24	.97737***	.16197	6.03	.0000	.65992	1.29483
M_NC34	.24214	.18037	1.34	.1795	-.11139	.59566
M_LC4	-1.72739***	.03849	-44.87	.0000	-1.80284	-1.65195
M_TR4	.31226***	.04552	6.86	.0000	.22303	.40148
M_ES4	-1.95154***	.10058	-19.40	.0000	-2.14867	-1.75442
M_LZ4	-.97210***	.05960	-16.31	.0000	-1.08890	-.85529
M_CS4	-1.10581***	.07485	-14.77	.0000	-1.25252	-.95910
M_D24	-.04364***	.01011	-4.32	.0000	-.06346	-.02382
M_DX14	-100.513	.7971D+21	.00	1.0000	**********	**********
M_DX24	-.36317***	.09442	-3.85	.0001	-.54824	-.17810
M_DX34	.00254	.05334	.05	.9620	-.10201	.10709
M_DE24	-.27789***	.05733	-4.85	.0000	-.39026	-.16552
M_DE34	-.01130	.04632	-.24	.8073	-.10209	.07949
M_DE44	.16936***	.04706	3.60	.0003	.07712	.26161
A_P	5.06440***	.45608	11.10	.0000	4.17049	5.95831
P_NV5	-.24223***	.01770	-13.68	.0000	-.27693	-.20753
P_NC05	2.95523***	.18839	15.69	.0000	2.58599	3.32448
P_NC15	1.03252***	.19085	5.41	.0000	.65846	1.40658
P_NC25	.62422***	.18827	3.32	.0009	.25522	.99322
P_NC35	-.28186	.22074	-1.28	.2016	-.71451	.15078
P_LC5	-1.87976***	.05950	-31.59	.0000	-1.99638	-1.76314
P_TR5	-.17508**	.07527	-2.33	.0200	-.32260	-.02756
P_ES5	-.26139***	.08848	-2.95	.0031	-.43481	-.08796
P_LZ5	-.63158***	.07969	-7.93	.0000	-.78777	-.47538
P_CS5	-.61006***	.09288	-6.57	.0000	-.79209	-.42802
P_D25	-1.69273***	.06625	-25.55	.0000	-1.82257	-1.56289
P_DX15	2.04856***	.39485	5.19	.0000	1.27468	2.82245
P_DX25	-1.42154***	.31138	-4.57	.0000	-2.03183	-.81125
P_DX35	-2.56985***	.25061	-10.25	.0000	-3.06103	-2.07867
P_DE25	.17123**	.07582	2.26	.0239	.02263	.31984
P_DE35	.37012***	.06612	5.60	.0000	.24051	.49972
P_DE45	.00577	.07273	.08	.9368	-.13679	.14832

Note: nnnnn.D-xx or D+xx => multiply by 10 to -xx or +xx.
Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.32 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*
- De2 : variável binária duracão da estadia >60min & <=240min (média duração)
- De3 : variável binária duracão da estadia >240min & <=480min (longa duração)
- De4: variável binária duracão da estadia >480min (muito longa duração)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,DE2,DE3,DE4$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 12, 2012 at 03:32:42PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            61358     |
| Iterations completed                  8     |
| Log likelihood function       -65054.88     |
| Number of parameters                 45     |
| Info. Criterion: AIC =          2.12197     |
|   Finite Sample: AIC =          2.12197     |
| Info. Criterion: BIC =          2.12859     |
| Info. Criterion:HQIC =          2.12402     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -79151.8564  .17810  .17798 |
| Chi-squared[40]          =  28193.94505     |
| 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	-5.46494555	.71330461	-7.661	.0000
BP_NC01	4.46688033	.71036630	6.288	.0000
BP_NC11	2.74095754	.71143152	3.853	.0001
BP_NC21	2.26566812	.71103832	3.186	.0014
BP_NC31	.93074178	.74311076	1.252	.2104
BP_LC1	-2.27903388	.07411486	-30.750	.0000
BP_DE21	.22460664	.09015375	2.491	.0127
BP_DE31	.63617138	.09697272	6.560	.0000
BP_DE41	.84067308	.09239718	9.098	.0000
A_B	-2.20792044	.13283786	-16.621	.0000
B_NC02	3.28108182	.13069835	25.104	.0000
B_NC12	1.56866254	.13086242	11.987	.0000
B_NC22	1.09509695	.13023297	8.409	.0000
B_NC32	.46091976	.14007059	3.291	.0010
B_LC2	-2.02870160	.02755309	-73.629	.0000
B_DE22	.39259621	.03666844	10.707	.0000
B_DE32	.59199925	.04133068	14.323	.0000
B_DE42	.61386506	.04123227	14.888	.0000
A_BO	-3.22428211	.20809119	-15.495	.0000
BO_NC03	2.22915099	.20124408	11.077	.0000
BO_NC13	1.08974607	.20116803	5.417	.0000
BO_NC23	.31894992	.20142165	1.583	.1133
BO_NC33	-.19047047	.22589068	-.843	.3991
BO_LC3	-1.98302138	.05334496	-37.174	.0000
BO_DE23	.09149108	.07807770	1.172	.2413
BO_DE33	.88694925	.07890018	11.241	.0000
BO_DE43	1.31492719	.07436476	17.682	.0000
A_M	-2.81267671	.16382253	-17.169	.0000
M_NC04	3.20979985	.16128708	19.901	.0000
M_NC14	1.53391064	.16216756	9.459	.0000
M_NC24	.95798067	.16152408	5.931	.0000
M_NC34	.20635380	.17990839	1.147	.2514
M_LC4	-1.33107860	.03524987	-37.761	.0000
M_DE24	-.22929228	.04535716	-5.055	.0000
M_DE34	.24824405	.04978145	4.987	.0000
M_DE44	-.01233711	.05234191	-.236	.8137
A_P	-1.27545520	.10408495	-12.254	.0000
P_NC05	2.51741890	.10179840	24.729	.0000
P_NC15	.64988029	.10293079	6.314	.0000
P_NC25	.21509510	.10174054	2.114	.0345
P_NC35	-.52178376	.12080077	-4.319	.0000
P_LC5	-1.90981146	.03111821	-61.373	.0000
P_DE25	-.00137579	.03642630	-.038	.9699
P_DE35	-.00020517	.04318772	-.005	.9962
P_DE45	-.82309596	.05111889	-16.102	.0000

MNL7.33 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- *Rg: Regresso a casa (exluída)*
- Tr: Variável binária para viagens para trabalho
- Es: Variável binária para viagens para a escola
- Lz: Variável binária para viagens em lazer
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,TR,ES,LZ,CS$
Normal exit:   8 iterations. Status=0, F=    102160.1

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function   -102160.07454
Estimation based on N =  95426, K =  50
Inf.Cr.AIC  = 204420.1 AIC/N =    2.142
Model estimated: May 09, 2012, 01:16:03
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .1727 .1726
Chi-squared[45]           =  42658.59014
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|   -5.10945***      .57986    -8.81  .0000    -6.24596  -3.97295
 BP_NC01|    4.53202***      .57976     7.82  .0000     3.39571   5.66832
 BP_NC11|    2.75378***      .58062     4.74  .0000     1.61578   3.89178
 BP_NC21|    2.29910***      .58035     3.96  .0001     1.16165   3.43656
 BP_NC31|    1.24898**       .59836     2.09  .0369      .07623   2.42174
  BP_LC1|   -2.19876***      .05949   -36.96  .0000    -2.31535  -2.08217
  BP_TR1|     .15843***      .06133     2.58  .0098      .03822    .27864
  BP_ES1|     .63108***      .06381     9.89  .0000      .50602    .75615
  BP_LZ1|    -.91596***      .08976   -10.20  .0000    -1.09188   -.74004
  BP_CS1|    -.57316***      .10083    -5.68  .0000     -.77078   -.37554
     A_B|   -1.88403***      .10635   -17.72  .0000    -2.09248  -1.67559
  B_NC02|    3.26690***      .10655    30.66  .0000     3.05807   3.47573
  B_NC12|    1.54367***      .10676    14.46  .0000     1.33442   1.75292
  B_NC22|    1.10207***      .10627    10.37  .0000      .89378   1.31036
  B_NC32|     .50168***      .11377     4.41  .0000      .27871    .72466
   B_LC2|   -1.94908***      .02274   -85.72  .0000    -1.99365  -1.90452
   B_TR2|     .20875***      .02687     7.77  .0000      .15608    .26142
   B_ES2|     .53064***      .03339    15.89  .0000      .46520    .59608
   B_LZ2|    -.53237***      .03404   -15.64  .0000     -.59909   -.46566
```

B_CS2	-.29892***	.04134	-7.23	.0000	-.37995	-.21789
A_BO	-2.83005***	.17063	-16.59	.0000	-3.16448	-2.49562
BO_NC03	2.36331***	.17086	13.83	.0000	2.02843	2.69820
BO_NC13	1.16396***	.17095	6.81	.0000	.82890	1.49901
BO_NC23	.40511**	.17119	2.37	.0180	.06957	.74064
BO_NC33	-.07852	.18903	-.42	.6779	-.44902	.29198
BO_LC3	-1.88869***	.04498	-41.99	.0000	-1.97685	-1.80054
BO_TR3	.19383***	.04916	3.94	.0001	.09747	.29018
BO_ES3	1.02587***	.04814	21.31	.0000	.93150	1.12023
BO_LZ3	-1.37972***	.09092	-15.17	.0000	-1.55792	-1.20152
BO_CS3	-1.28612***	.11532	-11.15	.0000	-1.51214	-1.06010
A_M	-2.98431***	.14064	-21.22	.0000	-3.25996	-2.70865
M_NC04	3.16028***	.14044	22.50	.0000	2.88503	3.43553
M_NC14	1.55302***	.14117	11.00	.0000	1.27632	1.82972
M_NC24	1.00004***	.14061	7.11	.0000	.72445	1.27563
M_NC34	.23627	.15627	1.51	.1306	-.07002	.54256
M_LC4	-1.48970***	.03053	-48.79	.0000	-1.54954	-1.42985
M_TR4	.77772***	.03256	23.88	.0000	.71390	.84154
M_ES4	-1.39299***	.09346	-14.90	.0000	-1.57617	-1.20982
M_LZ4	-.57051***	.05050	-11.30	.0000	-.66950	-.47153
M_CS4	-.69632***	.06830	-10.19	.0000	-.83019	-.56245
A_P	-1.43989***	.08249	-17.46	.0000	-1.60156	-1.27821
P_NC05	2.38189***	.08237	28.92	.0000	2.22045	2.54333
P_NC15	.51941***	.08347	6.22	.0000	.35581	.68302
P_NC25	.10879	.08255	1.32	.1875	-.05300	.27059
P_NC35	-.61418***	.09851	-6.23	.0000	-.80725	-.42111
P_LC5	-1.76832***	.02591	-68.24	.0000	-1.81910	-1.71753
P_TR5	.00309	.03211	.10	.9234	-.05984	.06602
P_ES5	.33554***	.03951	8.49	.0000	.25811	.41297
P_LZ5	-.13803***	.03535	-3.91	.0001	-.20731	-.06876
P_CS5	-.01586	.04364	-.36	.7162	-.10139	.06966

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.34 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- nV: ntotalviag Número total de viagens de cada individuo por dia

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,NV$
+---------------------------------------------+
| Discrete choice and multinomial logit models|
+---------------------------------------------+
Normal exit from iterations. Exit status=0.
+---------------------------------------------+
| Discrete choice (multinomial logit) model   |
| Maximum Likelihood Estimates                |
| Model estimated: Feb 12, 2012 at 03:41:55PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                  8     |
| Log likelihood function       -102458.6     |
| Number of parameters                 35     |
| Info. Criterion: AIC =          2.14813     |
|   Finite Sample: AIC =          2.14813     |
| Info. Criterion: BIC =          2.15160     |
| Info. Criterion:HQIC =          2.14918     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .17030  .17024 |
| Chi-squared[30]          =  42061.50582     |
| 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    |   -4.08330850       .58164500    -7.020   .0000
 BP_NC01 |    4.43542083       .57973981     7.651   .0000
 BP_NC11 |    2.79735501       .58061139     4.818   .0000
```

BP_NC21	2.31393859	.58037130	3.987	.0001
BP_NC31	1.29405009	.59841652	2.162	.0306
BP_LC1	-2.03936646	.05833648	-34.959	.0000
BP_NV1	-.32561432	.01723159	-18.896	.0000
A_B	-1.01157211	.10830943	-9.340	.0000
B_NC02	3.18163199	.10688875	29.766	.0000
B_NC12	1.56507850	.10713055	14.609	.0000
B_NC22	1.10540319	.10665774	10.364	.0000
B_NC32	.53012367	.11419849	4.642	.0000
B_LC2	-1.79798921	.02214075	-81.207	.0000
B_NV2	-.25997238	.00678492	-38.316	.0000
A_BO	-1.75065773	.17409595	-10.056	.0000
BO_NC03	2.22355912	.17069355	13.027	.0000
BO_NC13	1.23872817	.17077438	7.254	.0000
BO_NC23	.43242476	.17111189	2.527	.0115
BO_NC33	-.00679431	.18891453	-.036	.9713
BO_LC3	-1.80795554	.04323664	-41.815	.0000
BO_NV3	-.32113042	.01353733	-23.722	.0000
A_M	-3.33552736	.14249093	-23.409	.0000
M_NC04	3.17429597	.14006933	22.662	.0000
M_NC14	1.54271811	.14088823	10.950	.0000
M_NC24	.99698272	.14033647	7.104	.0000
M_NC34	.22164737	.15599587	1.421	.1554
M_LC4	-1.30122983	.03003762	-43.320	.0000
M_NV4	.07737364	.00743414	10.408	.0000
A_P	-1.31438209	.08500256	-15.463	.0000
P_NC05	2.35381469	.08238459	28.571	.0000
P_NC15	.54254351	.08342513	6.503	.0000
P_NC25	.12172360	.08252734	1.475	.1402
P_NC35	-.59301374	.09845511	-6.023	.0000
P_LC5	-1.76367342	.02555171	-69.024	.0000
P_NV5	-.03151212	.00674078	-4.675	.0000

MNL7.35 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- nV: ntotalviag Número total de viagens de cada individuo por dia

- *Rg:Variável binária para viagens de Regresso a casa (exluída)*
- Tr: Variável binária para viagens para trabalho
- Es: Variável binária para viagens para a escola
- Lz: Variável binária para viagens em lazer
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NV,NC0,NC1,NC2,NC3,LC,TR,ES,LZ,CS$
Normal exit:   8 iterations. Status=0, F=    100916.7

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function   -100916.74247
Estimation based on N =  95426, K =  55
Inf.Cr.AIC  = 201943.5 AIC/N =    2.116
Model estimated: May 09, 2012, 01:36:30
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .1828 .1827
Chi-squared[50]           =  45145.25427
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|   -4.10908***       .58215    -7.06  .0000    -5.25007  -2.96809
  BP_NV1|    -.31174***       .01735   -17.97  .0000     -.34574   -.27774
 BP_NC01|    4.47710***       .57980     7.72  .0000     3.34071   5.61349
 BP_NC11|    2.73644***       .58070     4.71  .0000     1.59828   3.87460
 BP_NC21|    2.28334***       .58043     3.93  .0001     1.14572   3.42097
 BP_NC31|    1.24745**        .59850     2.08  .0371      .07440   2.42049
  BP_LC1|   -2.01225***       .06006   -33.50  .0000    -2.12997  -1.89454
  BP_TR1|     .16488***       .06152     2.68  .0074      .04429    .28546
  BP_ES1|     .58804***       .06400     9.19  .0000      .46261    .71347
  BP_LZ1|    -.85464***       .08999    -9.50  .0000    -1.03102   -.67825
  BP_CS1|    -.55039***       .10114    -5.44  .0000     -.74862   -.35217
     A_B|   -1.06663***       .10886    -9.80  .0000    -1.27999   -.85327
   B_NV2|    -.24918***       .00683   -36.50  .0000     -.26256   -.23580
  B_NC02|    3.21444***       .10694    30.06  .0000     3.00483   3.42404
  B_NC12|    1.52827***       .10719    14.26  .0000     1.31817   1.73836
  B_NC22|    1.08855***       .10669    10.20  .0000      .87943   1.29766
```

B_NC32	.50186***	.11428	4.39	.0000	.27787	.72585
B_LC2	-1.78876***	.02318	-77.18	.0000	-1.83418	-1.74334
B_TR2	.20853***	.02705	7.71	.0000	.15552	.26154
B_ES2	.49234***	.03364	14.64	.0000	.42641	.55827
B_LZ2	-.47869***	.03443	-13.90	.0000	-.54617	-.41120
B_CS2	-.27591***	.04185	-6.59	.0000	-.35793	-.19388
A_BO	-1.86006***	.17570	-10.59	.0000	-2.20443	-1.51568
BO_NV3	-.30094***	.01375	-21.89	.0000	-.32789	-.27399
BO_NC03	2.30708***	.17106	13.49	.0000	1.97181	2.64235
BO_NC13	1.14538***	.17123	6.69	.0000	.80978	1.48099
BO_NC23	.38764**	.17147	2.26	.0238	.05155	.72372
BO_NC33	-.08060	.18942	-.43	.6705	-.45186	.29066
BO_LC3	-1.69754***	.04556	-37.26	.0000	-1.78684	-1.60824
BO_TR3	.19310***	.04937	3.91	.0001	.09634	.28987
BO_ES3	.98358***	.04838	20.33	.0000	.88875	1.07841
BO_LZ3	-1.31739***	.09114	-14.46	.0000	-1.49602	-1.13877
BO_CS3	-1.25823***	.11557	-10.89	.0000	-1.48474	-1.03172
A_M	-3.29690***	.14348	-22.98	.0000	-3.57812	-3.01568
M_NV4	.08357***	.00755	11.06	.0000	.06876	.09837
M_NC04	3.16980***	.14050	22.56	.0000	2.89443	3.44516
M_NC14	1.55835***	.14117	11.04	.0000	1.28166	1.83504
M_NC24	1.00240***	.14060	7.13	.0000	.72682	1.27797
M_NC34	.22895	.15626	1.47	.1429	-.07732	.53522
M_LC4	-1.53849***	.03131	-49.14	.0000	-1.59985	-1.47713
M_TR4	.76832***	.03259	23.57	.0000	.70443	.83220
M_ES4	-1.37247***	.09354	-14.67	.0000	-1.55580	-1.18914
M_LZ4	-.58961***	.05061	-11.65	.0000	-.68880	-.49042
M_CS4	-.70258***	.06836	-10.28	.0000	-.83658	-.56859
A_P	-1.35531***	.08585	-15.79	.0000	-1.52357	-1.18705
P_NV5	-.02544***	.00675	-3.77	.0002	-.03867	-.01221
P_NC05	2.36989***	.08239	28.76	.0000	2.20840	2.53138
P_NC15	.52318***	.08347	6.27	.0000	.35957	.68679
P_NC25	.11186	.08255	1.36	.1754	-.04993	.27366
P_NC35	-.60943***	.09851	-6.19	.0000	-.80250	-.41636
P_LC5	-1.73829***	.02639	-65.87	.0000	-1.79001	-1.68657
P_TR5	-.00739	.03211	-.23	.8180	-.07033	.05555
P_ES5	.32748***	.03958	8.27	.0000	.24990	.40506
P_LZ5	-.12766***	.03541	-3.60	.0003	-.19707	-.05825
P_CS5	-.00566	.04369	-.13	.8969	-.09130	.07997

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.36 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- nV: ntotalviag Número total de viagens de cada individuo por dia

- *Rg:Variável binária para viagens de Regresso a casa (exluída)*
- Tr: Variável binária para viagens para trabalho
- Es: Variável binária para viagens para a escola
- Lz: Variável binária para viagens em lazer
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NV,NC0,NC1,NC2,NC3,R1,R2,R3,R4,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,TR,ES,LZ,
CS$
Normal exit:   8 iterations. Status=0, F=    96689.35

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -96689.35432
Estimation based on N =  95426, K = 115
Inf.Cr.AIC  = 193608.7 AIC/N =    2.029
Model estimated: May 09, 2012, 01:46:06
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .2170 .2168
Chi-squared[**]           =  53600.03056
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 |   -7.35133***       .63029   -11.66   .0000    -8.58666   -6.11599
 BP_NV1 |    -.33573***       .01771   -18.96   .0000     -.37044    -.30102
BP_NC01 |    4.42444***       .58107     7.61   .0000     3.28556    5.56332
BP_NC11 |    2.66856***       .58188     4.59   .0000     1.52809    3.80903
BP_NC21 |    2.28080***       .58116     3.92   .0001     1.14174    3.41986
BP_NC31 |    1.29119**        .59924     2.15   .0312      .11671    2.46567
 BP_R11 |     .29917***       .10932     2.74   .0062      .08491     .51343
 BP_R21 |     .24370***       .08996     2.71   .0067      .06738     .42001
 BP_R31 |     .38920***       .09232     4.22   .0000      .20826     .57015
 BP_R41 |     .13453          .11355     1.18   .2361     -.08802     .35708
```

BP_SX1	.55207***	.04932	11.19	.0000	.45540	.64873
BP_ID21	2.90294***	.17315	16.77	.0000	2.56356	3.24231
BP_ID31	2.23498***	.18069	12.37	.0000	1.88084	2.58913
BP_ID41	2.35992***	.17525	13.47	.0000	2.01643	2.70341
BP_ID51	2.58793***	.18256	14.18	.0000	2.23013	2.94574
BP_IN11	.23754	.22007	1.08	.2804	-.19379	.66887
BP_IN21	.43884**	.18323	2.40	.0166	.07971	.79797
BP_IN31	.77421***	.18889	4.10	.0000	.40399	1.14443
BP_LC1	-1.96788***	.06741	-29.19	.0000	-2.10001	-1.83575
BP_TR1	.13119**	.06427	2.04	.0412	.00521	.25716
BP_ES1	.47499***	.07157	6.64	.0000	.33472	.61526
BP_LZ1	-.72817***	.09119	-7.99	.0000	-.90689	-.54945
BP_CS1	-.59393***	.10359	-5.73	.0000	-.79695	-.39091
A_B	-2.96033***	.13210	-22.41	.0000	-3.21923	-2.70142
B_NV2	-.27448***	.00711	-38.59	.0000	-.28843	-.26054
B_NC02	3.28918***	.10870	30.26	.0000	3.07613	3.50223
B_NC12	1.63671***	.10880	15.04	.0000	1.42346	1.84995
B_NC22	1.21584***	.10780	11.28	.0000	1.00457	1.42712
B_NC32	.63519***	.11545	5.50	.0000	.40891	.86148
B_R12	.31439***	.04970	6.33	.0000	.21699	.41180
B_R22	.22792***	.03626	6.29	.0000	.15686	.29898
B_R32	.27105***	.03739	7.25	.0000	.19777	.34434
B_R42	.25414***	.04365	5.82	.0000	.16859	.33969
B_SX2	.38588***	.02229	17.31	.0000	.34218	.42957
B_ID22	2.15025***	.06101	35.25	.0000	2.03068	2.26982
B_ID32	1.75868***	.06408	27.44	.0000	1.63308	1.88427
B_ID42	1.85919***	.06184	30.06	.0000	1.73799	1.98039
B_ID52	2.10070***	.06863	30.61	.0000	1.96618	2.23521
B_IN12	-.72905***	.07735	-9.43	.0000	-.88065	-.57745
B_IN22	-.34618***	.05046	-6.86	.0000	-.44509	-.24727
B_IN32	.23277***	.05318	4.38	.0000	.12853	.33700
B_LC2	-1.95892***	.02810	-69.72	.0000	-2.01399	-1.90385
B_TR2	.14647***	.02827	5.18	.0000	.09105	.20189
B_ES2	.45308***	.03807	11.90	.0000	.37847	.52769
B_LZ2	-.39115***	.03578	-10.93	.0000	-.46127	-.32102
B_CS2	-.33576***	.04362	-7.70	.0000	-.42124	-.25027
A_BO	-4.08839***	.28836	-14.18	.0000	-4.65356	-3.52322
BO_NV3	-.32576***	.01405	-23.18	.0000	-.35331	-.29821
BO_NC03	1.98769***	.17457	11.39	.0000	1.64553	2.32984
BO_NC13	.73840***	.17446	4.23	.0000	.39647	1.08033
BO_NC23	.10918	.17383	.63	.5300	-.23152	.44987
BO_NC33	-.27298	.19177	-1.42	.1546	-.64884	.10288
BO_R13	.26746***	.08518	3.14	.0017	.10052	.43441
BO_R23	.08358	.06314	1.32	.1856	-.04018	.20734
BO_R33	.04271	.06654	.64	.5210	-.08771	.17313
BO_R43	-.11687	.08256	-1.42	.1569	-.27868	.04494
BO_SX3	-.17969***	.03807	-4.72	.0000	-.25431	-.10507
BO_ID23	1.82175***	.08694	20.95	.0000	1.65136	1.99214
BO_ID33	.86166***	.09970	8.64	.0000	.66625	1.05707
BO_ID43	.59478***	.09502	6.26	.0000	.40854	.78102
BO_ID53	.00331	.13329	.02	.9802	-.25793	.26454
BO_IN13	1.80781***	.24273	7.45	.0000	1.33207	2.28356
BO_IN23	1.71591***	.22349	7.68	.0000	1.27787	2.15395
BO_IN33	1.01634***	.23086	4.40	.0000	.56386	1.46883
BO_LC3	-1.33718***	.05543	-24.12	.0000	-1.44583	-1.22854
BO_TR3	.30913***	.05262	5.88	.0000	.20600	.41226

BO_ES3	.57281***	.05280	10.85	.0000	.46933	.67629
BO_LZ3	-1.17208***	.09184	-12.76	.0000	-1.35208	-.99208
BO_CS3	-.92818***	.11704	-7.93	.0000	-1.15757	-.69880
A_M	-7.71009***	.32898	-23.44	.0000	-8.35489	-7.06530
M_NV4	.05174***	.00786	6.58	.0000	.03633	.06714
M_NC04	2.65382***	.14310	18.55	.0000	2.37336	2.93429
M_NC14	1.21046***	.14333	8.45	.0000	.92953	1.49139
M_NC24	.72384***	.14240	5.08	.0000	.44475	1.00294
M_NC34	.13183	.15805	.83	.4042	-.17795	.44161
M_R14	.06537	.07040	.93	.3531	-.07261	.20334
M_R24	.09061*	.05333	1.70	.0893	-.01391	.19513
M_R34	.01733	.05625	.31	.7580	-.09291	.12757
M_R44	.06977	.06705	1.04	.2981	-.06164	.20118
M_SX4	-.71489***	.03198	-22.35	.0000	-.77758	-.65220
M_ID24	1.98210***	.11229	17.65	.0000	1.76201	2.20218
M_ID34	2.75116***	.11099	24.79	.0000	2.53362	2.96871
M_ID44	2.35131***	.10950	21.47	.0000	2.13669	2.56593
M_ID54	1.75600***	.12152	14.45	.0000	1.51784	1.99417
M_IN14	3.28041***	.29259	11.21	.0000	2.70694	3.85388
M_IN24	3.28188***	.27951	11.74	.0000	2.73404	3.82972
M_IN34	2.50736***	.28325	8.85	.0000	1.95219	3.06253
M_LC4	-1.93428***	.03677	-52.60	.0000	-2.00635	-1.86221
M_TR4	.52008***	.03392	15.33	.0000	.45359	.58657
M_ES4	-1.09178***	.09775	-11.17	.0000	-1.28337	-.90018
M_LZ4	-.48322***	.05183	-9.32	.0000	-.58481	-.38164
M_CS4	-.58450***	.06989	-8.36	.0000	-.72148	-.44753
A_P	-1.96614***	.11080	-17.74	.0000	-2.18331	-1.74897
P_NV5	-.02895***	.00692	-4.18	.0000	-.04251	-.01538
P_NC05	2.39917***	.08491	28.25	.0000	2.23274	2.56559
P_NC15	.66779***	.08558	7.80	.0000	.50006	.83553
P_NC25	.24853***	.08385	2.96	.0030	.08418	.41287
P_NC35	-.47452***	.09948	-4.77	.0000	-.66949	-.27955
P_R15	.38176***	.05326	7.17	.0000	.27737	.48615
P_R25	.14011***	.04067	3.45	.0006	.06041	.21982
P_R35	.11641***	.04233	2.75	.0060	.03344	.19938
P_R45	.11728**	.04994	2.35	.0189	.01940	.21516
P_SX5	.24651***	.02468	9.99	.0000	.19813	.29488
P_ID25	.90910***	.05585	16.28	.0000	.79963	1.01857
P_ID35	.52434***	.06024	8.70	.0000	.40627	.64241
P_ID45	.86632***	.05666	15.29	.0000	.75527	.97737
P_ID55	1.13968***	.06475	17.60	.0000	1.01276	1.26659
P_IN15	-.96844***	.07954	-12.18	.0000	-1.12434	-.81254
P_IN25	-.44966***	.05388	-8.35	.0000	-.55525	-.34406
P_IN35	-.06207	.05799	-1.07	.2844	-.17573	.05158
P_LC5	-1.89818***	.03179	-59.72	.0000	-1.96048	-1.83588
P_TR5	-.01534	.03317	-.46	.6437	-.08035	.04967
P_ES5	.34896***	.04346	8.03	.0000	.26378	.43414
P_LZ5	-.09290**	.03631	-2.56	.0105	-.16408	-.02173
P_CS5	-.10935**	.04509	-2.43	.0153	-.19772	-.02099

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.37 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

```
DISCRETECHOICE
    ;Lhs=MTRP
    ;Choices=Bp,B,Bo,M,P,A[1]
    ;Rh2=ONE,NC0,NC1,NC2,NC3,R1,R2,R3,R4,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,MOT,D2$
Normal exit:   9 iterations. Status=0, F=    70267.22

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -70267.22203
Estimation based on N =  95426, K = 100
Inf.Cr.AIC  = 140734.4 AIC/N =    1.475
Model estimated: Jul 19, 2012, 18:36:08
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4310 .4309
Chi-squared[95]           = 106444.29515
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 |   -8.66027***       .62879   -13.77   .0000    -9.89267   -7.42788
 BP_NC01|    4.38813***       .58135     7.55   .0000     3.24870    5.52756
 BP_NC11|    2.63709***       .58195     4.53   .0000     1.49649    3.77768
 BP_NC21|    2.24574***       .58115     3.86   .0001     1.10671    3.38476
 BP_NC31|    1.26630**        .59905     2.11   .0345      .09218    2.44042
  BP_R11|     .32042***       .10990     2.92   .0036      .10502     .53583
  BP_R21|     .32531***       .08976     3.62   .0003      .14938     .50124
  BP_R31|     .41873***       .09219     4.54   .0000      .23804     .59942
  BP_R41|     .19311*         .11350     1.70   .0889     -.02936     .41557
  BP_SX1|     .58054***       .04932    11.77   .0000      .48388     .67720
 BP_ID21|    2.84648***       .17581    16.19   .0000     2.50189    3.19106
 BP_ID31|    1.92612***       .18114    10.63   .0000     1.57109    2.28114
 BP_ID41|    2.10682***       .17576    11.99   .0000     1.76235    2.45130
 BP_ID51|    2.30499***       .18318    12.58   .0000     1.94596    2.66401
 BP_IN11|     .21262          .22154      .96   .3372     -.22159     .64682
 BP_IN21|     .45060**        .18324     2.46   .0139      .09145     .80975
```

BP_IN31	.73623***	.18907	3.89	.0001	.36567	1.10680
BP_LC1	-2.07595***	.06705	-30.96	.0000	-2.20737	-1.94453
BP_MOT1	.06247	.06084	1.03	.3045	-.05678	.18171
BP_D21	.05984***	.00658	9.09	.0000	.04694	.07274
A_B	-3.83486***	.13070	-29.34	.0000	-4.09103	-3.57868
B_NC02	3.33278***	.10841	30.74	.0000	3.12030	3.54526
B_NC12	1.66241***	.10835	15.34	.0000	1.45004	1.87478
B_NC22	1.20675***	.10730	11.25	.0000	.99643	1.41706
B_NC32	.62477***	.11485	5.44	.0000	.39968	.84987
B_R12	.27554***	.05051	5.46	.0000	.17654	.37453
B_R22	.28271***	.03629	7.79	.0000	.21158	.35384
B_R32	.29283***	.03745	7.82	.0000	.21943	.36624
B_R42	.29757***	.04370	6.81	.0000	.21193	.38322
B_SX2	.41140***	.02253	18.26	.0000	.36724	.45556
B_ID22	2.11654***	.06219	34.04	.0000	1.99466	2.23842
B_ID32	1.50651***	.06399	23.54	.0000	1.38109	1.63193
B_ID42	1.65009***	.06165	26.77	.0000	1.52926	1.77092
B_ID52	1.85777***	.06901	26.92	.0000	1.72251	1.99303
B_IN12	-.69175***	.07919	-8.73	.0000	-.84697	-.53653
B_IN22	-.27417***	.05069	-5.41	.0000	-.37353	-.17481
B_IN32	.24355***	.05334	4.57	.0000	.13902	.34809
B_LC2	-2.05412***	.02805	-73.24	.0000	-2.10909	-1.99914
B_MOT2	-.47797***	.03364	-14.21	.0000	-.54390	-.41204
B_D22	.01411***	.00344	4.10	.0000	.00736	.02085
A_BO	-5.22022***	.28566	-18.27	.0000	-5.78011	-4.66033
BO_NC03	1.88658***	.17473	10.80	.0000	1.54412	2.22905
BO_NC13	.66804***	.17423	3.83	.0001	.32655	1.00953
BO_NC23	.08189	.17343	.47	.6368	-.25802	.42179
BO_NC33	-.28812	.19112	-1.51	.1317	-.66272	.08648
BO_R13	.35726***	.08525	4.19	.0000	.19017	.52435
BO_R23	.16912***	.06279	2.69	.0071	.04605	.29218
BO_R33	.06329	.06618	.96	.3388	-.06641	.19300
BO_R43	-.06829	.08230	-.83	.4066	-.22959	.09301
BO_SX3	-.17593***	.03797	-4.63	.0000	-.25035	-.10152
BO_ID23	1.69643***	.08924	19.01	.0000	1.52151	1.87134
BO_ID33	.50087***	.09856	5.08	.0000	.30770	.69405
BO_ID43	.30568***	.09407	3.25	.0012	.12132	.49005
BO_ID53	-.39267***	.13353	-2.94	.0033	-.65439	-.13096
BO_IN13	1.57043***	.24352	6.45	.0000	1.09314	2.04773
BO_IN23	1.66042***	.22338	7.43	.0000	1.22261	2.09824
BO_IN33	.94552***	.23087	4.10	.0000	.49303	1.39802
BO_LC3	-1.47138***	.05445	-27.02	.0000	-1.57809	-1.36466
BO_MOT3	.53980***	.04430	12.18	.0000	.45297	.62663
BO_D23	.05010***	.00561	8.93	.0000	.03911	.06109
A_M	-7.45282***	.34256	-21.76	.0000	-8.12423	-6.78141
M_NC04	1.46468***	.16333	8.97	.0000	1.14457	1.78480
M_NC14	.07814	.16335	.48	.6324	-.24202	.39830
M_NC24	-.00323	.16190	-.02	.9841	-.32055	.31409
M_NC34	-.26456	.17848	-1.48	.1383	-.61437	.08525
M_R14	.69873***	.08400	8.32	.0000	.53409	.86337
M_R24	.37726***	.06156	6.13	.0000	.25660	.49792
M_R34	.16396**	.06408	2.56	.0105	.03836	.28956
M_R44	.14041*	.07694	1.83	.0680	-.01038	.29120
M_SX4	-.74472***	.03697	-20.15	.0000	-.81717	-.67227
M_ID24	1.55320***	.12544	12.38	.0000	1.30733	1.79907
M_ID34	2.71394***	.12389	21.91	.0000	2.47112	2.95677

M_ID44	2.43270***	.12188	19.96	.0000	2.19382	2.67157
M_ID54	2.11774***	.13778	15.37	.0000	1.84771	2.38778
M_IN14	2.35876***	.30422	7.75	.0000	1.76250	2.95502
M_IN24	2.43321***	.28535	8.53	.0000	1.87393	2.99249
M_IN34	2.21881***	.28958	7.66	.0000	1.65126	2.78637
M_LC4	-1.74521***	.04310	-40.49	.0000	-1.82969	-1.66073
M_MOT4	3.76299***	.04375	86.01	.0000	3.67725	3.84874
M_D24	-.09003***	.00634	-14.21	.0000	-.10245	-.07761
A_P	3.12123***	.16564	18.84	.0000	2.79658	3.44588
P_NC05	2.38886***	.12193	19.59	.0000	2.14989	2.62783
P_NC15	.70164***	.12364	5.67	.0000	.45932	.94397
P_NC25	.39601***	.12024	3.29	.0010	.16034	.63167
P_NC35	-.21132	.14280	-1.48	.1389	-.49120	.06856
P_R15	.30826***	.08285	3.72	.0002	.14587	.47065
P_R25	.32901***	.06505	5.06	.0000	.20151	.45651
P_R35	.20102***	.06725	2.99	.0028	.06921	.33283
P_R45	.10096	.07820	1.29	.1967	-.05231	.25423
P_SX5	.16556***	.03928	4.21	.0000	.08857	.24255
P_ID25	1.63973***	.09442	17.37	.0000	1.45466	1.82480
P_ID35	1.18173***	.09854	11.99	.0000	.98861	1.37486
P_ID45	1.43897***	.09298	15.48	.0000	1.25673	1.62121
P_ID55	1.59976***	.10401	15.38	.0000	1.39590	1.80362
P_IN15	-.29224**	.12539	-2.33	.0198	-.53799	-.04648
P_IN25	-.06666	.08059	-.83	.4082	-.22460	.09129
P_IN35	.00538	.08681	.06	.9505	-.16476	.17552
P_LC5	-1.92462***	.05048	-38.13	.0000	-2.02356	-1.82568
P_MOT5	-.08877	.06337	-1.40	.1613	-.21297	.03543
P_D25	-2.64802***	.02773	-95.50	.0000	-2.70236	-2.59367

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.38 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- 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,NC0,NC1,NC2,NC3,R1,R2,R3,R4,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,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 08:31:46AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                 31     |
| Log likelihood function       -85822.49     |
| Number of parameters                 95     |
| Info. Criterion: AIC =          1.80071     |
|   Finite Sample: AIC =          1.80072     |
| Info. Criterion: BIC =          1.81014     |
| Info. Criterion:HQIC =          1.80358     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .30502  .30488 |
| Chi-squared[90]          =  75333.76896     |
| 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	-8.42422401	.62786921	-13.417	.0000
BP_NC01	4.43141352	.58101473	7.627	.0000
BP_NC11	2.68706395	.58172875	4.619	.0000
BP_NC21	2.28790727	.58101572	3.938	.0001
BP_NC31	1.29949630	.59900181	2.169	.0300
BP_R11	.31624294	.10915351	2.897	.0038
BP_R21	.30917197	.08963003	3.449	.0006
BP_R31	.41454149	.09203037	4.504	.0000
BP_R41	.18229262	.11329441	1.609	.1076
BP_SX1	.57314496	.04911396	11.670	.0000
BP_ID21	2.88311895	.17524519	16.452	.0000
BP_ID31	2.00559112	.18063344	11.103	.0000
BP_ID41	2.16910714	.17515557	12.384	.0000
BP_ID51	2.33841274	.18249389	12.814	.0000
BP_IN11	.28642867	.22082163	1.297	.1946
BP_IN21	.49634734	.18306797	2.711	.0067
BP_IN31	.77361890	.18886052	4.096	.0000
BP_LC1	-2.08633801	.06692917	-31.172	.0000
BP_DX11	-.67797781	1.00843516	-.672	.5014
A_B	-3.79623189	.12937879	-29.342	.0000
B_NC02	3.29971588	.10824141	30.485	.0000
B_NC12	1.64913074	.10828756	15.229	.0000
B_NC22	1.21956968	.10730528	11.365	.0000
B_NC32	.63788499	.11485990	5.554	.0000
B_R12	.33802525	.04977861	6.791	.0000
B_R22	.28184065	.03602568	7.823	.0000
B_R32	.29401076	.03715200	7.914	.0000
B_R42	.29269392	.04338044	6.747	.0000
B_SX2	.40507735	.02223380	18.219	.0000
B_ID22	2.10597599	.06175741	34.101	.0000
B_ID32	1.54261660	.06346531	24.306	.0000
B_ID42	1.67525062	.06113329	27.403	.0000
B_ID52	1.89731543	.06832262	27.770	.0000
B_IN12	-.70583051	.07806822	-9.041	.0000
B_IN22	-.30132328	.05021419	-6.001	.0000
B_IN32	.23710334	.05296758	4.476	.0000
B_LC2	-2.06482275	.02778027	-74.327	.0000
B_DX12	.36902598	.24078814	1.533	.1254
A_BO	-5.08181965	.28478852	-17.844	.0000
BO_NC03	2.04439165	.17411045	11.742	.0000
BO_NC13	.79762721	.17382018	4.589	.0000
BO_NC23	.15385003	.17323577	.888	.3745
BO_NC33	-.24205234	.19103047	-1.267	.2051
BO_R13	.26011762	.08463607	3.073	.0021
BO_R23	.13608088	.06261723	2.173	.0298
BO_R33	.05660592	.06599202	.858	.3910
BO_R43	-.07587230	.08199433	-.925	.3548
BO_SX3	-.17164742	.03778161	-4.543	.0000
BO_ID23	1.78329400	.08865151	20.116	.0000
BO_ID33	.61477643	.09802165	6.272	.0000
BO_ID43	.38617098	.09342889	4.133	.0000
BO_ID53	-.36868285	.13280288	-2.776	.0055
BO_IN13	1.70497319	.24302747	7.016	.0000
BO_IN23	1.75267638	.22316641	7.854	.0000

BO_IN33	.99374267	.23066682	4.308	.0000
BO_LC3	-1.47112106	.05444397	-27.021	.0000
BO_DX13	-30.4696862	.221315D+07	.000	1.0000
A_M	-7.75821709	.32694511	-23.729	.0000
M_NC04	2.63658802	.14288628	18.452	.0000
M_NC14	1.19773797	.14317476	8.366	.0000
M_NC24	.71765759	.14223929	5.045	.0000
M_NC34	.13839699	.15784552	.877	.3806
M_R14	-.00739692	.07034962	-.105	.9163
M_R24	.11102396	.05313672	2.089	.0367
M_R34	.05195169	.05603185	.927	.3538
M_R44	.09635656	.06685556	1.441	.1495
M_SX4	-.76605123	.03194116	-23.983	.0000
M_ID24	1.98590294	.11093200	17.902	.0000
M_ID34	3.10941174	.10889077	28.555	.0000
M_ID44	2.64810167	.10749759	24.634	.0000
M_ID54	1.80550919	.12057950	14.974	.0000
M_IN14	3.24434895	.29257556	11.089	.0000
M_IN24	3.31020831	.27949826	11.843	.0000
M_IN34	2.48371187	.28324398	8.769	.0000
M_LC4	-1.88500006	.03635091	-51.856	.0000
M_DX14	-30.5921160	.182114D+07	.000	1.0000
A_P	-3.41093900	.16607210	-20.539	.0000
P_NC05	2.72783742	.13445774	20.288	.0000
P_NC15	.89632550	.13598037	6.592	.0000
P_NC25	.44975208	.13406941	3.355	.0008
P_NC35	-.34801196	.15749215	-2.210	.0271
P_R15	.50343439	.07130617	7.060	.0000
P_R25	.24506618	.05850830	4.189	.0000
P_R35	.22935448	.06084847	3.769	.0002
P_R45	.16488652	.07274928	2.267	.0234
P_SX5	.22996882	.03263975	7.046	.0000
P_ID25	1.31746816	.08135708	16.194	.0000
P_ID35	.80842902	.08516202	9.493	.0000
P_ID45	1.12141445	.08002375	14.014	.0000
P_ID55	1.46355340	.08763816	16.700	.0000
P_IN15	-1.01099587	.10939698	-9.242	.0000
P_IN25	-.46660951	.07686592	-6.070	.0000
P_IN35	-.13799331	.08339460	-1.655	.0980
P_LC5	-2.06089354	.04270457	-48.259	.0000
P_DX15	7.14154118	.12939146	55.193	.0000

MNL7.39 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- 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,NC0,NC1,NC2,NC3,R1,R2,R3,R4,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,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 08:57:31AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                 31     |
| Log likelihood function       -76854.34     |
| Number of parameters                100     |
| Info. Criterion: AIC =          1.61286     |
|   Finite Sample: AIC =          1.61286     |
| Info. Criterion: BIC =          1.62278     |
| Info. Criterion:HQIC =          1.61588     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********   .37764  .37751 |
| Chi-squared[95]          =  93270.05150     |
| 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	-8.69523837	.62888638	-13.826	.0000
BP_NC01	4.40408880	.58121138	7.577	.0000
BP_NC11	2.65715748	.58185899	4.567	.0000
BP_NC21	2.25944166	.58110884	3.888	.0001
BP_NC31	1.26793874	.59904234	2.117	.0343
BP_R11	.32825416	.10959240	2.995	.0027
BP_R21	.31715787	.08972031	3.535	.0004
BP_R31	.42136681	.09212404	4.574	.0000
BP_R41	.19243052	.11347260	1.696	.0899
BP_SX1	.58144221	.04924417	11.807	.0000
BP_ID21	2.86319496	.17595310	16.272	.0000
BP_ID31	1.96589956	.18135676	10.840	.0000
BP_ID41	2.12066899	.17590380	12.056	.0000
BP_ID51	2.31170763	.18320404	12.618	.0000
BP_IN11	.23783729	.22151106	1.074	.2830
BP_IN21	.46575325	.18313203	2.543	.0110
BP_IN31	.74073712	.18907334	3.918	.0001
BP_LC1	-2.08312755	.06697271	-31.104	.0000
BP_D21	.06005452	.00659374	9.108	.0000
BP_DX11	-.48783206	1.00918197	-.483	.6288
A_B	-3.83310833	.13056377	-29.358	.0000
B_NC02	3.28514162	.10827172	30.342	.0000
B_NC12	1.63710842	.10826359	15.122	.0000
B_NC22	1.20739269	.10726229	11.256	.0000
B_NC32	.62330373	.11479999	5.429	.0000
B_R12	.33395698	.05010675	6.665	.0000
B_R22	.28393055	.03610445	7.864	.0000
B_R32	.29300548	.03724701	7.867	.0000
B_R42	.29363165	.04349533	6.751	.0000
B_SX2	.40844555	.02234800	18.277	.0000
B_ID22	2.09259079	.06219459	33.646	.0000
B_ID32	1.52489437	.06392295	23.855	.0000
B_ID42	1.65571181	.06160194	26.878	.0000
B_ID52	1.88953199	.06886778	27.437	.0000
B_IN12	-.71794511	.07892590	-9.096	.0000
B_IN22	-.30766264	.05053279	-6.088	.0000
B_IN32	.23360358	.05326227	4.386	.0000
B_LC2	-2.05791585	.02782097	-73.970	.0000
B_D22	.01174899	.00343770	3.418	.0006
B_DX12	.30060355	.24183585	1.243	.2139
A_BO	-5.29806980	.28614278	-18.515	.0000
BO_NC03	2.01383637	.17436665	11.549	.0000
BO_NC13	.77032971	.17399719	4.427	.0000
BO_NC23	.13353492	.17336657	.770	.4412
BO_NC33	-.26443868	.19112344	-1.384	.1665
BO_R13	.29417440	.08500428	3.461	.0005
BO_R23	.14861509	.06273502	2.369	.0178
BO_R33	.07027194	.06609413	1.063	.2877

BO_R43	-.06113183	.08215033	-.744	.4568
BO_SX3	-.17047908	.03788857	-4.499	.0000
BO_ID23	1.75584153	.08916525	19.692	.0000
BO_ID33	.56438309	.09863893	5.722	.0000
BO_ID43	.32740677	.09408575	3.480	.0005
BO_ID53	-.41744081	.13348785	-3.127	.0018
BO_IN13	1.64438994	.24339948	6.756	.0000
BO_IN23	1.72524339	.22321863	7.729	.0000
BO_IN33	.96281775	.23077297	4.172	.0000
BO_LC3	-1.47657943	.05447863	-27.104	.0000
BO_D23	.05169225	.00556803	9.284	.0000
BO_DX13	-30.2591174	.220153D+07	.000	1.0000
A_M	-7.53199144	.32790149	-22.970	.0000
M_NC04	2.63045437	.14296617	18.399	.0000
M_NC14	1.20173884	.14324686	8.389	.0000
M_NC24	.72058383	.14230898	5.064	.0000
M_NC34	.14952827	.15789982	.947	.3436
M_R14	-.02411463	.07064871	-.341	.7329
M_R24	.11259564	.05320766	2.116	.0343
M_R34	.05070585	.05613853	.903	.3664
M_R44	.09125137	.06698552	1.362	.1731
M_SX4	-.77079933	.03204779	-24.052	.0000
M_ID24	2.00071434	.11157158	17.932	.0000
M_ID34	3.13772078	.10960210	28.628	.0000
M_ID44	2.67536097	.10821921	24.722	.0000
M_ID54	1.82756668	.12112922	15.088	.0000
M_IN14	3.28996008	.29285329	11.234	.0000
M_IN24	3.32774977	.27953707	11.905	.0000
M_IN34	2.49849326	.28328049	8.820	.0000
M_LC4	-1.87496162	.03646401	-51.420	.0000
M_D24	-.05021080	.00513504	-9.778	.0000
M_DX14	-30.8293340	.182274D+07	.000	1.0000
A_P	1.55502735	.19619852	7.926	.0000
P_NC05	2.67164005	.14790768	18.063	.0000
P_NC15	.95558716	.15034691	6.356	.0000
P_NC25	.61062184	.14765641	4.135	.0000
P_NC35	-.10320319	.17424397	-.592	.5537
P_R15	.40898544	.08671018	4.717	.0000
P_R25	.35915370	.07062599	5.085	.0000
P_R35	.24857101	.07316008	3.398	.0007
P_R45	.11775263	.08581891	1.372	.1700
P_SX5	.14562164	.04065343	3.582	.0003
P_ID25	1.72880426	.10044124	17.212	.0000
P_ID35	1.32264694	.10491729	12.607	.0000
P_ID45	1.55667957	.09912261	15.705	.0000
P_ID55	1.71709702	.10886784	15.772	.0000
P_IN15	-.29630914	.13378659	-2.215	.0268
P_IN25	-.06423530	.08995695	-.714	.4752
P_IN35	.01571076	.09709591	.162	.8715
P_LC5	-2.02294713	.05242825	-38.585	.0000
P_D25	-2.11687267	.02887816	-73.304	.0000
P_DX15	2.87775296	.13450640	21.395	.0000

MNL7.40 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,LC,D2$
+---------------------------------------------+
| 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 09:12:23AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                 10     |
| Log likelihood function       -82136.33     |
| Number of parameters                 35     |
| Info. Criterion: AIC =          1.72220     |
|   Finite Sample: AIC =          1.72220     |
| Info. Criterion: BIC =          1.72567     |
| Info. Criterion:HQIC =          1.72326     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .33487  .33482 |
| Chi-squared[30]          =  82706.08542     |
| 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    |   -5.45679796       .58060249    -9.399    .0000
```

BP_NC01	4.46068888	.57977409	7.694	.0000
BP_NC11	2.80380484	.58059445	4.829	.0000
BP_NC21	2.30899405	.58034218	3.979	.0001
BP_NC31	1.27733314	.59831361	2.135	.0328
BP_LC1	-2.24797085	.05796166	-38.784	.0000
BP_D21	.05987721	.00650530	9.204	.0000
A_B	-1.92906001	.10725998	-17.985	.0000
B_NC02	3.22066084	.10651553	30.237	.0000
B_NC12	1.58596331	.10671947	14.861	.0000
B_NC22	1.11547435	.10625513	10.498	.0000
B_NC32	.52822648	.11368777	4.646	.0000
B_LC2	-1.96327895	.02183695	-89.906	.0000
B_D22	.01131371	.00332857	3.399	.0007
A_BO	-3.03745096	.17190062	-17.670	.0000
BO_NC03	2.25317615	.17060853	13.207	.0000
BO_NC13	1.24647541	.17056533	7.308	.0000
BO_NC23	.43022183	.17089924	2.517	.0118
BO_NC33	-.02137863	.18856814	-.113	.9097
BO_LC3	-2.02725045	.04282324	-47.340	.0000
BO_D23	.04748758	.00543534	8.737	.0000
A_M	-2.87027041	.14187948	-20.230	.0000
M_NC04	3.15651353	.14003146	22.541	.0000
M_NC14	1.54251268	.14090869	10.947	.0000
M_NC24	.99711197	.14036101	7.104	.0000
M_NC34	.23272755	.15601848	1.492	.1358
M_LC4	-1.23361900	.02932338	-42.069	.0000
M_D24	-.03367054	.00494320	-6.811	.0000
A_P	4.60416262	.12495369	36.847	.0000
P_NC05	2.55152711	.11836123	21.557	.0000
P_NC15	.72353649	.12018071	6.020	.0000
P_NC25	.39283113	.11796107	3.330	.0009
P_NC35	-.28773029	.13993003	-2.056	.0398
P_LC5	-1.81088639	.03989583	-45.390	.0000
P_D25	-2.66529681	.02753520	-96.796	.0000

MNL7.41 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- 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,NC0,NC1,NC2,NC3,LC,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 09:20:32AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                 30     |
| Log likelihood function       -90605.50     |
| Number of parameters                 35     |
| Info. Criterion: AIC =          1.89970     |
|   Finite Sample: AIC =          1.89970     |
| Info. Criterion: BIC =          1.90317     |
| Info. Criterion:HQIC =          1.90076     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .26629  .26624 |
| Chi-squared[30]          =  65767.74320     |
| 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    |   -5.14286970       .57935668    -8.877   .0000
 BP_NC01 |    4.49727126       .57970150     7.758   .0000
```

BP_NC11	2.83443131	.58052808	4.883	.0000
BP_NC21	2.33958690	.58028686	4.032	.0001
BP_NC31	1.30750876	.59827238	2.185	.0289
BP_LC1	-2.23809695	.05784131	-38.694	.0000
BP_DX11	-.72317262	1.00837394	-.717	.4733
A_B	-1.87817024	.10583158	-17.747	.0000
B_NC02	3.24012019	.10654782	30.410	.0000
B_NC12	1.59816915	.10675236	14.971	.0000
B_NC22	1.12788236	.10629384	10.611	.0000
B_NC32	.54004724	.11373633	4.748	.0000
B_LC2	-1.96760857	.02179619	-90.273	.0000
B_DX12	.34123653	.24060927	1.418	.1561
A_BO	-2.79083746	.16911767	-16.502	.0000
BO_NC03	2.28294564	.17049995	13.390	.0000
BO_NC13	1.27062015	.17047522	7.453	.0000
BO_NC23	.45430903	.17082595	2.659	.0078
BO_NC33	.00262473	.18852152	.014	.9889
BO_LC3	-2.01826903	.04271522	-47.249	.0000
BO_DX13	-30.0205211	.176803D+07	.000	1.0000
A_M	-3.04042837	.13963380	-21.774	.0000
M_NC04	3.15879397	.13999699	22.563	.0000
M_NC14	1.53710149	.14088609	10.910	.0000
M_NC24	.99261307	.14034519	7.073	.0000
M_NC34	.22658419	.15600712	1.452	.1464
M_LC4	-1.24889439	.02927428	-42.662	.0000
M_DX14	-30.0389877	.134171D+07	.000	1.0000
A_P	-2.45051349	.13179553	-18.593	.0000
P_NC05	2.74162137	.13236059	20.713	.0000
P_NC15	.78043356	.13426922	5.812	.0000
P_NC25	.31834477	.13329785	2.388	.0169
P_NC35	-.50476015	.15681161	-3.219	.0013
P_LC5	-1.92615351	.03537005	-54.457	.0000
P_DX15	7.12819544	.12921963	55.163	.0000

MNL7.42 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- 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,NC0,NC1,NC2,NC3,LC,D2,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 09:28:55AM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            95426     |
| Iterations completed                 30     |
| Log likelihood function       -81546.48     |
| Number of parameters                 40     |
| Info. Criterion: AIC =          1.70994     |
|   Finite Sample: AIC =          1.70994     |
| Info. Criterion: BIC =          1.71391     |
| Info. Criterion:HQIC =          1.71115     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  ***********  .33965  .33959 |
| Chi-squared[35]          =  83885.78579     |
| 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	-5.46147534	.58058492	-9.407	.0000
BP_NC01	4.46768976	.57976190	7.706	.0000
BP_NC11	2.80763946	.58058513	4.836	.0000
BP_NC21	2.31177444	.58033621	3.984	.0001
BP_NC31	1.27936923	.59831304	2.138	.0325
BP_LC1	-2.25154296	.05795755	-38.848	.0000
BP_D21	.06032407	.00650698	9.271	.0000
BP_DX11	-.54224403	1.00909643	-.537	.5910
A_B	-1.93658005	.10727495	-18.052	.0000
B_NC02	3.22723415	.10653428	30.293	.0000
B_NC12	1.58970946	.10674065	14.893	.0000
B_NC22	1.11828466	.10627873	10.522	.0000
B_NC32	.53023565	.11371760	4.663	.0000
B_LC2	-1.96676794	.02184711	-90.024	.0000
B_D22	.01217648	.00333192	3.654	.0003
B_DX12	.28834156	.24168807	1.193	.2329
A_BO	-3.03959857	.17187450	-17.685	.0000
BO_NC03	2.25933757	.17059065	13.244	.0000
BO_NC13	1.24975494	.17055363	7.328	.0000
BO_NC23	.43242391	.17089413	2.530	.0114
BO_NC33	-.01977548	.18857346	-.105	.9165
BO_LC3	-2.02963810	.04281447	-47.405	.0000
BO_D23	.04766725	.00544038	8.762	.0000
BO_DX13	-29.8435348	.173122D+07	.000	1.0000
A_M	-2.86749510	.14187957	-20.211	.0000
M_NC04	3.15762218	.14002262	22.551	.0000
M_NC14	1.54226515	.14090580	10.945	.0000
M_NC24	.99640959	.14036242	7.099	.0000
M_NC34	.23224343	.15602451	1.489	.1366
M_LC4	-1.23699517	.02932501	-42.182	.0000
M_D24	-.03360895	.00495181	-6.787	.0000
M_DX14	-30.2708270	.132844D+07	.000	1.0000
A_P	3.18507502	.15274747	20.852	.0000
P_NC05	2.79285228	.14381012	19.420	.0000
P_NC15	.93170855	.14599268	6.382	.0000
P_NC25	.55749550	.14431649	3.863	.0001
P_NC35	-.23715804	.17036593	-1.392	.1639
P_LC5	-1.88377615	.04248351	-44.341	.0000
P_D25	-2.12286299	.02875331	-73.830	.0000
P_DX15	2.84325215	.13431032	21.169	.0000

MNL7.43 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- 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,NC0,NC1,NC2,NC3,LC$
+---------------------------------------------+
| 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 06:35:13PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                  8     |
| Log likelihood function       -32961.31     |
| Number of parameters                 31     |
| Info. Criterion: AIC =          2.15925     |
|   Finite Sample: AIC =          2.15926     |
| Info. Criterion: BIC =          2.16770     |
| Info. Criterion:HQIC =          2.16196     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .16947  .16930 |
| Chi-squared[26]          =  13451.52736     |
| 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	-.75788473	.02242488	-33.797	.0000
A_BP	-3.13904990	.71291595	-4.403	.0000
BP_NC01	3.37817780	.71375390	4.733	.0000
BP_NC11	2.09976845	.71441109	2.939	.0033
BP_NC21	1.52192209	.71423843	2.131	.0331
BP_NC31	.36688712	.74950063	.490	.6245
BP_LC1	-2.68441674	.10596426	-25.333	.0000
A_B	-1.30963518	.21297700	-6.149	.0000
B_NC02	2.68669486	.21433790	12.535	.0000
B_NC12	1.37296433	.21424446	6.408	.0000
B_NC22	.84960421	.21371715	3.975	.0001
B_NC32	.26643984	.22623234	1.178	.2389
B_LC2	-2.33364751	.04462739	-52.292	.0000
A_BO	-2.29271296	.29736747	-7.710	.0000
BO_NC03	2.00535096	.29985813	6.688	.0000
BO_NC13	1.20593103	.29893868	4.034	.0001
BO_NC23	.29964907	.29975839	1.000	.3175
BO_NC33	-.48750648	.33662088	-1.448	.1476
BO_LC3	-2.03738791	.07212461	-28.248	.0000
A_M	-2.79768016	.22561268	-12.400	.0000
M_NC04	2.82828292	.22624306	12.501	.0000
M_NC14	1.25357101	.22750657	5.510	.0000
M_NC24	.61671077	.22695188	2.717	.0066
M_NC34	-.07320283	.25317993	-.289	.7725
M_LC4	-1.02062864	.05002688	-20.402	.0000
A_P	-1.24897434	.17112807	-7.298	.0000
P_NC05	2.11822358	.17289069	12.252	.0000
P_NC15	.57688436	.17384000	3.318	.0009
P_NC25	.23696994	.17232528	1.375	.1691
P_NC35	-.58142101	.19714109	-2.949	.0032
P_LC5	-1.91958886	.04782542	-40.137	.0000

MNL7.44 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- 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,NC0,NC1,NC2,NC3,LC,D2$
+---------------------------------------------+
| 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 06:25:37PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                  9     |
| Log likelihood function       -26587.79     |
| Number of parameters                 36     |
| Info. Criterion: AIC =          1.74245     |
|   Finite Sample: AIC =          1.74245     |
| Info. Criterion: BIC =          1.75226     |
| Info. Criterion:HQIC =          1.74560     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .33006  .32991 |
| Chi-squared[31]          =  26198.57894     |
| 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	-.61404905	.02773570	-22.139	.0000
A_BP	-3.56330788	.71682667	-4.971	.0000
BP_NC01	3.39638549	.71377761	4.758	.0000
BP_NC11	2.12010389	.71443251	2.968	.0030
BP_NC21	1.54465095	.71429087	2.162	.0306
BP_NC31	.39799925	.74954837	.531	.5954
BP_LC1	-2.68660179	.10599255	-25.347	.0000
BP_D21	.05322523	.01513827	3.516	.0004
A_B	-1.74003381	.21721052	-8.011	.0000
B_NC02	2.70296729	.21472559	12.588	.0000
B_NC12	1.39193647	.21461966	6.486	.0000
B_NC22	.86747433	.21410845	4.052	.0001
B_NC32	.29239417	.22660589	1.290	.1969
B_LC2	-2.33870793	.04477451	-52.233	.0000
B_D22	.07166816	.00830797	8.626	.0000
A_BO	-2.58275294	.30399535	-8.496	.0000
BO_NC03	2.03214505	.29986733	6.777	.0000
BO_NC13	1.23210175	.29894726	4.121	.0000
BO_NC23	.32607121	.29981282	1.088	.2768
BO_NC33	-.45655348	.33664445	-1.356	.1750
BO_LC3	-2.03554189	.07213989	-28.217	.0000
BO_D23	.04514067	.01283770	3.516	.0004
A_M	-2.64405895	.23149416	-11.422	.0000
M_NC04	2.84264903	.22613397	12.571	.0000
M_NC14	1.26955811	.22738766	5.583	.0000
M_NC24	.62507547	.22686193	2.755	.0059
M_NC34	-.05551348	.25307391	-.219	.8264
M_LC4	-1.00983285	.05016427	-20.131	.0000
M_D24	-.03785181	.01176979	-3.216	.0013
A_P	5.11987950	.25759417	19.876	.0000
P_NC05	2.46880295	.24475980	10.087	.0000
P_NC15	.50512226	.24457660	2.065	.0389
P_NC25	.19352727	.24051875	.805	.4210
P_NC35	-.63332296	.27357596	-2.315	.0206
P_LC5	-2.05260605	.07713323	-26.611	.0000
P_D25	-2.74922681	.05321834	-51.659	.0000

MNL7.45 –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- dx1: Variável binária para distâncias mais curtas D2<=1,0km
- dx2: Variável binária para distâncias mais curtas D2>1,0km e <=2,0km
- dx3: Variável binária para distâncias mais curtas D2>2,0km e <=5,0km
- *dx4a: Variável binária para distâncias mais curtas D2>5,0km (excluída)*

- 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,NC0,NC1,NC2,NC3,LC,D2,DX1,DX2,DX3$
+---------------------------------------------+
| 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 10:15:49PM.|
| Dependent variable               Choice     |
| Weighting variable                 None     |
| Number of observations            30559     |
| Iterations completed                 31     |
| Log likelihood function       -26146.91     |
| Number of parameters                 51     |
| Info. Criterion: AIC =          1.71458     |
|   Finite Sample: AIC =          1.71458     |
| Info. Criterion: BIC =          1.72848     |
| Info. Criterion:HQIC =          1.71903     |
| R2=1-LogL/LogL*  Log-L fncn  R-sqrd  RsqAdj |
| Constants only  -39687.0783  .34117  .34095 |
| Chi-squared[46]          =  27080.34465     |
| 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	-.56106327	.02794918	-20.074	.0000
A_BP	-3.48114419	.74192028	-4.692	.0000
BP_NC01	3.38939433	.71376469	4.749	.0000
BP_NC11	2.10571555	.71442699	2.947	.0032
BP_NC21	1.53719594	.71427414	2.152	.0314
BP_NC31	.37733373	.74956677	.503	.6147
BP_LC1	-2.68531229	.10598091	-25.338	.0000
BP_D21	.04069906	.02725653	1.493	.1354
BP_DX11	.25196080	.751240D+07	.000	1.0000
BP_DX21	.08394393	.18847696	.445	.6560
BP_DX31	-.15482610	.12144803	-1.275	.2024
A_B	-1.24477146	.24101484	-5.165	.0000
B_NC02	2.70206367	.21506946	12.564	.0000
B_NC12	1.39780011	.21497579	6.502	.0000
B_NC22	.86714310	.21446905	4.043	.0001
B_NC32	.30625763	.22699887	1.349	.1773
B_LC2	-2.34378619	.04484890	-52.260	.0000
B_D22	-.00021900	.01518878	-.014	.9885
B_DX12	-.06828491	.361390D+07	.000	1.0000
B_DX22	-1.32576970	.12119970	-10.939	.0000
B_DX32	-.14982643	.06519394	-2.298	.0216
A_BO	-2.18740363	.34469764	-6.346	.0000
BO_NC03	2.03028318	.29990292	6.770	.0000
BO_NC13	1.23521484	.29899824	4.131	.0000
BO_NC23	.32678174	.29988021	1.090	.2758
BO_NC33	-.45048247	.33672344	-1.338	.1809
BO_LC3	-2.03708351	.07211836	-28.246	.0000
BO_D23	-.01061291	.02353514	-.451	.6520
BO_DX13	-.12398370	.648274D+07	.000	1.0000
BO_DX23	-.85794731	.18124013	-4.734	.0000
BO_DX33	-.13311710	.10250292	-1.299	.1941
A_M	-3.00173096	.27575247	-10.886	.0000
M_NC04	2.85028865	.22617494	12.602	.0000
M_NC14	1.27568396	.22742449	5.609	.0000
M_NC24	.62791373	.22691058	2.767	.0057
M_NC34	-.05132381	.25311587	-.203	.8393
M_LC4	-1.01836087	.05022561	-20.276	.0000
M_D24	-.00110477	.02164129	-.051	.9593
M_DX14	.27417248	.510506D+07	.000	1.0000
M_DX24	-.11142248	.15002075	-.743	.4577
M_DX34	.33419125	.09049691	3.693	.0002
A_P	10.9919455	.70041605	15.693	.0000
P_NC05	2.31006199	.29730934	7.770	.0000
P_NC15	.41356245	.29963301	1.380	.1675
P_NC25	.13369989	.29632369	.451	.6518

P_NC35	-.87560699	.34410999	-2.545	.0109
P_LC5	-2.13924629	.08904279	-24.025	.0000
P_D25	-2.89003346	.11258554	-25.670	.0000
P_DX15	27.9465628	.154232D+07	.000	1.0000
P_DX25	-6.16379879	.47336057	-13.021	.0000
P_DX35	-5.02729695	.36761986	-13.675	.0000

MNL7.46 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- ~~Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- 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,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,DX1$
Maximum of   100 iterations. Exit iterations with status=1.

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -76929.74951
Estimation based on N =  95426, K =  80
Inf.Cr.AIC  = 154019.5 AIC/N =    1.614
Model estimated: Mar 21, 2012, 20:29:01
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .3770 .3769
Chi-squared[75]           =  93119.24020
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|   -8.57752***       .62766   -13.67   .0000    -9.80771   -7.34734
 BP_NC01|    4.52148***       .58040     7.79   .0000     3.38391    5.65905
 BP_NC11|    2.76189***       .58131     4.75   .0000     1.62254    3.90123
 BP_NC21|    2.32525***       .58087     4.00   .0001     1.18677    3.46373
 BP_NC31|    1.25905**        .59890     2.10   .0355      .08524    2.43287
  BP_SX1|     .58182***       .04921    11.82   .0000      .48537     .67828
 BP_ID21|    2.85902***       .17567    16.27   .0000     2.51471    3.20334
 BP_ID31|    1.99363***       .18102    11.01   .0000     1.63883    2.34843
 BP_ID41|    2.13990***       .17553    12.19   .0000     1.79587    2.48392
 BP_ID51|    2.32451***       .18068    12.87   .0000     1.97039    2.67864
 BP_IN11|     .31642          .22017     1.44   .1507     -.11510     .74795
 BP_IN21|     .54587***       .18208     3.00   .0027      .18901     .90274
```

BP_IN31	.80434***	.18848	4.27	.0000	.43493	1.17376
BP_LC1	-2.08656***	.06688	-31.20	.0000	-2.21764	-1.95547
BP_D21	.05980***	.00659	9.08	.0000	.04689	.07271
BP_DX11	-.49789	1.00917	-.49	.6218	-2.47582	1.48005
A_B	-3.71872***	.12963	-28.69	.0000	-3.97279	-3.46465
B_NC02	3.37854***	.10765	31.38	.0000	3.16755	3.58953
B_NC12	1.70739***	.10786	15.83	.0000	1.49599	1.91878
B_NC22	1.24876***	.10708	11.66	.0000	1.03888	1.45864
B_NC32	.61050***	.11463	5.33	.0000	.38582	.83518
B_SX2	.40946***	.02233	18.34	.0000	.36570	.45322
B_ID22	2.09386***	.06209	33.72	.0000	1.97218	2.21555
B_ID32	1.55632***	.06375	24.41	.0000	1.43138	1.68126
B_ID42	1.67866***	.06144	27.32	.0000	1.55824	1.79908
B_ID52	1.92424***	.06764	28.45	.0000	1.79168	2.05681
B_IN12	-.64096***	.07801	-8.22	.0000	-.79386	-.48805
B_IN22	-.24025***	.04952	-4.85	.0000	-.33730	-.14319
B_IN32	.28333***	.05274	5.37	.0000	.17997	.38669
B_LC2	-2.06424***	.02777	-74.35	.0000	-2.11866	-2.00983
B_D22	.01141***	.00343	3.32	.0009	.00468	.01814
B_DX12	.29269	.24179	1.21	.2261	-.18121	.76659
A_BO	-5.29204***	.28535	-18.55	.0000	-5.85133	-4.73276
BO_NC03	2.09008***	.17261	12.11	.0000	1.75177	2.42840
BO_NC13	.78666***	.17281	4.55	.0000	.44795	1.12537
BO_NC23	.13793	.17291	.80	.4251	-.20096	.47682
BO_NC33	-.30696	.19083	-1.61	.1077	-.68098	.06706
BO_SX3	-.16767***	.03788	-4.43	.0000	-.24191	-.09343
BO_ID23	1.76059***	.08931	19.71	.0000	1.58554	1.93564
BO_ID33	.59318***	.09864	6.01	.0000	.39985	.78652
BO_ID43	.35581***	.09406	3.78	.0002	.17146	.54016
BO_ID53	-.33702**	.13110	-2.57	.0101	-.59398	-.08007
BO_IN13	1.72130***	.24281	7.09	.0000	1.24541	2.19719
BO_IN23	1.78251***	.22268	8.00	.0000	1.34607	2.21895
BO_IN33	1.00132***	.23047	4.34	.0000	.54960	1.45304
BO_LC3	-1.49146***	.05436	-27.44	.0000	-1.59799	-1.38492
BO_D23	.05129***	.00556	9.22	.0000	.04039	.06219
BO_DX13	-100.277	.6381D+21	.00	1.0000	**********	**********
A_M	-7.51755***	.32715	-22.98	.0000	-8.15876	-6.87635
M_NC04	2.66220***	.14197	18.75	.0000	2.38394	2.94045
M_NC14	1.23909***	.14259	8.69	.0000	.95962	1.51855
M_NC24	.74975***	.14196	5.28	.0000	.47151	1.02800
M_NC34	.16006	.15771	1.01	.3102	-.14905	.46917
M_SX4	-.77081***	.03203	-24.06	.0000	-.83359	-.70803
M_ID24	1.98808***	.11127	17.87	.0000	1.77000	2.20616
M_ID34	3.14082***	.10921	28.76	.0000	2.92678	3.35487
M_ID44	2.66821***	.10777	24.76	.0000	2.45698	2.87944
M_ID54	1.78262***	.11944	14.93	.0000	1.54853	2.01671
M_IN14	3.30142***	.29235	11.29	.0000	2.72842	3.87442
M_IN24	3.35631***	.27919	12.02	.0000	2.80910	3.90352
M_IN34	2.51382***	.28313	8.88	.0000	1.95890	3.06875
M_LC4	-1.87232***	.03637	-51.48	.0000	-1.94360	-1.80103
M_D24	-.04970***	.00513	-9.69	.0000	-.05975	-.03965
M_DX14	-100.848	.6375D+21	.00	1.0000	**********	**********
A_P	1.65124***	.19345	8.54	.0000	1.27208	2.03039
P_NC05	2.77013***	.14653	18.90	.0000	2.48293	3.05733
P_NC15	.98331***	.14893	6.60	.0000	.69141	1.27521
P_NC25	.60776***	.14675	4.14	.0000	.32013	.89539

P_NC35	-.17941	.17310	-1.04	.3000	-.51868	.15986
P_SX5	.14753***	.04061	3.63	.0003	.06794	.22712
P_ID25	1.72965***	.10005	17.29	.0000	1.53356	1.92575
P_ID35	1.36620***	.10434	13.09	.0000	1.16170	1.57070
P_ID45	1.58107***	.09866	16.02	.0000	1.38770	1.77445
P_ID55	1.76208***	.10722	16.43	.0000	1.55194	1.97223
P_IN15	-.15072	.13114	-1.15	.2504	-.40776	.10631
P_IN25	.06560	.08683	.76	.4500	-.10459	.23578
P_IN35	.10636	.09556	1.11	.2657	-.08094	.29366
P_LC5	-2.04014***	.05228	-39.02	.0000	-2.14260	-1.93767
P_D25	-2.11867***	.02889	-73.33	.0000	-2.17529	-2.06205
P_DX15	2.86755***	.13442	21.33	.0000	2.60409	3.13101

Note: nnnnn.D-xx or D+xx => multiply by 10 to -xx or +xx.
Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.47 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- ~~Variáveis binárias do nível de instrução (excepto In4)~~
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- 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,NC0,NC1,NC2,NC3,R1,R2,R3,R4,SX,ID2,ID3,ID4,ID5,LC,D2,DX1$
Maximum of   100 iterations. Exit iterations with status=1.

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -77633.66635
Estimation based on N =  95426, K =  85
Inf.Cr.AIC  = 155437.3 AIC/N =    1.629
Model estimated: Mar 21, 2012, 21:31:14
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .3713 .3712
Chi-squared[80]           =  91711.40651
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|   -8.42147***       .60442   -13.93   .0000    -9.60611   -7.23683
 BP_NC01|    4.44177***       .58085     7.65   .0000     3.30333    5.58021
 BP_NC11|    2.70133***       .58149     4.65   .0000     1.56164    3.84102
 BP_NC21|    2.30474***       .58078     3.97   .0001     1.16643    3.44305
 BP_NC31|    1.31289**        .59880     2.19   .0283      .13927    2.48651
  BP_R11|     .34024***       .10884     3.13   .0018      .12691     .55356
  BP_R21|     .33465***       .08907     3.76   .0002      .16008     .50922
  BP_R31|     .44286***       .09178     4.82   .0000      .26296     .62275
  BP_R41|     .20479*         .11334     1.81   .0708     -.01736     .42694
  BP_SX1|     .57909***       .04910    11.79   .0000      .48286     .67532
 BP_ID21|    3.04221***       .16037    18.97   .0000     2.72789    3.35654
 BP_ID31|    2.12992***       .16698    12.76   .0000     1.80265    2.45720
 BP_ID41|    2.24756***       .16257    13.82   .0000     1.92892    2.56619
```

BP_ID51|	2.41448***	.17643	13.69	.0000	2.06868	2.76028
BP_LC1|	-2.06616***	.06511	-31.74	.0000	-2.19376	-1.93855
BP_D21|	.06013***	.00659	9.13	.0000	.04722	.07304
BP_DX11|	-.48269	1.00917	-.48	.6324	-2.46063	1.49524
A_B|	-4.27191***	.12046	-35.46	.0000	-4.50801	-4.03580
B_NC02|	3.20813***	.10801	29.70	.0000	2.99644	3.41982
B_NC12|	1.56358***	.10802	14.48	.0000	1.35187	1.77528
B_NC22|	1.14955***	.10712	10.73	.0000	.93960	1.35949
B_NC32|	.58816***	.11475	5.13	.0000	.36326	.81306
B_R12|	.26774***	.04948	5.41	.0000	.17077	.36472
B_R22|	.23165***	.03544	6.54	.0000	.16219	.30111
B_R32|	.26800***	.03690	7.26	.0000	.19568	.34032
B_R42|	.28437***	.04343	6.55	.0000	.19925	.36948
B_SX2|	.42598***	.02219	19.20	.0000	.38249	.46947
B_ID22|	2.41732***	.05265	45.92	.0000	2.31413	2.52050
B_ID32|	1.86097***	.05520	33.71	.0000	1.75277	1.96917
B_ID42|	1.89418***	.05327	35.56	.0000	1.78979	1.99858
B_ID52|	2.08190***	.06428	32.39	.0000	1.95591	2.20788
B_LC2|	-1.93692***	.02655	-72.95	.0000	-1.98896	-1.88488
B_D22|	.01059***	.00343	3.09	.0020	.00387	.01730
B_DX12|	.32355	.24180	1.34	.1809	-.15036	.79746
A_BO|	-3.90986***	.18641	-20.97	.0000	-4.27522	-3.54449
BO_NC03|	2.25413***	.17336	13.00	.0000	1.91435	2.59390
BO_NC13|	1.01552***	.17286	5.87	.0000	.67673	1.35432
BO_NC23|	.35156**	.17217	2.04	.0412	.01412	.68901
BO_NC33|	-.10495	.18992	-.55	.5805	-.47719	.26728
BO_R13|	.38555***	.08474	4.55	.0000	.21947	.55163
BO_R23|	.24733***	.06229	3.97	.0001	.12525	.36941
BO_R33|	.13885**	.06567	2.11	.0345	.01013	.26757
BO_R43|	-.02585	.08170	-.32	.7517	-.18598	.13428
BO_SX3|	-.21138***	.03761	-5.62	.0000	-.28510	-.13767
BO_ID23|	1.73530***	.06732	25.78	.0000	1.60336	1.86724
BO_ID33|	.50434***	.08071	6.25	.0000	.34615	.66254
BO_ID43|	.36868***	.07643	4.82	.0000	.21888	.51847
BO_ID53|	-.37979***	.12664	-3.00	.0027	-.62800	-.13159
BO_LC3|	-1.64229***	.05308	-30.94	.0000	-1.74633	-1.53826
BO_D23|	.05173***	.00554	9.34	.0000	.04087	.06258
BO_DX13|	-100.337	.6381D+21	.00	1.0000	**********	**********
A_M|	-4.69032***	.17155	-27.34	.0000	-5.02655	-4.35409
M_NC04|	2.93355***	.14211	20.64	.0000	2.65502	3.21208
M_NC14|	1.51730***	.14230	10.66	.0000	1.23840	1.79620
M_NC24|	1.00333***	.14128	7.10	.0000	.72644	1.28023
M_NC34|	.34746**	.15681	2.22	.0267	.04013	.65480
M_R14|	.17549**	.07023	2.50	.0125	.03785	.31313
M_R24|	.32848***	.05257	6.25	.0000	.22544	.43151
M_R34|	.21209***	.05553	3.82	.0001	.10325	.32094
M_R44|	.16735**	.06627	2.53	.0116	.03747	.29724
M_SX4|	-.82589***	.03160	-26.14	.0000	-.88783	-.76395
M_ID24|	1.95342***	.09823	19.89	.0000	1.76090	2.14593
M_ID34|	3.02596***	.09695	31.21	.0000	2.83594	3.21597
M_ID44|	2.66627***	.09617	27.72	.0000	2.47778	2.85476
M_ID54|	1.81636***	.11466	15.84	.0000	1.59163	2.04109
M_LC4|	-2.02363***	.03569	-56.69	.0000	-2.09359	-1.95367
M_D24|	-.04568***	.00509	-8.98	.0000	-.05565	-.03571
M_DX14|	-100.895	.6375D+21	.00	1.0000	**********	**********
A_P|	1.38954***	.17900	7.76	.0000	1.03871	1.74038

P_NC05	2.66556***	.14763	18.06	.0000	2.37621	2.95491
P_NC15	.94968***	.14992	6.33	.0000	.65584	1.24353
P_NC25	.60382***	.14731	4.10	.0000	.31511	.89254
P_NC35	-.11210	.17400	-.64	.5194	-.45312	.22893
P_R15	.38494***	.08468	4.55	.0000	.21898	.55090
P_R25	.34246***	.06834	5.01	.0000	.20852	.47641
P_R35	.23818***	.07168	3.32	.0009	.09769	.37867
P_R45	.11249	.08543	1.32	.1880	-.05496	.27993
P_SX5	.14236***	.04047	3.52	.0004	.06305	.22167
P_ID25	1.86639***	.08701	21.45	.0000	1.69586	2.03692
P_ID35	1.45762***	.09283	15.70	.0000	1.27567	1.63957
P_ID45	1.67432***	.08785	19.06	.0000	1.50215	1.84650
P_ID55	1.80714***	.10238	17.65	.0000	1.60647	2.00780
P_LC5	-1.99377***	.05014	-39.77	.0000	-2.09203	-1.89550
P_D25	-2.11759***	.02885	-73.40	.0000	-2.17413	-2.06104
P_DX15	2.87922***	.13449	21.41	.0000	2.61562	3.14282

Note: nnnnn.D-xx or D+xx => multiply by 10 to -xx or +xx.
Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.48 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- ~~Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).
- Var. Binária de disponibilidade diária de Moto no agregado (Mot)

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

```
DISCRETECHOICE
    ;Lhs=MTRP
    ;Choices=Bp,B,Bo,M,P,A[1]
    ;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,Mot,D2$
Normal exit:   9 iterations. Status=0, F=    70377.51

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -70377.51002
Estimation based on N =  95426, K =  80
Inf.Cr.AIC  = 140915.0 AIC/N =    1.477
Model estimated: Jul 20, 2012, 00:48:59
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4301 .4300
Chi-squared[75]           = 106223.71916
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 |   -8.54472***       .62756   -13.62   .0000    -9.77471   -7.31472
 BP_NC01|    4.50617***       .58051     7.76   .0000     3.36839    5.64396
 BP_NC11|    2.74488***       .58140     4.72   .0000     1.60537    3.88440
 BP_NC21|    2.31373***       .58091     3.98   .0001     1.17518    3.45229
 BP_NC31|    1.25803**        .59891     2.10   .0357      .08419    2.43188
  BP_SX1|     .58110***       .04928    11.79   .0000      .48452     .67768
 BP_ID21|    2.83931***       .17547    16.18   .0000     2.49539    3.18323
 BP_ID31|    1.95387***       .18075    10.81   .0000     1.59960    2.30814
 BP_ID41|    2.12343***       .17532    12.11   .0000     1.77980    2.46705
 BP_ID51|    2.31192***       .18071    12.79   .0000     1.95773    2.66611
 BP_IN11|     .29116          .22013     1.32   .1860     -.14029     .72261
 BP_IN21|     .53441***       .18217     2.93   .0034      .17736     .89146
 BP_IN31|     .80041***       .18847     4.25   .0000      .43101    1.16981
  BP_LC1|   -2.07798***       .06695   -31.04   .0000    -2.20920   -1.94677
 BP_MOT1|     .06457          .06055     1.07   .2862     -.05410     .18324
  BP_D21|     .05967***       .00658     9.07   .0000      .04678     .07256
```

A_B	-3.72297***	.12976	-28.69	.0000	-3.97728	-3.46865
B_NC02	3.41880***	.10776	31.73	.0000	3.20759	3.63000
B_NC12	1.73980***	.10795	16.12	.0000	1.52822	1.95138
B_NC22	1.25384***	.10714	11.70	.0000	1.04385	1.46383
B_NC32	.61959***	.11470	5.40	.0000	.39478	.84439
B_SX2	.41236***	.02251	18.32	.0000	.36825	.45647
B_ID22	2.11284***	.06202	34.07	.0000	1.99129	2.23440
B_ID32	1.53443***	.06375	24.07	.0000	1.40949	1.65937
B_ID42	1.66584***	.06143	27.12	.0000	1.54544	1.78623
B_ID52	1.86822***	.06779	27.56	.0000	1.73536	2.00108
B_IN12	-.62544***	.07824	-7.99	.0000	-.77879	-.47208
B_IN22	-.20812***	.04964	-4.19	.0000	-.30540	-.11084
B_IN32	.29066***	.05279	5.51	.0000	.18720	.39412
B_LC2	-2.05578***	.02797	-73.49	.0000	-2.11060	-2.00095
B_MOT2	-.47761***	.03351	-14.25	.0000	-.54328	-.41193
B_D22	.01394***	.00344	4.06	.0000	.00721	.02068
A_BO	-5.21408***	.28490	-18.30	.0000	-5.77247	-4.65568
BO_NC03	1.97903***	.17291	11.45	.0000	1.64013	2.31793
BO_NC13	.68640***	.17305	3.97	.0001	.34723	1.02558
BO_NC23	.08610	.17295	.50	.6186	-.25288	.42508
BO_NC33	-.33850*	.19083	-1.77	.0761	-.71252	.03552
BO_SX3	-.17258***	.03795	-4.55	.0000	-.24696	-.09820
BO_ID23	1.70232***	.08939	19.04	.0000	1.52712	1.87753
BO_ID33	.53454***	.09858	5.42	.0000	.34132	.72776
BO_ID43	.33691***	.09405	3.58	.0003	.15257	.52125
BO_ID53	-.29550**	.13117	-2.25	.0243	-.55260	-.03840
BO_IN13	1.65951***	.24291	6.83	.0000	1.18342	2.13560
BO_IN23	1.72733***	.22282	7.75	.0000	1.29061	2.16405
BO_IN33	.98800***	.23056	4.29	.0000	.53611	1.43988
BO_LC3	-1.48874***	.05433	-27.40	.0000	-1.59524	-1.38225
BO_MOT3	.52015***	.04411	11.79	.0000	.43370	.60660
BO_D23	.04967***	.00560	8.87	.0000	.03870	.06065
A_M	-7.36906***	.34200	-21.55	.0000	-8.03936	-6.69875
M_NC04	1.64753***	.16102	10.23	.0000	1.33193	1.96312
M_NC14	.13222	.16160	.82	.4133	-.18452	.44895
M_NC24	.04668	.16062	.29	.7714	-.26814	.36149
M_NC34	-.33016*	.17781	-1.86	.0633	-.67867	.01835
M_SX4	-.74661***	.03693	-20.22	.0000	-.81899	-.67423
M_ID24	1.56130***	.12521	12.47	.0000	1.31590	1.80670
M_ID34	2.75193***	.12364	22.26	.0000	2.50959	2.99427
M_ID44	2.47514***	.12154	20.36	.0000	2.23693	2.71336
M_ID54	2.26379***	.13534	16.73	.0000	1.99853	2.52905
M_IN14	2.53430***	.30340	8.35	.0000	1.93965	3.12896
M_IN24	2.55700***	.28481	8.98	.0000	1.99878	3.11522
M_IN34	2.29615***	.28928	7.94	.0000	1.72916	2.86313
M_LC4	-1.76834***	.04298	-41.15	.0000	-1.85257	-1.68410
M_MOT4	3.72322***	.04328	86.02	.0000	3.63839	3.80806
M_D24	-.09152***	.00632	-14.48	.0000	-.10390	-.07913
A_P	3.19339***	.16367	19.51	.0000	2.87260	3.51417
P_NC05	2.47550***	.12081	20.49	.0000	2.23871	2.71229
P_NC15	.73513***	.12273	5.99	.0000	.49459	.97568
P_NC25	.40286***	.11988	3.36	.0008	.16790	.63783
P_NC35	-.26733*	.14215	-1.88	.0600	-.54594	.01127
P_SX5	.16930***	.03924	4.31	.0000	.09238	.24622
P_ID25	1.63658***	.09406	17.40	.0000	1.45223	1.82093
P_ID35	1.21716***	.09801	12.42	.0000	1.02507	1.40925

```
  P_ID45|    1.45326***       .09257    15.70   .0000     1.27184    1.63469
  P_ID55|    1.61908***       .10251    15.79   .0000     1.41816    1.82000
  P_IN15|     -.17001          .12308    -1.38   .1672      -.41125     .07123
  P_IN25|      .04882          .07756      .63   .5291      -.10319     .20082
  P_IN35|      .08033          .08546      .94   .3472      -.08717     .24783
   P_LC5|   -1.93469***       .05032   -38.44   .0000    -2.03332   -1.83605
  P_MOT5|     -.08998          .06311    -1.43   .1540      -.21368     .03372
   P_D25|   -2.64859***       .02772   -95.53   .0000    -2.70293   -2.59425
--------+------------------------------------------------------------------------
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
-------------------------------------------------------------------------------
```

MNL7.49 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
~~- Variáveis binárias do nível de instrução (excepto In4)~~
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot)

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

```
DISCRETECHOICE
    ;Lhs=MTRP
    ;Choices=Bp,B,Bo,M,P,A[1]
    ;Rh2=ONE,NC0,NC1,NC2,NC3,R1,R2,R3,R4,SX,ID2,ID3,ID4,ID5,LC,MOT,D2$
Normal exit:   9 iterations. Status=0, F=    70679.47

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -70679.46977
Estimation based on N =  95426, K =  85
Inf.Cr.AIC  = 141528.9 AIC/N =    1.483
Model estimated: Jul 20, 2012, 15:47:56
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4276 .4275
Chi-squared[80]           = 105619.79966
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 |   -8.40505***       .60444   -13.91   .0000     -9.58974   -7.22037
BP_NC01 |    4.42494***       .58100     7.62   .0000      3.28621    5.56367
BP_NC11 |    2.68115***       .58158     4.61   .0000      1.54128    3.82102
BP_NC21 |    2.29175***       .58082     3.95   .0001      1.15337    3.43013
BP_NC31 |    1.30926**        .59880     2.19   .0288       .13564    2.48289
 BP_R11 |     .32481***       .10913     2.98   .0029       .11092     .53869
 BP_R21 |     .33370***       .08912     3.74   .0002       .15902     .50838
 BP_R31 |     .43535***       .09186     4.74   .0000       .25532     .61539
 BP_R41 |      .20409*        .11337     1.80   .0718      -.01812     .42630
 BP_SX1 |     .58499***       .04914    11.90   .0000       .48868     .68130
BP_ID21 |    3.03220***       .16042    18.90   .0000      2.71779    3.34661
BP_ID31 |    2.09849***       .16696    12.57   .0000      1.77125    2.42573
BP_ID41 |    2.23794***       .16260    13.76   .0000      1.91924    2.55664
BP_ID51 |    2.41270***       .17652    13.67   .0000      2.06673    2.75867
 BP_LC1 |   -2.05313***       .06515   -31.51   .0000     -2.18082   -1.92543
BP_MOT1 |     .05807         .06068      .96   .3386      -.06086     .17701
```

BP_D21	.05985***	.00657	9.10	.0000	.04696	.07273
A_B	-4.25345***	.12052	-35.29	.0000	-4.48967	-4.01724
B_NC02	3.26757***	.10815	30.21	.0000	3.05559	3.47954
B_NC12	1.60132***	.10811	14.81	.0000	1.38943	1.81322
B_NC22	1.15861***	.10714	10.81	.0000	.94861	1.36860
B_NC32	.59263***	.11476	5.16	.0000	.36770	.81756
B_R12	.20417***	.04985	4.10	.0000	.10647	.30187
B_R22	.22536***	.03562	6.33	.0000	.15555	.29517
B_R32	.26561***	.03710	7.16	.0000	.19288	.33833
B_R42	.28905***	.04362	6.63	.0000	.20355	.37455
B_SX2	.43428***	.02237	19.41	.0000	.39043	.47813
B_ID22	2.44135***	.05270	46.33	.0000	2.33807	2.54464
B_ID32	1.84262***	.05533	33.30	.0000	1.73417	1.95108
B_ID42	1.88975***	.05339	35.39	.0000	1.78510	1.99440
B_ID52	2.05100***	.06446	31.82	.0000	1.92466	2.17735
B_LC2	-1.93512***	.02677	-72.30	.0000	-1.98757	-1.88266
B_MOT2	-.50708***	.03338	-15.19	.0000	-.57250	-.44167
B_D22	.01297***	.00343	3.78	.0002	.00625	.01969
A_BO	-3.89691***	.18648	-20.90	.0000	-4.26241	-3.53141
BO_NC03	2.11697***	.17375	12.18	.0000	1.77643	2.45752
BO_NC13	.90652***	.17310	5.24	.0000	.56725	1.24579
BO_NC23	.29864*	.17222	1.73	.0829	-.03891	.63619
BO_NC33	-.13257	.18994	-.70	.4852	-.50485	.23971
BO_R13	.44024***	.08497	5.18	.0000	.27371	.60678
BO_R23	.25477***	.06237	4.08	.0000	.13253	.37701
BO_R33	.12173*	.06579	1.85	.0643	-.00722	.25068
BO_R43	-.03439	.08186	-.42	.6744	-.19484	.12606
BO_SX3	-.21147***	.03769	-5.61	.0000	-.28533	-.13760
BO_ID23	1.68194***	.06757	24.89	.0000	1.54950	1.81437
BO_ID33	.45442***	.08078	5.63	.0000	.29611	.61274
BO_ID43	.35113***	.07652	4.59	.0000	.20115	.50110
BO_ID53	-.34584***	.12676	-2.73	.0064	-.59429	-.09739
BO_LC3	-1.62062***	.05307	-30.54	.0000	-1.72463	-1.51661
BO_MOT3	.57932***	.04427	13.09	.0000	.49255	.66610
BO_D23	.04984***	.00559	8.92	.0000	.03889	.06079
A_M	-5.36745***	.19006	-28.24	.0000	-5.73996	-4.99494
M_NC04	1.65006***	.15948	10.35	.0000	1.33749	1.96264
M_NC14	.27157*	.15936	1.70	.0884	-.04077	.58391
M_NC24	.18496	.15785	1.17	.2413	-.12442	.49435
M_NC34	-.15624	.17450	-.90	.3706	-.49826	.18578
M_R14	.79780***	.08339	9.57	.0000	.63435	.96124
M_R24	.47324***	.06072	7.79	.0000	.35424	.59225
M_R34	.23988***	.06333	3.79	.0002	.11575	.36401
M_R44	.20645***	.07604	2.71	.0066	.05740	.35549
M_SX4	-.76657***	.03673	-20.87	.0000	-.83857	-.69458
M_ID24	1.58043***	.10762	14.69	.0000	1.36949	1.79136
M_ID34	2.72651***	.10706	25.47	.0000	2.51667	2.93635
M_ID44	2.47377***	.10571	23.40	.0000	2.26658	2.68096
M_ID54	2.15882***	.13054	16.54	.0000	1.90297	2.41467
M_LC4	-1.79881***	.04245	-42.37	.0000	-1.88202	-1.71561
M_MOT4	3.81608***	.04346	87.81	.0000	3.73091	3.90126
M_D24	-.08980***	.00632	-14.21	.0000	-.10219	-.07742
A_P	2.95287***	.14818	19.93	.0000	2.66245	3.24329
P_NC05	2.37242***	.12158	19.51	.0000	2.13412	2.61071
P_NC15	.69143***	.12313	5.62	.0000	.45009	.93277
P_NC25	.38756***	.11982	3.23	.0012	.15272	.62240

P_NC35	-.21965	.14245	-1.54	.1231	-.49885	.05955
P_R15	.28499***	.08083	3.53	.0004	.12655	.44342
P_R25	.31370***	.06277	5.00	.0000	.19068	.43672
P_R35	.19412***	.06577	2.95	.0032	.06522	.32302
P_R45	.09719	.07780	1.25	.2116	-.05529	.24967
P_SX5	.17097***	.03908	4.38	.0000	.09438	.24756
P_ID25	1.77145***	.08080	21.92	.0000	1.61308	1.92981
P_ID35	1.30333***	.08631	15.10	.0000	1.13417	1.47249
P_ID45	1.55009***	.08161	18.99	.0000	1.39015	1.71004
P_ID55	1.68979***	.09734	17.36	.0000	1.49901	1.88057
P_LC5	-1.89454***	.04836	-39.18	.0000	-1.98931	-1.79977
P_MOT5	-.08865	.06307	-1.41	.1599	-.21227	.03497
P_D25	-2.64731***	.02771	-95.52	.0000	-2.70163	-2.59299

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.50 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
~~- Variáveis binárias do nível de instrução (excepto In4)~~
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
~~- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

```
DISCRETECHOICE
    ;Lhs=MTRP
    ;Choices=Bp,B,Bo,M,P,A[1]
    ;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,LC,D2$
Normal exit:   9 iterations. Status=0, F=    78316.99

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -78316.98855
Estimation based on N =  95426, K =  60
Inf.Cr.AIC  = 156754.0 AIC/N =    1.643
Model estimated: Mar 23, 2012, 15:19:57
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .3658 .3657
Chi-squared[55]           =  90344.76211
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|   -8.21515***       .60202   -13.65  .0000    -9.39508  -7.03522
 BP_NC01|    4.56887***       .57994     7.88  .0000     3.43219   5.70554
 BP_NC11|    2.81841***       .58089     4.85  .0000     1.67990   3.95693
 BP_NC21|    2.37940***       .58052     4.10  .0000     1.24160   3.51721
 BP_NC31|    1.30605**        .59866     2.18  .0291      .13269   2.47941
  BP_SX1|     .57729***       .04904    11.77  .0000      .48117    .67340
 BP_ID21|    3.03420***       .16031    18.93  .0000     2.71999   3.34840
 BP_ID31|    2.15172***       .16692    12.89  .0000     1.82457   2.47888
 BP_ID41|    2.26455***       .16252    13.93  .0000     1.94602   2.58308
 BP_ID51|    2.42636***       .17454    13.90  .0000     2.08426   2.76845
  BP_LC1|   -2.07583***       .06484   -32.01  .0000    -2.20292  -1.94875
  BP_D21|     .05936***       .00658     9.02  .0000      .04646    .07225
     A_B|   -4.10898***       .11859   -34.65  .0000    -4.34141  -3.87655
  B_NC02|    3.28376***       .10716    30.64  .0000     3.07374   3.49379
  B_NC12|    1.63198***       .10745    15.19  .0000     1.42139   1.84258
  B_NC22|    1.19183***       .10683    11.16  .0000      .98245   1.40121
  B_NC32|     .58736***       .11455     5.13  .0000      .36285    .81186
```

B_SX2	.42522***	.02214	19.21	.0000	.38183	.46860
B_ID22	2.41004***	.05256	45.85	.0000	2.30702	2.51306
B_ID32	1.87693***	.05511	34.06	.0000	1.76892	1.98494
B_ID42	1.90738***	.05318	35.86	.0000	1.80314	2.01162
B_ID52	2.10405***	.06324	33.27	.0000	1.98011	2.22799
B_LC2	-1.94415***	.02638	-73.69	.0000	-1.99586	-1.89244
B_D22	.00929***	.00342	2.72	.0066	.00258	.01600
A_BO	-3.79546***	.18316	-20.72	.0000	-4.15445	-3.43647
BO_NC03	2.37900***	.17139	13.88	.0000	2.04308	2.71493
BO_NC13	1.06851***	.17160	6.23	.0000	.73218	1.40483
BO_NC23	.37792**	.17171	2.20	.0277	.04138	.71447
BO_NC33	-.14766	.18968	-.78	.4363	-.51943	.22411
BO_SX3	-.21111***	.03757	-5.62	.0000	-.28475	-.13748
BO_ID23	1.72203***	.06721	25.62	.0000	1.59030	1.85375
BO_ID33	.51800***	.08060	6.43	.0000	.36002	.67597
BO_ID43	.38576***	.07632	5.05	.0000	.23617	.53534
BO_ID53	-.30482**	.12452	-2.45	.0144	-.54887	-.06078
BO_LC3	-1.66670***	.05289	-31.51	.0000	-1.77037	-1.56303
BO_D23	.05121***	.00552	9.27	.0000	.04039	.06204
A_M	-4.55554***	.16839	-27.05	.0000	-4.88557	-4.22550
M_NC04	3.04620***	.14091	21.62	.0000	2.77003	3.32237
M_NC14	1.60802***	.14149	11.37	.0000	1.33071	1.88533
M_NC24	1.07098***	.14082	7.61	.0000	.79497	1.34698
M_NC34	.33626**	.15653	2.15	.0317	.02946	.64306
M_SX4	-.82737***	.03152	-26.25	.0000	-.88915	-.76559
M_ID24	1.94692***	.09815	19.84	.0000	1.75455	2.13929
M_ID34	3.04307***	.09686	31.42	.0000	2.85323	3.23292
M_ID44	2.67704***	.09609	27.86	.0000	2.48872	2.86537
M_ID54	1.79204***	.11350	15.79	.0000	1.56958	2.01450
M_LC4	-2.03168***	.03549	-57.25	.0000	-2.10123	-1.96213
M_D24	-.04483***	.00506	-8.86	.0000	-.05475	-.03491
A_P	3.13076***	.14285	21.92	.0000	2.85079	3.41073
P_NC05	2.52254***	.11968	21.08	.0000	2.28796	2.75711
P_NC15	.77162***	.12173	6.34	.0000	.53304	1.01021
P_NC25	.43200***	.11925	3.62	.0003	.19828	.66573
P_NC35	-.25292*	.14187	-1.78	.0746	-.53099	.02514
P_SX5	.14017***	.03881	3.61	.0003	.06409	.21624
P_ID25	1.76370***	.08053	21.90	.0000	1.60587	1.92153
P_ID35	1.39999***	.08584	16.31	.0000	1.23175	1.56822
P_ID45	1.60205***	.08131	19.70	.0000	1.44269	1.76142
P_ID55	1.73264***	.09605	18.04	.0000	1.54437	1.92090
P_LC5	-1.96321***	.04761	-41.24	.0000	-2.05652	-1.86990
P_D25	-2.66688***	.02766	-96.43	.0000	-2.72108	-2.61267

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.51 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- ~~Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- 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,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,MOT,D2$
Normal exit:   9 iterations. Status=0, F=    22968.97

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -22968.97473
Estimation based on N =  30559, K =  81
Inf.Cr.AIC  =  46099.9 AIC/N =    1.509
Model estimated: Jul 23, 2012, 11:18:29
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4212 .4209
Chi-squared[76]          =  33436.20718
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 30559, skipped    0 obs
--------+------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+------------------------------------------------------------------
     TIL|    -.60026***       .02930   -20.49  .0000     -.65768    -.54285
    A_BP|   -7.18749***       .86732    -8.29  .0000    -8.88740   -5.48758
  BP_NC01|    3.36300***       .71587     4.70  .0000     1.95991    4.76608
  BP_NC11|    1.95514***       .71645     2.73  .0064      .55092    3.35937
  BP_NC21|    1.52855**        .71600     2.13  .0328      .12521    2.93189
  BP_NC31|      .36218          .75158      .48  .6299    -1.11089    1.83524
   BP_SX1|      .63179***       .07724     8.18  .0000      .48039     .78318
  BP_ID21|    3.00918***       .27849    10.81  .0000     2.46334    3.55502
  BP_ID31|    1.87911***       .29155     6.45  .0000     1.30767    2.45054
  BP_ID41|    2.22262***       .28029     7.93  .0000     1.67328    2.77197
```

BP_ID51	2.11952***	.28792	7.36	.0000	1.55520	2.68384
BP_IN11	.82046*	.46246	1.77	.0760	-.08594	1.72685
BP_IN21	.85615**	.42010	2.04	.0416	.03277	1.67952
BP_IN31	.90474**	.42949	2.11	.0352	.06295	1.74653
BP_LC1	-2.31486***	.11926	-19.41	.0000	-2.54860	-2.08112
BP_MOT1	.67680***	.08348	8.11	.0000	.51318	.84041
BP_D21	.04152***	.01556	2.67	.0076	.01103	.07202
A_B	-3.93488***	.27333	-14.40	.0000	-4.47060	-3.39917
B_NC02	2.85184***	.21799	13.08	.0000	2.42458	3.27910
B_NC12	1.40203***	.21767	6.44	.0000	.97542	1.82865
B_NC22	.94022***	.21675	4.34	.0000	.51540	1.36504
B_NC32	.31878	.22967	1.39	.1651	-.13136	.76893
B_SX2	.36454***	.04164	8.76	.0000	.28294	.44615
B_ID22	2.41779***	.11947	20.24	.0000	2.18364	2.65194
B_ID32	1.69937***	.12466	13.63	.0000	1.45504	1.94371
B_ID42	1.82420***	.12000	15.20	.0000	1.58901	2.05939
B_ID52	1.48904***	.13081	11.38	.0000	1.23266	1.74542
B_IN12	-.08045	.16434	-.49	.6245	-.40254	.24165
B_IN22	.05668	.12452	.46	.6490	-.18737	.30073
B_IN32	.37927***	.13076	2.90	.0037	.12299	.63556
B_LC2	-2.24370***	.05498	-40.81	.0000	-2.35145	-2.13595
B_MOT2	-.07294	.05649	-1.29	.1967	-.18366	.03778
B_D22	.06489***	.00869	7.46	.0000	.04785	.08193
A_BO	-4.45474***	.48519	-9.18	.0000	-5.40570	-3.50377
BO_NC03	1.87871***	.30349	6.19	.0000	1.28389	2.47354
BO_NC13	.81433***	.30250	2.69	.0071	.22144	1.40721
BO_NC23	.11282	.30281	.37	.7095	-.48068	.70632
BO_NC33	-.63536*	.33984	-1.87	.0615	-1.30144	.03071
BO_SX3	-.30173***	.06250	-4.83	.0000	-.42423	-.17923
BO_ID23	1.69810***	.15644	10.85	.0000	1.39149	2.00471
BO_ID33	.67739***	.17188	3.94	.0001	.34050	1.01427
BO_ID43	.50567***	.16448	3.07	.0021	.18329	.82806
BO_ID53	-.43252*	.22729	-1.90	.0570	-.87800	.01295
BO_IN13	1.23778***	.39812	3.11	.0019	.45748	2.01808
BO_IN23	1.28168***	.36181	3.54	.0004	.57255	1.99081
BO_IN33	.67275*	.37441	1.80	.0724	-.06109	1.40659
BO_LC3	-1.60020***	.09161	-17.47	.0000	-1.77974	-1.42066
BO_MOT3	.61832***	.07258	8.52	.0000	.47608	.76057
BO_D23	.03816***	.01331	2.87	.0041	.01208	.06424
A_M	-6.23629***	.53437	-11.67	.0000	-7.28363	-5.18895
M_NC04	1.22794***	.26138	4.70	.0000	.71565	1.74023
M_NC14	-.14555	.26217	-.56	.5788	-.65940	.36831
M_NC24	-.36395	.26078	-1.40	.1628	-.87506	.14717
M_NC34	-.58421**	.28966	-2.02	.0437	-1.15194	-.01648
M_SX4	-.96857***	.06323	-15.32	.0000	-1.09251	-.84463
M_ID24	1.56201***	.21521	7.26	.0000	1.14020	1.98381
M_ID34	2.69771***	.21429	12.59	.0000	2.27771	3.11772
M_ID44	2.59804***	.20983	12.38	.0000	2.18678	3.00930
M_ID54	1.87082***	.22984	8.14	.0000	1.42033	2.32130
M_IN14	2.34631***	.46170	5.08	.0000	1.44138	3.25123
M_IN24	1.98978***	.42850	4.64	.0000	1.14993	2.82963
M_IN34	1.74291***	.43724	3.99	.0001	.88594	2.59988
M_LC4	-1.73238***	.07382	-23.47	.0000	-1.87707	-1.58770
M_MOT4	3.58137***	.07002	51.15	.0000	3.44413	3.71861
M_D24	-.10325***	.01382	-7.47	.0000	-.13033	-.07617
A_P	3.52891***	.33458	10.55	.0000	2.87314	4.18469

```
  P_NC05|    2.39263***       .25042      9.55   .0000      1.90181    2.88345
  P_NC15|      .51895**       .24881      2.09   .0370       .03129    1.00660
  P_NC25|       .21863        .24424       .90   .3707      -.26007     .69733
  P_NC35|     -.64189**       .27817     -2.31   .0210     -1.18710    -.09669
   P_SX5|       .06391        .07442       .86   .3904      -.08195     .20977
  P_ID25|    1.93271***       .17147     11.27   .0000      1.59663    2.26878
  P_ID35|    1.60916***       .18254      8.82   .0000      1.25138    1.96694
  P_ID45|    1.75349***       .17126     10.24   .0000      1.41784    2.08915
  P_ID55|    1.78788***       .19313      9.26   .0000      1.40936    2.16640
  P_IN15|     -.18145        .24478      -.74   .4585      -.66122     .29832
  P_IN25|       .09795        .17441       .56   .5744      -.24388     .43977
  P_IN35|       .07121        .19231       .37   .7112      -.30572     .44814
   P_LC5|   -2.28372***       .09840    -23.21   .0000     -2.47659   -2.09086
  P_MOT5|     -.15166        .11375     -1.33   .1824      -.37462     .07129
   P_D25|   -2.76135***       .05428    -50.88   .0000     -2.86773   -2.65497
--------+------------------------------------------------------------------------
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
------------------------------------------------------------------------------
```

MNL7.52 –
- ASC

~~- Variáveis binárias do escalão etário (excepto ld1)~~
~~- Variáveis binárias do nível de instrução (excepto ln4)~~
~~- Variável binária Sexo (Sexo)~~
- Variável binária de disponibilidade de Licença de condução (Lc)
~~- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- 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,NC0,NC1,NC2,NC3,LC,D2$

Normal exit:   9 iterations. Status=0, F=    26587.79

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -26587.78885
Estimation based on N =  30559, K =  36
Inf.Cr.AIC  =  53247.6 AIC/N =    1.742
Model estimated: Mar 23, 2012, 15:52:42
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********   .3301 .3299
Chi-squared[31]           =  26198.57894
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 95426, skipped64867 obs
--------+-----------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
    MTRP|  Coefficient       Error       z    |z|>Z*         Interval
--------+-----------------------------------------------------------------------
     TIL|    -.61405***       .02774   -22.14  .0000     -.66841    -.55969
    A_BP|   -3.56331***       .71683    -4.97  .0000    -4.96826   -2.15835
  BP_NC01|    3.39639***       .71378     4.76  .0000     1.99741    4.79536
  BP_NC11|    2.12010***       .71443     2.97  .0030      .71984    3.52037
  BP_NC21|    1.54465**        .71429     2.16  .0306      .14467    2.94464
  BP_NC31|      .39800          .74955      .53  .5954    -1.07109    1.86709
   BP_LC1|   -2.68660***       .10599   -25.35  .0000    -2.89434   -2.47886
   BP_D21|     .05323***       .01514     3.52  .0004      .02355     .08290
      A_B|   -1.74003***       .21721    -8.01  .0000    -2.16576   -1.31431
   B_NC02|    2.70297***       .21473    12.59  .0000     2.28211    3.12382
```

B_NC12	1.39194***	.21462	6.49	.0000	.97129	1.81258
B_NC22	.86747***	.21411	4.05	.0001	.44783	1.28712
B_NC32	.29239	.22661	1.29	.1969	-.15175	.73653
B_LC2	-2.33871***	.04477	-52.23	.0000	-2.42646	-2.25095
B_D22	.07167***	.00831	8.63	.0000	.05538	.08795
A_BO	-2.58275***	.30400	-8.50	.0000	-3.17857	-1.98693
BO_NC03	2.03215***	.29987	6.78	.0000	1.44442	2.61987
BO_NC13	1.23210***	.29895	4.12	.0000	.64618	1.81803
BO_NC23	.32607	.29981	1.09	.2768	-.26155	.91369
BO_NC33	-.45655	.33664	-1.36	.1750	-1.11636	.20326
BO_LC3	-2.03554***	.07214	-28.22	.0000	-2.17693	-1.89415
BO_D23	.04514***	.01284	3.52	.0004	.01998	.07030
A_M	-2.64406***	.23149	-11.42	.0000	-3.09778	-2.19034
M_NC04	2.84265***	.22613	12.57	.0000	2.39943	3.28586
M_NC14	1.26956***	.22739	5.58	.0000	.82389	1.71523
M_NC24	.62508***	.22686	2.76	.0059	.18043	1.06972
M_NC34	-.05551	.25307	-.22	.8264	-.55153	.44050
M_LC4	-1.00983***	.05016	-20.13	.0000	-1.10815	-.91151
M_D24	-.03785***	.01177	-3.22	.0013	-.06092	-.01478
A_P	5.11988***	.25759	19.88	.0000	4.61500	5.62475
P_NC05	2.46880***	.24476	10.09	.0000	1.98908	2.94852
P_NC15	.50512**	.24458	2.07	.0389	.02576	.98448
P_NC25	.19353	.24052	.80	.4210	-.27788	.66494
P_NC35	-.63332**	.27358	-2.31	.0206	-1.16952	-.09712
P_LC5	-2.05261***	.07713	-26.61	.0000	-2.20378	-1.90143
P_D25	-2.74923***	.05322	-51.66	.0000	-2.85353	-2.64492

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.53 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- ~~Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- 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)

- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*
- De2 : variável binária duracão da estadia >60min & <=120min (média duração)
- De3 : variável binária duracão da estadia >120min & <=240min (média duração)
- De4 : variável binária duracão da estadia >240min & <=480min (longa duração)
- De5: variável binária duracão da estadia >480min (muito longa duração)

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Attr=Til
;Rhs=T1L,T2L,T3L,T4L,T5L,T6L
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,MOT,D2,De2,De3,De4,De5$
Normal exit:   9 iterations. Status=0, F=    13857.03

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -13857.02787
Estimation based on N =  19555, K = 101
Inf.Cr.AIC  =  27916.1 AIC/N =    1.428
Model estimated: Jul 23, 2012, 15:36:04
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4520 .4514
Chi-squared[96]           =  22856.08469
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 19555, skipped    0 obs
--------+-----------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+-----------------------------------------------------------------------
    TIL |    -.89311***      .03769   -23.70  .0000     -.96699    -.81924
   A_BP |   -7.58911***     1.18266    -6.42  .0000    -9.90708   -5.27114
```

BP_NC01|	3.78154***	1.01044	3.74	.0002	1.80110	5.76197
BP_NC11|	2.30207**	1.01085	2.28	.0228	.32085	4.28329
BP_NC21|	1.90459*	1.00995	1.89	.0593	-.07488	3.88406
BP_NC31|	.16799	1.07607	.16	.8759	-1.94108	2.27705
BP_SX1|	.66490***	.09886	6.73	.0000	.47113	.85867
BP_ID21|	2.91226***	.35497	8.20	.0000	2.21652	3.60799
BP_ID31|	1.89252***	.36978	5.12	.0000	1.16776	2.61727
BP_ID41|	2.21544***	.35805	6.19	.0000	1.51368	2.91720
BP_ID51|	2.21685***	.37315	5.94	.0000	1.48549	2.94821
BP_IN11|	.96590*	.57845	1.67	.0950	-.16783	2.09964
BP_IN21|	.76241	.51583	1.48	.1394	-.24859	1.77341
BP_IN31|	1.06781**	.52540	2.03	.0421	.03803	2.09758
BP_LC1|	-2.22866***	.14661	-15.20	.0000	-2.51602	-1.94130
BP_MOT1|	.70812***	.10758	6.58	.0000	.49727	.91897
BP_D21|	.03715*	.02036	1.82	.0681	-.00276	.07706
BP_DE21|	-.10143	.17860	-.57	.5701	-.45149	.24862
BP_DE31|	.25480	.15883	1.60	.1087	-.05650	.56610
BP_DE41|	.74702***	.15338	4.87	.0000	.44640	1.04763
BP_DE51|	.95609***	.14875	6.43	.0000	.66455	1.24763
A_B|	-4.16489***	.34015	-12.24	.0000	-4.83158	-3.49820
B_NC02|	2.82899***	.25654	11.03	.0000	2.32618	3.33180
B_NC12|	1.29614***	.25564	5.07	.0000	.79509	1.79720
B_NC22|	.80584***	.25423	3.17	.0015	.30756	1.30412
B_NC32|	.04551	.27337	.17	.8678	-.49029	.58130
B_SX2|	.41597***	.05370	7.75	.0000	.31071	.52122
B_ID22|	2.34872***	.15861	14.81	.0000	2.03785	2.65958
B_ID32|	1.66987***	.16492	10.13	.0000	1.34664	1.99310
B_ID42|	1.75334***	.16025	10.94	.0000	1.43926	2.06742
B_ID52|	1.40841***	.17948	7.85	.0000	1.05663	1.76019
B_IN12|	-.07510	.21983	-.34	.7326	-.50595	.35576
B_IN22|	.05052	.16081	.31	.7534	-.26467	.36570
B_IN32|	.45322***	.16793	2.70	.0070	.12409	.78235
B_LC2|	-2.25873***	.07097	-31.82	.0000	-2.39784	-2.11962
B_MOT2|	-.05283	.07286	-.73	.4684	-.19563	.08997
B_D22|	.07343***	.01133	6.48	.0000	.05122	.09565
B_DE22|	.21774**	.08912	2.44	.0146	.04306	.39242
B_DE32|	.49984***	.08196	6.10	.0000	.33920	.66047
B_DE42|	.66558***	.08449	7.88	.0000	.49998	.83118
B_DE52|	.81946***	.08347	9.82	.0000	.65587	.98305
A_BO|	-4.78013***	.60558	-7.89	.0000	-5.96704	-3.59322
BO_NC03|	2.29488***	.42608	5.39	.0000	1.45977	3.12998
BO_NC13|	1.12686***	.42472	2.65	.0080	.29443	1.95929
BO_NC23|	.39194	.42482	.92	.3562	-.44070	1.22458
BO_NC33|	-.38136	.46713	-.82	.4143	-1.29692	.53420
BO_SX3|	-.32473***	.08027	-4.05	.0001	-.48205	-.16740
BO_ID23|	1.67205***	.20855	8.02	.0000	1.26330	2.08080
BO_ID33|	.88426***	.22465	3.94	.0001	.44395	1.32457
BO_ID43|	.61118***	.21952	2.78	.0054	.18092	1.04143
BO_ID53|	.01422	.29936	.05	.9621	-.57251	.60095
BO_IN13|	.87590*	.45106	1.94	.0522	-.00817	1.75996
BO_IN23|	.85635**	.39111	2.19	.0286	.08978	1.62292
BO_IN33|	.39970	.40839	.98	.3277	-.40073	1.20013
BO_LC3|	-1.63598***	.11525	-14.19	.0000	-1.86188	-1.41009
BO_MOT3|	.59974***	.09348	6.42	.0000	.41653	.78295
BO_D23|	.04708***	.01703	2.76	.0057	.01370	.08046
BO_DE23|	-.30010*	.15960	-1.88	.0601	-.61291	.01272
BO_DE33|	.09260	.13813	.67	.5026	-.17813	.36333

BO_DE43	.64594***	.12870	5.02	.0000	.39370	.89818
BO_DE53	1.12176***	.12100	9.27	.0000	.88460	1.35892
A_M	-6.64566***	.62104	-10.70	.0000	-7.86288	-5.42844
M_NC04	1.12640***	.28711	3.92	.0001	.56368	1.68913
M_NC14	-.33925	.28774	-1.18	.2384	-.90320	.22470
M_NC24	-.56645**	.28540	-1.98	.0472	-1.12582	-.00709
M_NC34	-.82970**	.32482	-2.55	.0106	-1.46633	-.19307
M_SX4	-.94016***	.07818	-12.03	.0000	-1.09339	-.78693
M_ID24	2.22809***	.29768	7.48	.0000	1.64465	2.81154
M_ID34	3.39780***	.29584	11.49	.0000	2.81797	3.97763
M_ID44	3.31505***	.29175	11.36	.0000	2.74323	3.88687
M_ID54	2.42652***	.31639	7.67	.0000	1.80641	3.04662
M_IN14	2.85647***	.52680	5.42	.0000	1.82396	3.88898
M_IN24	1.87185***	.47971	3.90	.0001	.93163	2.81206
M_IN34	1.65033***	.49026	3.37	.0008	.68943	2.61123
M_LC4	-1.78924***	.09144	-19.57	.0000	-1.96846	-1.61001
M_MOT4	3.63009***	.08664	41.90	.0000	3.46027	3.79991
M_D24	-.08553***	.01699	-5.03	.0000	-.11884	-.05222
M_DE24	-.38044***	.12089	-3.15	.0017	-.61738	-.14349
M_DE34	.12625	.10636	1.19	.2352	-.08221	.33471
M_DE44	.31948***	.10714	2.98	.0029	.10949	.52947
M_DE54	-.06852	.11420	-.60	.5485	-.29236	.15531
A_P	3.62296***	.45610	7.94	.0000	2.72903	4.51689
P_NC05	2.60733***	.31669	8.23	.0000	1.98662	3.22803
P_NC15	.50924	.31386	1.62	.1047	-.10592	1.12439
P_NC25	.21397	.30699	.70	.4858	-.38773	.81566
P_NC35	-.72870**	.35132	-2.07	.0381	-1.41728	-.04013
P_SX5	.12783	.09968	1.28	.1997	-.06754	.32320
P_ID25	2.22490***	.24886	8.94	.0000	1.73714	2.71267
P_ID35	1.92771***	.26106	7.38	.0000	1.41605	2.43937
P_ID45	2.06277***	.24874	8.29	.0000	1.57526	2.55028
P_ID55	2.12268***	.28578	7.43	.0000	1.56256	2.68279
P_IN15	-.13726	.33767	-.41	.6844	-.79908	.52456
P_IN25	.15857	.22401	.71	.4790	-.28047	.59762
P_IN35	.22593	.24780	.91	.3619	-.25976	.71161
P_LC5	-2.37877***	.13034	-18.25	.0000	-2.63422	-2.12332
P_MOT5	-.34337**	.15355	-2.24	.0253	-.64431	-.04242
P_D25	-2.95038***	.07786	-37.89	.0000	-3.10298	-2.79778
P_DE25	-.12666	.15116	-.84	.4021	-.42293	.16961
P_DE35	-.21225	.13959	-1.52	.1284	-.48583	.06134
P_DE45	-.00739	.14597	-.05	.9596	-.29348	.27871
P_DE55	.01857	.16074	.12	.9080	-.29647	.33361

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.54 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
~~- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- 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)

- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*
- De2 : variável binária duracão da estadia >60min & <=120min (média duração)
- De3 : variável binária duracão da estadia >120min & <=240min (média duração)
- De4 : variável binária duracão da estadia >240min & <=480min (longa duração)
- De5: variável binária duracão da estadia >480min (muito longa duração)

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Attr=Til
;Rhs=T1L,T2L,T3L,T4L,T5L,T6L
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,
MOT,D2,De2,De3,De4,De5,nV$
Normal exit:   9 iterations. Status=0, F=    13744.09

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -13744.08528
Estimation based on N =  19555, K = 106
Inf.Cr.AIC  =  27700.2 AIC/N =    1.417
Model estimated: Jul 23, 2012, 16:08:36
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4564 .4558
Chi-squared[**]           =  23081.96986
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 19555, skipped    0 obs
--------+------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
```

TIL	-.88337***	.03789	-23.32	.0000	-.95763	-.80911
A_BP	-6.94850***	1.19106	-5.83	.0000	-9.28293	-4.61406
BP_NC01	3.76612***	1.01067	3.73	.0002	1.78524	5.74700
BP_NC11	2.30046**	1.01112	2.28	.0229	.31870	4.28222
BP_NC21	1.91335*	1.01024	1.89	.0582	-.06669	3.89339
BP_NC31	.18955	1.07644	.18	.8602	-1.92023	2.29932
BP_SX1	.64269***	.09900	6.49	.0000	.44866	.83672
BP_ID21	2.93763***	.35474	8.28	.0000	2.24237	3.63290
BP_ID31	1.95179***	.36997	5.28	.0000	1.22667	2.67692
BP_ID41	2.23413***	.35783	6.24	.0000	1.53279	2.93546
BP_ID51	2.10481***	.37333	5.64	.0000	1.37309	2.83653
BP_IN11	.95348*	.57871	1.65	.0994	-.18078	2.08773
BP_IN21	.74514	.51612	1.44	.1488	-.26644	1.75671
BP_IN31	1.06348**	.52570	2.02	.0431	.03312	2.09383
BP_LC1	-2.15783***	.14719	-14.66	.0000	-2.44631	-1.86934
BP_MOT1	.71677***	.10759	6.66	.0000	.50590	.92763
BP_D21	.03866*	.02039	1.90	.0579	-.00130	.07862
BP_DE21	-.15528	.17923	-.87	.3863	-.50656	.19599
BP_DE31	.19317	.15955	1.21	.2260	-.11955	.50589
BP_DE41	.61866***	.15684	3.94	.0001	.31127	.92606
BP_DE51	.63794***	.16479	3.87	.0001	.31495	.96092
BP_NV1	-.14674***	.03563	-4.12	.0000	-.21657	-.07690
A_B	-3.16227***	.34994	-9.04	.0000	-3.84814	-2.47641
B_NC02	2.80386***	.25785	10.87	.0000	2.29848	3.30923
B_NC12	1.28864***	.25707	5.01	.0000	.78479	1.79249
B_NC22	.81652***	.25564	3.19	.0014	.31547	1.31757
B_NC32	.08347	.27504	.30	.7615	-.45560	.62253
B_SX2	.38103***	.05408	7.05	.0000	.27503	.48703
B_ID22	2.40023***	.15914	15.08	.0000	2.08831	2.71215
B_ID32	1.77816***	.16584	10.72	.0000	1.45311	2.10321
B_ID42	1.78849***	.16078	11.12	.0000	1.47336	2.10362
B_ID52	1.26142***	.17982	7.01	.0000	.90897	1.61387
B_IN12	-.09713	.22162	-.44	.6612	-.53150	.33724
B_IN22	.03536	.16256	.22	.8278	-.28326	.35398
B_IN32	.45595***	.16976	2.69	.0072	.12323	.78868
B_LC2	-2.15421***	.07149	-30.13	.0000	-2.29433	-2.01409
B_MOT2	-.04403	.07315	-.60	.5473	-.18740	.09935
B_D22	.07658***	.01140	6.72	.0000	.05424	.09892
B_DE22	.12984	.09010	1.44	.1496	-.04676	.30644
B_DE32	.40311***	.08282	4.87	.0000	.24079	.56542
B_DE42	.45299***	.08675	5.22	.0000	.28297	.62302
B_DE52	.32442***	.09205	3.52	.0004	.14400	.50484
B_NV2	-.23574***	.01919	-12.29	.0000	-.27335	-.19814
A_BO	-4.07887***	.61851	-6.59	.0000	-5.29114	-2.86661
BO_NC03	2.27309***	.42655	5.33	.0000	1.43706	3.10913
BO_NC13	1.12196***	.42524	2.64	.0083	.28850	1.95543
BO_NC23	.39921	.42536	.94	.3480	-.43449	1.23290
BO_NC33	-.34700	.46774	-.74	.4582	-1.26375	.56976
BO_SX3	-.35146***	.08047	-4.37	.0000	-.50918	-.19373
BO_ID23	1.71427***	.20907	8.20	.0000	1.30450	2.12404
BO_ID33	.96755***	.22574	4.29	.0000	.52512	1.40998
BO_ID43	.65128***	.21998	2.96	.0031	.22013	1.08244
BO_ID53	-.09335	.29988	-.31	.7556	-.68112	.49441
BO_IN13	.88096*	.45186	1.95	.0512	-.00467	1.76660
BO_IN23	.85640**	.39168	2.19	.0288	.08872	1.62408

BO_IN33	.41014	.40891	1.00	.3158	-.39130	1.21159
BO_LC3	-1.56061***	.11589	-13.47	.0000	-1.78775	-1.33347
BO_MOT3	.60889***	.09354	6.51	.0000	.42555	.79223
BO_D23	.04845***	.01706	2.84	.0045	.01501	.08190
BO_DE23	-.35814**	.16017	-2.24	.0253	-.67206	-.04422
BO_DE33	.02544	.13891	.18	.8547	-.24682	.29771
BO_DE43	.50101***	.13201	3.80	.0001	.24227	.75974
BO_DE53	.76393***	.13634	5.60	.0000	.49670	1.03116
BO_NV3	-.16542***	.03077	-5.38	.0000	-.22574	-.10511
A_M	-6.98686***	.62906	-11.11	.0000	-8.21979	-5.75393
M_NC04	1.14005***	.28584	3.99	.0001	.57982	1.70029
M_NC14	-.32676	.28632	-1.14	.2538	-.88794	.23443
M_NC24	-.55399*	.28388	-1.95	.0510	-1.11039	.00241
M_NC34	-.85758***	.32421	-2.65	.0082	-1.49302	-.22213
M_SX4	-.93008***	.07864	-11.83	.0000	-1.08421	-.77595
M_ID24	2.24980***	.30047	7.49	.0000	1.66089	2.83870
M_ID34	3.34930***	.29864	11.22	.0000	2.76398	3.93463
M_ID44	3.29644***	.29449	11.19	.0000	2.71924	3.87364
M_ID54	2.51106***	.31890	7.87	.0000	1.88602	3.13609
M_IN14	2.82940***	.52407	5.40	.0000	1.80225	3.85656
M_IN24	1.83484***	.47682	3.85	.0001	.90029	2.76939
M_IN34	1.65430***	.48718	3.40	.0007	.69944	2.60916
M_LC4	-1.80131***	.09254	-19.47	.0000	-1.98268	-1.61994
M_MOT4	3.62034***	.08664	41.78	.0000	3.45052	3.79016
M_D24	-.08363***	.01704	-4.91	.0000	-.11702	-.05024
M_DE24	-.35658***	.12133	-2.94	.0033	-.59439	-.11877
M_DE34	.16206	.10721	1.51	.1306	-.04808	.37220
M_DE44	.37760***	.10959	3.45	.0006	.16281	.59239
M_DE54	.10412	.12650	.82	.4105	-.14382	.35205
M_NV4	.07463***	.02297	3.25	.0012	.02962	.11964
A_P	4.41752***	.48362	9.13	.0000	3.46965	5.36540
P_NC05	2.59495***	.31870	8.14	.0000	1.97031	3.21958
P_NC15	.52147*	.31593	1.65	.0988	-.09775	1.14068
P_NC25	.23025	.30907	.74	.4563	-.37552	.83601
P_NC35	-.66240*	.35341	-1.87	.0609	-1.35508	.03028
P_SX5	.10376	.10027	1.03	.3008	-.09278	.30029
P_ID25	2.26858***	.25088	9.04	.0000	1.77687	2.76029
P_ID35	2.01429***	.26356	7.64	.0000	1.49772	2.53085
P_ID45	2.09016***	.25056	8.34	.0000	1.59908	2.58124
P_ID55	1.98782***	.28805	6.90	.0000	1.42325	2.55239
P_IN15	-.17103	.33878	-.50	.6137	-.83502	.49296
P_IN25	.12216	.22441	.54	.5862	-.31768	.56200
P_IN35	.20143	.24764	.81	.4160	-.28394	.68680
P_LC5	-2.27940***	.13184	-17.29	.0000	-2.53781	-2.02099
P_MOT5	-.31175**	.15467	-2.02	.0438	-.61491	-.00860
P_D25	-2.96197***	.07848	-37.74	.0000	-3.11579	-2.80816
P_DE25	-.18626	.15269	-1.22	.2225	-.48554	.11301
P_DE35	-.28161**	.14066	-2.00	.0453	-.55730	-.00592
P_DE45	-.15875	.14960	-1.06	.2886	-.45195	.13446
P_DE55	-.36499**	.17422	-2.09	.0362	-.70645	-.02352
P_NV5	-.17788***	.03335	-5.33	.0000	-.24325	-.11251

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.55 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
~~- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- 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)

- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*
- De2 : variável binária duracão da estadia >60min & <=120min (média duração)
- De3 : variável binária duracão da estadia >120min & <=240min (média duração)
- De4 : variável binária duracão da estadia >240min & <=480min (longa duração)
- De5: variável binária duracão da estadia >480min (muito longa duração)

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Attr=Til
;Rhs=T1L,T2L,T3L,T4L,T5L,T6L
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,MOT,D2,De2,De3,De4,De5,n
V,TR,Rg,ES,Cs$
Normal exit:   9 iterations. Status=0, F=    13526.32

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -13526.31503
Estimation based on N =  19555, K = 126
Inf.Cr.AIC  =  27304.6 AIC/N =    1.396
Model estimated: Jul 23, 2012, 18:40:21
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
```

```
Constants only  **********   .4650 .4644
Chi-squared[**]           =  23517.51035
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 19555, skipped    0 obs
--------+------------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
    MTRP|  Coefficient       Error       z    |z|>Z*        Interval
--------+------------------------------------------------------------------------
     TIL|    -.88576***      .03825   -23.16   .0000     -.96072    -.81079
    A_BP|   -7.74956***     1.20015    -6.46   .0000   -10.10181   -5.39731
  BP_NC01|    3.80822***     1.01125     3.77   .0002     1.82620    5.79023
  BP_NC11|    2.30555**      1.01160     2.28   .0227      .32285    4.28825
  BP_NC21|    1.91884*       1.01072     1.90   .0576     -.06214    3.89982
  BP_NC31|     .19194        1.07699      .18   .8586    -1.91893    2.30281
   BP_SX1|     .66895***      .09967     6.71   .0000      .47359     .86430
  BP_ID21|    2.72088***      .35087     7.75   .0000     2.03318    3.40858
  BP_ID31|    2.03787***      .37552     5.43   .0000     1.30187    2.77388
  BP_ID41|    2.33265***      .36490     6.39   .0000     1.61746    3.04784
  BP_ID51|    2.35901***      .38091     6.19   .0000     1.61244    3.10558
  BP_IN11|    1.04203*       .57805     1.80   .0714     -.09092    2.17499
  BP_IN21|     .73354         .51600     1.42   .1551     -.27780    1.74488
  BP_IN31|    1.04484**       .52561     1.99   .0468      .01466    2.07502
   BP_LC1|   -2.19293***      .14837   -14.78   .0000    -2.48373   -1.90213
  BP_MOT1|     .71637***      .10849     6.60   .0000      .50373     .92902
   BP_D21|     .04161**       .02046     2.03   .0420      .00151     .08171
  BP_DE21|    -.09092         .18032     -.50   .6141     -.44433     .26250
  BP_DE31|     .18739         .16848     1.11   .2660     -.14283     .51760
  BP_DE41|     .43636**       .18563     2.35   .0187      .07253     .80018
  BP_DE51|     .40199**       .20145     2.00   .0460      .00716     .79682
   BP_NV1|    -.20023***      .03853    -5.20   .0000     -.27576    -.12471
   BP_TR1|    1.02657***      .21875     4.69   .0000      .59782    1.45532
   BP_RG1|    1.44032***      .19857     7.25   .0000     1.05113    1.82951
   BP_ES1|    1.43732***      .21878     6.57   .0000     1.00853    1.86612
   BP_CS1|     .71613***      .22886     3.13   .0018      .26757    1.16469
    A_B|   -3.62862***      .35641   -10.18   .0000    -4.32718   -2.93007
  B_NC02|    2.82105***      .25831    10.92   .0000     2.31478    3.32732
  B_NC12|    1.27481***      .25745     4.95   .0000      .77021    1.77941
  B_NC22|     .80223***      .25598     3.13   .0017      .30051    1.30395
  B_NC32|     .07175         .27559      .26   .7946     -.46839     .61189
   B_SX2|     .40474***      .05468     7.40   .0000      .29757     .51191
  B_ID22|    2.23199***      .15899    14.04   .0000     1.92036    2.54361
  B_ID32|    1.80835***      .17122    10.56   .0000     1.47277    2.14392
  B_ID42|    1.83748***      .16703    11.00   .0000     1.51011    2.16485
  B_ID52|    1.46890***      .18449     7.96   .0000     1.10731    1.83049
  B_IN12|     .01531         .22231      .07   .9451     -.42041     .45103
  B_IN22|     .04938         .16283      .30   .7617     -.26975     .36852
  B_IN32|     .45973***      .17022     2.70   .0069      .12610     .79336
   B_LC2|   -2.18432***      .07238   -30.18   .0000    -2.32619   -2.04245
  B_MOT2|    -.03667         .07399     -.50   .6202     -.18168     .10835
   B_D22|     .07964***      .01148     6.93   .0000      .05713     .10215
  B_DE22|     .17835*        .09101     1.96   .0500     -.00003     .35673
  B_DE32|     .34511***      .08801     3.92   .0001      .17260     .51761
  B_DE42|     .22307**       .10194     2.19   .0286      .02328     .42286
  B_DE52|     .02975         .11176      .27   .7901     -.18930     .24880
   B_NV2|    -.28025***      .02060   -13.60   .0000     -.32063    -.23988
```

B_TR2	.80894***	.10438	7.75	.0000	.60435	1.01352
B_RG2	.98103***	.09287	10.56	.0000	.79901	1.16305
B_ES2	1.05638***	.10760	9.82	.0000	.84549	1.26727
B_CS2	.35425***	.10925	3.24	.0012	.14013	.56837
A_BO	-4.99668***	.63565	-7.86	.0000	-6.24252	-3.75084
BO_NC03	2.31829***	.42823	5.41	.0000	1.47898	3.15760
BO_NC13	1.13314***	.42679	2.66	.0079	.29665	1.96963
BO_NC23	.40105	.42693	.94	.3475	-.43571	1.23781
BO_NC33	-.32295	.46932	-.69	.4914	-1.24280	.59691
BO_SX3	-.31904***	.08125	-3.93	.0001	-.47828	-.15979
BO_ID23	1.52436***	.20551	7.42	.0000	1.12157	1.92715
BO_ID33	1.15768***	.23694	4.89	.0000	.69329	1.62208
BO_ID43	.86188***	.23277	3.70	.0002	.40565	1.31811
BO_ID53	.31453	.30846	1.02	.3079	-.29004	.91911
BO_IN13	1.09987**	.45003	2.44	.0145	.21782	1.98192
BO_IN23	.87672**	.39170	2.24	.0252	.10901	1.64443
BO_IN33	.40324	.40906	.99	.3242	-.39850	1.20497
BO_LC3	-1.58444***	.11775	-13.46	.0000	-1.81522	-1.35366
BO_MOT3	.61468***	.09464	6.49	.0000	.42919	.80018
BO_D23	.05365***	.01717	3.12	.0018	.02000	.08731
BO_DE23	-.28757*	.16097	-1.79	.0740	-.60307	.02794
BO_DE33	-.07851	.14868	-.53	.5975	-.36992	.21289
BO_DE43	.14232	.16076	.89	.3760	-.17277	.45742
BO_DE53	.35078**	.17006	2.06	.0391	.01746	.68410
BO_NV3	-.20352***	.03253	-6.26	.0000	-.26728	-.13975
BO_TR3	1.12810***	.19200	5.88	.0000	.75178	1.50442
BO_RG3	1.32173***	.17712	7.46	.0000	.97457	1.66888
BO_ES3	1.63195***	.18936	8.62	.0000	1.26081	2.00309
BO_CS3	.56572**	.22235	2.54	.0109	.12993	1.00152
A_M	-6.82206***	.64466	-10.58	.0000	-8.08556	-5.55856
M_NC04	1.13843***	.28776	3.96	.0001	.57443	1.70243
M_NC14	-.37699	.28850	-1.31	.1913	-.94244	.18846
M_NC24	-.58839**	.28586	-2.06	.0396	-1.14867	-.02810
M_NC34	-.95249***	.32830	-2.90	.0037	-1.59595	-.30903
M_SX4	-.94611***	.08084	-11.70	.0000	-1.10455	-.78766
M_ID24	2.34111***	.31628	7.40	.0000	1.72122	2.96100
M_ID34	2.80906***	.31443	8.93	.0000	2.19280	3.42533
M_ID44	2.73628***	.31055	8.81	.0000	2.12762	3.34493
M_ID54	2.25933***	.33049	6.84	.0000	1.61158	2.90709
M_IN14	2.81257***	.53263	5.28	.0000	1.76864	3.85649
M_IN24	1.83123***	.48339	3.79	.0002	.88381	2.77865
M_IN34	1.71751***	.49417	3.48	.0005	.74896	2.68606
M_LC4	-1.89219***	.09342	-20.25	.0000	-2.07529	-1.70909
M_MOT4	3.65421***	.08762	41.71	.0000	3.48249	3.82594
M_D24	-.07962***	.01730	-4.60	.0000	-.11352	-.04572
M_DE24	-.31738***	.12267	-2.59	.0097	-.55780	-.07696
M_DE34	.04662	.11611	.40	.6880	-.18095	.27420
M_DE44	.18076	.13627	1.33	.1847	-.08633	.44785
M_DE54	-.21369	.15798	-1.35	.1762	-.52333	.09595
M_NV4	.04092*	.02399	1.71	.0881	-.00611	.08795
M_TR4	1.04073***	.13825	7.53	.0000	.76976	1.31170
M_RG4	.69105***	.12135	5.69	.0000	.45320	.92889
M_ES4	-.85351***	.20085	-4.25	.0000	-1.24717	-.45984
M_CS4	.24126	.15995	1.51	.1315	-.07225	.55476
A_P	4.38436***	.49546	8.85	.0000	3.41328	5.35543
P_NC05	2.65639***	.32005	8.30	.0000	2.02910	3.28369

P_NC15	.54503*	.31712	1.72	.0857	-.07652	1.16658
P_NC25	.24569	.31010	.79	.4282	-.36210	.85348
P_NC35	-.64206*	.35411	-1.81	.0698	-1.33611	.05199
P_SX5	.15279	.10147	1.51	.1321	-.04609	.35167
P_ID25	2.18348***	.25336	8.62	.0000	1.68690	2.68005
P_ID35	2.08576***	.27808	7.50	.0000	1.54074	2.63078
P_ID45	2.19325***	.26799	8.18	.0000	1.66799	2.71851
P_ID55	2.22037***	.30140	7.37	.0000	1.62964	2.81109
P_IN15	-.10810	.34151	-.32	.7516	-.77745	.56124
P_IN25	.15977	.22546	.71	.4786	-.28212	.60165
P_IN35	.21547	.24850	.87	.3859	-.27159	.70253
P_LC5	-2.28844***	.13271	-17.24	.0000	-2.54854	-2.02833
P_MOT5	-.30520**	.15553	-1.96	.0497	-.61003	-.00037
P_D25	-2.97138***	.07884	-37.69	.0000	-3.12590	-2.81686
P_DE25	-.15184	.15356	-.99	.3227	-.45281	.14912
P_DE35	-.38589**	.15174	-2.54	.0110	-.68329	-.08849
P_DE45	-.35512**	.17456	-2.03	.0419	-.69726	-.01297
P_DE55	-.60073***	.20605	-2.92	.0036	-1.00458	-.19689
P_NV5	-.20396***	.03507	-5.82	.0000	-.27269	-.13523
P_TR5	.16891	.17401	.97	.3317	-.17214	.50997
P_RG5	.24609	.15141	1.63	.1041	-.05067	.54285
P_ES5	.37009*	.19291	1.92	.0551	-.00801	.74819
P_CS5	-.51084***	.18271	-2.80	.0052	-.86894	-.15274

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.56 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
~~- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- 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)

~~- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*~~
~~- De2 : variável binária duracão da estadia >60min & <=120min (média duração)~~
~~- De3 : variável binária duracão da estadia >120min & <=240min (média duração)~~
~~- De4 : variável binária duracão da estadia >240min & <=480min (longa duração)~~
~~- De5: variável binária duracão da estadia >480min (muito longa duração)~~

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Attr=Til
;Rhs=T1L,T2L,T3L,T4L,T5L,T6L
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,MOT,nV,TR,Rg,Es,Cs$
Normal exit:   9 iterations. Status=0, F=    22360.89

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -22360.88645
Estimation based on N =  30559, K = 106
Inf.Cr.AIC  =  44933.8 AIC/N =    1.470
Model estimated: Jul 28, 2012, 14:44:56
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4366 .4362
```

```
Chi-squared[**]           =  34652.38374
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 95426, skipped64867 obs
--------+------------------------------------------------------------------------
        |                 Standard                Prob.      95% Confidence
    MTRP|  Coefficient       Error       z     |z|>Z*          Interval
--------+------------------------------------------------------------------------
     TIL|    -.57527***       .02973   -19.35   .0000      -.63354    -.51700
    A_BP|   -7.43170***       .88506    -8.40   .0000     -9.16639   -5.69702
  BP_NC01|    3.32451***       .71678     4.64   .0000      1.91964    4.72939
  BP_NC11|    1.90124***       .71741     2.65   .0080       .49515    3.30733
  BP_NC21|    1.49670**        .71694     2.09   .0368       .09152    2.90188
  BP_NC31|      .35771         .75268      .48   .6346     -1.11752    1.83294
   BP_SX1|      .61020***       .07794     7.83   .0000       .45744     .76297
  BP_ID21|    2.92706***       .27787    10.53   .0000      2.38245    3.47167
  BP_ID31|    1.99394***       .29395     6.78   .0000      1.41781    2.57007
  BP_ID41|    2.29772***       .28224     8.14   .0000      1.74455    2.85089
  BP_ID51|    2.26245***       .28979     7.81   .0000      1.69448    2.83042
  BP_IN11|      .77901*        .46296     1.68   .0924      -.12838    1.68640
  BP_IN21|      .76020*        .42044     1.81   .0706      -.06385    1.58425
  BP_IN31|      .89700**        .42997     2.09   .0370       .05427    1.73973
   BP_LC1|   -2.20327***       .12048   -18.29   .0000     -2.43941   -1.96713
   BP_D21|      .04794***       .01568     3.06   .0022       .01720     .07867
  BP_MOT1|      .69125***       .08446     8.18   .0000       .52570     .85679
   BP_NV1|    -.26184***       .02672    -9.80   .0000      -.31422    -.20946
   BP_TR1|    1.36482***       .19206     7.11   .0000       .98838    1.74126
   BP_RG1|    1.16037***       .17000     6.83   .0000       .82717    1.49356
   BP_ES1|    1.56195***       .18762     8.33   .0000      1.19423    1.92967
   BP_CS1|      .77160***       .22134     3.49   .0005       .33779    1.20541
    A_B|   -3.67729***       .28623   -12.85   .0000     -4.23829   -3.11628
  B_NC02|    2.78581***       .21951    12.69   .0000      2.35558    3.21604
  B_NC12|    1.32899***       .21928     6.06   .0000       .89921    1.75877
  B_NC22|      .88843***       .21831     4.07   .0000       .46055    1.31632
  B_NC32|      .30352         .23155     1.31   .1899      -.15032     .75736
   B_SX2|      .33888***       .04249     7.98   .0000       .25560     .42216
  B_ID22|    2.39331***       .12034    19.89   .0000      2.15746    2.62917
  B_ID32|    1.86356***       .12767    14.60   .0000      1.61334    2.11378
  B_ID42|    1.93816***       .12276    15.79   .0000      1.69756    2.17876
  B_ID52|    1.59897***       .13291    12.03   .0000      1.33847    1.85948
  B_IN12|     -.10560         .16681     -.63   .5267      -.43255     .22135
  B_IN22|     -.01900         .12687     -.15   .8809      -.26767     .22966
  B_IN32|      .38792***       .13332     2.91   .0036       .12663     .64922
   B_LC2|   -2.11258***       .05610   -37.66   .0000     -2.22254   -2.00262
   B_D22|      .07021***       .00884     7.95   .0000       .05289     .08752
  B_MOT2|     -.05142         .05764     -.89   .3723      -.16439     .06155
   B_NV2|    -.27835***       .01392   -19.99   .0000      -.30564    -.25106
   B_TR2|      .81668***       .08657     9.43   .0000       .64699     .98636
   B_RG2|      .65832***       .07339     8.97   .0000       .51447     .80217
   B_ES2|    1.05075***       .08985    11.69   .0000       .87464    1.22686
   B_CS2|      .46058***       .10269     4.48   .0000       .25930     .66185
    A_BO|   -4.63470***       .51161    -9.06   .0000     -5.63745   -3.63196
  BO_NC03|    1.83344***       .30640     5.98   .0000      1.23290    2.43397
  BO_NC13|      .76310**        .30539     2.50   .0125       .16453    1.36166
  BO_NC23|      .08166         .30571      .27   .7894      -.51752     .68084
  BO_NC33|     -.61194*        .34271    -1.79   .0742     -1.28364     .05975
```

BO_SX3	-.32341***	.06343	-5.10	.0000	-.44774	-.19908
BO_ID23	1.65317***	.15699	10.53	.0000	1.34546	1.96087
BO_ID33	.83512***	.17732	4.71	.0000	.48759	1.18265
BO_ID43	.61405***	.16946	3.62	.0003	.28192	.94618
BO_ID53	-.22962	.23020	-1.00	.3185	-.68080	.22157
BO_IN13	1.26105***	.39902	3.16	.0016	.47899	2.04312
BO_IN23	1.19660***	.36264	3.30	.0010	.48583	1.90737
BO_IN33	.67696*	.37536	1.80	.0713	-.05873	1.41265
BO_LC3	-1.46531***	.09370	-15.64	.0000	-1.64895	-1.28167
BO_D23	.04600***	.01349	3.41	.0007	.01955	.07244
BO_MOT3	.64800***	.07390	8.77	.0000	.50316	.79284
BO_NV3	-.29838***	.02297	-12.99	.0000	-.34341	-.25336
BO_TR3	1.48019***	.16562	8.94	.0000	1.15558	1.80480
BO_RG3	1.10783***	.14945	7.41	.0000	.81492	1.40074
BO_ES3	1.61804***	.16172	10.01	.0000	1.30107	1.93500
BO_CS3	.68674***	.21245	3.23	.0012	.27033	1.10314
A_M	-6.66841***	.54897	-12.15	.0000	-7.74437	-5.59245
M_NC04	1.24458***	.26113	4.77	.0000	.73277	1.75638
M_NC14	-.17265	.26192	-.66	.5098	-.68600	.34071
M_NC24	-.38574	.26038	-1.48	.1385	-.89606	.12459
M_NC34	-.66349**	.29054	-2.28	.0224	-1.23293	-.09404
M_SX4	-.94532***	.06474	-14.60	.0000	-1.07220	-.81844
M_ID24	1.62444***	.22096	7.35	.0000	1.19137	2.05752
M_ID34	2.31319***	.22071	10.48	.0000	1.88061	2.74577
M_ID44	2.24656***	.21615	10.39	.0000	1.82290	2.67021
M_ID54	1.81631***	.23443	7.75	.0000	1.35684	2.27579
M_IN14	2.32501***	.46544	5.00	.0000	1.41277	3.23726
M_IN24	1.96680***	.43162	4.56	.0000	1.12085	2.81276
M_IN34	1.80872***	.44042	4.11	.0000	.94550	2.67194
M_LC4	-1.79533***	.07552	-23.77	.0000	-1.94334	-1.64731
M_D24	-.09661***	.01401	-6.90	.0000	-.12407	-.06916
M_MOT4	3.59295***	.07064	50.87	.0000	3.45451	3.73140
M_NV4	.05736***	.01696	3.38	.0007	.02411	.09061
M_TR4	1.07096***	.11194	9.57	.0000	.85155	1.29037
M_RG4	.42480***	.10178	4.17	.0000	.22532	.62429
M_ES4	-.56963***	.17773	-3.21	.0014	-.91798	-.22128
M_CS4	.22700	.15263	1.49	.1369	-.07214	.52614
A_P	4.10962***	.36130	11.37	.0000	3.40148	4.81777
P_NC05	2.35287***	.25225	9.33	.0000	1.85847	2.84728
P_NC15	.47136*	.25055	1.88	.0599	-.01970	.96242
P_NC25	.18708	.24582	.76	.4466	-.29471	.66887
P_NC35	-.61624**	.27946	-2.21	.0274	-1.16396	-.06851
P_SX5	.05947	.07535	.79	.4299	-.08821	.20715
P_ID25	1.95889***	.17333	11.30	.0000	1.61917	2.29860
P_ID35	1.73725***	.18867	9.21	.0000	1.36747	2.10704
P_ID45	1.84256***	.17765	10.37	.0000	1.49438	2.19074
P_ID55	1.81061***	.19875	9.11	.0000	1.42108	2.20015
P_IN15	-.24493	.24618	-.99	.3198	-.72744	.23758
P_IN25	.03178	.17473	.18	.8557	-.31068	.37425
P_IN35	.02941	.19228	.15	.8785	-.34745	.40626
P_LC5	-2.15238***	.09998	-21.53	.0000	-2.34834	-1.95642
P_D25	-2.79080***	.05529	-50.48	.0000	-2.89916	-2.68244
P_MOT5	-.11737	.11495	-1.02	.3072	-.34268	.10793
P_NV5	-.17991***	.02355	-7.64	.0000	-.22607	-.13374
P_TR5	.03613	.13950	.26	.7956	-.23728	.30955
P_RG5	.14922	.11327	1.32	.1877	-.07277	.37122
P_ES5	.13418	.15646	.86	.3911	-.17247	.44083

```
   P_CS5|    -.27687*        .16614    -1.67  .0956     -.60249     .04875
--------+------------------------------------------------------------------------
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
------------------------------------------------------------------------------
```

MNL7.57 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- ~~Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).
- Var. Binária de disponibilidade diária de Moto no agregado (Mot)

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- ~~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)~~

- ~~*De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*~~
- ~~De2 : variável binária duracão da estadia >60min & <=120min (média duração)~~
- ~~De3 : variável binária duracão da estadia >120min & <=240min (média duração)~~
- ~~De4 : variável binária duracão da estadia >240min & <=480min (longa duração)~~
- ~~De5: variável binária duracão da estadia >480min (muito longa duração)~~

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,Mot,nV,TR,Rg,Es,Cs$
Normal exit:   9 iterations. Status=0, F=    68588.00

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -68587.99835
Estimation based on N =  95426, K = 105
Inf.Cr.AIC  = 137386.0 AIC/N =    1.440
Model estimated: Jul 28, 2012, 23:11:31
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4446 .4445
Chi-squared[**]           = 109802.74250
Prob [ chi squared > value ] =   .00000
```

Response data are given as ind. choices
Number of obs.= 95426, skipped 0 obs

MTRP	Coefficient	Standard Error	z	Prob. |z|>Z*	95% Confidence Interval	
A_BP	-8.22017***	.63528	-12.94	.0000	-9.46530	-6.97503
BP_NC01	4.48758***	.58070	7.73	.0000	3.34942	5.62574
BP_NC11	2.72050***	.58164	4.68	.0000	1.58050	3.86050
BP_NC21	2.30343***	.58113	3.96	.0001	1.16444	3.44243
BP_NC31	1.26463**	.59918	2.11	.0348	.09027	2.43900
BP_SX1	.55098***	.04968	11.09	.0000	.45361	.64834
BP_ID21	2.80073***	.17484	16.02	.0000	2.45805	3.14341
BP_ID31	2.11889***	.18199	11.64	.0000	1.76220	2.47558
BP_ID41	2.25060***	.17653	12.75	.0000	1.90461	2.59659
BP_ID51	2.52160***	.18187	13.86	.0000	2.16514	2.87807
BP_IN11	.24244	.22053	1.10	.2716	-.18980	.67468
BP_IN21	.45580**	.18257	2.50	.0125	.09798	.81363
BP_IN31	.78105***	.18885	4.14	.0000	.41090	1.15119
BP_LC1	-1.95096***	.06759	-28.86	.0000	-2.08343	-1.81848
BP_D21	.04493***	.00664	6.76	.0000	.03191	.05795
BP_MOT1	.08720	.06100	1.43	.1529	-.03236	.20676
BP_NV1	-.30188***	.01751	-17.24	.0000	-.33619	-.26757
BP_TR1	.90669***	.10398	8.72	.0000	.70289	1.11049
BP_RG1	.76232***	.09171	8.31	.0000	.58258	.94207
BP_ES1	1.24207***	.10908	11.39	.0000	1.02827	1.45587
BP_CS1	.15325	.13048	1.17	.2402	-.10248	.40897
A_B	-3.28662***	.13676	-24.03	.0000	-3.55466	-3.01857
B_NC02	3.40060***	.10836	31.38	.0000	3.18822	3.61299
B_NC12	1.72503***	.10858	15.89	.0000	1.51221	1.93785
B_NC22	1.25007***	.10771	11.61	.0000	1.03895	1.46118
B_NC32	.62693***	.11537	5.43	.0000	.40081	.85306
B_SX2	.38256***	.02293	16.68	.0000	.33762	.42751
B_ID22	2.11127***	.06237	33.85	.0000	1.98902	2.23351
B_ID32	1.70319***	.06544	26.03	.0000	1.57494	1.83145
B_ID42	1.79752***	.06318	28.45	.0000	1.67370	1.92135
B_ID52	2.03200***	.06927	29.33	.0000	1.89623	2.16777
B_IN12	-.65300***	.07934	-8.23	.0000	-.80852	-.49749
B_IN22	-.27248***	.05048	-5.40	.0000	-.37141	-.17354
B_IN32	.27766***	.05367	5.17	.0000	.17247	.38286
B_LC2	-1.93497***	.02855	-67.77	.0000	-1.99093	-1.87901
B_D22	.00093	.00350	.27	.7898	-.00593	.00779
B_MOT2	-.44907***	.03403	-13.20	.0000	-.51576	-.38238
B_NV2	-.25741***	.00727	-35.41	.0000	-.27165	-.24316
B_TR2	.59789***	.04255	14.05	.0000	.51450	.68128
B_RG2	.44039***	.03697	11.91	.0000	.36794	.51285
B_ES2	.89684***	.04932	18.18	.0000	.80017	.99350
B_CS2	.10117*	.05383	1.88	.0602	-.00434	.20667
A_BO	-5.35491***	.30117	-17.78	.0000	-5.94519	-4.76463
BO_NC03	1.92796***	.17368	11.10	.0000	1.58755	2.26838
BO_NC13	.62417***	.17390	3.59	.0003	.28332	.96501
BO_NC23	.04067	.17374	.23	.8149	-.29986	.38119
BO_NC33	-.35564*	.19169	-1.86	.0636	-.73134	.02006
BO_SX3	-.19326***	.03849	-5.02	.0000	-.26870	-.11782
BO_ID23	1.67181***	.08892	18.80	.0000	1.49754	1.84608
BO_ID33	.71211***	.10128	7.03	.0000	.51360	.91063

BO_ID43	.47567***	.09666	4.92	.0000	.28622	.66511
BO_ID53	.02383	.13265	.18	.8574	-.23615	.28381
BO_IN13	1.72163***	.24320	7.08	.0000	1.24498	2.19828
BO_IN23	1.66819***	.22320	7.47	.0000	1.23073	2.10564
BO_IN33	.98697***	.23090	4.27	.0000	.53441	1.43953
BO_LC3	-1.35076***	.05552	-24.33	.0000	-1.45958	-1.24194
BO_D23	.03699***	.00566	6.54	.0000	.02591	.04808
BO_MOT3	.54696***	.04489	12.18	.0000	.45897	.63495
BO_NV3	-.29815***	.01399	-21.32	.0000	-.32556	-.27074
BO_TR3	1.46540***	.10050	14.58	.0000	1.26843	1.66238
BO_RG3	1.17670***	.09215	12.77	.0000	.99609	1.35731
BO_ES3	1.75305***	.10030	17.48	.0000	1.55646	1.94963
BO_CS3	.21346	.14424	1.48	.1389	-.06925	.49617
A_M	-7.54624***	.34912	-21.62	.0000	-8.23050	-6.86198
M_NC04	1.66226***	.16209	10.25	.0000	1.34456	1.97996
M_NC14	.12514	.16265	.77	.4416	-.19364	.44393
M_NC24	.04549	.16163	.28	.7783	-.27129	.36228
M_NC34	-.36528**	.17918	-2.04	.0415	-.71647	-.01409
M_SX4	-.71436***	.03762	-18.99	.0000	-.78809	-.64064
M_ID24	1.56787***	.12853	12.20	.0000	1.31595	1.81979
M_ID34	2.40698***	.12743	18.89	.0000	2.15721	2.65675
M_ID44	2.15480***	.12525	17.20	.0000	1.90932	2.40028
M_ID54	2.20094***	.13788	15.96	.0000	1.93070	2.47118
M_IN14	2.52772***	.30403	8.31	.0000	1.93184	3.12361
M_IN24	2.50650***	.28486	8.80	.0000	1.94820	3.06481
M_IN34	2.30668***	.28939	7.97	.0000	1.73948	2.87388
M_LC4	-1.79975***	.04373	-41.16	.0000	-1.88545	-1.71405
M_D24	-.08879***	.00642	-13.83	.0000	-.10137	-.07621
M_MOT4	3.72028***	.04354	85.44	.0000	3.63494	3.80562
M_NV4	.00811	.00980	.83	.4082	-.01110	.02732
M_TR4	.93109***	.06608	14.09	.0000	.80158	1.06061
M_RG4	.39913***	.06148	6.49	.0000	.27864	.51963
M_ES4	-.69470***	.11591	-5.99	.0000	-.92187	-.46752
M_CS4	-.23216**	.09628	-2.41	.0159	-.42087	-.04346
A_P	3.72706***	.17860	20.87	.0000	3.37701	4.07712
P_NC05	2.45936***	.12213	20.14	.0000	2.22000	2.69872
P_NC15	.73709***	.12409	5.94	.0000	.49388	.98030
P_NC25	.41695***	.12118	3.44	.0006	.17943	.65446
P_NC35	-.22600	.14327	-1.58	.1147	-.50681	.05481
P_SX5	.14543***	.03966	3.67	.0002	.06770	.22316
P_ID25	1.69784***	.09470	17.93	.0000	1.51222	1.88345
P_ID35	1.38144***	.10124	13.65	.0000	1.18302	1.57986
P_ID45	1.55987***	.09624	16.21	.0000	1.37124	1.74850
P_ID55	1.66966***	.10567	15.80	.0000	1.46256	1.87676
P_IN15	-.17945	.12418	-1.45	.1484	-.42285	.06395
P_IN25	.02225	.07829	.28	.7763	-.13120	.17569
P_IN35	.08248	.08620	.96	.3386	-.08647	.25144
P_LC5	-1.81040***	.05098	-35.51	.0000	-1.91033	-1.71048
P_D25	-2.68566***	.02823	-95.14	.0000	-2.74098	-2.63033
P_MOT5	-.04735	.06359	-.74	.4565	-.17199	.07728
P_NV5	-.20780***	.01213	-17.13	.0000	-.23157	-.18402
P_TR5	.17755**	.07007	2.53	.0113	.04022	.31488
P_RG5	.26659***	.05863	4.55	.0000	.15169	.38150
P_ES5	.30738***	.08413	3.65	.0003	.14249	.47226
P_CS5	-.06050	.08678	-.70	.4857	-.23057	.10958

```
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
-------------------------------------------------------------------------------
```

MNL7.48a – Base de dados apenas com inqueritos com Til
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- ~~Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

```
DISCRETECHOICE
    ;Lhs=MTRP
    ;Choices=Bp,B,Bo,M,P,A[1]
    ;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,MOT,D2$
Normal exit:   9 iterations. Status=0, F=    23181.34

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -23181.33929
Estimation based on N =  30559, K =  80
Inf.Cr.AIC  =  46522.7 AIC/N =    1.522
Model estimated: Jul 20, 2012, 17:14:21
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4159 .4156
Chi-squared[75]           =  33011.47806
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 30559, skipped    0 obs
--------+-----------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+-----------------------------------------------------------------------
   A_BP |   -7.84673***       .86693    -9.05  .0000    -9.54589  -6.14758
 BP_NC01|    3.39205***       .71565     4.74  .0000     1.98941   4.79469
 BP_NC11|    1.97732***       .71631     2.76  .0058      .57339   3.38126
 BP_NC21|    1.55587**        .71588     2.17  .0298      .15277   2.95897
 BP_NC31|      .36358         .75146      .48  .6285    -1.10925   1.83642
  BP_SX1|      .63077***       .07713     8.18  .0000      .47960    .78194
 BP_ID21|    3.00847***       .27748    10.84  .0000     2.46462   3.55232
 BP_ID31|    1.88153***       .29060     6.47  .0000     1.31196   2.45110
 BP_ID41|    2.23088***       .27942     7.98  .0000     1.68323   2.77854
 BP_ID51|    2.16354***       .28705     7.54  .0000     1.60095   2.72614
 BP_IN11|      .76472*        .46226     1.65  .0981     -.14129   1.67073
 BP_IN21|      .83294**        .41981     1.98  .0472      .01013   1.65576
 BP_IN31|      .87824**        .42924     2.05  .0408      .03695   1.71953
  BP_LC1|   -2.32254***       .11910   -19.50  .0000    -2.55598  -2.08910
 BP_MOT1|      .68619***       .08337     8.23  .0000      .52279    .84959
  BP_D21|      .04513***       .01565     2.88  .0039      .01446    .07581
```

A_B	-4.29625***	.27196	-15.80	.0000	-4.82928	-3.76321
B_NC02	2.86984***	.21764	13.19	.0000	2.44328	3.29639
B_NC12	1.43400***	.21734	6.60	.0000	1.00803	1.85998
B_NC22	.96314***	.21643	4.45	.0000	.53894	1.38735
B_NC32	.34197	.22918	1.49	.1356	-.10720	.79115
B_SX2	.36445***	.04142	8.80	.0000	.28327	.44563
B_ID22	2.43084***	.11843	20.53	.0000	2.19873	2.66295
B_ID32	1.74144***	.12361	14.09	.0000	1.49917	1.98371
B_ID42	1.87460***	.11900	15.75	.0000	1.64137	2.10783
B_ID52	1.57219***	.12996	12.10	.0000	1.31747	1.82691
B_IN12	-.07873	.16347	-.48	.6301	-.39913	.24167
B_IN22	.06597	.12384	.53	.5942	-.17675	.30869
B_IN32	.38033***	.13003	2.92	.0034	.12547	.63518
B_LC2	-2.26403***	.05479	-41.32	.0000	-2.37141	-2.15665
B_MOT2	-.07968	.05631	-1.41	.1571	-.19004	.03069
B_D22	.06825***	.00864	7.90	.0000	.05131	.08519
A_BO	-4.80553***	.48379	-9.93	.0000	-5.75373	-3.85733
BO_NC03	1.91223***	.30307	6.31	.0000	1.31823	2.50623
BO_NC13	.86128***	.30209	2.85	.0044	.26918	1.45337
BO_NC23	.16253	.30241	.54	.5909	-.43017	.75524
BO_NC33	-.59852*	.33941	-1.76	.0778	-1.26374	.06671
BO_SX3	-.30030***	.06234	-4.82	.0000	-.42248	-.17813
BO_ID23	1.70648***	.15574	10.96	.0000	1.40124	2.01172
BO_ID33	.71647***	.17125	4.18	.0000	.38084	1.05211
BO_ID43	.55897***	.16390	3.41	.0006	.23773	.88021
BO_ID53	-.37342*	.22646	-1.65	.0992	-.81727	.07044
BO_IN13	1.25696***	.39769	3.16	.0016	.47749	2.03642
BO_IN23	1.30428***	.36157	3.61	.0003	.59561	2.01294
BO_IN33	.69438*	.37410	1.86	.0634	-.03884	1.42760
BO_LC3	-1.60760***	.09158	-17.55	.0000	-1.78709	-1.42811
BO_MOT3	.62238***	.07238	8.60	.0000	.48051	.76425
BO_D23	.05078***	.01345	3.78	.0002	.02443	.07714
A_M	-6.32748***	.53224	-11.89	.0000	-7.37065	-5.28430
M_NC04	1.26779***	.26053	4.87	.0000	.75717	1.77841
M_NC14	-.10226	.26129	-.39	.6955	-.61439	.40987
M_NC24	-.33109	.25991	-1.27	.2027	-.84051	.17834
M_NC34	-.56611**	.28869	-1.96	.0499	-1.13194	-.00028
M_SX4	-.96779***	.06296	-15.37	.0000	-1.09120	-.84438
M_ID24	1.58225***	.21442	7.38	.0000	1.16200	2.00250
M_ID34	2.69557***	.21352	12.62	.0000	2.27708	3.11406
M_ID44	2.59143***	.20903	12.40	.0000	2.18173	3.00113
M_ID54	1.87993***	.22929	8.20	.0000	1.43053	2.32932
M_IN14	2.41611***	.46070	5.24	.0000	1.51316	3.31907
M_IN24	2.05037***	.42765	4.79	.0000	1.21219	2.88854
M_IN34	1.77084***	.43625	4.06	.0000	.91580	2.62588
M_LC4	-1.72093***	.07347	-23.42	.0000	-1.86493	-1.57693
M_MOT4	3.57768***	.06971	51.32	.0000	3.44105	3.71432
M_D24	-.10636***	.01369	-7.77	.0000	-.13319	-.07954
A_P	3.40681***	.32837	10.37	.0000	2.76321	4.05042
P_NC05	2.42886***	.24605	9.87	.0000	1.94662	2.91110
P_NC15	.57962**	.24405	2.38	.0175	.10129	1.05795
P_NC25	.28994	.23952	1.21	.2261	-.17950	.75938
P_NC35	-.58195**	.27323	-2.13	.0332	-1.11747	-.04643
P_SX5	.07295	.07383	.99	.3231	-.07175	.21765
P_ID25	1.85676***	.16913	10.98	.0000	1.52528	2.18824
P_ID35	1.57859***	.18035	8.75	.0000	1.22512	1.93206

P_ID45	1.73716***	.16907	10.27	.0000	1.40578	2.06854
P_ID55	1.76896***	.19197	9.21	.0000	1.39271	2.14522
P_IN15	-.18894	.24090	-.78	.4328	-.66110	.28321
P_IN25	.08453	.17011	.50	.6192	-.24887	.41794
P_IN35	.07396	.18818	.39	.6943	-.29487	.44278
P_LC5	-2.24683***	.09759	-23.02	.0000	-2.43811	-2.05556
P_MOT5	-.11087	.11322	-.98	.3275	-.33278	.11104
P_D25	-2.87738***	.05440	-52.89	.0000	-2.98401	-2.77076

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.51a – Base de dados apenas com inqueritos com Til e De
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- ~~Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- 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,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,MOT,D2$
Normal exit:   9 iterations. Status=0, F=    14021.95

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -14021.94863
Estimation based on N =  19555, K =  81
Inf.Cr.AIC  =  28205.9 AIC/N =    1.442
Model estimated: Jul 23, 2012, 12:25:48
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4454 .4450
Chi-squared[76]          =  22526.24316
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 19555, skipped    0 obs
--------+------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+------------------------------------------------------------------
     TIL|    -.89978***      .03748   -24.01  .0000     -.97324   -.82633
    A_BP|   -7.19309***     1.17783    -6.11  .0000    -9.50160  -4.88459
  BP_NC01|    3.81909***     1.00995     3.78  .0002     1.83962   5.79855
  BP_NC11|    2.35721**      1.01033     2.33  .0196      .37701   4.33742
  BP_NC21|    1.94023*       1.00951     1.92  .0546     -.03837   3.91883
  BP_NC31|     .18092        1.07554      .17  .8664    -1.92711   2.28894
   BP_SX1|     .65464***      .09851     6.65  .0000      .46156    .84772
  BP_ID21|    2.93462***      .35454     8.28  .0000     2.23974   3.62951
  BP_ID31|    1.86576***      .36937     5.05  .0000     1.14182   2.58971
  BP_ID41|    2.13386***      .35737     5.97  .0000     1.43343   2.83429
```

BP_ID51	1.91613***	.37052	5.17	.0000	1.18993	2.64234
BP_IN11	1.00754*	.57763	1.74	.0811	-.12459	2.13967
BP_IN21	.85653*	.51550	1.66	.0966	-.15384	1.86690
BP_IN31	1.07014**	.52517	2.04	.0416	.04081	2.09946
BP_LC1	-2.25464***	.14598	-15.44	.0000	-2.54076	-1.96851
BP_MOT1	.70710***	.10676	6.62	.0000	.49785	.91635
BP_D21	.03330*	.02023	1.65	.0997	-.00635	.07295
A_B	-3.70107***	.33425	-11.07	.0000	-4.35618	-3.04596
B_NC02	2.85128***	.25568	11.15	.0000	2.35016	3.35239
B_NC12	1.32976***	.25477	5.22	.0000	.83041	1.82911
B_NC22	.83427***	.25340	3.29	.0010	.33760	1.33093
B_NC32	.05535	.27254	.20	.8391	-.47882	.58951
B_SX2	.40964***	.05339	7.67	.0000	.30500	.51428
B_ID22	2.36534***	.15820	14.95	.0000	2.05528	2.67540
B_ID32	1.65389***	.16440	10.06	.0000	1.33167	1.97611
B_ID42	1.70872***	.15960	10.71	.0000	1.39591	2.02153
B_ID52	1.24785***	.17769	7.02	.0000	.89959	1.59611
B_IN12	-.06942	.21839	-.32	.7506	-.49747	.35862
B_IN22	.08546	.15983	.53	.5929	-.22781	.39873
B_IN32	.44319***	.16697	2.65	.0079	.11593	.77044
B_LC2	-2.28652***	.07055	-32.41	.0000	-2.42480	-2.14823
B_MOT2	-.06575	.07235	-.91	.3635	-.20754	.07605
B_D22	.07130***	.01127	6.33	.0000	.04921	.09339
A_BO	-4.42507***	.59738	-7.41	.0000	-5.59592	-3.25423
BO_NC03	2.36663***	.42456	5.57	.0000	1.53451	3.19875
BO_NC13	1.19854***	.42324	2.83	.0046	.36900	2.02808
BO_NC23	.45362	.42340	1.07	.2840	-.37623	1.28348
BO_NC33	-.34996	.46566	-.75	.4523	-1.26265	.56272
BO_SX3	-.33502***	.07963	-4.21	.0000	-.49109	-.17896
BO_ID23	1.67430***	.20572	8.14	.0000	1.27109	2.07752
BO_ID33	.83805***	.22182	3.78	.0002	.40330	1.27280
BO_ID43	.51422**	.21625	2.38	.0174	.09038	.93805
BO_ID53	-.39871	.29548	-1.35	.1772	-.97783	.18042
BO_IN13	.94402**	.44877	2.10	.0354	.06445	1.82359
BO_IN23	.98238**	.39016	2.52	.0118	.21768	1.74708
BO_IN33	.39903	.40758	.98	.3276	-.39983	1.19788
BO_LC3	-1.68413***	.11395	-14.78	.0000	-1.90747	-1.46079
BO_MOT3	.59514***	.09212	6.46	.0000	.41459	.77569
BO_D23	.04210**	.01678	2.51	.0121	.00921	.07498
A_M	-6.56327***	.61581	-10.66	.0000	-7.77024	-5.35629
M_NC04	1.12199***	.28746	3.90	.0001	.55858	1.68539
M_NC14	-.32504	.28806	-1.13	.2592	-.88962	.23955
M_NC24	-.55155*	.28579	-1.93	.0536	-1.11168	.00858
M_NC34	-.84008***	.32540	-2.58	.0098	-1.47786	-.20230
M_SX4	-.94973***	.07775	-12.21	.0000	-1.10212	-.79733
M_ID24	2.20282***	.29752	7.40	.0000	1.61970	2.78595
M_ID34	3.36680***	.29591	11.38	.0000	2.78682	3.94678
M_ID44	3.27614***	.29175	11.23	.0000	2.70431	3.84797
M_ID54	2.35403***	.31515	7.47	.0000	1.73634	2.97171
M_IN14	2.80165***	.52391	5.35	.0000	1.77480	3.82849
M_IN24	1.86384***	.47667	3.91	.0001	.92958	2.79810
M_IN34	1.64687***	.48738	3.38	.0007	.69162	2.60212
M_LC4	-1.77629***	.09075	-19.57	.0000	-1.95415	-1.59842
M_MOT4	3.62201***	.08624	42.00	.0000	3.45298	3.79103
M_D24	-.09029***	.01691	-5.34	.0000	-.12343	-.05715
A_P	3.54832***	.44428	7.99	.0000	2.67755	4.41910

P_NC05	2.60408***	.31591	8.24	.0000	1.98492	3.22325
P_NC15	.53443*	.31334	1.71	.0881	-.07969	1.14856
P_NC25	.22999	.30654	.75	.4531	-.37083	.83080
P_NC35	-.71686**	.35078	-2.04	.0410	-1.40438	-.02934
P_SX5	.12904	.09955	1.30	.1949	-.06607	.32415
P_ID25	2.22327***	.24790	8.97	.0000	1.73740	2.70914
P_ID35	1.90748***	.25987	7.34	.0000	1.39815	2.41682
P_ID45	2.04555***	.24729	8.27	.0000	1.56088	2.53023
P_ID55	2.08692***	.28118	7.42	.0000	1.53582	2.63802
P_IN15	-.14121	.33721	-.42	.6754	-.80212	.51970
P_IN25	.16859	.22377	.75	.4512	-.26998	.60716
P_IN35	.22179	.24763	.90	.3704	-.26356	.70713
P_LC5	-2.38503***	.12995	-18.35	.0000	-2.63972	-2.13034
P_MOT5	-.33985**	.15293	-2.22	.0263	-.63958	-.04012
P_D25	-2.94935***	.07736	-38.12	.0000	-3.10099	-2.79772

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.56a – Base de dados apenas com inquéritos com Til e De
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
~~- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- 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)

~~- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*~~
~~- De2 : variável binária duracão da estadia >60min & <=120min (média duração)~~
~~- De3 : variável binária duracão da estadia >120min & <=240min (média duração)~~
~~- De4 : variável binária duracão da estadia >240min & <=480min (longa duração)~~
~~- De5: variável binária duracão da estadia >480min (muito longa duração)~~

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Attr=Til
;Rhs=T1L,T2L,T3L,T4L,T5L,T6L
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,MOT,D2,nV,Tr,Rg,Es,Cs$
Normal exit:   9 iterations. Status=0, F=    13572.11

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -13572.11427
Estimation based on N =  19555, K = 106
Inf.Cr.AIC  =  27356.2 AIC/N =    1.399
Model estimated: Jul 23, 2012, 23:32:19
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4632 .4627
```

```
Chi-squared[**]           =  23425.91188
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 19555, skipped    0 obs
```

MTRP	Coefficient	Standard Error	z	Prob. |z|>Z*	95% Confidence Interval	
TIL	-.88989***	.03816	-23.32	.0000	-.96469	-.81509
A_BP	-7.53911***	1.19270	-6.32	.0000	-9.87676	-5.20147
BP_NC01	3.81528***	1.01123	3.77	.0002	1.83330	5.79726
BP_NC11	2.31149**	1.01158	2.29	.0223	.32884	4.29415
BP_NC21	1.91936*	1.01073	1.90	.0576	-.06163	3.90035
BP_NC31	.19432	1.07697	.18	.8568	-1.91650	2.30514
BP_SX1	.66878***	.09963	6.71	.0000	.47351	.86404
BP_ID21	2.69804***	.34966	7.72	.0000	2.01271	3.38336
BP_ID31	2.01593***	.37451	5.38	.0000	1.28190	2.74995
BP_ID41	2.30833***	.36369	6.35	.0000	1.59551	3.02115
BP_ID51	2.35071***	.37935	6.20	.0000	1.60720	3.09422
BP_IN11	1.06253*	.57751	1.84	.0658	-.06937	2.19444
BP_IN21	.76218	.51585	1.48	.1395	-.24887	1.77323
BP_IN31	1.04547**	.52566	1.99	.0467	.01519	2.07575
BP_LC1	-2.18973***	.14830	-14.77	.0000	-2.48039	-1.89908
BP_MOT1	.71965***	.10831	6.64	.0000	.50738	.93193
BP_D21	.04170**	.02042	2.04	.0412	.00167	.08173
BP_NV1	-.23003***	.03546	-6.49	.0000	-.29952	-.16054
BP_TR1	1.28338***	.20098	6.39	.0000	.88948	1.67729
BP_RG1	1.43983***	.19727	7.30	.0000	1.05320	1.82647
BP_ES1	1.67444***	.20483	8.17	.0000	1.27298	2.07590
BP_CS1	.61260***	.22541	2.72	.0066	.17080	1.05439
A_B	-3.48650***	.34859	-10.00	.0000	-4.16972	-2.80328
B_NC02	2.79977***	.25749	10.87	.0000	2.29510	3.30445
B_NC12	1.25431***	.25668	4.89	.0000	.75123	1.75739
B_NC22	.78369***	.25521	3.07	.0021	.28349	1.28389
B_NC32	.05240	.27484	.19	.8488	-.48628	.59108
B_SX2	.40882***	.05464	7.48	.0000	.30173	.51590
B_ID22	2.24929***	.15889	14.16	.0000	1.93787	2.56071
B_ID32	1.82206***	.17107	10.65	.0000	1.48677	2.15734
B_ID42	1.86909***	.16675	11.21	.0000	1.54227	2.19592
B_ID52	1.52854***	.18366	8.32	.0000	1.16857	1.88851
B_IN12	-.00369	.22173	-.02	.9867	-.43826	.43089
B_IN22	.02681	.16248	.16	.8690	-.29165	.34526
B_IN32	.45745***	.16991	2.69	.0071	.12442	.79047
B_LC2	-2.18867***	.07233	-30.26	.0000	-2.33043	-2.04690
B_MOT2	-.04457	.07395	-.60	.5467	-.18952	.10038
B_D22	.07887***	.01147	6.88	.0000	.05639	.10136
B_NV2	-.26089***	.01859	-14.03	.0000	-.29733	-.22445
B_TR2	.77522***	.09317	8.32	.0000	.59262	.95782
B_RG2	.92714***	.09172	10.11	.0000	.74737	1.10692
B_ES2	1.04836***	.09944	10.54	.0000	.85346	1.24326
B_CS2	.32718***	.10710	3.05	.0023	.11727	.53709
A_BO	-4.90034***	.62550	-7.83	.0000	-6.12630	-3.67437
BO_NC03	2.34945***	.42847	5.48	.0000	1.50966	3.18924
BO_NC13	1.15453***	.42707	2.70	.0069	.31749	1.99157
BO_NC23	.42219	.42723	.99	.3231	-.41517	1.25955
BO_NC33	-.29711	.46955	-.63	.5269	-1.21742	.62319

BO_SX3	-.32232***	.08118	-3.97	.0001	-.48144	-.16320
BO_ID23	1.51101***	.20398	7.41	.0000	1.11121	1.91080
BO_ID33	1.14537***	.23549	4.86	.0000	.68382	1.60692
BO_ID43	.83599***	.23120	3.62	.0003	.38284	1.28913
BO_ID53	.25633	.30700	.83	.4037	-.34538	.85804
BO_IN13	1.15815***	.44912	2.58	.0099	.27788	2.03841
BO_IN23	.92398**	.39157	2.36	.0183	.15652	1.69143
BO_IN33	.40853	.40918	1.00	.3181	-.39346	1.21051
BO_LC3	-1.58366***	.11760	-13.47	.0000	-1.81415	-1.35317
BO_MOT3	.62711***	.09435	6.65	.0000	.44218	.81204
BO_D23	.05337***	.01710	3.12	.0018	.01984	.08689
BO_NV3	-.25981***	.02983	-8.71	.0000	-.31826	-.20135
BO_TR3	1.39680***	.17650	7.91	.0000	1.05087	1.74274
BO_RG3	1.36704***	.17581	7.78	.0000	1.02246	1.71161
BO_ES3	1.84369***	.17712	10.41	.0000	1.49654	2.19085
BO_CS3	.49132**	.21954	2.24	.0252	.06103	.92162
A_M	-6.93476***	.63806	-10.87	.0000	-8.18533	-5.68419
M_NC04	1.13656***	.28806	3.95	.0001	.57196	1.70115
M_NC14	-.37498	.28876	-1.30	.1941	-.94093	.19098
M_NC24	-.59066**	.28619	-2.06	.0390	-1.15159	-.02973
M_NC34	-.97351***	.32891	-2.96	.0031	-1.61816	-.32886
M_SX4	-.94526***	.08059	-11.73	.0000	-1.10322	-.78730
M_ID24	2.32435***	.31683	7.34	.0000	1.70338	2.94532
M_ID34	2.78441***	.31513	8.84	.0000	2.16677	3.40206
M_ID44	2.72327***	.31118	8.75	.0000	2.11336	3.33318
M_ID54	2.27398***	.33025	6.89	.0000	1.62671	2.92125
M_IN14	2.77794***	.52998	5.24	.0000	1.73919	3.81670
M_IN24	1.81591***	.48057	3.78	.0002	.87402	2.75780
M_IN34	1.71180***	.49155	3.48	.0005	.74838	2.67522
M_LC4	-1.88259***	.09310	-20.22	.0000	-2.06507	-1.70011
M_MOT4	3.65106***	.08739	41.78	.0000	3.47977	3.82234
M_D24	-.08171***	.01724	-4.74	.0000	-.11549	-.04792
M_NV4	.05879***	.02191	2.68	.0073	.01584	.10174
M_TR4	1.11595***	.11964	9.33	.0000	.88145	1.35045
M_RG4	.70194***	.11997	5.85	.0000	.46681	.93707
M_ES4	-.76467***	.18908	-4.04	.0001	-1.13526	-.39409
M_CS4	.22181	.15846	1.40	.1616	-.08877	.53239
A_P	4.07511***	.47844	8.52	.0000	3.13738	5.01284
P_NC05	2.62460***	.31889	8.23	.0000	1.99959	3.24962
P_NC15	.52478*	.31600	1.66	.0968	-.09458	1.14413
P_NC25	.23009	.30901	.74	.4565	-.37557	.83574
P_NC35	-.64701*	.35296	-1.83	.0668	-1.33879	.04478
P_SX5	.14931	.10129	1.47	.1404	-.04921	.34783
P_ID25	2.20048***	.25126	8.76	.0000	1.70803	2.69293
P_ID35	2.09491***	.27678	7.57	.0000	1.55242	2.63740
P_ID45	2.20918***	.26669	8.28	.0000	1.68648	2.73188
P_ID55	2.23288***	.29945	7.46	.0000	1.64597	2.81980
P_IN15	-.14637	.34039	-.43	.6672	-.81351	.52077
P_IN25	.13518	.22424	.60	.5466	-.30433	.57469
P_IN35	.19281	.24769	.78	.4363	-.29266	.67827
P_LC5	-2.27579***	.13251	-17.17	.0000	-2.53551	-2.01608
P_MOT5	-.30457**	.15504	-1.96	.0495	-.60843	-.00070
P_D25	-2.97107***	.07850	-37.85	.0000	-3.12493	-2.81721
P_NV5	-.17530***	.03264	-5.37	.0000	-.23928	-.11133
P_TR5	-.03136	.15473	-.20	.8394	-.33462	.27190
P_RG5	.26739*	.14991	1.78	.0745	-.02642	.56120
P_ES5	.21211	.17981	1.18	.2382	-.14031	.56453

```
   P_CS5|    -.42181**       .17983    -2.35  .0190     -.77428   -.06935
--------+------------------------------------------------------------------
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
-----------------------------------------------------------------------------
```

MNL7.57a – Base de dados apenas com inquéritos com Til e De

- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- ~~Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- ~~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)~~

- ~~*De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*~~
- ~~De2 : variável binária duracão da estadia >60min & <=120min (média duração)~~
- ~~De3 : variável binária duracão da estadia >120min & <=240min (média duração)~~
- ~~De4 : variável binária duracão da estadia >240min & <=480min (longa duração)~~
- ~~De5: variável binária duracão da estadia >480min (muito longa duração)~~

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,MOT,D2,nV,TR,RG,Es,Cs$
Normal exit:   9 iterations. Status=0, F=    13851.62

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -13851.62246
Estimation based on N =  19555, K = 105
Inf.Cr.AIC  =  27913.2 AIC/N =    1.427
Model estimated: Jul 24, 2012, 01:15:30
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4522 .4516
Chi-squared[**]          =  22866.89550
Prob [ chi squared > value ] =   .00000
```

Response data are given as ind. choices
Number of obs.= 19555, skipped 0 obs

MTRP	Coefficient	Standard Error	z	Prob. |z|>Z*	95% Confidence Interval	
A_BP	-8.37501***	1.19190	-7.03	.0000	-10.71109	-6.03892
BP_NC01	3.77636***	1.01012	3.74	.0002	1.79657	5.75616
BP_NC11	2.26308**	1.01056	2.24	.0251	.28241	4.24375
BP_NC21	1.88426*	1.00976	1.87	.0620	-.09484	3.86337
BP_NC31	.13534	1.07592	.13	.8999	-1.97342	2.24410
BP_SX1	.66624***	.09929	6.71	.0000	.47163	.86086
BP_ID21	2.68033***	.34638	7.74	.0000	2.00143	3.35923
BP_ID31	1.98595***	.37164	5.34	.0000	1.25755	2.71435
BP_ID41	2.29927***	.36085	6.37	.0000	1.59201	3.00653
BP_ID51	2.42447***	.37684	6.43	.0000	1.68587	3.16307
BP_IN11	.95861*	.57642	1.66	.0963	-.17115	2.08836
BP_IN21	.71915	.51496	1.40	.1626	-.29016	1.72846
BP_IN31	1.01297*	.52491	1.93	.0536	-.01583	2.04176
BP_LC1	-2.17612***	.14789	-14.71	.0000	-2.46597	-1.88626
BP_MOT1	.74110***	.10797	6.86	.0000	.52947	.95272
BP_D21	.04782**	.02060	2.32	.0203	.00745	.08818
BP_NV1	-.24494***	.03525	-6.95	.0000	-.31403	-.17584
BP_TR1	1.31970***	.20037	6.59	.0000	.92698	1.71241
BP_RG1	1.46193***	.19691	7.42	.0000	1.07600	1.84787
BP_ES1	1.67879***	.20393	8.23	.0000	1.27910	2.07848
BP_CS1	.63936***	.22472	2.85	.0044	.19891	1.07980
A_B	-3.98811***	.34591	-11.53	.0000	-4.66608	-3.31013
B_NC02	2.81231***	.25674	10.95	.0000	2.30911	3.31550
B_NC12	1.28305***	.25601	5.01	.0000	.78129	1.78481
B_NC22	.80360***	.25461	3.16	.0016	.30457	1.30264
B_NC32	.07866	.27365	.29	.7738	-.45767	.61500
B_SX2	.40889***	.05399	7.57	.0000	.30307	.51471
B_ID22	2.30331***	.15600	14.76	.0000	1.99756	2.60906
B_ID32	1.90218***	.16836	11.30	.0000	1.57220	2.23215
B_ID42	1.96250***	.16412	11.96	.0000	1.64083	2.28418
B_ID52	1.66134***	.18166	9.15	.0000	1.30530	2.01738
B_IN12	-.01958	.21913	-.09	.9288	-.44906	.40990
B_IN22	.02135	.16052	.13	.8942	-.29327	.33596
B_IN32	.43903***	.16785	2.62	.0089	.11005	.76801
B_LC2	-2.20029***	.07161	-30.73	.0000	-2.34065	-2.05994
B_MOT2	-.05037	.07334	-.69	.4922	-.19411	.09337
B_D22	.08421***	.01135	7.42	.0000	.06195	.10646
B_NV2	-.26749***	.01837	-14.56	.0000	-.30349	-.23148
B_TR2	.78081***	.09199	8.49	.0000	.60052	.96110
B_RG2	.93276***	.09060	10.29	.0000	.75518	1.11034
B_ES2	1.03743***	.09810	10.58	.0000	.84516	1.22971
B_CS2	.39739***	.10560	3.76	.0002	.19043	.60436
A_BO	-5.33728***	.62168	-8.59	.0000	-6.55576	-4.11880
BO_NC03	2.36810***	.42629	5.56	.0000	1.53259	3.20361
BO_NC13	1.19188***	.42498	2.80	.0050	.35894	2.02482
BO_NC23	.46943	.42515	1.10	.2695	-.36384	1.30271
BO_NC33	-.26833	.46743	-.57	.5659	-1.18446	.64781
BO_SX3	-.31879***	.08063	-3.95	.0001	-.47683	-.16075
BO_ID23	1.54590***	.20172	7.66	.0000	1.15053	1.94128
BO_ID33	1.17810***	.23394	5.04	.0000	.71959	1.63661

BO_ID43	.89143***	.22962	3.88	.0001	.44139	1.34147
BO_ID53	.31743	.30477	1.04	.2976	-.27991	.91478
BO_IN13	1.19060***	.44723	2.66	.0078	.31404	2.06715
BO_IN23	.93562**	.39033	2.40	.0165	.17059	1.70066
BO_IN33	.43108	.40775	1.06	.2904	-.36810	1.23026
BO_LC3	-1.57405***	.11711	-13.44	.0000	-1.80358	-1.34451
BO_MOT3	.62978***	.09377	6.72	.0000	.44600	.81355
BO_D23	.07310***	.01732	4.22	.0000	.03914	.10705
BO_NV3	-.26770***	.02969	-9.02	.0000	-.32590	-.20950
BO_TR3	1.43432***	.17602	8.15	.0000	1.08932	1.77932
BO_RG3	1.37365***	.17515	7.84	.0000	1.03036	1.71693
BO_ES3	1.79881***	.17586	10.23	.0000	1.45414	2.14349
BO_CS3	.54575**	.21893	2.49	.0127	.11666	.97485
A_M	-7.02230***	.63228	-11.11	.0000	-8.26155	-5.78304
M_NC04	1.18388***	.28536	4.15	.0000	.62459	1.74318
M_NC14	-.32148	.28613	-1.12	.2612	-.88228	.23932
M_NC24	-.55180*	.28365	-1.95	.0517	-1.10775	.00415
M_NC34	-.97092***	.32605	-2.98	.0029	-1.60996	-.33188
M_SX4	-.93945***	.07959	-11.80	.0000	-1.09545	-.78345
M_ID24	2.33182***	.31366	7.43	.0000	1.71706	2.94659
M_ID34	2.74822***	.31183	8.81	.0000	2.13704	3.35939
M_ID44	2.67939***	.30775	8.71	.0000	2.07621	3.28257
M_ID54	2.30273***	.32707	7.04	.0000	1.66170	2.94377
M_IN14	2.84533***	.52741	5.39	.0000	1.81163	3.87902
M_IN24	1.91294***	.47818	4.00	.0001	.97573	2.85015
M_IN34	1.78378***	.48885	3.65	.0003	.82564	2.74191
M_LC4	-1.85347***	.09207	-20.13	.0000	-2.03394	-1.67301
M_MOT4	3.64604***	.08655	42.12	.0000	3.47640	3.81568
M_D24	-.08797***	.01696	-5.19	.0000	-.12122	-.05473
M_NV4	.05123**	.02147	2.39	.0170	.00915	.09331
M_TR4	1.14221***	.11835	9.65	.0000	.91024	1.37417
M_RG4	.74124***	.11851	6.25	.0000	.50897	.97352
M_ES4	-.76089***	.18754	-4.06	.0000	-1.12847	-.39331
M_CS4	.22689	.15657	1.45	.1473	-.07998	.53376
A_P	3.98897***	.46747	8.53	.0000	3.07274	4.90520
P_NC05	2.64652***	.31175	8.49	.0000	2.03550	3.25754
P_NC15	.58936*	.30808	1.91	.0557	-.01447	1.19319
P_NC25	.31523	.30119	1.05	.2953	-.27508	.90555
P_NC35	-.57302*	.34443	-1.66	.0962	-1.24809	.10206
P_SX5	.15901	.09998	1.59	.1117	-.03694	.35497
P_ID25	2.09709***	.24531	8.55	.0000	1.61629	2.57788
P_ID35	2.01624***	.27158	7.42	.0000	1.48395	2.54852
P_ID45	2.16126***	.26152	8.26	.0000	1.64869	2.67383
P_ID55	2.20601***	.29686	7.43	.0000	1.62417	2.78785
P_IN15	-.21409	.33297	-.64	.5202	-.86670	.43852
P_IN25	.08601	.21652	.40	.6912	-.33836	.51038
P_IN35	.16416	.24039	.68	.4947	-.30699	.63531
P_LC5	-2.21588***	.13096	-16.92	.0000	-2.47255	-1.95921
P_MOT5	-.23436	.15365	-1.53	.1272	-.53551	.06679
P_D25	-3.16064***	.07907	-39.97	.0000	-3.31562	-3.00567
P_NV5	-.18064***	.03209	-5.63	.0000	-.24352	-.11775
P_TR5	.01306	.15285	.09	.9319	-.28652	.31264
P_RG5	.28943*	.14781	1.96	.0502	-.00027	.57913
P_ES5	.18903	.17821	1.06	.2888	-.16026	.53831
P_CS5	-.37094**	.17851	-2.08	.0377	-.72081	-.02107

```
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
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MNL7.57b – Base de dados apenas com inquéritos com PO e OV
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
~~- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot).

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

~~- 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)~~

~~- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*~~
~~- De2 : variável binária duracão da estadia >60min & <=120min (média duração)~~
~~- De3 : variável binária duracão da estadia >120min & <=240min (média duração)~~
~~- De4 : variável binária duracão da estadia >240min & <=480min (longa duração)~~
~~- De5: variável binária duracão da estadia >480min (muito longa duração)~~

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,MOT,D2,nV,TR,Rg,Es,Cs$
Normal exit:   9 iterations. Status=0, F=    13310.22

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -13310.21967
Estimation based on N =  18823, K =  95
Inf.Cr.AIC  =  26810.4 AIC/N =    1.424
Model estimated: Apr 17, 2012, 10:19:07
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4436 .4430
Chi-squared[90]           =  21223.64404
Prob [ chi squared > value ] =   .00000
```

Response data are given as ind. choices
Number of obs.= 18823, skipped 0 obs

MTRP	Coefficient	Standard Error	z	Prob. |z|>Z*	95% Confidence Interval	
A_BP	-7.67906***	1.06839	-7.19	.0000	-9.77306	-5.58507
BP_NC01	5.57282***	1.00593	5.54	.0000	3.60123	7.54440
BP_NC11	3.43960***	1.00885	3.41	.0007	1.46229	5.41692
BP_NC21	2.91272***	1.00722	2.89	.0038	.93860	4.88683
BP_NC31	1.72324	1.05210	1.64	.1014	-.33883	3.78531
BP_SX1	.53225***	.09618	5.53	.0000	.34374	.72077
BP_ID21	1.66332***	.29284	5.68	.0000	1.08937	2.23727
BP_ID31	1.94487***	.29703	6.55	.0000	1.36271	2.52703
BP_ID41	1.75970***	.28829	6.10	.0000	1.19467	2.32473
BP_ID51	2.09539***	.30308	6.91	.0000	1.50135	2.68942
BP_IN11	.48637	.36337	1.34	.1807	-.22582	1.19856
BP_IN21	1.18602***	.22496	5.27	.0000	.74511	1.62693
BP_IN31	1.10092***	.23334	4.72	.0000	.64358	1.55826
BP_LC1	-1.76912***	.11507	-15.37	.0000	-1.99465	-1.54358
BP_D21	.07962***	.00991	8.04	.0000	.06020	.09904
BP_NV1	-.20949***	.03209	-6.53	.0000	-.27238	-.14660
BP_ES1	-.17381	.17502	-.99	.3207	-.51685	.16923
BP_LZ1	-.42230***	.14329	-2.95	.0032	-.70315	-.14145
BP_CS1	-.02699	.18915	-.14	.8865	-.39773	.34374
A_B	-3.82807***	.23396	-16.36	.0000	-4.28663	-3.36951
B_NC02	4.30747***	.17327	24.86	.0000	3.96787	4.64707
B_NC12	2.18553***	.17318	12.62	.0000	1.84610	2.52495
B_NC22	1.83420***	.16913	10.84	.0000	1.50272	2.16569
B_NC32	1.00867***	.18713	5.39	.0000	.64190	1.37545
B_SX2	.50260***	.04911	10.23	.0000	.40633	.59886
B_ID22	1.91812***	.14518	13.21	.0000	1.63358	2.20266
B_ID32	2.16570***	.14818	14.62	.0000	1.87527	2.45613
B_ID42	2.02991***	.14421	14.08	.0000	1.74727	2.31255
B_ID52	2.46786***	.15766	15.65	.0000	2.15885	2.77686
B_IN12	.20668	.17539	1.18	.2386	-.13707	.55044
B_IN22	.50154***	.07446	6.74	.0000	.35560	.64747
B_IN32	.47903***	.07660	6.25	.0000	.32891	.62916
B_LC2	-1.66483***	.06247	-26.65	.0000	-1.78728	-1.54239
B_D22	.01802***	.00670	2.69	.0071	.00489	.03115
B_NV2	-.13356***	.01460	-9.15	.0000	-.16217	-.10495
B_ES2	-.07266	.08828	-.82	.4105	-.24568	.10036
B_LZ2	-.27980***	.07205	-3.88	.0001	-.42102	-.13858
B_CS2	.17730*	.09981	1.78	.0757	-.01832	.37293
A_BO	-4.91905***	1.15907	-4.24	.0000	-7.19078	-2.64732
BO_NC03	2.82236***	1.03688	2.72	.0065	.79011	4.85461
BO_NC13	2.15313**	1.03267	2.09	.0371	.12913	4.17713
BO_NC23	1.10786	1.03410	1.07	.2840	-.91894	3.13465
BO_NC33	1.77686*	1.05020	1.69	.0907	-.28149	3.83521
BO_SX3	.46421**	.21431	2.17	.0303	.04417	.88426
BO_ID23	-.46393	.35491	-1.31	.1911	-1.15953	.23167
BO_ID33	-.88664**	.43644	-2.03	.0422	-1.74205	-.03124
BO_ID43	-.98452***	.38111	-2.58	.0098	-1.73148	-.23756
BO_ID53	-.69531	.51878	-1.34	.1802	-1.71211	.32149
BO_IN13	.72278	.57100	1.27	.2056	-.39636	1.84191
BO_IN23	.82159*	.44746	1.84	.0663	-.05541	1.69860

BO_IN33	.06404	.49589	.13	.8973	-.90790	1.03597
BO_LC3	-.95373***	.31592	-3.02	.0025	-1.57293	-.33454
BO_D23	.02721	.02749	.99	.3223	-.02667	.08108
BO_NV3	-.16326**	.07538	-2.17	.0303	-.31101	-.01551
BO_ES3	-.20767	.32186	-.65	.5188	-.83850	.42316
BO_LZ3	-.25578	.31394	-.81	.4152	-.87109	.35953
BO_CS3	-1.72525*	1.01282	-1.70	.0885	-3.71034	.25983
A_M	-7.20012***	1.06296	-6.77	.0000	-9.28349	-5.11675
M_NC04	3.50214***	.61020	5.74	.0000	2.30617	4.69811
M_NC14	1.40614**	.62362	2.25	.0241	.18388	2.62841
M_NC24	.82682	.61759	1.34	.1806	-.38363	2.03726
M_NC34	.69096	.67355	1.03	.3050	-.62917	2.01108
M_SX4	-1.79365***	.24807	-7.23	.0000	-2.27985	-1.30745
M_ID24	2.09025**	.82702	2.53	.0115	.46932	3.71118
M_ID34	2.67122***	.82705	3.23	.0012	1.05023	4.29222
M_ID44	1.27436	.83651	1.52	.1277	-.36517	2.91389
M_ID54	.18432	.99430	.19	.8529	-1.76447	2.13311
M_IN14	-.23038	1.18299	-.19	.8456	-2.54900	2.08824
M_IN24	.57536*	.33343	1.73	.0844	-.07815	1.22887
M_IN34	.58285*	.33486	1.74	.0818	-.07347	1.23917
M_LC4	-1.41437***	.21472	-6.59	.0000	-1.83521	-.99354
M_D24	-.01430	.02858	-.50	.6170	-.07032	.04173
M_NV4	.24362***	.04207	5.79	.0000	.16117	.32608
M_ES4	-.70355**	.34196	-2.06	.0396	-1.37378	-.03331
M_LZ4	-.22976	.24412	-.94	.3466	-.70823	.24871
M_CS4	-1.16784	.72208	-1.62	.1058	-2.58308	.24740
A_P	2.95751***	.26894	11.00	.0000	2.43040	3.48462
P_NC05	3.06476***	.16877	18.16	.0000	2.73398	3.39554
P_NC15	.87065***	.17344	5.02	.0000	.53072	1.21058
P_NC25	.55090***	.16619	3.31	.0009	.22519	.87662
P_NC35	.16320	.20571	.79	.4276	-.23998	.56638
P_SX5	.40021***	.06551	6.11	.0000	.27181	.52860
P_ID25	1.60190***	.18756	8.54	.0000	1.23429	1.96951
P_ID35	1.55410***	.19349	8.03	.0000	1.17488	1.93333
P_ID45	1.60489***	.18700	8.58	.0000	1.23837	1.97141
P_ID55	1.85638***	.19944	9.31	.0000	1.46549	2.24727
P_IN15	.30242	.22034	1.37	.1699	-.12944	.73428
P_IN25	.44927***	.10342	4.34	.0000	.24658	.65196
P_IN35	.35205***	.10817	3.25	.0011	.14004	.56405
P_LC5	-1.43861***	.08464	-17.00	.0000	-1.60451	-1.27272
P_D25	-2.45174***	.04445	-55.15	.0000	-2.53886	-2.36461
P_NV5	-.16691***	.02015	-8.28	.0000	-.20640	-.12742
P_ES5	-.25186**	.11919	-2.11	.0346	-.48548	-.01825
P_LZ5	-.26725***	.09355	-2.86	.0043	-.45061	-.08389
P_CS5	.28070**	.12184	2.30	.0212	.04190	.51950

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.57c – Base de dados apenas com inquéritos com PO e OV e Ftl1
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
~~- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
~~- Var. Binária de disponibilidade diária de Moto no agregado (Mot). (não converge)~~

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

~~- 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)~~

~~- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*~~
~~- De2 : variável binária duracão da estadia >60min & <=120min (média duração)~~
~~- De3 : variável binária duracão da estadia >120min & <=240min (média duração)~~
~~- De4 : variável binária duracão da estadia >240min & <=480min (longa duração)~~
~~- De5: variável binária duracão da estadia >480min (muito longa duração)~~

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,nV,TR,Rg,Es,Cs$
Normal exit:   9 iterations. Status=0, F=    12021.24

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -12021.23669
Estimation based on N =  17055, K = 100
Inf.Cr.AIC  =  24242.5 AIC/N =    1.421
Model estimated: Jul 28, 2012, 15:08:40
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4458 .4452
Chi-squared[95]           =  19343.18165
Prob [ chi squared > value ] =   .00000
```

Response data are given as ind. choices
Number of obs.= 17055, skipped 0 obs

MTRP	Coefficient	Standard Error	z	Prob. |z|>Z*	95% Confidence Interval	
A_BP	-7.69297***	1.08012	-7.12	.0000	-9.80996	-5.57598
BP_NC01	5.41305***	1.00677	5.38	.0000	3.43982	7.38628
BP_NC11	3.23241***	1.01046	3.20	.0014	1.25194	5.21288
BP_NC21	2.67791***	1.00889	2.65	.0079	.70053	4.65529
BP_NC31	1.70061	1.05276	1.62	.1062	-.36277	3.76398
BP_SX1	.49170***	.10183	4.83	.0000	.29213	.69128
BP_ID21	1.44638***	.29499	4.90	.0000	.86820	2.02455
BP_ID31	1.64167***	.30447	5.39	.0000	1.04492	2.23843
BP_ID41	1.44412***	.29414	4.91	.0000	.86762	2.02063
BP_ID51	1.81919***	.30837	5.90	.0000	1.21479	2.42359
BP_IN11	.24072	.39518	.61	.5424	-.53381	1.01526
BP_IN21	1.19156***	.24117	4.94	.0000	.71887	1.66424
BP_IN31	1.11431***	.24985	4.46	.0000	.62461	1.60402
BP_LC1	-1.79463***	.12360	-14.52	.0000	-2.03688	-1.55239
BP_D21	.10644***	.01233	8.64	.0000	.08228	.13060
BP_NV1	-.22216***	.03442	-6.45	.0000	-.28963	-.15469
BP_TR1	.59580***	.17702	3.37	.0008	.24886	.94274
BP_RG1	.37233**	.15550	2.39	.0166	.06756	.67710
BP_ES1	.21821	.22365	.98	.3292	-.22015	.65656
BP_CS1	.19036	.24481	.78	.4368	-.28945	.67017
A_B	-4.05734***	.25883	-15.68	.0000	-4.56465	-3.55004
B_NC02	4.19146***	.18279	22.93	.0000	3.83320	4.54973
B_NC12	2.05926***	.18330	11.23	.0000	1.70000	2.41852
B_NC22	1.76074***	.17873	9.85	.0000	1.41044	2.11104
B_NC32	.85335***	.20032	4.26	.0000	.46073	1.24598
B_SX2	.45912***	.05261	8.73	.0000	.35601	.56223
B_ID22	1.98370***	.15701	12.63	.0000	1.67598	2.29143
B_ID32	2.20964***	.16172	13.66	.0000	1.89267	2.52661
B_ID42	2.04717***	.15760	12.99	.0000	1.73829	2.35605
B_ID52	2.49880***	.16957	14.74	.0000	2.16645	2.83115
B_IN12	.16046	.18857	.85	.3948	-.20914	.53006
B_IN22	.51282***	.08063	6.36	.0000	.35479	.67085
B_IN32	.53295***	.08278	6.44	.0000	.37070	.69520
B_LC2	-1.71142***	.06737	-25.40	.0000	-1.84347	-1.57938
B_D22	.02271**	.00888	2.56	.0106	.00530	.04012
B_NV2	-.14993***	.01581	-9.49	.0000	-.18091	-.11895
B_TR2	.40624***	.08978	4.52	.0000	.23028	.58219
B_RG2	.24306***	.07912	3.07	.0021	.08798	.39813
B_ES2	.25318**	.11195	2.26	.0237	.03376	.47260
B_CS2	.42463***	.12331	3.44	.0006	.18294	.66632
A_BO	-5.23681***	1.19405	-4.39	.0000	-7.57710	-2.89651
BO_NC03	2.69287***	1.04017	2.59	.0096	.65417	4.73156
BO_NC13	2.12383**	1.03477	2.05	.0401	.09572	4.15194
BO_NC23	1.01596	1.03721	.98	.3273	-1.01694	3.04886
BO_NC33	1.69247	1.05497	1.60	.1087	-.37524	3.76018
BO_SX3	.45562**	.22071	2.06	.0390	.02303	.88821
BO_ID23	-.44037	.36211	-1.22	.2239	-1.15010	.26936
BO_ID33	-.87959*	.46567	-1.89	.0589	-1.79228	.03310
BO_ID43	-.87480**	.40251	-2.17	.0298	-1.66372	-.08589
BO_ID53	-.59772	.52413	-1.14	.2541	-1.62500	.42955

BO_IN13	.65081	.58347	1.12	.2647	-.49277	1.79438
BO_IN23	.79634*	.45112	1.77	.0775	-.08784	1.68053
BO_IN33	-.14147	.51838	-.27	.7849	-1.15748	.87454
BO_LC3	-1.02400***	.32552	-3.15	.0017	-1.66202	-.38599
BO_D23	.07099**	.02947	2.41	.0160	.01322	.12875
BO_NV3	-.14134*	.07610	-1.86	.0632	-.29049	.00780
BO_TR3	.30456	.40978	.74	.4573	-.49860	1.10771
BO_RG3	.15996	.32184	.50	.6192	-.47083	.79075
BO_ES3	.08858	.41739	.21	.8319	-.72948	.90665
BO_CS3	-1.54209	1.04536	-1.48	.1402	-3.59096	.50678
A_M	-7.92996***	1.39716	-5.68	.0000	-10.66835	-5.19157
M_NC04	4.45814***	1.02278	4.36	.0000	2.45352	6.46275
M_NC14	2.45041**	1.03141	2.38	.0175	.42888	4.47195
M_NC24	1.82646*	1.02756	1.78	.0755	-.18752	3.84043
M_NC34	1.82330*	1.05941	1.72	.0852	-.25310	3.89970
M_SX4	-1.63317***	.25781	-6.33	.0000	-2.13846	-1.12788
M_ID24	1.74906**	.87463	2.00	.0455	.03482	3.46329
M_ID34	2.15327**	.87978	2.45	.0144	.42893	3.87760
M_ID44	.56513	.89432	.63	.5274	-1.18771	2.31797
M_ID54	-1.16196	1.31465	-.88	.3768	-3.73861	1.41470
M_IN14	-.39079	1.25344	-.31	.7552	-2.84749	2.06591
M_IN24	.47435	.35355	1.34	.1797	-.21860	1.16730
M_IN34	.50196	.35387	1.42	.1560	-.19161	1.19553
M_LC4	-1.34532***	.23740	-5.67	.0000	-1.81063	-.88002
M_D24	-.02570	.03891	-.66	.5090	-.10196	.05056
M_NV4	.25065***	.04591	5.46	.0000	.16067	.34062
M_TR4	.55652*	.29635	1.88	.0604	-.02431	1.13736
M_RG4	.04064	.27731	.15	.8835	-.50288	.58415
M_ES4	-.74871*	.44653	-1.68	.0936	-1.62389	.12647
M_CS4	-.74725	.75534	-.99	.3225	-2.22770	.73320
A_P	2.68740***	.28270	9.51	.0000	2.13332	3.24148
P_NC05	2.98924***	.16874	17.71	.0000	2.65851	3.31998
P_NC15	.81801***	.17314	4.72	.0000	.47866	1.15736
P_NC25	.54239***	.16570	3.27	.0011	.21761	.86716
P_NC35	.14339	.20567	.70	.4857	-.25972	.54650
P_SX5	.35289***	.06675	5.29	.0000	.22207	.48372
P_ID25	1.56030***	.19036	8.20	.0000	1.18720	1.93340
P_ID35	1.54800***	.19784	7.82	.0000	1.16025	1.93575
P_ID45	1.60157***	.19154	8.36	.0000	1.22615	1.97698
P_ID55	1.77627***	.20298	8.75	.0000	1.37844	2.17410
P_IN15	.24107	.22540	1.07	.2848	-.20070	.68285
P_IN25	.44216***	.10457	4.23	.0000	.23721	.64711
P_IN35	.36322***	.10930	3.32	.0009	.14899	.57744
P_LC5	-1.45792***	.08705	-16.75	.0000	-1.62854	-1.28731
P_D25	-2.39671***	.04497	-53.30	.0000	-2.48485	-2.30857
P_NV5	-.16837***	.02053	-8.20	.0000	-.20860	-.12814
P_TR5	.16442	.11377	1.45	.1484	-.05857	.38740
P_RG5	.30165***	.09803	3.08	.0021	.10952	.49378
P_ES5	.04843	.14356	.34	.7358	-.23294	.32981
P_CS5	.51640***	.14568	3.54	.0004	.23087	.80193

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.40a –
- ASC

- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).
- Mot : Variável binária sobre a disponibilidade diária de motociclos no agregado

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,MOT,LC,D2$

Normal exit:   9 iterations. Status=0, F=    74164.46

--------------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -74164.46303
Estimation based on N =  95426, K =  40
Inf.Cr.AIC  = 148408.9 AIC/N =    1.555
Model estimated: May 28, 2012, 08:52:23
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .3994 .3994
Chi-squared[35]           =  98649.81314
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|   -5.45132***       .58061    -9.39  .0000    -6.58929  -4.31334
 BP_NC01|    4.44214***       .57984     7.66  .0000     3.30567   5.57860
 BP_NC11|    2.76945***       .58068     4.77  .0000     1.63134   3.90755
 BP_NC21|    2.28862***       .58037     3.94  .0001     1.15112   3.42611
 BP_NC31|    1.26632**        .59833     2.12  .0343      .09362   2.43902
 BP_MOT1|     .16045***       .05930     2.71  .0068      .04422    .27667
  BP_LC1|   -2.25232***       .05800   -38.84  .0000    -2.36599  -2.13865
  BP_D21|     .05921***       .00649     9.12  .0000      .04648    .07194
     A_B|   -1.91453***       .10732   -17.84  .0000    -2.12488  -1.70418
  B_NC02|    3.26859***       .10660    30.66  .0000     3.05966   3.47752
  B_NC12|    1.62274***       .10684    15.19  .0000     1.41334   1.83213
  B_NC22|    1.12524***       .10632    10.58  .0000      .91686   1.33362
  B_NC32|     .53744***       .11375     4.72  .0000      .31450    .76038
  B_MOT2|    -.42872***       .03236   -13.25  .0000     -.49215   -.36529
   B_LC2|   -1.98368***       .02198   -90.24  .0000    -2.02677  -1.94059
   B_D22|     .01387***       .00333     4.17  .0000      .00735    .02040
    A_BO|   -3.05553***       .17198   -17.77  .0000    -3.39260  -2.71846
 BO_NC03|    2.13516***       .17088    12.50  .0000     1.80024   2.47008
 BO_NC13|    1.10940***       .17087     6.49  .0000      .77451   1.44429
```

BO_NC23	.36320**	.17099	2.12	.0337	.02807	.69833
BO_NC33	-.06563	.18866	-.35	.7279	-.43539	.30412
BO_MOT3	.70846***	.04294	16.50	.0000	.62431	.79261
BO_LC3	-2.01066***	.04292	-46.85	.0000	-2.09477	-1.92655
BO_D23	.04411***	.00550	8.02	.0000	.03333	.05489
A_M	-3.54820***	.15419	-23.01	.0000	-3.85040	-3.24599
M_NC04	1.91526***	.15198	12.60	.0000	1.61739	2.21314
M_NC14	.21509	.15262	1.41	.1587	-.08403	.51421
M_NC24	.14460	.15163	.95	.3403	-.15259	.44179
M_NC34	-.38080**	.16853	-2.26	.0239	-.71111	-.05048
M_MOT4	3.81032***	.04202	90.69	.0000	3.72797	3.89267
M_LC4	-1.06386***	.03485	-30.53	.0000	-1.13217	-.99556
M_D24	-.07404***	.00603	-12.29	.0000	-.08585	-.06223
A_P	4.58395***	.12494	36.69	.0000	4.33907	4.82883
P_NC05	2.50172***	.11837	21.14	.0000	2.26973	2.73372
P_NC15	.69402***	.12020	5.77	.0000	.45843	.92961
P_NC25	.37475***	.11788	3.18	.0015	.14370	.60579
P_NC35	-.29503**	.13975	-2.11	.0348	-.56893	-.02112
P_MOT5	-.06203	.06174	-1.00	.3151	-.18305	.05899
P_LC5	-1.81530***	.04003	-45.35	.0000	-1.89375	-1.73685
P_D25	-2.64579***	.02759	-95.90	.0000	-2.69987	-2.59172

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.58 –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
~~- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
~~- Var. Binária de disponibilidade diária de Moto no agregado (Mot)~~

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

~~- 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)~~

~~- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*~~
~~- De2 : variável binária duracão da estadia >60min & <=120min (média duração)~~
~~- De3 : variável binária duracão da estadia >120min & <=240min (média duração)~~
~~- De4 : variável binária duracão da estadia >240min & <=480min (longa duração)~~
~~- De5: variável binária duracão da estadia >480min (muito longa duração)~~

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
    ;Lhs=MTRP
    ;Choices=Bp,B,Bo,M,P,A[1]
    ;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,nV,TR,Rg,Es,Cs$
Normal exit:  10 iterations. Status=0, F=    15299.15

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -15299.14903
Estimation based on N =  19555, K = 100
Inf.Cr.AIC  =  30798.3 AIC/N =    1.575
Model estimated: Jul 24, 2012, 18:31:13
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .3949 .3943
Chi-squared[95]           =  19971.84237
Prob [ chi squared > value ] =   .00000
```

Response data are given as ind. choices
Number of obs.= 19555, skipped 0 obs

MTRP	Coefficient	Standard Error	z	Prob. |z|>Z*	95% Confidence Interval	
A_BP	-8.45007***	1.19254	-7.09	.0000	-10.78740	-6.11275
BP_NC01	3.96096***	1.00974	3.92	.0001	1.98191	5.94001
BP_NC11	2.39772**	1.01030	2.37	.0176	.41757	4.37787
BP_NC21	1.96157*	1.00971	1.94	.0521	-.01742	3.94057
BP_NC31	.16535	1.07597	.15	.8779	-1.94352	2.27422
BP_SX1	.67735***	.09904	6.84	.0000	.48325	.87146
BP_ID21	2.76596***	.34535	8.01	.0000	2.08908	3.44284
BP_ID31	2.05819***	.37110	5.55	.0000	1.33084	2.78554
BP_ID41	2.31756***	.35992	6.44	.0000	1.61212	3.02299
BP_ID51	2.35590***	.37675	6.25	.0000	1.61747	3.09432
BP_IN11	1.01201*	.57579	1.76	.0788	-.11652	2.14053
BP_IN21	.79051	.51461	1.54	.1245	-.21811	1.79913
BP_IN31	1.03302**	.52457	1.97	.0489	.00488	2.06116
BP_LC1	-2.16541***	.14767	-14.66	.0000	-2.45484	-1.87599
BP_D21	.05166**	.02048	2.52	.0116	.01153	.09179
BP_NV1	-.25220***	.03509	-7.19	.0000	-.32097	-.18342
BP_TR1	1.30146***	.20018	6.50	.0000	.90912	1.69381
BP_RG1	1.45425***	.19679	7.39	.0000	1.06855	1.83994
BP_ES1	1.65444***	.20353	8.13	.0000	1.25553	2.05336
BP_CS1	.60903***	.22474	2.71	.0067	.16856	1.04951
A_B	-3.96786***	.34567	-11.48	.0000	-4.64535	-3.29037
B_NC02	2.83025***	.25633	11.04	.0000	2.32785	3.33266
B_NC12	1.28415***	.25574	5.02	.0000	.78292	1.78539
B_NC22	.80919***	.25452	3.18	.0015	.31035	1.30803
B_NC32	.08028	.27360	.29	.7692	-.45597	.61652
B_SX2	.41547***	.05359	7.75	.0000	.31044	.52051
B_ID22	2.33960***	.15668	14.93	.0000	2.03251	2.64669
B_ID32	1.95188***	.16873	11.57	.0000	1.62118	2.28257
B_ID42	1.98003***	.16422	12.06	.0000	1.65817	2.30188
B_ID52	1.68162***	.18202	9.24	.0000	1.32487	2.03837
B_IN12	-.00428	.21902	-.02	.9844	-.43355	.42500
B_IN22	.02383	.16046	.15	.8820	-.29067	.33832
B_IN32	.41154**	.16802	2.45	.0143	.08223	.74085
B_LC2	-2.21672***	.07108	-31.19	.0000	-2.35603	-2.07741
B_D22	.08310***	.01122	7.41	.0000	.06111	.10510
B_NV2	-.27176***	.01810	-15.01	.0000	-.30723	-.23628
B_TR2	.74115***	.09075	8.17	.0000	.56328	.91903
B_RG2	.90365***	.08954	10.09	.0000	.72816	1.07914
B_ES2	.98163***	.09752	10.07	.0000	.79049	1.17278
B_CS2	.36035***	.10491	3.43	.0006	.15473	.56596
A_BO	-5.40174***	.62220	-8.68	.0000	-6.62124	-4.18224
BO_NC03	2.52773***	.42544	5.94	.0000	1.69388	3.36157
BO_NC13	1.30778***	.42433	3.08	.0021	.47610	2.13945
BO_NC23	.53848	.42482	1.27	.2050	-.29415	1.37111
BO_NC33	-.24121	.46728	-.52	.6057	-1.15706	.67465
BO_SX3	-.31174***	.08039	-3.88	.0001	-.46929	-.15419
BO_ID23	1.62510***	.20128	8.07	.0000	1.23061	2.01960
BO_ID33	1.25205***	.23391	5.35	.0000	.79359	1.71052
BO_ID43	.91155***	.22904	3.98	.0001	.46265	1.36045
BO_ID53	.26586	.30490	.87	.3832	-.33173	.86346

BO_IN13	1.24165***	.44691	2.78	.0055	.36572	2.11758
BO_IN23	.99536**	.39002	2.55	.0107	.23094	1.75979
BO_IN33	.44500	.40753	1.09	.2749	-.35374	1.24374
BO_LC3	-1.56977***	.11670	-13.45	.0000	-1.79850	-1.34103
BO_D23	.07597***	.01721	4.41	.0000	.04224	.10969
BO_NV3	-.27408***	.02960	-9.26	.0000	-.33209	-.21606
BO_TR3	1.41241***	.17573	8.04	.0000	1.06799	1.75683
BO_RG3	1.36086***	.17491	7.78	.0000	1.01804	1.70368
BO_ES3	1.76761***	.17552	10.07	.0000	1.42361	2.11162
BO_CS3	.51675**	.21887	2.36	.0182	.08778	.94572
A_M	-6.99906***	.57720	-12.13	.0000	-8.13035	-5.86777
M_NC04	2.49606***	.24521	10.18	.0000	2.01546	2.97665
M_NC14	.99121***	.24524	4.04	.0001	.51055	1.47186
M_NC24	.35220	.24411	1.44	.1491	-.12625	.83066
M_NC34	-.36491	.28076	-1.30	.1937	-.91519	.18537
M_SX4	-.89832***	.06856	-13.10	.0000	-1.03270	-.76395
M_ID24	2.36211***	.26397	8.95	.0000	1.84475	2.87947
M_ID34	2.75795***	.26281	10.49	.0000	2.24285	3.27304
M_ID44	2.57274***	.25929	9.92	.0000	2.06454	3.08093
M_ID54	1.43469***	.28193	5.09	.0000	.88211	1.98726
M_IN14	3.13496***	.48899	6.41	.0000	2.17655	4.09337
M_IN24	2.60827***	.45322	5.76	.0000	1.71999	3.49656
M_IN34	2.04519***	.46304	4.42	.0000	1.13764	2.95274
M_LC4	-1.85890***	.07841	-23.71	.0000	-2.01258	-1.70523
M_D24	-.05413***	.01466	-3.69	.0002	-.08286	-.02540
M_NV4	.05330***	.01701	3.13	.0017	.01996	.08664
M_TR4	.96898***	.10093	9.60	.0000	.77116	1.16680
M_RG4	.64670***	.10139	6.38	.0000	.44797	.84543
M_ES4	-.83253***	.17079	-4.87	.0000	-1.16728	-.49778
M_CS4	.12702	.13280	.96	.3388	-.13327	.38731
A_P	4.00829***	.46535	8.61	.0000	3.09622	4.92035
P_NC05	2.62376***	.30934	8.48	.0000	2.01746	3.23005
P_NC15	.63088**	.30697	2.06	.0399	.02923	1.23253
P_NC25	.33246	.30027	1.11	.2682	-.25605	.92097
P_NC35	-.56673*	.34367	-1.65	.0991	-1.24031	.10684
P_SX5	.19192*	.09844	1.95	.0512	-.00101	.38485
P_ID25	2.12317***	.24359	8.72	.0000	1.64573	2.60060
P_ID35	2.08304***	.26891	7.75	.0000	1.55599	2.61008
P_ID45	2.18345***	.25908	8.43	.0000	1.67567	2.69124
P_ID55	2.26743***	.29498	7.69	.0000	1.68927	2.84559
P_IN15	-.14321	.33000	-.43	.6643	-.79001	.50358
P_IN25	.09082	.21638	.42	.6747	-.33328	.51493
P_IN35	.15729	.24037	.65	.5129	-.31382	.62840
P_LC5	-2.17485***	.12756	-17.05	.0000	-2.42487	-1.92483
P_D25	-3.18160***	.07843	-40.57	.0000	-3.33531	-3.02789
P_NV5	-.20453***	.03179	-6.43	.0000	-.26684	-.14222
P_TR5	.02175	.15098	.14	.8854	-.27417	.31768
P_RG5	.30883**	.14626	2.11	.0347	.02217	.59549
P_ES5	.20399	.17728	1.15	.2499	-.14348	.55145
P_CS5	-.36365**	.17695	-2.06	.0399	-.71046	-.01683

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.58a – Base de dados apenas com inquéritos com PO e OV
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
~~- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
~~- Var. Binária de disponibilidade diária de Moto no agregado (Mot).~~

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

~~- 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)~~

~~- *De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*~~
~~- De2 : variável binária duracão da estadia >60min & <=120min (média duração)~~
~~- De3 : variável binária duracão da estadia >120min & <=240min (média duração)~~
~~- De4 : variável binária duracão da estadia >240min & <=480min (longa duração)~~
~~- De5: variável binária duracão da estadia >480min (muito longa duração)~~

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,nV,TR,Rg,Es,Cs$
Normal exit:   9 iterations. Status=0, F=    13299.42

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -13299.42083
Estimation based on N =  18823, K = 100
Inf.Cr.AIC  =  26798.8 AIC/N =    1.424
Model estimated: Jul 24, 2012, 21:40:13
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4441 .4435
Chi-squared[95]           =  21245.24172
Prob [ chi squared > value ] =   .00000
```

Response data are given as ind. choices
Number of obs.= 18823, skipped 0 obs

MTRP	Coefficient	Standard Error	z	Prob. |z|>Z*	95% Confidence Interval	
A_BP	-8.06348***	1.07518	-7.50	.0000	-10.17080	-5.95616
BP_NC01	5.57772***	1.00596	5.54	.0000	3.60607	7.54936
BP_NC11	3.44236***	1.00888	3.41	.0006	1.46499	5.41974
BP_NC21	2.91385***	1.00724	2.89	.0038	.93969	4.88800
BP_NC31	1.72464	1.05210	1.64	.1012	-.33743	3.78671
BP_SX1	.53090***	.09621	5.52	.0000	.34233	.71947
BP_ID21	1.65386***	.29295	5.65	.0000	1.07969	2.22804
BP_ID31	1.88774***	.29884	6.32	.0000	1.30203	2.47345
BP_ID41	1.70171***	.29003	5.87	.0000	1.13327	2.27015
BP_ID51	2.08548***	.30324	6.88	.0000	1.49115	2.67981
BP_IN11	.48853	.36344	1.34	.1789	-.22379	1.20086
BP_IN21	1.18142***	.22498	5.25	.0000	.74048	1.62237
BP_IN31	1.10467***	.23337	4.73	.0000	.64728	1.56206
BP_LC1	-1.77807***	.11520	-15.43	.0000	-2.00386	-1.55228
BP_D21	.07974***	.00992	8.04	.0000	.06030	.09918
BP_NV1	-.20984***	.03214	-6.53	.0000	-.27284	-.14684
BP_TR1	.59191***	.16574	3.57	.0004	.26705	.91676
BP_RG1	.36231**	.14681	2.47	.0136	.07456	.65006
BP_ES1	.23114	.21400	1.08	.2801	-.18829	.65058
BP_CS1	.39991*	.22325	1.79	.0732	-.03764	.83747
A_B	-4.08894***	.24183	-16.91	.0000	-4.56293	-3.61496
B_NC02	4.31114***	.17330	24.88	.0000	3.97148	4.65080
B_NC12	2.18739***	.17320	12.63	.0000	1.84792	2.52686
B_NC22	1.83453***	.16914	10.85	.0000	1.50301	2.16604
B_NC32	1.00821***	.18714	5.39	.0000	.64143	1.37499
B_SX2	.50218***	.04912	10.22	.0000	.40590	.59846
B_ID22	1.91368***	.14523	13.18	.0000	1.62904	2.19831
B_ID32	2.13511***	.14881	14.35	.0000	1.84345	2.42678
B_ID42	1.99609***	.14498	13.77	.0000	1.71194	2.28023
B_ID52	2.46144***	.15772	15.61	.0000	2.15232	2.77056
B_IN12	.20921	.17542	1.19	.2330	-.13460	.55302
B_IN22	.49986***	.07446	6.71	.0000	.35391	.64581
B_IN32	.48189***	.07661	6.29	.0000	.33173	.63205
B_LC2	-1.67069***	.06256	-26.71	.0000	-1.79330	-1.54807
B_D22	.01831***	.00671	2.73	.0064	.00516	.03146
B_NV2	-.13336***	.01462	-9.12	.0000	-.16201	-.10470
B_TR2	.38305***	.08377	4.57	.0000	.21887	.54723
B_RG2	.24254***	.07411	3.27	.0011	.09727	.38780
B_ES2	.19659*	.10623	1.85	.0642	-.01162	.40480
B_CS2	.45987***	.11631	3.95	.0001	.23190	.68783
A_BO	-5.15677***	1.19087	-4.33	.0000	-7.49083	-2.82271
BO_NC03	2.82517***	1.03697	2.72	.0064	.79273	4.85760
BO_NC13	2.15413**	1.03275	2.09	.0370	.12998	4.17827
BO_NC23	1.10797	1.03415	1.07	.2840	-.91892	3.13486
BO_NC33	1.77576*	1.05019	1.69	.0909	-.28257	3.83408
BO_SX3	.46350**	.21435	2.16	.0306	.04339	.88361
BO_ID23	-.47018	.35531	-1.32	.1857	-1.16657	.22621
BO_ID33	-.92388**	.44531	-2.07	.0380	-1.79668	-.05108
BO_ID43	-1.02671***	.39273	-2.61	.0089	-1.79645	-.25698
BO_ID53	-.70512	.51919	-1.36	.1744	-1.72271	.31247

BO_IN13	.72331	.57108	1.27	.2053	-.39598	1.84260
BO_IN23	.82005*	.44745	1.83	.0668	-.05693	1.69703
BO_IN33	.06841	.49602	.14	.8903	-.90378	1.04059
BO_LC3	-.96226***	.31630	-3.04	.0023	-1.58221	-.34232
BO_D23	.02743	.02749	1.00	.3183	-.02645	.08131
BO_NV3	-.16307**	.07545	-2.16	.0307	-.31095	-.01520
BO_TR3	.37657	.40358	.93	.3508	-.41442	1.16757
BO_RG3	.22654	.31883	.71	.4774	-.39835	.85143
BO_ES3	.03645	.41454	.09	.9299	-.77604	.84894
BO_CS3	-1.46305	1.04462	-1.40	.1613	-3.51047	.58437
A_M	-7.33209***	1.08642	-6.75	.0000	-9.46143	-5.20276
M_NC04	3.51388***	.61073	5.75	.0000	2.31687	4.71090
M_NC14	1.42656**	.62409	2.29	.0223	.20337	2.64975
M_NC24	.83959	.61794	1.36	.1742	-.37156	2.05074
M_NC34	.70028	.67374	1.04	.2986	-.62023	2.02078
M_SX4	-1.79418***	.24814	-7.23	.0000	-2.28053	-1.30783
M_ID24	2.05411**	.83014	2.47	.0133	.42707	3.68115
M_ID34	2.54901***	.83236	3.06	.0022	.91762	4.18040
M_ID44	1.14796	.84197	1.36	.1727	-.50226	2.79819
M_ID54	.15923	.99672	.16	.8731	-1.79431	2.11277
M_IN14	-.22965	1.18706	-.19	.8466	-2.55624	2.09694
M_IN24	.55591*	.33354	1.67	.0956	-.09781	1.20964
M_IN34	.59816*	.33513	1.78	.0743	-.05867	1.25500
M_LC4	-1.43157***	.21467	-6.67	.0000	-1.85232	-1.01082
M_D24	-.01287	.02850	-.45	.6515	-.06874	.04299
M_NV4	.24265***	.04220	5.75	.0000	.15994	.32536
M_TR4	.53340*	.27515	1.94	.0526	-.00588	1.07269
M_RG4	.07552	.25637	.29	.7683	-.42696	.57799
M_ES4	-.51492	.39537	-1.30	.1928	-1.28983	.25998
M_CS4	-.92959	.74883	-1.24	.2145	-2.39727	.53809
A_P	2.66035***	.28004	9.50	.0000	2.11148	3.20922
P_NC05	3.06787***	.16893	18.16	.0000	2.73678	3.39896
P_NC15	.87485***	.17360	5.04	.0000	.53461	1.21510
P_NC25	.55635***	.16638	3.34	.0008	.23025	.88245
P_NC35	.17828	.20610	.87	.3870	-.22566	.58223
P_SX5	.39664***	.06553	6.05	.0000	.26820	.52507
P_ID25	1.60845***	.18758	8.57	.0000	1.24080	1.97610
P_ID35	1.58676***	.19433	8.17	.0000	1.20588	1.96764
P_ID45	1.64042***	.18807	8.72	.0000	1.27181	2.00902
P_ID55	1.86492***	.19950	9.35	.0000	1.47391	2.25594
P_IN15	.29836	.22039	1.35	.1758	-.13361	.73032
P_IN25	.44800***	.10345	4.33	.0000	.24523	.65077
P_IN35	.34364***	.10825	3.17	.0015	.13148	.55580
P_LC5	-1.43507***	.08475	-16.93	.0000	-1.60118	-1.26897
P_D25	-2.45126***	.04449	-55.10	.0000	-2.53846	-2.36407
P_NV5	-.16485***	.02014	-8.18	.0000	-.20433	-.12537
P_TR5	.14978	.11176	1.34	.1802	-.06926	.36881
P_RG5	.30194***	.09621	3.14	.0017	.11338	.49050
P_ES5	.02734	.14188	.19	.8472	-.25075	.30542
P_CS5	.54659***	.14336	3.81	.0001	.26561	.82756

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.58b – Base de dados apenas com inquéritos com PO e OV e Ftl1
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
~~- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a)
~~- Var. Binária de disponibilidade diária de Moto no agregado (Mot).~~

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

~~- 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)~~

~~*- De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*~~
~~- De2 : variável binária duracão da estadia >60min & <=120min (média duração)~~
~~- De3 : variável binária duracão da estadia >120min & <=240min (média duração)~~
~~- De4 : variável binária duracão da estadia >240min & <=480min (longa duração)~~
~~- De5: variável binária duracão da estadia >480min (muito longa duração)~~

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
    ;Lhs=MTRP
    ;Choices=Bp,B,Bo,M,P,A[1]
    ;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,nV,TR,Rg,Es,Cs$
Normal exit:   9 iterations. Status=0, F=    12021.24

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -12021.23669
Estimation based on N =  17055, K = 100
Inf.Cr.AIC  =  24242.5 AIC/N =    1.421
Model estimated: Jul 25, 2012, 12:04:36
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4458 .4452
Chi-squared[95]           =  19343.18165
Prob [ chi squared > value ] =   .00000
```

Response data are given as ind. choices
Number of obs.= 17055, skipped 0 obs

MTRP	Coefficient	Standard Error	z	Prob. |z|>Z*	95% Confidence Interval	
A_BP	-7.69297***	1.08012	-7.12	.0000	-9.80996	-5.57598
BP_NC01	5.41305***	1.00677	5.38	.0000	3.43982	7.38628
BP_NC11	3.23241***	1.01046	3.20	.0014	1.25194	5.21288
BP_NC21	2.67791***	1.00889	2.65	.0079	.70053	4.65529
BP_NC31	1.70061	1.05276	1.62	.1062	-.36277	3.76398
BP_SX1	.49170***	.10183	4.83	.0000	.29213	.69128
BP_ID21	1.44638***	.29499	4.90	.0000	.86820	2.02455
BP_ID31	1.64167***	.30447	5.39	.0000	1.04492	2.23843
BP_ID41	1.44412***	.29414	4.91	.0000	.86762	2.02063
BP_ID51	1.81919***	.30837	5.90	.0000	1.21479	2.42359
BP_IN11	.24072	.39518	.61	.5424	-.53381	1.01526
BP_IN21	1.19156***	.24117	4.94	.0000	.71887	1.66424
BP_IN31	1.11431***	.24985	4.46	.0000	.62461	1.60402
BP_LC1	-1.79463***	.12360	-14.52	.0000	-2.03688	-1.55239
BP_D21	.10644***	.01233	8.64	.0000	.08228	.13060
BP_NV1	-.22216***	.03442	-6.45	.0000	-.28963	-.15469
BP_TR1	.59580***	.17702	3.37	.0008	.24886	.94274
BP_RG1	.37233**	.15550	2.39	.0166	.06756	.67710
BP_ES1	.21821	.22365	.98	.3292	-.22015	.65656
BP_CS1	.19036	.24481	.78	.4368	-.28945	.67017
A_B	-4.05734***	.25883	-15.68	.0000	-4.56465	-3.55004
B_NC02	4.19146***	.18279	22.93	.0000	3.83320	4.54973
B_NC12	2.05926***	.18330	11.23	.0000	1.70000	2.41852
B_NC22	1.76074***	.17873	9.85	.0000	1.41044	2.11104
B_NC32	.85335***	.20032	4.26	.0000	.46073	1.24598
B_SX2	.45912***	.05261	8.73	.0000	.35601	.56223
B_ID22	1.98370***	.15701	12.63	.0000	1.67598	2.29143
B_ID32	2.20964***	.16172	13.66	.0000	1.89267	2.52661
B_ID42	2.04717***	.15760	12.99	.0000	1.73829	2.35605
B_ID52	2.49880***	.16957	14.74	.0000	2.16645	2.83115
B_IN12	.16046	.18857	.85	.3948	-.20914	.53006
B_IN22	.51282***	.08063	6.36	.0000	.35479	.67085
B_IN32	.53295***	.08278	6.44	.0000	.37070	.69520
B_LC2	-1.71142***	.06737	-25.40	.0000	-1.84347	-1.57938
B_D22	.02271**	.00888	2.56	.0106	.00530	.04012
B_NV2	-.14993***	.01581	-9.49	.0000	-.18091	-.11895
B_TR2	.40624***	.08978	4.52	.0000	.23028	.58219
B_RG2	.24306***	.07912	3.07	.0021	.08798	.39813
B_ES2	.25318**	.11195	2.26	.0237	.03376	.47260
B_CS2	.42463***	.12331	3.44	.0006	.18294	.66632
A_BO	-5.23681***	1.19405	-4.39	.0000	-7.57710	-2.89651
BO_NC03	2.69287***	1.04017	2.59	.0096	.65417	4.73156
BO_NC13	2.12383**	1.03477	2.05	.0401	.09572	4.15194
BO_NC23	1.01596	1.03721	.98	.3273	-1.01694	3.04886
BO_NC33	1.69247	1.05497	1.60	.1087	-.37524	3.76018
BO_SX3	.45562**	.22071	2.06	.0390	.02303	.88821
BO_ID23	-.44037	.36211	-1.22	.2239	-1.15010	.26936
BO_ID33	-.87959*	.46567	-1.89	.0589	-1.79228	.03310
BO_ID43	-.87480**	.40251	-2.17	.0298	-1.66372	-.08589
BO_ID53	-.59772	.52413	-1.14	.2541	-1.62500	.42955

BO_IN13	.65081	.58347	1.12	.2647	-.49277	1.79438
BO_IN23	.79634*	.45112	1.77	.0775	-.08784	1.68053
BO_IN33	-.14147	.51838	-.27	.7849	-1.15748	.87454
BO_LC3	-1.02400***	.32552	-3.15	.0017	-1.66202	-.38599
BO_D23	.07099**	.02947	2.41	.0160	.01322	.12875
BO_NV3	-.14134*	.07610	-1.86	.0632	-.29049	.00780
BO_TR3	.30456	.40978	.74	.4573	-.49860	1.10771
BO_RG3	.15996	.32184	.50	.6192	-.47083	.79075
BO_ES3	.08858	.41739	.21	.8319	-.72948	.90665
BO_CS3	-1.54209	1.04536	-1.48	.1402	-3.59096	.50678
A_M	-7.92996***	1.39716	-5.68	.0000	-10.66835	-5.19157
M_NC04	4.45814***	1.02278	4.36	.0000	2.45352	6.46275
M_NC14	2.45041**	1.03141	2.38	.0175	.42888	4.47195
M_NC24	1.82646*	1.02756	1.78	.0755	-.18752	3.84043
M_NC34	1.82330*	1.05941	1.72	.0852	-.25310	3.89970
M_SX4	-1.63317***	.25781	-6.33	.0000	-2.13846	-1.12788
M_ID24	1.74906**	.87463	2.00	.0455	.03482	3.46329
M_ID34	2.15327**	.87978	2.45	.0144	.42893	3.87760
M_ID44	.56513	.89432	.63	.5274	-1.18771	2.31797
M_ID54	-1.16196	1.31465	-.88	.3768	-3.73861	1.41470
M_IN14	-.39079	1.25344	-.31	.7552	-2.84749	2.06591
M_IN24	.47435	.35355	1.34	.1797	-.21860	1.16730
M_IN34	.50196	.35387	1.42	.1560	-.19161	1.19553
M_LC4	-1.34532***	.23740	-5.67	.0000	-1.81063	-.88002
M_D24	-.02570	.03891	-.66	.5090	-.10196	.05056
M_NV4	.25065***	.04591	5.46	.0000	.16067	.34062
M_TR4	.55652*	.29635	1.88	.0604	-.02431	1.13736
M_RG4	.04064	.27731	.15	.8835	-.50288	.58415
M_ES4	-.74871*	.44653	-1.68	.0936	-1.62389	.12647
M_CS4	-.74725	.75534	-.99	.3225	-2.22770	.73320
A_P	2.68740***	.28270	9.51	.0000	2.13332	3.24148
P_NC05	2.98924***	.16874	17.71	.0000	2.65851	3.31998
P_NC15	.81801***	.17314	4.72	.0000	.47866	1.15736
P_NC25	.54239***	.16570	3.27	.0011	.21761	.86716
P_NC35	.14339	.20567	.70	.4857	-.25972	.54650
P_SX5	.35289***	.06675	5.29	.0000	.22207	.48372
P_ID25	1.56030***	.19036	8.20	.0000	1.18720	1.93340
P_ID35	1.54800***	.19784	7.82	.0000	1.16025	1.93575
P_ID45	1.60157***	.19154	8.36	.0000	1.22615	1.97698
P_ID55	1.77627***	.20298	8.75	.0000	1.37844	2.17410
P_IN15	.24107	.22540	1.07	.2848	-.20070	.68285
P_IN25	.44216***	.10457	4.23	.0000	.23721	.64711
P_IN35	.36322***	.10930	3.32	.0009	.14899	.57744
P_LC5	-1.45792***	.08705	-16.75	.0000	-1.62854	-1.28731
P_D25	-2.39671***	.04497	-53.30	.0000	-2.48485	-2.30857
P_NV5	-.16837***	.02053	-8.20	.0000	-.20860	-.12814
P_TR5	.16442	.11377	1.45	.1484	-.05857	.38740
P_RG5	.30165***	.09803	3.08	.0021	.10952	.49378
P_ES5	.04843	.14356	.34	.7358	-.23294	.32981
P_CS5	.51640***	.14568	3.54	.0004	.23087	.80193

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.57_NCA –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- ~~Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).
- Var. Binária de disponibilidade diária de Moto no agregado (Mot)

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- ~~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)~~

- ~~*De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*~~
- ~~De2 : variável binária duracão da estadia >60min & <=120min (média duração)~~
- ~~De3 : variável binária duracão da estadia >120min & <=240min (média duração)~~
- ~~De4 : variável binária duracão da estadia >240min & <=480min (longa duração)~~
- ~~De5: variável binária duracão da estadia >480min (muito longa duração)~~

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,Mot,nV,TR,Rg,Es,Cs$
Normal exit:   9 iterations. Status=0, F=    67735.65

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -67735.64588
Estimation based on N =  94507, K = 105
Inf.Cr.AIC  = 135681.3 AIC/N =    1.436
Model estimated: Aug 22, 2012, 13:04:39
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4438 .4437
Chi-squared[**]           = 108100.43099
Prob [ chi squared > value ] =   .00000
```

Response data are given as ind. choices
Number of obs.= 94507, skipped 0 obs

MTRP	Coefficient	Standard Error	z	Prob. |z|>Z*	95% Confidence Interval	
A_BP	-8.19243***	.63591	-12.88	.0000	-9.43879	-6.94607
BP_NC01	4.49075***	.58075	7.73	.0000	3.35251	5.62899
BP_NC11	2.70337***	.58171	4.65	.0000	1.56324	3.84350
BP_NC21	2.27879***	.58120	3.92	.0001	1.13966	3.41791
BP_NC31	1.25764**	.59919	2.10	.0358	.08325	2.43204
BP_SX1	.55097***	.05011	11.00	.0000	.45276	.64919
BP_ID21	2.80396***	.17702	15.84	.0000	2.45701	3.15091
BP_ID31	2.10937***	.18401	11.46	.0000	1.74871	2.47003
BP_ID41	2.24174***	.17855	12.56	.0000	1.89179	2.59169
BP_ID51	2.50892***	.18373	13.66	.0000	2.14882	2.86901
BP_IN11	.23408	.22098	1.06	.2895	-.19903	.66719
BP_IN21	.45190**	.18264	2.47	.0134	.09392	.80987
BP_IN31	.77221***	.18910	4.08	.0000	.40158	1.14284
BP_LC1	-1.93402***	.06782	-28.51	.0000	-2.06695	-1.80108
BP_D21	.04353***	.00670	6.50	.0000	.03039	.05667
BP_MOT1	.08639	.06132	1.41	.1589	-.03379	.20658
BP_NV1	-.30203***	.01766	-17.10	.0000	-.33665	-.26741
BP_TR1	.89867***	.10446	8.60	.0000	.69394	1.10340
BP_RG1	.75353***	.09210	8.18	.0000	.57302	.93404
BP_ES1	1.22728***	.11010	11.15	.0000	1.01148	1.44308
BP_CS1	.15731	.13071	1.20	.2288	-.09888	.41350
A_B	-3.27712***	.13708	-23.91	.0000	-3.54580	-3.00845
B_NC02	3.38609***	.10840	31.24	.0000	3.17363	3.59855
B_NC12	1.71609***	.10862	15.80	.0000	1.50321	1.92898
B_NC22	1.24101***	.10774	11.52	.0000	1.02985	1.45217
B_NC32	.61947***	.11540	5.37	.0000	.39330	.84565
B_SX2	.38479***	.02307	16.68	.0000	.33957	.43001
B_ID22	2.09817***	.06297	33.32	.0000	1.97475	2.22160
B_ID32	1.69872***	.06593	25.76	.0000	1.56949	1.82794
B_ID42	1.79064***	.06368	28.12	.0000	1.66583	1.91544
B_ID52	2.02835***	.06968	29.11	.0000	1.89178	2.16491
B_IN12	-.65450***	.07961	-8.22	.0000	-.81053	-.49847
B_IN22	-.26828***	.05050	-5.31	.0000	-.36726	-.16930
B_IN32	.27140***	.05376	5.05	.0000	.16604	.37676
B_LC2	-1.93065***	.02866	-67.38	.0000	-1.98681	-1.87449
B_D22	.00060	.00351	.17	.8649	-.00629	.00749
B_MOT2	-.45148***	.03417	-13.21	.0000	-.51846	-.38451
B_NV2	-.25688***	.00730	-35.17	.0000	-.27119	-.24256
B_TR2	.60088***	.04272	14.07	.0000	.51715	.68461
B_RG2	.43911***	.03717	11.81	.0000	.36627	.51196
B_ES2	.88974***	.04980	17.86	.0000	.79213	.98736
B_CS2	.10945**	.05398	2.03	.0426	.00364	.21525
A_BO	-5.37295***	.30170	-17.81	.0000	-5.96427	-4.78163
BO_NC03	1.90043***	.17377	10.94	.0000	1.55984	2.24102
BO_NC13	.59970***	.17398	3.45	.0006	.25871	.94069
BO_NC23	.02785	.17375	.16	.8727	-.31269	.36839
BO_NC33	-.36960*	.19166	-1.93	.0538	-.74524	.00604
BO_SX3	-.18905***	.03890	-4.86	.0000	-.26529	-.11281
BO_ID23	1.65761***	.08994	18.43	.0000	1.48132	1.83390
BO_ID33	.70752***	.10218	6.92	.0000	.50726	.90779

BO_ID43	.47262***	.09755	4.84	.0000	.28142	.66382
BO_ID53	.02816	.13314	.21	.8325	-.23279	.28910
BO_IN13	1.73370***	.24350	7.12	.0000	1.25645	2.21094
BO_IN23	1.67285***	.22324	7.49	.0000	1.23530	2.11040
BO_IN33	1.00515***	.23097	4.35	.0000	.55246	1.45784
BO_LC3	-1.34817***	.05588	-24.12	.0000	-1.45770	-1.23863
BO_D23	.03831***	.00568	6.74	.0000	.02717	.04944
BO_MOT3	.54876***	.04519	12.14	.0000	.46019	.63733
BO_NV3	-.29116***	.01405	-20.72	.0000	-.31870	-.26362
BO_TR3	1.47377***	.10141	14.53	.0000	1.27501	1.67254
BO_RG3	1.17792***	.09310	12.65	.0000	.99544	1.36040
BO_ES3	1.75301***	.10150	17.27	.0000	1.55407	1.95195
BO_CS3	.20234	.14582	1.39	.1653	-.08346	.48814
A_M	-7.54717***	.34961	-21.59	.0000	-8.23240	-6.86194
M_NC04	1.64699***	.16238	10.14	.0000	1.32873	1.96524
M_NC14	.11780	.16294	.72	.4697	-.20155	.43715
M_NC24	.04461	.16188	.28	.7829	-.27267	.36190
M_NC34	-.37195**	.17958	-2.07	.0383	-.72391	-.01999
M_SX4	-.72535***	.03789	-19.14	.0000	-.79962	-.65108
M_ID24	1.53901***	.12970	11.87	.0000	1.28480	1.79321
M_ID34	2.42433***	.12835	18.89	.0000	2.17277	2.67589
M_ID44	2.17256***	.12615	17.22	.0000	1.92531	2.41981
M_ID54	2.21649***	.13864	15.99	.0000	1.94476	2.48822
M_IN14	2.54233***	.30416	8.36	.0000	1.94619	3.13846
M_IN24	2.50316***	.28488	8.79	.0000	1.94480	3.06151
M_IN34	2.30736***	.28948	7.97	.0000	1.73998	2.87473
M_LC4	-1.80136***	.04395	-40.98	.0000	-1.88751	-1.71521
M_D24	-.08971***	.00646	-13.90	.0000	-.10236	-.07706
M_MOT4	3.72659***	.04383	85.03	.0000	3.64069	3.81249
M_NV4	.00677	.00985	.69	.4915	-.01252	.02607
M_TR4	.93101***	.06648	14.01	.0000	.80072	1.06130
M_RG4	.40404***	.06189	6.53	.0000	.28274	.52535
M_ES4	-.70582***	.11832	-5.97	.0000	-.93771	-.47392
M_CS4	-.21920**	.09653	-2.27	.0232	-.40840	-.02999
A_P	3.70425***	.18028	20.55	.0000	3.35092	4.05759
P_NC05	2.46038***	.12329	19.96	.0000	2.21873	2.70203
P_NC15	.74976***	.12522	5.99	.0000	.50432	.99519
P_NC25	.42327***	.12229	3.46	.0005	.18359	.66295
P_NC35	-.21052	.14425	-1.46	.1445	-.49325	.07222
P_SX5	.14682***	.03997	3.67	.0002	.06847	.22517
P_ID25	1.70712***	.09609	17.77	.0000	1.51878	1.89546
P_ID35	1.41149***	.10236	13.79	.0000	1.21087	1.61211
P_ID45	1.59356***	.09742	16.36	.0000	1.40261	1.78451
P_ID55	1.70682***	.10666	16.00	.0000	1.49776	1.91588
P_IN15	-.15964	.12514	-1.28	.2021	-.40492	.08563
P_IN25	.02197	.07857	.28	.7797	-.13203	.17598
P_IN35	.09547	.08661	1.10	.2703	-.07428	.26522
P_LC5	-1.81759***	.05130	-35.43	.0000	-1.91815	-1.71704
P_D25	-2.69465***	.02854	-94.42	.0000	-2.75059	-2.63872
P_MOT5	-.02759	.06396	-.43	.6663	-.15295	.09778
P_NV5	-.20714***	.01219	-16.99	.0000	-.23103	-.18325
P_TR5	.17099**	.07041	2.43	.0152	.03300	.30898
P_RG5	.26256***	.05899	4.45	.0000	.14693	.37818
P_ES5	.30891***	.08529	3.62	.0003	.14175	.47608
P_CS5	-.06239	.08708	-.72	.4737	-.23307	.10829

```
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
-------------------------------------------------------------------------------
```

MNL7.59_NCA –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- ~~Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- ~~Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).~~
- Var. Binárias para o nº de automóveis disponiveis no agregado p/adulto (excp. NA3)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot)

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

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

- ~~*De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*~~
- ~~De2 : variável binária duracão da estadia >60min & <=120min (média duração)~~
- ~~De3 : variável binária duracão da estadia >120min & <=240min (média duração)~~
- ~~De4 : variável binária duracão da estadia >240min & <=480min (longa duração)~~
- ~~De5: variável binária duracão da estadia >480min (muito longa duração)~~

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NA0,NA1,NA2,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,Mot,nV,TR,Rg,Es,Cs$
Normal exit:   9 iterations. Status=0, F=    67517.04

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -67517.03791
Estimation based on N =  94507, K = 100
Inf.Cr.AIC  = 135234.1 AIC/N =    1.431
Model estimated: Aug 22, 2012, 13:16:36
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4456 .4455
Chi-squared[95]           = 108537.64693
```

```
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 94507, skipped    0 obs
--------+------------------------------------------------------------------------
        |                 Standard                 Prob.      95% Confidence
   MTRP |  Coefficient       Error       z     |z|>Z*          Interval
--------+------------------------------------------------------------------------
   A_BP |   -6.61274***       .28131   -23.51   .0000     -7.16410   -6.06139
BP_NA01 |    3.06217***       .08605    35.58   .0000      2.89351    3.23083
BP_NA11 |    1.64503***       .10283    16.00   .0000      1.44348    1.84658
BP_NA21 |     .94922***       .08659    10.96   .0000       .77951    1.11893
 BP_SX1 |     .55512***       .05019    11.06   .0000       .45674     .65349
BP_ID21 |    2.85985***       .17763    16.10   .0000      2.51170    3.20800
BP_ID31 |    1.81732***       .18482     9.83   .0000      1.45507    2.17957
BP_ID41 |    1.98775***       .17918    11.09   .0000      1.63656    2.33894
BP_ID51 |    2.19843***       .18404    11.95   .0000      1.83772    2.55914
BP_IN11 |      .26612         .22083     1.21   .2282      -.16669     .69893
BP_IN21 |     .51228***       .18248     2.81   .0050       .15462     .86994
BP_IN31 |     .79364***       .18887     4.20   .0000       .42347    1.16382
 BP_LC1 |   -1.90028***       .06783   -28.02   .0000     -2.03322   -1.76734
 BP_D21 |     .04257***       .00671     6.35   .0000       .02942     .05571
BP_MOT1 |      .01360         .06176      .22   .8258      -.10746     .13465
 BP_NV1 |    -.30509***       .01771   -17.23   .0000      -.33980    -.27038
 BP_TR1 |     .93439***       .10444     8.95   .0000       .72970    1.13909
 BP_RG1 |     .78169***       .09211     8.49   .0000       .60116     .96223
 BP_ES1 |    1.27090***       .11028    11.52   .0000      1.05477    1.48704
 BP_CS1 |      .17703         .13071     1.35   .1756      -.07915     .43321
    A_B |   -2.48955***       .09316   -26.72   .0000     -2.67213   -2.30697
 B_NA02 |    2.75105***       .03570    77.05   .0000      2.68108    2.82103
 B_NA12 |    1.41554***       .04117    34.38   .0000      1.33485    1.49623
 B_NA22 |     .69758***       .03252    21.45   .0000       .63384     .76132
  B_SX2 |     .39151***       .02316    16.91   .0000       .34612     .43689
 B_ID22 |    2.14642***       .06381    33.64   .0000      2.02135    2.27149
 B_ID32 |    1.40817***       .06691    21.05   .0000      1.27703    1.53930
 B_ID42 |    1.54655***       .06454    23.96   .0000      1.42004    1.67305
 B_ID52 |    1.72325***       .07014    24.57   .0000      1.58578    1.86071
 B_IN12 |    -.63769***       .07950    -8.02   .0000      -.79352    -.48187
 B_IN22 |    -.22076***       .05033    -4.39   .0000      -.31940    -.12212
 B_IN32 |     .28073***       .05361     5.24   .0000       .17566     .38581
  B_LC2 |   -1.89325***       .02868   -66.01   .0000     -1.94946   -1.83704
 B_D22  |-.79182D-04          .00352      -.02  .9821 -.69823D-02  .68239D-02
 B_MOT2 |    -.51106***       .03445   -14.83   .0000      -.57859    -.44353
  B_NV2 |    -.25877***       .00735   -35.22   .0000      -.27317    -.24437
  B_TR2 |     .63988***       .04273    14.98   .0000       .55614     .72363
  B_RG2 |     .46892***       .03717    12.62   .0000       .39608     .54177
  B_ES2 |     .93031***       .05004    18.59   .0000       .83224    1.02839
  B_CS2 |     .13028**        .05397     2.41   .0158       .02449     .23607
   A_BO |   -5.49605***       .26189   -20.99   .0000     -6.00934   -4.98277
BO_NA03 |    2.16525***       .05773    37.50   .0000      2.05210    2.27841
BO_NA13 |    1.02130***       .07277    14.03   .0000       .87867    1.16393
BO_NA23 |     .47248***       .05451     8.67   .0000       .36565     .57932
 BO_SX3 |    -.18674***       .03891    -4.80   .0000      -.26300    -.11048
BO_ID23 |    1.70425***       .09037    18.86   .0000      1.52712    1.88138
BO_ID33 |     .48464***       .10306     4.70   .0000       .28265     .68662
BO_ID43 |     .28232***       .09828     2.87   .0041       .08970     .47493
BO_ID53 |    -.21618          .13353    -1.62   .1055      -.47790     .04553
```

BO_IN13	1.71973***	.24304	7.08	.0000	1.24338	2.19607
BO_IN23	1.69317***	.22246	7.61	.0000	1.25715	2.12919
BO_IN33	.98431***	.23050	4.27	.0000	.53253	1.43608
BO_LC3	-1.31838***	.05564	-23.69	.0000	-1.42744	-1.20933
BO_D23	.03763***	.00567	6.63	.0000	.02651	.04875
BO_MOT3	.51720***	.04558	11.35	.0000	.42786	.60654
BO_NV3	-.29519***	.01406	-20.99	.0000	-.32275	-.26763
BO_TR3	1.50625***	.10143	14.85	.0000	1.30745	1.70505
BO_RG3	1.20315***	.09311	12.92	.0000	1.02066	1.38565
BO_ES3	1.78508***	.10156	17.58	.0000	1.58603	1.98413
BO_CS3	.22358	.14584	1.53	.1253	-.06226	.50942
A_M	-7.57955***	.32005	-23.68	.0000	-8.20685	-6.95226
M_NA04	1.68150***	.05938	28.32	.0000	1.56511	1.79789
M_NA14	.14018**	.06854	2.05	.0408	.00584	.27453
M_NA24	.09232	.05750	1.61	.1084	-.02038	.20503
M_SX4	-.72593***	.03794	-19.13	.0000	-.80028	-.65157
M_ID24	1.57507***	.12976	12.14	.0000	1.32075	1.82939
M_ID34	2.34328***	.12863	18.22	.0000	2.09118	2.59539
M_ID44	2.10117***	.12641	16.62	.0000	1.85342	2.34892
M_ID54	2.11860***	.13893	15.25	.0000	1.84630	2.39090
M_IN14	2.57771***	.30374	8.49	.0000	1.98239	3.17303
M_IN24	2.55096***	.28435	8.97	.0000	1.99365	3.10826
M_IN34	2.32205***	.28913	8.03	.0000	1.75538	2.88873
M_LC4	-1.77896***	.04393	-40.50	.0000	-1.86505	-1.69286
M_D24	-.09059***	.00646	-14.03	.0000	-.10324	-.07793
M_MOT4	3.72271***	.04383	84.94	.0000	3.63681	3.80861
M_NV4	.00501	.00984	.51	.6105	-.01428	.02431
M_TR4	.93780***	.06648	14.11	.0000	.80750	1.06810
M_RG4	.41090***	.06190	6.64	.0000	.28957	.53222
M_ES4	-.68055***	.11827	-5.75	.0000	-.91235	-.44874
M_CS4	-.21711**	.09657	-2.25	.0246	-.40638	-.02784
A_P	3.84493***	.14852	25.89	.0000	3.55383	4.13603
P_NA05	2.47843***	.06020	41.17	.0000	2.36045	2.59641
P_NA15	1.16528***	.07325	15.91	.0000	1.02171	1.30885
P_NA25	.40158***	.05840	6.88	.0000	.28712	.51603
P_SX5	.17150***	.04012	4.27	.0000	.09287	.25013
P_ID25	1.72244***	.09666	17.82	.0000	1.53298	1.91189
P_ID35	1.13516***	.10340	10.98	.0000	.93249	1.33782
P_ID45	1.35878***	.09838	13.81	.0000	1.16595	1.55160
P_ID55	1.42154***	.10729	13.25	.0000	1.21125	1.63183
P_IN15	-.18825	.12540	-1.50	.1333	-.43403	.05753
P_IN25	.04555	.07850	.58	.5617	-.10831	.19941
P_IN35	.09164	.08657	1.06	.2898	-.07804	.26132
P_LC5	-1.78433***	.05131	-34.78	.0000	-1.88489	-1.68377
P_D25	-2.69202***	.02856	-94.26	.0000	-2.74800	-2.63604
P_MOT5	-.07030	.06414	-1.10	.2731	-.19601	.05541
P_NV5	-.20918***	.01221	-17.13	.0000	-.23312	-.18525
P_TR5	.20568***	.07050	2.92	.0035	.06749	.34386
P_RG5	.29001***	.05905	4.91	.0000	.17429	.40574
P_ES5	.34469***	.08535	4.04	.0001	.17741	.51198
P_CS5	-.05704	.08739	-.65	.5139	-.22832	.11424

Note: nnnnn.D-xx or D+xx => multiply by 10 to -xx or +xx.
Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.57_NCAb –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- ~~Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).
- Var. Binária de disponibilidade diária de Moto no agregado (Mot)

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- ~~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)~~

- ~~*De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*~~
- ~~De2 : variável binária duracão da estadia >60min & <=120min (média duração)~~
- ~~De3 : variável binária duracão da estadia >120min & <=240min (média duração)~~
- ~~De4 : variável binária duracão da estadia >240min & <=480min (longa duração)~~
- ~~De5: variável binária duracão da estadia >480min (muito longa duração)~~

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,Mot,nV,TR,Rg,Es,Cs$
Normal exit:  13 iterations. Status=0, F=    44846.23

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -44846.22763
Estimation based on N =  63735, K = 105
Inf.Cr.AIC  =  89902.5 AIC/N =    1.411
Model estimated: Aug 22, 2012, 15:08:19
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4425 .4423
Chi-squared[**]           =  71199.08846
Prob [ chi squared > value ] =   .00000
```

Response data are given as ind. choices
Number of obs.= 63735, skipped 0 obs

MTRP	Coefficient	Standard Error	z	Prob. |z|>Z*	95% Confidence Interval	
A_BP	-8.75782***	.67458	-12.98	.0000	-10.07998	-7.43566
BP_NC01	4.31102***	.58203	7.41	.0000	3.17026	5.45177
BP_NC11	2.55315***	.58376	4.37	.0000	1.40901	3.69730
BP_NC21	2.16621***	.58245	3.72	.0002	1.02464	3.30779
BP_NC31	1.27974**	.60199	2.13	.0335	.09985	2.45962
BP_SX1	.61831***	.06210	9.96	.0000	.49661	.74001
BP_ID21	2.96076***	.21523	13.76	.0000	2.53891	3.38262
BP_ID31	2.22592***	.22418	9.93	.0000	1.78654	2.66530
BP_ID41	2.36439***	.21680	10.91	.0000	1.93946	2.78931
BP_ID51	2.56168***	.22107	11.59	.0000	2.12840	2.99496
BP_IN11	.67009**	.29617	2.26	.0237	.08960	1.25057
BP_IN21	.86715***	.25861	3.35	.0008	.36027	1.37402
BP_IN31	1.16119***	.26550	4.37	.0000	.64083	1.68156
BP_LC1	-1.84625***	.08343	-22.13	.0000	-2.00977	-1.68273
BP_D21	.04139***	.00817	5.07	.0000	.02538	.05741
BP_MOT1	.14726**	.07482	1.97	.0491	.00061	.29391
BP_NV1	-.27444***	.02062	-13.31	.0000	-.31485	-.23402
BP_TR1	1.00004***	.12644	7.91	.0000	.75222	1.24785
BP_RG1	.79508***	.11087	7.17	.0000	.57778	1.01237
BP_ES1	1.26052***	.13322	9.46	.0000	.99942	1.52162
BP_CS1	.31306**	.15298	2.05	.0407	.01323	.61289
A_B	-3.13389***	.15190	-20.63	.0000	-3.43160	-2.83617
B_NC02	3.35875***	.11561	29.05	.0000	3.13215	3.58534
B_NC12	1.62918***	.11643	13.99	.0000	1.40098	1.85737
B_NC22	1.21950***	.11457	10.64	.0000	.99495	1.44405
B_NC32	.62606***	.12405	5.05	.0000	.38293	.86919
B_SX2	.37476***	.02843	13.18	.0000	.31904	.43047
B_ID22	1.94860***	.07302	26.69	.0000	1.80549	2.09172
B_ID32	1.56599***	.07696	20.35	.0000	1.41516	1.71683
B_ID42	1.66562***	.07387	22.55	.0000	1.52084	1.81041
B_ID52	1.82013***	.08041	22.63	.0000	1.66253	1.97774
B_IN12	-.67114***	.09399	-7.14	.0000	-.85537	-.48692
B_IN22	-.26825***	.06143	-4.37	.0000	-.38865	-.14785
B_IN32	.30704***	.06533	4.70	.0000	.17898	.43509
B_LC2	-1.85293***	.03548	-52.22	.0000	-1.92248	-1.78338
B_D22	-.01506***	.00442	-3.40	.0007	-.02373	-.00639
B_MOT2	-.34863***	.04216	-8.27	.0000	-.43127	-.26599
B_NV2	-.23973***	.00870	-27.55	.0000	-.25679	-.22267
B_TR2	.60630***	.05134	11.81	.0000	.50568	.70693
B_RG2	.42059***	.04397	9.56	.0000	.33441	.50678
B_ES2	.83753***	.05988	13.99	.0000	.72017	.95489
B_CS2	.10604	.06475	1.64	.1015	-.02086	.23294
A_BO	-5.17459***	.35714	-14.49	.0000	-5.87458	-4.47461
BO_NC03	1.81309***	.19510	9.29	.0000	1.43070	2.19549
BO_NC13	.45849**	.19620	2.34	.0195	.07393	.84304
BO_NC23	-.02095	.19450	-.11	.9142	-.40217	.36026
BO_NC33	-.43598**	.21664	-2.01	.0442	-.86058	-.01137
BO_SX3	-.11504**	.04958	-2.32	.0203	-.21221	-.01788
BO_ID23	1.55201***	.10892	14.25	.0000	1.33854	1.76548
BO_ID33	.46637***	.12824	3.64	.0003	.21503	.71771

BO_ID43	.35020***	.12035	2.91	.0036	.11433	.58608
BO_ID53	-.12449	.16486	-.76	.4502	-.44762	.19863
BO_IN13	1.45316***	.30024	4.84	.0000	.86470	2.04163
BO_IN23	1.63003***	.27431	5.94	.0000	1.09239	2.16766
BO_IN33	.89757***	.28517	3.15	.0016	.33866	1.45649
BO_LC3	-1.26479***	.07351	-17.21	.0000	-1.40886	-1.12071
BO_D23	.01811**	.00760	2.38	.0172	.00321	.03301
BO_MOT3	.64463***	.05735	11.24	.0000	.53221	.75704
BO_NV3	-.25324***	.01725	-14.68	.0000	-.28706	-.21943
BO_TR3	1.37631***	.12367	11.13	.0000	1.13393	1.61870
BO_RG3	1.08254***	.11113	9.74	.0000	.86473	1.30035
BO_ES3	1.66265***	.12178	13.65	.0000	1.42397	1.90133
BO_CS3	-.01343	.18797	-.07	.9431	-.38184	.35498
A_M	-7.94431***	.47296	-16.80	.0000	-8.87130	-7.01733
M_NC04	1.44352***	.17578	8.21	.0000	1.09899	1.78804
M_NC14	-.17738	.17776	-1.00	.3183	-.52579	.17103
M_NC24	-.13490	.17460	-.77	.4397	-.47711	.20730
M_NC34	-.54982***	.19704	-2.79	.0053	-.93601	-.16364
M_SX4	-.66854***	.04757	-14.05	.0000	-.76178	-.57530
M_ID24	1.66839***	.15937	10.47	.0000	1.35603	1.98074
M_ID34	2.42694***	.15766	15.39	.0000	2.11794	2.73593
M_ID44	2.21160***	.15423	14.34	.0000	1.90932	2.51388
M_ID54	2.10957***	.17058	12.37	.0000	1.77523	2.44391
M_IN14	3.07112***	.43536	7.05	.0000	2.21783	3.92441
M_IN24	2.89160***	.41495	6.97	.0000	2.07833	3.70488
M_IN34	2.72281***	.41980	6.49	.0000	1.90001	3.54561
M_LC4	-1.65720***	.05584	-29.68	.0000	-1.76665	-1.54776
M_D24	-.09709***	.00817	-11.88	.0000	-.11311	-.08107
M_MOT4	3.74801***	.05499	68.16	.0000	3.64023	3.85579
M_NV4	.00417	.01216	.34	.7318	-.01966	.02799
M_TR4	1.03700***	.08367	12.39	.0000	.87301	1.20099
M_RG4	.46991***	.07772	6.05	.0000	.31758	.62225
M_ES4	-.61354***	.14735	-4.16	.0000	-.90235	-.32473
M_CS4	-.20398*	.12146	-1.68	.0931	-.44204	.03407
A_P	3.53722***	.20314	17.41	.0000	3.13907	3.93536
P_NC05	2.49501***	.13103	19.04	.0000	2.23819	2.75183
P_NC15	.68506***	.13510	5.07	.0000	.42026	.94985
P_NC25	.41514***	.12972	3.20	.0014	.16090	.66939
P_NC35	-.21102	.15643	-1.35	.1774	-.51762	.09558
P_SX5	.12610***	.04789	2.63	.0085	.03224	.21996
P_ID25	1.72986***	.11468	15.08	.0000	1.50509	1.95463
P_ID35	1.47822***	.12237	12.08	.0000	1.23838	1.71806
P_ID45	1.69683***	.11654	14.56	.0000	1.46841	1.92525
P_ID55	1.71556***	.12637	13.58	.0000	1.46789	1.96324
P_IN15	-.13171	.14651	-.90	.3687	-.41887	.15545
P_IN25	.02220	.09280	.24	.8110	-.15969	.20409
P_IN35	.17204*	.10167	1.69	.0906	-.02723	.37132
P_LC5	-1.79710***	.06159	-29.18	.0000	-1.91782	-1.67637
P_D25	-2.69605***	.03420	-78.84	.0000	-2.76308	-2.62903
P_MOT5	-.04883	.07798	-.63	.5312	-.20166	.10401
P_NV5	-.19186***	.01417	-13.54	.0000	-.21964	-.16408
P_TR5	.21613***	.08296	2.61	.0092	.05353	.37872
P_RG5	.28691***	.06851	4.19	.0000	.15263	.42119
P_ES5	.28670***	.10118	2.83	.0046	.08840	.48500
P_CS5	-.04577	.10206	-.45	.6538	-.24580	.15425

```
Note: ***, **, * ==>  Significance at 1%, 5%, 10% level.
-------------------------------------------------------------------------------
```

MNL7.59_NCAb –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
~~- Var. binárias para escalões do rendimento liquido mensal do agregado (excepto R5)~~
~~- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).~~
- Var. Binárias para o nº de automóveis disponiveis no agregado p/adulto (excp. NA3)
- Var. Binária de disponibilidade diária de Moto no agregado (Mot)

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

~~- 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)~~

~~*- De1 : variável binária duracão da estadia <=60min (curta duração) (excluída)*~~
~~- De2 : variável binária duracão da estadia >60min & <=120min (média duração)~~
~~- De3 : variável binária duracão da estadia >120min & <=240min (média duração)~~
~~- De4 : variável binária duracão da estadia >240min & <=480min (longa duração)~~
~~- De5: variável binária duracão da estadia >480min (muito longa duração)~~

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=Bp,B,Bo,M,P,A[1]
;Rh2=ONE,NA0,NA1,NA2,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,Mot,nV,TR,Rg,Es,Cs$
Normal exit:  13 iterations. Status=0, F=    44420.88

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -44420.88035
Estimation based on N =  63735, K = 100
Inf.Cr.AIC  =  89041.8 AIC/N =    1.397
Model estimated: Aug 22, 2012, 15:19:49
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .4478 .4476
Chi-squared[95]          =  72049.78303
```

Prob [chi squared > value] = .00000
Response data are given as ind. choices
Number of obs.= 63735, skipped 0 obs

MTRP	Coefficient	Standard Error	z	Prob. |z|>Z*	95% Confidence Interval	
A_BP	-7.83844***	.37883	-20.69	.0000	-8.58094	-7.09594
BP_NA01	3.65977***	.14404	25.41	.0000	3.37746	3.94208
BP_NA11	2.29446***	.15548	14.76	.0000	1.98973	2.59919
BP_NA21	1.50938***	.14224	10.61	.0000	1.23061	1.78816
BP_SX1	.65030***	.06232	10.43	.0000	.52816	.77244
BP_ID21	2.97353***	.21637	13.74	.0000	2.54945	3.39760
BP_ID31	1.80768***	.22543	8.02	.0000	1.36585	2.24951
BP_ID41	1.98221***	.21788	9.10	.0000	1.55518	2.40923
BP_ID51	2.14235***	.22159	9.67	.0000	1.70804	2.57666
BP_IN11	.63425**	.29609	2.14	.0322	.05392	1.21458
BP_IN21	.85503***	.25861	3.31	.0009	.34816	1.36190
BP_IN31	1.13183***	.26537	4.27	.0000	.61172	1.65195
BP_LC1	-1.78626***	.08338	-21.42	.0000	-1.94969	-1.62283
BP_D21	.03999***	.00820	4.88	.0000	.02392	.05606
BP_MOT1	.03693	.07539	.49	.6243	-.11083	.18468
BP_NV1	-.26472***	.02069	-12.80	.0000	-.30527	-.22417
BP_TR1	1.03290***	.12646	8.17	.0000	.78505	1.28076
BP_RG1	.82111***	.11096	7.40	.0000	.60363	1.03859
BP_ES1	1.32619***	.13373	9.92	.0000	1.06408	1.58831
BP_CS1	.31952**	.15298	2.09	.0367	.01969	.61935
A_B	-2.76283***	.11419	-24.19	.0000	-2.98664	-2.53901
B_NA02	3.25197***	.05303	61.32	.0000	3.14802	3.35591
B_NA12	1.88698***	.05692	33.15	.0000	1.77541	1.99854
B_NA22	1.10545***	.04867	22.71	.0000	1.01005	1.20085
B_SX2	.40973***	.02871	14.27	.0000	.35346	.46600
B_ID22	1.95803***	.07467	26.22	.0000	1.81168	2.10438
B_ID32	1.15011***	.07869	14.62	.0000	.99588	1.30434
B_ID42	1.30163***	.07548	17.24	.0000	1.15369	1.44957
B_ID52	1.41411***	.08134	17.38	.0000	1.25468	1.57354
B_IN12	-.72509***	.09440	-7.68	.0000	-.91010	-.54008
B_IN22	-.29317***	.06185	-4.74	.0000	-.41440	-.17194
B_IN32	.26580***	.06579	4.04	.0001	.13685	.39475
B_LC2	-1.78661***	.03551	-50.31	.0000	-1.85622	-1.71701
B_D22	-.01620***	.00445	-3.64	.0003	-.02492	-.00747
B_MOT2	-.44494***	.04256	-10.45	.0000	-.52836	-.36153
B_NV2	-.22999***	.00879	-26.17	.0000	-.24722	-.21276
B_TR2	.64669***	.05155	12.55	.0000	.54566	.74772
B_RG2	.44950***	.04416	10.18	.0000	.36294	.53605
B_ES2	.89936***	.06082	14.79	.0000	.78015	1.01857
B_CS2	.11219*	.06475	1.73	.0831	-.01471	.23910
A_BO	-5.53568***	.32222	-17.18	.0000	-6.16723	-4.90413
BO_NA03	2.45081***	.08489	28.87	.0000	2.28443	2.61718
BO_NA13	1.29466***	.09897	13.08	.0000	1.10068	1.48863
BO_NA23	.69405***	.07888	8.80	.0000	.53945	.84866
BO_SX3	-.09029*	.04968	-1.82	.0691	-.18766	.00708
BO_ID23	1.56304***	.10956	14.27	.0000	1.34831	1.77777
BO_ID33	.14723	.12942	1.14	.2553	-.10644	.40089
BO_ID43	.05853	.12156	.48	.6302	-.17973	.29679
BO_ID53	-.45056***	.16552	-2.72	.0065	-.77497	-.12615

BO_IN13	1.33957***	.29943	4.47	.0000	.75271	1.92644
BO_IN23	1.55138***	.27302	5.68	.0000	1.01626	2.08649
BO_IN33	.80436***	.28441	2.83	.0047	.24693	1.36179
BO_LC3	-1.20507***	.07299	-16.51	.0000	-1.34813	-1.06201
BO_D23	.01689**	.00761	2.22	.0264	.00198	.03181
BO_MOT3	.57668***	.05791	9.96	.0000	.46319	.69018
BO_NV3	-.24841***	.01727	-14.39	.0000	-.28225	-.21457
BO_TR3	1.40910***	.12378	11.38	.0000	1.16651	1.65170
BO_RG3	1.10721***	.11122	9.96	.0000	.88923	1.32520
BO_ES3	1.71191***	.12208	14.02	.0000	1.47264	1.95118
BO_CS3	-.00383	.18803	-.02	.9838	-.37235	.36470
A_M	-8.23934***	.45392	-18.15	.0000	-9.12901	-7.34968
M_NA04	1.81874***	.09207	19.75	.0000	1.63829	1.99918
M_NA14	.30842***	.09966	3.09	.0020	.11310	.50374
M_NA24	.21656**	.08854	2.45	.0144	.04303	.39008
M_SX4	-.65497***	.04766	-13.74	.0000	-.74839	-.56155
M_ID24	1.70000***	.15930	10.67	.0000	1.38778	2.01221
M_ID34	2.30358***	.15808	14.57	.0000	1.99376	2.61340
M_ID44	2.09022***	.15467	13.51	.0000	1.78707	2.39338
M_ID54	1.97386***	.17106	11.54	.0000	1.63859	2.30913
M_IN14	3.04693***	.43506	7.00	.0000	2.19423	3.89963
M_IN24	2.87706***	.41458	6.94	.0000	2.06449	3.68963
M_IN34	2.68737***	.41967	6.40	.0000	1.86483	3.50990
M_LC4	-1.60267***	.05581	-28.71	.0000	-1.71207	-1.49328
M_D24	-.09769***	.00817	-11.96	.0000	-.11370	-.08167
M_MOT4	3.70801***	.05485	67.61	.0000	3.60051	3.81550
M_NV4	.00575	.01213	.47	.6353	-.01802	.02953
M_TR4	1.04428***	.08367	12.48	.0000	.88029	1.20828
M_RG4	.47450***	.07771	6.11	.0000	.32219	.62682
M_ES4	-.58163***	.14733	-3.95	.0001	-.87039	-.29287
M_CS4	-.20784*	.12140	-1.71	.0869	-.44578	.03010
A_P	3.44443***	.17732	19.43	.0000	3.09690	3.79196
P_NA05	2.82916***	.08186	34.56	.0000	2.66872	2.98960
P_NA15	1.39318***	.09315	14.96	.0000	1.21061	1.57574
P_NA25	.66770***	.07779	8.58	.0000	.51524	.82017
P_SX5	.17418***	.04822	3.61	.0003	.07966	.26869
P_ID25	1.72408***	.11560	14.91	.0000	1.49751	1.95065
P_ID35	1.12397***	.12392	9.07	.0000	.88110	1.36684
P_ID45	1.37762***	.11806	11.67	.0000	1.14623	1.60901
P_ID55	1.35838***	.12753	10.65	.0000	1.10842	1.60834
P_IN15	-.19996	.14729	-1.36	.1746	-.48865	.08873
P_IN25	-.00204	.09326	-.02	.9826	-.18482	.18074
P_IN35	.13848	.10212	1.36	.1750	-.06166	.33863
P_LC5	-1.72832***	.06175	-27.99	.0000	-1.84936	-1.60728
P_D25	-2.69710***	.03429	-78.66	.0000	-2.76431	-2.62990
P_MOT5	-.12342	.07823	-1.58	.1147	-.27674	.02991
P_NV5	-.18712***	.01420	-13.18	.0000	-.21495	-.15930
P_TR5	.24664***	.08332	2.96	.0031	.08333	.40994
P_RG5	.30717***	.06875	4.47	.0000	.17243	.44190
P_ES5	.33214***	.10161	3.27	.0011	.13299	.53129
P_CS5	-.06061	.10237	-.59	.5538	-.26126	.14004

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.57_BWA_NCA_b –
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- Var.binária para nº auto disponíveis diariamente no agregado p/ capita (expto NC4a).
- Var. Binária de disponibilidade diária de Moto no agregado (Mot)

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=B,W,A[1]
;Rh2=ONE,NC0,NC1,NC2,NC3,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,Mot,nV,TR,Rg,Es,Cs$
Normal exit:  10 iterations. Status=0, F=    23795.93

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -23795.92891
Estimation based on N =  56284, K =  42
Inf.Cr.AIC  =  47675.9 AIC/N =     .847
Model estimated: Sep 10, 2012, 00:32:39
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .5224 .5222
Chi-squared[40]           =  52046.86786
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 56284, skipped    0 obs
--------+------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+------------------------------------------------------------------
     A_B|   -3.15806***      .15358   -20.56  .0000    -3.45907  -2.85705
  B_NC01|    3.35533***      .11585    28.96  .0000     3.12828   3.58238
  B_NC11|    1.64949***      .11664    14.14  .0000     1.42087   1.87810
  B_NC21|    1.23276***      .11471    10.75  .0000     1.00793   1.45758
  B_NC31|     .64094***      .12421     5.16  .0000      .39749    .88438
   B_SX1|     .33879***      .02947    11.50  .0000      .28102    .39655
  B_ID21|    1.94745***      .07472    26.06  .0000     1.80100   2.09389
```

B_ID31	1.59821***	.07888	20.26	.0000	1.44361	1.75280
B_ID41	1.68045***	.07563	22.22	.0000	1.53221	1.82869
B_ID51	1.82740***	.08188	22.32	.0000	1.66691	1.98789
B_IN11	-.65270***	.09639	-6.77	.0000	-.84162	-.46378
B_IN21	-.26982***	.06172	-4.37	.0000	-.39079	-.14886
B_IN31	.31561***	.06562	4.81	.0000	.18699	.44423
B_LC1	-1.84147***	.03640	-50.59	.0000	-1.91281	-1.77013
B_D21	-.01369***	.00459	-2.98	.0029	-.02270	-.00469
B_MOT1	-.32600***	.04483	-7.27	.0000	-.41386	-.23813
B_NV1	-.24082***	.00896	-26.87	.0000	-.25838	-.22326
B_TR1	.61188***	.05250	11.66	.0000	.50899	.71478
B_RG1	.42045***	.04469	9.41	.0000	.33286	.50804
B_ES1	.85959***	.06099	14.09	.0000	.74006	.97912
B_CS1	.14703**	.06576	2.24	.0254	.01813	.27592
A_W	3.44603***	.20643	16.69	.0000	3.04142	3.85063
W_NC02	2.52975***	.13221	19.13	.0000	2.27063	2.78888
W_NC12	.70861***	.13615	5.20	.0000	.44177	.97546
W_NC22	.41592***	.13037	3.19	.0014	.16041	.67143
W_NC32	-.21345	.15728	-1.36	.1747	-.52172	.09481
W_SX2	.13702***	.04976	2.75	.0059	.03950	.23454
W_ID22	1.70175***	.11853	14.36	.0000	1.46943	1.93407
W_ID32	1.43108***	.12625	11.33	.0000	1.18362	1.67853
W_ID42	1.70548***	.12062	14.14	.0000	1.46906	1.94190
W_ID52	1.68702***	.13027	12.95	.0000	1.43169	1.94234
W_IN12	-.12543	.15071	-.83	.4053	-.42082	.16996
W_IN22	.02233	.09345	.24	.8112	-.16083	.20548
W_IN32	.19733*	.10247	1.93	.0541	-.00351	.39817
W_LC2	-1.73804***	.06407	-27.13	.0000	-1.86363	-1.61246
W_D22	-2.67562***	.03522	-75.98	.0000	-2.74464	-2.60659
W_MOT2	.01948	.08980	.22	.8282	-.15652	.19549
W_NV2	-.19069***	.01463	-13.04	.0000	-.21936	-.16202
W_TR2	.20623**	.08520	2.42	.0155	.03925	.37321
W_RG2	.28646***	.06993	4.10	.0000	.14939	.42352
W_ES2	.28596***	.10455	2.74	.0062	.08105	.49088
W_CS2	.01080	.10486	.10	.9179	-.19472	.21632

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.

MNL7.57_BWA_NCA_b_a–
- ASC

- Variáveis binárias do escalão etário (excepto Id1)
- Variáveis binárias do nível de instrução (excepto In4)
- Variável binária Sexo (Sexo)
- Variável binária de disponibilidade de Licença de condução (Lc)
- **Var.binária para nº auto disponíveis diariamente no agregado p/ adulto (expto NA3).**
- Var. Binária de disponibilidade diária de Moto no agregado (Mot)

- D2: Variável continua distância mais curta em Km entre os centróides ajustados das zonas de Geração e de Atracção (pares >=50 viagens) excepto para o modo Walk em que d2=tp/60*3,6km/h

- nV: ntotalviag variável continua Número total de viagens de cada individuo por dia

- Tr: Variável binária para viagens para trabalho
- Rg:Variável binária para viagens de Regresso a casa
- Es: Variável binária para viagens para a escola
- *Lz: Variável binária para viagens em lazer (exluída)*
- CS: Variável binária para viagens para compras/serviços

```
DISCRETECHOICE
;Lhs=MTRP
;Choices=B,W,A[1]
;Rh2=ONE,NA0,NA1,NA2,SX,ID2,ID3,ID4,ID5,IN1,IN2,IN3,LC,D2,Mot,nV,TR,Rg,Es,Cs$
Normal exit:  10 iterations. Status=0, F=    23417.47

---------------------------------------------------------------------------
Discrete choice (multinomial logit) model
Dependent variable                Choice
Log likelihood function    -23417.47115
Estimation based on N =  56284, K =  40
Inf.Cr.AIC  =  46914.9 AIC/N =     .834
Model estimated: Sep 10, 2012, 00:52:27
R2=1-LogL/LogL* Log-L fncn R-sqrd R2Adj
Constants only  **********  .5300 .5298
Chi-squared[38]           =  52803.78339
Prob [ chi squared > value ] =   .00000
Response data are given as ind. choices
Number of obs.= 56284, skipped    0 obs
--------+------------------------------------------------------------------
        |                 Standard            Prob.      95% Confidence
   MTRP |  Coefficient       Error       z    |z|>Z*         Interval
--------+------------------------------------------------------------------
     A_B|   -2.78280***      .11660   -23.87  .0000    -3.01135  -2.55426
  B_NA01|    3.22940***      .05379    60.04  .0000     3.12398   3.33482
  B_NA11|    1.88585***      .05754    32.77  .0000     1.77307   1.99864
  B_NA21|    1.10270***      .04900    22.50  .0000     1.00665   1.19875
   B_SX1|     .37065***      .02981    12.43  .0000      .31222    .42908
  B_ID21|    1.96709***      .07670    25.65  .0000     1.81676   2.11742
  B_ID31|    1.19277***      .08079    14.76  .0000     1.03442   1.35112
```

B_ID41	1.33051***	.07743	17.18	.0000	1.17875	1.48227
B_ID51	1.43695***	.08290	17.33	.0000	1.27446	1.59944
B_IN11	-.69831***	.09676	-7.22	.0000	-.88796	-.50866
B_IN21	-.29112***	.06213	-4.69	.0000	-.41291	-.16934
B_IN31	.27365***	.06610	4.14	.0000	.14411	.40320
B_LC1	-1.77598***	.03643	-48.75	.0000	-1.84737	-1.70458
B_D21	-.01438***	.00462	-3.11	.0019	-.02345	-.00532
B_MOT1	-.43515***	.04548	-9.57	.0000	-.52429	-.34602
B_NV1	-.23147***	.00906	-25.54	.0000	-.24923	-.21370
B_TR1	.65223***	.05271	12.37	.0000	.54892	.75555
B_RG1	.44930***	.04489	10.01	.0000	.36132	.53729
B_ES1	.92813***	.06214	14.94	.0000	.80635	1.04992
B_CS1	.15420**	.06576	2.34	.0190	.02531	.28309
A_W	3.34757***	.18074	18.52	.0000	2.99333	3.70181
W_NA02	2.86361***	.08358	34.26	.0000	2.69980	3.02743
W_NA12	1.39300***	.09452	14.74	.0000	1.20774	1.57826
W_NA22	.68407***	.07859	8.70	.0000	.53004	.83810
W_SX2	.18444***	.05012	3.68	.0002	.08620	.28268
W_ID22	1.69863***	.11956	14.21	.0000	1.46429	1.93296
W_ID32	1.07591***	.12789	8.41	.0000	.82524	1.32658
W_ID42	1.38649***	.12224	11.34	.0000	1.14690	1.62608
W_ID52	1.33288***	.13153	10.13	.0000	1.07508	1.59067
W_IN12	-.18734	.15146	-1.24	.2161	-.48420	.10953
W_IN22	.00127	.09389	.01	.9892	-.18276	.18530
W_IN32	.16729	.10290	1.63	.1040	-.03439	.36897
W_LC2	-1.66777***	.06426	-25.95	.0000	-1.79371	-1.54183
W_D22	-2.67617***	.03532	-75.77	.0000	-2.74540	-2.60694
W_MOT2	-.06317	.09002	-.70	.4828	-.23960	.11326
W_NV2	-.18561***	.01465	-12.67	.0000	-.21431	-.15690
W_TR2	.23399***	.08558	2.73	.0063	.06626	.40172
W_RG2	.30401***	.07016	4.33	.0000	.16649	.44153
W_ES2	.33168***	.10504	3.16	.0016	.12580	.53757
W_CS2	-.00691	.10516	-.07	.9476	-.21303	.19920

Note: ***, **, * ==> Significance at 1%, 5%, 10% level.