

## The GLIMMIX Procedure

Model Information	
Data Set	WORK.CAB
Response Variable	log_tip
Response Distribution	Gaussian
Link Function	Identity
Variance Function	Default
Variance Matrix	Not blocked
Estimation Technique	Restricted Maximum Likelihood
Degrees of Freedom Method	Kenward-Roger
Fixed Effects SE Adjustment	Kenward-Roger

Class Level Information		
Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12
pickup_time	24	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
dropoff_time	24	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
toll_ind	2	0 1
pickup_location_id	50	P1 P10 P11 P12 P13 P14 P15 P16 P17 P18 P19 P2 P20 P21 P22 P23 P24 P25 P26 P27 P28 P29 P3 P30 P31 P32 P33 P34 P35 P36 P37 P38 P39 P4 P40 P41 P42 P43 P44 P45 P46 P47 P48 P49 P5 P50 P6 P7 P8 P9
dropoff_location_id	50	D1 D10 D11 D12 D13 D14 D15 D16 D17 D18 D19 D2 D20 D21 D22 D23 D24 D25 D26 D27 D28 D29 D3 D30 D31 D32 D33 D34 D35 D36 D37 D38 D39 D4 D40 D41 D42 D43 D44 D45 D46 D47 D48 D49 D5 D50 D6 D7 D8 D9
rate_code	3	1 2 5

Number of Observations Read	67193
Number of Observations Used	67193

Dimensions	
G-side Cov. Parameters	4
R-side Cov. Parameters	1
Columns in X	566
Columns in Z	148
Subjects (Blocks in V)	1
Max Obs per Subject	67193

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Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	4
Lower Boundaries	4
Upper Boundaries	0
Fixed Effects	Profiled
Residual Variance	Profiled
Starting From	Data

Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	46556.271423	.	5712.492
1	0	10	46512.575539	43.69588396	612.5771
2	0	2	46502.104392	10.47114761	4104.328
3	0	4	46501.86615	0.23824127	829.8443
4	0	3	46501.148897	0.71725320	1503.9
5	0	2	46500.355607	0.79328964	1587.846
6	0	3	46499.136013	1.21959421	998.0553
7	0	2	46497.294133	1.84188036	450.4579
8	0	3	46496.984384	0.30974833	272.282
9	0	3	46496.887449	0.09693508	53.31203
10	0	3	46496.88239	0.00505930	7.756689
11	0	3	46496.882268	0.00012227	1.451918

Convergence criterion (GCONV=1E-8) satisfied.

Fit Statistics	
-2 Res Log Likelihood	46496.88
AIC (smaller is better)	46506.88
AICC (smaller is better)	46506.88
BIC (smaller is better)	46516.44
CAIC (smaller is better)	46521.44
HQIC (smaller is better)	46510.52
Generalized Chi-Square	7711.61
Gener. Chi-Square / DF	0.12

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Covariance Parameter Estimates		
Cov Parm	Estimate	Standard Error
pickup_location_id	0.001677	0.000421
dropoff_location_id	0.003775	0.000825
pickup_time	0.000019	0.000051
dropoff_time	0.002624	0.000817
Residual	0.1152	0.000630

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Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
Intercept				2.4949	.	0	.	.
log_dist				-18.8478	.	0	.	.
passenger_count				-5.1277	.	0	.	.
month	1			-8.6442	.	0	.	.
month	2			-36.8604	.	0	.	.
month	3			-1.6119	.	0	.	.
month	4			-11.1283	.	0	.	.
month	5			-6.4091	.	0	.	.
month	6			1.9459	3.7499	66846	0.52	0.6038
month	7			3.1444	.	0	.	.
month	8			3.5397	4.4173	66870	0.80	0.4229
month	9			7.8012	2.6404	66756	2.95	0.0031
month	10			-8.5572	2.3542	66841	-3.63	0.0003
month	11			5.4828	3.2070	66886	1.71	0.0873
month	12			0	.	.	.	.
toll_ind		0		7.7682	.	0	.	.
toll_ind		1		0	.	.	.	.
rate_code			1	-1.2166	.	0	.	.
rate_code			2	-0.6873	.	0	.	.
rate_code			5	0	.	.	.	.
passenger_coun*month	1			10.0454	.	0	.	.
passenger_coun*month	2			14.7959	.	0	.	.
passenger_coun*month	3			0.7956	.	0	.	.
passenger_coun*month	4			0.2864	1.2959	66815	0.22	0.8251
passenger_coun*month	5			1.2046	.	0	.	.
passenger_coun*month	6			0.7596	1.6608	66794	0.46	0.6474
passenger_coun*month	7			-1.5419	.	0	.	.
passenger_coun*month	8			0.9836	1.4282	66593	0.69	0.4910
passenger_coun*month	9			-4.4907	2.3916	66698	-1.88	0.0604
passenger_coun*month	10			3.7697	1.5673	66831	2.41	0.0162
passenger_coun*month	11			-1.8652	1.6469	66831	-1.13	0.2574
passenger_coun*month	12			0	.	.	.	.
passenger_c*toll_ind		0		-4.4970	.	0	.	.
passenger_c*toll_ind		1		0	.	.	.	.
passenger_*rate_code			1	4.9235	.	0	.	.

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Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
passenger_rate_code			2	4.9244	.	0	.	.
passenger_rate_code			5	0	.	.	.	.
log_dist*passenger_c				3.2396	.	0	.	.
month*toll_ind	1	0		-6.8669	36.6389	66742	-0.19	0.8513
month*toll_ind	1	1		0	.	.	.	.
month*toll_ind	2	0		1.4282	3.7183	65924	0.38	0.7009
month*toll_ind	2	1		0	.	.	.	.
month*toll_ind	3	0		-0.2930	2.0799	65653	-0.14	0.8880
month*toll_ind	3	1		0	.	.	.	.
month*toll_ind	4	0		6.9301	.	0	.	.
month*toll_ind	4	1		0	.	.	.	.
month*toll_ind	5	0		-3.5010	4.1208	66005	-0.85	0.3956
month*toll_ind	5	1		0	.	.	.	.
month*toll_ind	6	0		-5.3666	8.3669	66858	-0.64	0.5213
month*toll_ind	6	1		0	.	.	.	.
month*toll_ind	7	0		-2.3380	4.5504	65818	-0.51	0.6074
month*toll_ind	7	1		0	.	.	.	.
month*toll_ind	8	0		-0.1338	7.4097	66577	-0.02	0.9856
month*toll_ind	8	1		0	.	.	.	.
month*toll_ind	9	0		-7.5045	20.8037	66810	-0.36	0.7183
month*toll_ind	9	1		0	.	.	.	.
month*toll_ind	10	0		14.8511	4.4509	66575	3.34	0.0008
month*toll_ind	10	1		0	.	.	.	.
month*toll_ind	11	0		4.3315	8.1395	66804	0.53	0.5946
month*toll_ind	11	1		0	.	.	.	.
month*toll_ind	12	0		0	.	.	.	.
month*toll_ind	12	1		0	.	.	.	.
month*rate_code	1		1	8.1448	.	0	.	.
month*rate_code	1		2	13.5294	.	0	.	.
month*rate_code	1		5	0	.	.	.	.
month*rate_code	2		1	35.4542	.	0	.	.
month*rate_code	2		2	38.2513	.	0	.	.
month*rate_code	2		5	0	.	.	.	.
month*rate_code	3		1	2.1577	.	0	.	.
month*rate_code	3		2	2.3190	.	0	.	.

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Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
month*rate_code	3		5	0	.	.	.	.
month*rate_code	4		1	10.4420	.	0	.	.
month*rate_code	4		2	11.6380	2.3959	66763	4.86	<.0001
month*rate_code	4		5	0	.	.	.	.
month*rate_code	5		1	5.8354	.	0	.	.
month*rate_code	5		2	11.3125	.	0	.	.
month*rate_code	5		5	0	.	.	.	.
month*rate_code	6		1	-2.4553	3.7728	66848	-0.65	0.5152
month*rate_code	6		2	-2.0607	2.1519	66830	-0.96	0.3383
month*rate_code	6		5	0	.	.	.	.
month*rate_code	7		1	-3.1459	.	0	.	.
month*rate_code	7		2	-4.3474	.	0	.	.
month*rate_code	7		5	0	.	.	.	.
month*rate_code	8		1	-4.6408	4.4455	66874	-1.04	0.2965
month*rate_code	8		2	-4.4007	3.0795	66786	-1.43	0.1530
month*rate_code	8		5	0	.	.	.	.
month*rate_code	9		1	-7.6717	2.6663	66749	-2.88	0.0040
month*rate_code	9		2	-2.5754	1.3561	66818	-1.90	0.0576
month*rate_code	9		5	0	.	.	.	.
month*rate_code	10		1	8.4296	2.3370	66841	3.61	0.0003
month*rate_code	10		2	5.5086	2.8221	66817	1.95	0.0510
month*rate_code	10		5	0	.	.	.	.
month*rate_code	11		1	-5.8404	3.2023	66884	-1.82	0.0682
month*rate_code	11		2	-2.7661	3.2216	66788	-0.86	0.3906
month*rate_code	11		5	0	.	.	.	.
month*rate_code	12		1	0	.	.	.	.
month*rate_code	12		2	0	.	.	.	.
month*rate_code	12		5	0	.	.	.	.
log_dist*month	1			-6.7102	.	0	.	.
log_dist*month	2			0.6514	0.5142	66829	1.27	0.2052
log_dist*month	3			-0.2256	0.4861	66751	-0.46	0.6427
log_dist*month	4			-14.6364	177953	66952	-0.00	0.9999
log_dist*month	5			-1.7026	1.0314	66861	-1.65	0.0988
log_dist*month	6			-1.4793	1.4053	66840	-1.05	0.2925
log_dist*month	7			0.3474	0.7837	66697	0.44	0.6575

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Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
log_dist*month	8			-3.3187	1.2378	66827	-2.68	0.0073
log_dist*month	9			-2.5842	0.9455	66792	-2.73	0.0063
log_dist*month	10			2.5575	0.5682	66811	4.50	<.0001
log_dist*month	11			-3.2797	1.0420	66836	-3.15	0.0016
log_dist*month	12			0	.	.	.	.
toll_ind*rate_code		0	1	-8.1739	.	0	.	.
toll_ind*rate_code		0	2	-8.8567	.	0	.	.
toll_ind*rate_code		0	5	0	.	.	.	.
toll_ind*rate_code		1	1	0	.	.	.	.
toll_ind*rate_code		1	2	0	.	.	.	.
toll_ind*rate_code		1	5	0	.	.	.	.
log_dist*toll_ind		0		0.3877	0.9137	65061	0.42	0.6713
log_dist*toll_ind		1		0	.	.	.	.
log_dist*rate_code			1	19.0883	.	0	.	.
log_dist*rate_code			2	19.0323	.	0	.	.
log_dist*rate_code			5	17.2815	.	0	.	.
passen*month*toll_in	1	0		2.6323	33.1365	66835	0.08	0.9367
passen*month*toll_in	1	1		0	.	.	.	.
passen*month*toll_in	2	0		-2.1301	3.7221	66882	-0.57	0.5671
passen*month*toll_in	2	1		0	.	.	.	.
passen*month*toll_in	3	0		0.8044	2.9821	66707	0.27	0.7873
passen*month*toll_in	3	1		0	.	.	.	.
passen*month*toll_in	4	0		-4.3162	.	0	.	.
passen*month*toll_in	4	1		0	.	.	.	.
passen*month*toll_in	5	0		4.0664	3.8610	66904	1.05	0.2923
passen*month*toll_in	5	1		0	.	.	.	.
passen*month*toll_in	6	0		0.8442	4.0476	66887	0.21	0.8348
passen*month*toll_in	6	1		0	.	.	.	.
passen*month*toll_in	7	0		3.8933	4.1840	66875	0.93	0.3521
passen*month*toll_in	7	1		0	.	.	.	.
passen*month*toll_in	8	0		-2.2060	4.2362	66773	-0.52	0.6025
passen*month*toll_in	8	1		0	.	.	.	.
passen*month*toll_in	9	0		6.5682	18.5125	66770	0.35	0.7227
passen*month*toll_in	9	1		0	.	.	.	.
passen*month*toll_in	10	0		-9.4441	3.7393	66850	-2.53	0.0116

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Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
passen*month*toll_in	10	1		0	.	.	.	.
passen*month*toll_in	11	0		-8.0084	7.0787	66779	-1.13	0.2579
passen*month*toll_in	11	1		0	.	.	.	.
passen*month*toll_in	12	0		0	.	.	.	.
passen*month*toll_in	12	1		0	.	.	.	.
passen*month*rate_co	1		1	-9.8847	.	0	.	.
passen*month*rate_co	1		2	-13.5735	.	0	.	.
passen*month*rate_co	1		5	0	.	.	.	.
passen*month*rate_co	2		1	-14.1972	.	0	.	.
passen*month*rate_co	2		2	-14.7324	.	0	.	.
passen*month*rate_co	2		5	0	.	.	.	.
passen*month*rate_co	3		1	-0.7175	.	0	.	.
passen*month*rate_co	3		2	-0.4412	.	0	.	.
passen*month*rate_co	3		5	0	.	.	.	.
passen*month*rate_co	4		1	0.2795	1.3057	66811	0.21	0.8305
passen*month*rate_co	4		2	0	.	.	.	.
passen*month*rate_co	4		5	0	.	.	.	.
passen*month*rate_co	5		1	-0.9878	.	0	.	.
passen*month*rate_co	5		2	-5.7771	.	0	.	.
passen*month*rate_co	5		5	0	.	.	.	.
passen*month*rate_co	6		1	-0.4884	1.6785	66782	-0.29	0.7711
passen*month*rate_co	6		2	0	.	.	.	.
passen*month*rate_co	6		5	0	.	.	.	.
passen*month*rate_co	7		1	1.7914	.	0	.	.
passen*month*rate_co	7		2	2.6454	.	0	.	.
passen*month*rate_co	7		5	0	.	.	.	.
passen*month*rate_co	8		1	-0.2799	1.4533	66614	-0.19	0.8473
passen*month*rate_co	8		2	0	.	.	.	.
passen*month*rate_co	8		5	0	.	.	.	.
passen*month*rate_co	9		1	4.5420	2.4101	66688	1.88	0.0595
passen*month*rate_co	9		2	0	.	.	.	.
passen*month*rate_co	9		5	0	.	.	.	.
passen*month*rate_co	10		1	-3.6089	1.5852	66839	-2.28	0.0228
passen*month*rate_co	10		2	0	.	.	.	.
passen*month*rate_co	10		5	0	.	.	.	.

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Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
passen*month*rate_co	11		1	1.9790	1.6650	66833	1.19	0.2346
passen*month*rate_co	11		2	0	.	.	.	.
passen*month*rate_co	11		5	0	.	.	.	.
passen*month*rate_co	12		1	0	.	.	.	.
passen*month*rate_co	12		2	0	.	.	.	.
passen*month*rate_co	12		5	0	.	.	.	.
log_di*passeng*month	1			1.2057	0.5107	66786	2.36	0.0182
log_di*passeng*month	2			-0.00008	0.5595	66852	-0.00	0.9999
log_di*passeng*month	3			-0.1440	0.4272	66586	-0.34	0.7360
log_di*passeng*month	4			-0.09078	0.4460	66819	-0.20	0.8387
log_di*passeng*month	5			1.5615	0.6995	66835	2.23	0.0256
log_di*passeng*month	6			-0.2383	0.5698	66798	-0.42	0.6758
log_di*passeng*month	7			-0.3642	0.5525	66597	-0.66	0.5098
log_di*passeng*month	8			-0.3407	0.4923	66614	-0.69	0.4889
log_di*passeng*month	9			1.4911	0.8231	66705	1.81	0.0701
log_di*passeng*month	10			-1.3069	0.5385	66835	-2.43	0.0152
log_di*passeng*month	11			0.6357	0.5686	66837	1.12	0.2635
log_di*passeng*month	12			0	.	.	.	.
passen*toll_i*rate_c		0	1	4.6915	.	0	.	.
passen*toll_i*rate_c		0	2	5.1662	.	0	.	.
passen*toll_i*rate_c		0	5	0	.	.	.	.
passen*toll_i*rate_c		1	1	0	.	.	.	.
passen*toll_i*rate_c		1	2	0	.	.	.	.
passen*toll_i*rate_c		1	5	0	.	.	.	.
log_di*passen*toll_i		0		-1.0113	0.8720	66848	-1.16	0.2462
log_di*passen*toll_i		1		0	.	.	.	.
log_di*passen*rate_c			1	-3.1532	.	0	.	.
log_di*passen*rate_c			2	-3.1704	.	0	.	.
log_di*passen*rate_c			5	0	.	.	.	.
month*toll_i*rate_co	1	0	1	7.3543	36.6713	66757	0.20	0.8411
month*toll_i*rate_co	1	0	2	0	.	.	.	.
month*toll_i*rate_co	1	0	5	0	.	.	.	.
month*toll_i*rate_co	1	1	1	0	.	.	.	.
month*toll_i*rate_co	1	1	2	0	.	.	.	.
month*toll_i*rate_co	2	0	1	-0.03644	3.6897	65954	-0.01	0.9921

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Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
month*toll_i*rate_co	2	0	2	0	.	.	.	.
month*toll_i*rate_co	2	0	5	21.8999	.	0	.	.
month*toll_i*rate_co	2	1	1	0	.	.	.	.
month*toll_i*rate_co	2	1	2	0	.	.	.	.
month*toll_i*rate_co	2	1	5	0	.	.	.	.
month*toll_i*rate_co	3	0	1	-0.2721	2.0953	65685	-0.13	0.8967
month*toll_i*rate_co	3	0	2	-1.7685	1.4726	66808	-1.20	0.2298
month*toll_i*rate_co	3	0	5	0	.	.	.	.
month*toll_i*rate_co	3	1	1	0	.	.	.	.
month*toll_i*rate_co	3	1	2	0	.	.	.	.
month*toll_i*rate_co	3	1	5	0	.	.	.	.
month*toll_i*rate_co	4	0	1	-6.2528	.	0	.	.
month*toll_i*rate_co	4	0	2	0	.	.	.	.
month*toll_i*rate_co	4	0	5	0	.	.	.	.
month*toll_i*rate_co	4	1	1	0	.	.	.	.
month*toll_i*rate_co	4	1	2	0	.	.	.	.
month*toll_i*rate_co	5	0	1	4.0520	4.1286	65966	0.98	0.3264
month*toll_i*rate_co	5	0	2	0	.	.	.	.
month*toll_i*rate_co	5	0	5	4.0801	.	0	.	.
month*toll_i*rate_co	5	1	1	0	.	.	.	.
month*toll_i*rate_co	5	1	2	0	.	.	.	.
month*toll_i*rate_co	5	1	5	0	.	.	.	.
month*toll_i*rate_co	6	0	1	5.8613	8.3863	66858	0.70	0.4846
month*toll_i*rate_co	6	0	2	4.1242	5.4462	66821	0.76	0.4489
month*toll_i*rate_co	6	0	5	0	.	.	.	.
month*toll_i*rate_co	6	1	1	0	.	.	.	.
month*toll_i*rate_co	6	1	2	0	.	.	.	.
month*toll_i*rate_co	6	1	5	0	.	.	.	.
month*toll_i*rate_co	7	0	1	2.3258	4.5562	65831	0.51	0.6097
month*toll_i*rate_co	7	0	2	-5.3485	3.7349	66828	-1.43	0.1521
month*toll_i*rate_co	7	0	5	0	.	.	.	.
month*toll_i*rate_co	7	1	1	0	.	.	.	.
month*toll_i*rate_co	7	1	2	0	.	.	.	.
month*toll_i*rate_co	7	1	5	0	.	.	.	.
month*toll_i*rate_co	8	0	1	1.2036	7.4348	66586	0.16	0.8714

## The GLIMMIX Procedure

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
month*toll_i*rate_co	8	0	2	0	.	.	.	.
month*toll_i*rate_co	8	0	5	0	.	.	.	.
month*toll_i*rate_co	8	1	1	0	.	.	.	.
month*toll_i*rate_co	8	1	2	0	.	.	.	.
month*toll_i*rate_co	8	1	5	0	.	.	.	.
month*toll_i*rate_co	9	0	1	7.3641	20.8542	66809	0.35	0.7240
month*toll_i*rate_co	9	0	2	1.4055	.	0	.	.
month*toll_i*rate_co	9	0	5	0	.	.	.	.
month*toll_i*rate_co	9	1	1	0	.	.	.	.
month*toll_i*rate_co	9	1	2	0	.	.	.	.
month*toll_i*rate_co	9	1	5	0	.	.	.	.
month*toll_i*rate_co	10	0	1	-14.7508	4.4361	66586	-3.33	0.0009
month*toll_i*rate_co	10	0	2	0	.	.	.	.
month*toll_i*rate_co	10	0	5	0	.	.	.	.
month*toll_i*rate_co	10	1	1	0	.	.	.	.
month*toll_i*rate_co	10	1	2	0	.	.	.	.
month*toll_i*rate_co	11	0	1	-3.9776	8.1374	66801	-0.49	0.6250
month*toll_i*rate_co	11	0	2	0	.	.	.	.
month*toll_i*rate_co	11	0	5	0	.	.	.	.
month*toll_i*rate_co	11	1	1	0	.	.	.	.
month*toll_i*rate_co	11	1	2	0	.	.	.	.
month*toll_i*rate_co	12	0	1	0	.	.	.	.
month*toll_i*rate_co	12	0	2	0	.	.	.	.
month*toll_i*rate_co	12	0	5	0	.	.	.	.
month*toll_i*rate_co	12	1	1	0	.	.	.	.
month*toll_i*rate_co	12	1	2	0	.	.	.	.
month*toll_i*rate_co	12	1	5	0	.	.	.	.
log_di*month*toll_in	1	0		2.2853	12.4587	66737	0.18	0.8545
log_di*month*toll_in	1	1		0	.	.	.	.
log_di*month*toll_in	2	0		-0.4972	1.2744	65975	-0.39	0.6964
log_di*month*toll_in	2	1		0	.	.	.	.
log_di*month*toll_in	3	0		0.6310	.	0	.	.
log_di*month*toll_in	3	1		0	.	.	.	.
log_di*month*toll_in	4	0		-2.4229	.	0	.	.
log_di*month*toll_in	4	1		0	.	.	.	.

## The GLIMMIX Procedure

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
log_di*month*toll_in	5	0		1.2017	1.4155	66055	0.85	0.3959
log_di*month*toll_in	5	1		0	.	.	.	.
log_di*month*toll_in	6	0		0.4625	1.6354	66652	0.28	0.7773
log_di*month*toll_in	6	1		0	.	.	.	.
log_di*month*toll_in	7	0		2.5526	2.1865	66667	1.17	0.2430
log_di*month*toll_in	7	1		0	.	.	.	.
log_di*month*toll_in	8	0		0.04349	2.5591	66594	0.02	0.9864
log_di*month*toll_in	8	1		0	.	.	.	.
log_di*month*toll_in	9	0		2.0501	7.6471	66820	0.27	0.7886
log_di*month*toll_in	9	1		0	.	.	.	.
log_di*month*toll_in	10	0		-5.2061	1.5176	66585	-3.43	0.0006
log_di*month*toll_in	10	1		0	.	.	.	.
log_di*month*toll_in	11	0		-1.5578	2.8334	66809	-0.55	0.5825
log_di*month*toll_in	11	1		0	.	.	.	.
log_di*month*toll_in	12	0		0	.	.	.	.
log_di*month*toll_in	12	1		0	.	.	.	.
log_di*month*rate_co	1		1	6.9400	.	0	.	.
log_di*month*rate_co	1		2	5.0240	.	0	.	.
log_di*month*rate_co	1		5	0	.	.	.	.
log_di*month*rate_co	2		1	-0.04169	0.5171	66830	-0.08	0.9357
log_di*month*rate_co	2		2	-1.2053	0.7984	66881	-1.51	0.1312
log_di*month*rate_co	2		5	0	.	.	.	.
log_di*month*rate_co	3		1	-0.02681	0.4985	66761	-0.05	0.9571
log_di*month*rate_co	3		2	0	.	.	.	.
log_di*month*rate_co	3		5	0	.	.	.	.
log_di*month*rate_co	4		1	14.9387	177954	66952	0.00	0.9999
log_di*month*rate_co	4		2	14.4047	177951	66952	0.00	0.9999
log_di*month*rate_co	4		5	18.2760	177951	66952	0.00	0.9999
log_di*month*rate_co	5		1	1.9705	1.0396	66861	1.90	0.0580
log_di*month*rate_co	5		2	0	.	.	.	.
log_di*month*rate_co	5		5	0	.	.	.	.
log_di*month*rate_co	6		1	1.7012	1.4175	66842	1.20	0.2301
log_di*month*rate_co	6		2	1.4479	0.8443	66827	1.71	0.0864
log_di*month*rate_co	6		5	0	.	.	.	.
log_di*month*rate_co	7		1	-0.3609	0.7888	66697	-0.46	0.6473

## The GLIMMIX Procedure

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
log_di*month*rate_co	7		2	0	.	.	.	.
log_di*month*rate_co	7		5	0	.	.	.	.
log_di*month*rate_co	8		1	3.7960	1.2517	66830	3.03	0.0024
log_di*month*rate_co	8		2	3.5828	0.9378	66847	3.82	0.0001
log_di*month*rate_co	8		5	0	.	.	.	.
log_di*month*rate_co	9		1	2.5225	0.9592	66771	2.63	0.0085
log_di*month*rate_co	9		2	0.8330	0.4730	66825	1.76	0.0782
log_di*month*rate_co	9		5	0	.	.	.	.
log_di*month*rate_co	10		1	-2.5052	0.5639	66811	-4.44	<.0001
log_di*month*rate_co	10		2	-1.5005	0.8934	66879	-1.68	0.0931
log_di*month*rate_co	10		5	0	.	.	.	.
log_di*month*rate_co	11		1	3.4179	1.0430	66835	3.28	0.0010
log_di*month*rate_co	11		2	2.3258	1.1257	66854	2.07	0.0388
log_di*month*rate_co	11		5	0	.	.	.	.
log_di*month*rate_co	12		1	0	.	.	.	.
log_di*month*rate_co	12		2	0	.	.	.	.
log_di*month*rate_co	12		5	0	.	.	.	.
pass*mont*toll*rate_	1	0	1	-2.7906	33.1640	66835	-0.08	0.9329
pass*mont*toll*rate_	1	0	2	0	.	.	.	.
pass*mont*toll*rate_	1	0	5	0	.	.	.	.
pass*mont*toll*rate_	1	1	1	0	.	.	.	.
pass*mont*toll*rate_	1	1	2	0	.	.	.	.
pass*mont*toll*rate_	2	0	1	1.5327	3.7380	66883	0.41	0.6818
pass*mont*toll*rate_	2	0	2	0	.	.	.	.
pass*mont*toll*rate_	2	0	5	0	.	.	.	.
pass*mont*toll*rate_	2	1	1	0	.	.	.	.
pass*mont*toll*rate_	2	1	2	0	.	.	.	.
pass*mont*toll*rate_	2	1	5	0	.	.	.	.
pass*mont*toll*rate_	3	0	1	-0.8779	3.0039	66706	-0.29	0.7701
pass*mont*toll*rate_	3	0	2	0	.	.	.	.
pass*mont*toll*rate_	3	0	5	0	.	.	.	.
pass*mont*toll*rate_	3	1	1	0	.	.	.	.
pass*mont*toll*rate_	3	1	2	0	.	.	.	.
pass*mont*toll*rate_	3	1	5	0	.	.	.	.
pass*mont*toll*rate_	4	0	1	3.7563	.	0	.	.

## The GLIMMIX Procedure

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
pass*mont*toll*rate_	4	0	2	0	.	.	.	.
pass*mont*toll*rate_	4	0	5	0	.	.	.	.
pass*mont*toll*rate_	4	1	1	0	.	.	.	.
pass*mont*toll*rate_	4	1	2	0	.	.	.	.
pass*mont*toll*rate_	5	0	1	-4.2761	3.8822	66905	-1.10	0.2707
pass*mont*toll*rate_	5	0	2	0	.	.	.	.
pass*mont*toll*rate_	5	0	5	0	.	.	.	.
pass*mont*toll*rate_	5	1	1	0	.	.	.	.
pass*mont*toll*rate_	5	1	2	0	.	.	.	.
pass*mont*toll*rate_	5	1	5	0	.	.	.	.
pass*mont*toll*rate_	6	0	1	-1.1192	4.0639	66887	-0.28	0.7830
pass*mont*toll*rate_	6	0	2	0	.	.	.	.
pass*mont*toll*rate_	6	0	5	0	.	.	.	.
pass*mont*toll*rate_	6	1	1	0	.	.	.	.
pass*mont*toll*rate_	6	1	2	0	.	.	.	.
pass*mont*toll*rate_	6	1	5	0	.	.	.	.
pass*mont*toll*rate_	7	0	1	-4.1453	4.2014	66872	-0.99	0.3238
pass*mont*toll*rate_	7	0	2	0	.	.	.	.
pass*mont*toll*rate_	7	0	5	0	.	.	.	.
pass*mont*toll*rate_	7	1	1	0	.	.	.	.
pass*mont*toll*rate_	7	1	2	0	.	.	.	.
pass*mont*toll*rate_	7	1	5	0	.	.	.	.
pass*mont*toll*rate_	8	0	1	1.5064	4.2577	66777	0.35	0.7235
pass*mont*toll*rate_	8	0	2	0	.	.	.	.
pass*mont*toll*rate_	8	0	5	0	.	.	.	.
pass*mont*toll*rate_	8	1	1	0	.	.	.	.
pass*mont*toll*rate_	8	1	2	0	.	.	.	.
pass*mont*toll*rate_	8	1	5	0	.	.	.	.
pass*mont*toll*rate_	9	0	1	-6.6177	18.5438	66770	-0.36	0.7212
pass*mont*toll*rate_	9	0	2	0	.	.	.	.
pass*mont*toll*rate_	9	0	5	0	.	.	.	.
pass*mont*toll*rate_	9	1	1	0	.	.	.	.
pass*mont*toll*rate_	9	1	2	0	.	.	.	.
pass*mont*toll*rate_	9	1	5	0	.	.	.	.
pass*mont*toll*rate_	10	0	1	9.2937	3.7562	66849	2.47	0.0134

## The GLIMMIX Procedure

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
pass*mont*toll*rate_	10	0	2	0	.	.	.	.
pass*mont*toll*rate_	10	0	5	0	.	.	.	.
pass*mont*toll*rate_	10	1	1	0	.	.	.	.
pass*mont*toll*rate_	10	1	2	0	.	.	.	.
pass*mont*toll*rate_	11	0	1	7.8969	7.0948	66776	1.11	0.2657
pass*mont*toll*rate_	11	0	2	0	.	.	.	.
pass*mont*toll*rate_	11	0	5	0	.	.	.	.
pass*mont*toll*rate_	11	1	1	0	.	.	.	.
pass*mont*toll*rate_	11	1	2	0	.	.	.	.
pass*mont*toll*rate_	12	0	1	0	.	.	.	.
pass*mont*toll*rate_	12	0	2	0	.	.	.	.
pass*mont*toll*rate_	12	0	5	0	.	.	.	.
pass*mont*toll*rate_	12	1	1	0	.	.	.	.
pass*mont*toll*rate_	12	1	2	0	.	.	.	.
pass*mont*toll*rate_	12	1	5	0	.	.	.	.
log_*pass*mont*toll_	1	0		-0.8789	11.2847	66835	-0.08	0.9379
log_*pass*mont*toll_	1	1		0	.	.	.	.
log_*pass*mont*toll_	2	0		0.7328	1.2899	66884	0.57	0.5699
log_*pass*mont*toll_	2	1		0	.	.	.	.
log_*pass*mont*toll_	3	0		-0.2591	1.0315	66715	-0.25	0.8016
log_*pass*mont*toll_	3	1		0	.	.	.	.
log_*pass*mont*toll_	4	0		1.4690	.	0	.	.
log_*pass*mont*toll_	4	1		0	.	.	.	.
log_*pass*mont*toll_	5	0		-1.4160	1.3385	66901	-1.06	0.2901
log_*pass*mont*toll_	5	1		0	.	.	.	.
log_*pass*mont*toll_	6	0		-0.3303	1.4097	66886	-0.23	0.8147
log_*pass*mont*toll_	6	1		0	.	.	.	.
log_*pass*mont*toll_	7	0		-1.3739	1.4556	66881	-0.94	0.3452
log_*pass*mont*toll_	7	1		0	.	.	.	.
log_*pass*mont*toll_	8	0		0.7570	1.4710	66780	0.51	0.6068
log_*pass*mont*toll_	8	1		0	.	.	.	.
log_*pass*mont*toll_	9	0		-2.2070	6.5157	66767	-0.34	0.7348
log_*pass*mont*toll_	9	1		0	.	.	.	.
log_*pass*mont*toll_	10	0		3.2093	1.2857	66853	2.50	0.0126
log_*pass*mont*toll_	10	1		0	.	.	.	.

## The GLIMMIX Procedure

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
log_*pass*mont*toll_	11	0		2.8277	2.4760	66783	1.14	0.2535
log_*pass*mont*toll_	11	1		0	.	.	.	.
log_*pass*mont*toll_	12	0		0	.	.	.	.
log_*pass*mont*toll_	12	1		0	.	.	.	.
log_*pass*toll*rate_		0	1	0.9346	0.8793	66848	1.06	0.2879
log_*pass*toll*rate_		0	2	0.7823	.	0	.	.
log_*pass*toll*rate_		0	5	0	.	.	.	.
log_*pass*toll*rate_		1	1	0	.	.	.	.
log_*pass*toll*rate_		1	2	0	.	.	.	.
log_*pass*toll*rate_		1	5	0	.	.	.	.
log_*mont*toll*rate_	1	0	1	-2.8318	10.6764	66689	-0.27	0.7908
log_*mont*toll*rate_	1	0	2	0	.	.	.	.
log_*mont*toll*rate_	1	0	5	0	.	.	.	.
log_*mont*toll*rate_	1	1	1	0	.	.	.	.
log_*mont*toll*rate_	1	1	2	0	.	.	.	.
log_*mont*toll*rate_	2	0	1	-0.4134	0.6224	66827	-0.66	0.5066
log_*mont*toll*rate_	2	0	2	0	.	.	.	.
log_*mont*toll*rate_	2	0	5	0	.	.	.	.
log_*mont*toll*rate_	2	1	1	0	.	.	.	.
log_*mont*toll*rate_	2	1	2	0	.	.	.	.
log_*mont*toll*rate_	2	1	5	0	.	.	.	.
log_*mont*toll*rate_	3	0	1	-0.7042	0.4153	66855	-1.70	0.0900
log_*mont*toll*rate_	3	0	2	0	.	.	.	.
log_*mont*toll*rate_	3	0	5	0	.	.	.	.
log_*mont*toll*rate_	3	1	1	0	.	.	.	.
log_*mont*toll*rate_	3	1	2	0	.	.	.	.
log_*mont*toll*rate_	3	1	5	0	.	.	.	.
log_*mont*toll*rate_	4	0	1	1.8053	0.6682	66711	2.70	0.0069
log_*mont*toll*rate_	4	0	2	0	.	.	.	.
log_*mont*toll*rate_	4	0	5	0	.	.	.	.
log_*mont*toll*rate_	4	1	1	0	.	.	.	.
log_*mont*toll*rate_	4	1	2	0	.	.	.	.
log_*mont*toll*rate_	5	0	1	-1.7722	0.4507	66878	-3.93	<.0001
log_*mont*toll*rate_	5	0	2	0	.	.	.	.
log_*mont*toll*rate_	5	0	5	0	.	.	.	.

## The GLIMMIX Procedure

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
log_*mont*toll*rate_	5	1	1	0	.	.	.	.
log_*mont*toll*rate_	5	1	2	0	.	.	.	.
log_*mont*toll*rate_	5	1	5	0	.	.	.	.
log_*mont*toll*rate_	6	0	1	-1.0021	1.2622	66792	-0.79	0.4272
log_*mont*toll*rate_	6	0	2	0	.	.	.	.
log_*mont*toll*rate_	6	0	5	0	.	.	.	.
log_*mont*toll*rate_	6	1	1	0	.	.	.	.
log_*mont*toll*rate_	6	1	2	0	.	.	.	.
log_*mont*toll*rate_	6	1	5	0	.	.	.	.
log_*mont*toll*rate_	7	0	1	-2.8585	1.3874	66862	-2.06	0.0394
log_*mont*toll*rate_	7	0	2	0	.	.	.	.
log_*mont*toll*rate_	7	0	5	0	.	.	.	.
log_*mont*toll*rate_	7	1	1	0	.	.	.	.
log_*mont*toll*rate_	7	1	2	0	.	.	.	.
log_*mont*toll*rate_	7	1	5	0	.	.	.	.
log_*mont*toll*rate_	8	0	1	-0.8236	1.0333	66762	-0.80	0.4254
log_*mont*toll*rate_	8	0	2	0	.	.	.	.
log_*mont*toll*rate_	8	0	5	0	.	.	.	.
log_*mont*toll*rate_	8	1	1	0	.	.	.	.
log_*mont*toll*rate_	8	1	2	0	.	.	.	.
log_*mont*toll*rate_	8	1	5	0	.	.	.	.
log_*mont*toll*rate_	9	0	1	-2.3091	4.2343	66762	-0.55	0.5855
log_*mont*toll*rate_	9	0	2	0	.	.	.	.
log_*mont*toll*rate_	9	0	5	0	.	.	.	.
log_*mont*toll*rate_	9	1	1	0	.	.	.	.
log_*mont*toll*rate_	9	1	2	0	.	.	.	.
log_*mont*toll*rate_	9	1	5	0	.	.	.	.
log_*mont*toll*rate_	10	0	1	4.8798	1.2068	66778	4.04	<.0001
log_*mont*toll*rate_	10	0	2	0	.	.	.	.
log_*mont*toll*rate_	10	0	5	0	.	.	.	.
log_*mont*toll*rate_	10	1	1	0	.	.	.	.
log_*mont*toll*rate_	10	1	2	0	.	.	.	.
log_*mont*toll*rate_	11	0	1	1.1165	2.5806	66783	0.43	0.6653
log_*mont*toll*rate_	11	0	2	0	.	.	.	.
log_*mont*toll*rate_	11	0	5	0	.	.	.	.

## The GLIMMIX Procedure

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
log_*mont*toll*rate_	11	1	1	0	.	.	.	.
log_*mont*toll*rate_	11	1	2	0	.	.	.	.
log_*mont*toll*rate_	12	0	1	-0.3176	0.9011	65103	-0.35	0.7245
log_*mont*toll*rate_	12	0	2	0	.	.	.	.
log_*mont*toll*rate_	12	0	5	0	.	.	.	.
log_*mont*toll*rate_	12	1	1	0	.	.	.	.
log_*mont*toll*rate_	12	1	2	0	.	.	.	.
log_*mont*toll*rate_	12	1	5	0	.	.	.	.
log*pas*mon*tol*rate	1	0	1	-0.3290	10.7673	66829	-0.03	0.9756
log*pas*mon*tol*rate	1	0	2	0	.	.	.	.
log*pas*mon*tol*rate	1	0	5	0	.	.	.	.
log*pas*mon*tol*rate	1	1	1	-1.2700	0.5247	66813	-2.42	0.0155
log*pas*mon*tol*rate	1	1	2	0	.	.	.	.
log*pas*mon*tol*rate	2	0	1	-0.7459	0.9288	66862	-0.80	0.4219
log*pas*mon*tol*rate	2	0	2	0	.	.	.	.
log*pas*mon*tol*rate	2	0	5	0	.	.	.	.
log*pas*mon*tol*rate	2	1	1	-0.2717	0.5691	66852	-0.48	0.6330
log*pas*mon*tol*rate	2	1	2	0	.	.	.	.
log*pas*mon*tol*rate	2	1	5	0	.	.	.	.
log*pas*mon*tol*rate	3	0	1	0.3985	0.8021	66840	0.50	0.6193
log*pas*mon*tol*rate	3	0	2	0	.	.	.	.
log*pas*mon*tol*rate	3	0	5	0	.	.	.	.
log*pas*mon*tol*rate	3	1	1	0.1105	0.4389	66603	0.25	0.8012
log*pas*mon*tol*rate	3	1	2	0	.	.	.	.
log*pas*mon*tol*rate	3	1	5	0	.	.	.	.
log*pas*mon*tol*rate	4	0	1	-1.3949	0.2295	66684	-6.08	<.0001
log*pas*mon*tol*rate	4	0	2	0	.	.	.	.
log*pas*mon*tol*rate	4	0	5	0	.	.	.	.
log*pas*mon*tol*rate	4	1	1	-0.1504	0.4524	66816	-0.33	0.7396
log*pas*mon*tol*rate	4	1	2	0	.	.	.	.
log*pas*mon*tol*rate	5	0	1	-0.1534	0.8206	66891	-0.19	0.8517
log*pas*mon*tol*rate	5	0	2	0	.	.	.	.
log*pas*mon*tol*rate	5	0	5	0	.	.	.	.
log*pas*mon*tol*rate	5	1	1	-1.6576	0.7091	66834	-2.34	0.0194
log*pas*mon*tol*rate	5	1	2	0	.	.	.	.

## The GLIMMIX Procedure

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
log*pas*mon*tol*rate	5	1	5	0	.	.	.	.
log*pas*mon*tol*rate	6	0	1	0.5713	1.0928	66838	0.52	0.6012
log*pas*mon*tol*rate	6	0	2	0	.	.	.	.
log*pas*mon*tol*rate	6	0	5	0	.	.	.	.
log*pas*mon*tol*rate	6	1	1	0.1277	0.5787	66783	0.22	0.8253
log*pas*mon*tol*rate	6	1	2	0	.	.	.	.
log*pas*mon*tol*rate	6	1	5	0	.	.	.	.
log*pas*mon*tol*rate	7	0	1	1.7365	1.0837	66823	1.60	0.1091
log*pas*mon*tol*rate	7	0	2	0	.	.	.	.
log*pas*mon*tol*rate	7	0	5	0	.	.	.	.
log*pas*mon*tol*rate	7	1	1	0.2541	0.5627	66601	0.45	0.6517
log*pas*mon*tol*rate	7	1	2	0	.	.	.	.
log*pas*mon*tol*rate	7	1	5	0	.	.	.	.
log*pas*mon*tol*rate	8	0	1	-0.4231	1.0986	66728	-0.39	0.7001
log*pas*mon*tol*rate	8	0	2	0	.	.	.	.
log*pas*mon*tol*rate	8	0	5	0	.	.	.	.
log*pas*mon*tol*rate	8	1	1	0.02716	0.5049	66645	0.05	0.9571
log*pas*mon*tol*rate	8	1	2	0	.	.	.	.
log*pas*mon*tol*rate	8	1	5	0	.	.	.	.
log*pas*mon*tol*rate	9	0	1	0.7148	5.8237	66762	0.12	0.9023
log*pas*mon*tol*rate	9	0	2	0	.	.	.	.
log*pas*mon*tol*rate	9	0	5	0	.	.	.	.
log*pas*mon*tol*rate	9	1	1	-1.5116	0.8320	66687	-1.82	0.0692
log*pas*mon*tol*rate	9	1	2	0	.	.	.	.
log*pas*mon*tol*rate	9	1	5	0	.	.	.	.
log*pas*mon*tol*rate	10	0	1	-1.9273	0.9483	66825	-2.03	0.0421
log*pas*mon*tol*rate	10	0	2	0	.	.	.	.
log*pas*mon*tol*rate	10	0	5	0	.	.	.	.
log*pas*mon*tol*rate	10	1	1	1.2361	0.5477	66846	2.26	0.0240
log*pas*mon*tol*rate	10	1	2	0	.	.	.	.
log*pas*mon*tol*rate	11	0	1	-3.4697	2.2330	66757	-1.55	0.1202
log*pas*mon*tol*rate	11	0	2	0	.	.	.	.
log*pas*mon*tol*rate	11	0	5	0	.	.	.	.
log*pas*mon*tol*rate	11	1	1	-0.6655	0.5777	66839	-1.15	0.2493
log*pas*mon*tol*rate	11	1	2	0	.	.	.	.

## The GLIMMIX Procedure

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
log*pas*mon*tol*rate	12	0	1	0	.	.	.	.
log*pas*mon*tol*rate	12	0	2	0	.	.	.	.
log*pas*mon*tol*rate	12	0	5	0	.	.	.	.
log*pas*mon*tol*rate	12	1	1	0	.	.	.	.
log*pas*mon*tol*rate	12	1	2	0	.	.	.	.
log*pas*mon*tol*rate	12	1	5	0	.	.	.	.

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
log_dist	1	1	12.55	0.1751
passenger_count	1	2.869	18.08	0.0260
month	6	1	4.57	0.3435
toll_ind	0	.	.	.
rate_code	0	.	.	.
passenger_coun*month	9	1	7.74	0.2725
passenger_c*toll_ind	0	.	.	.
passenger_*rate_code	0	.	.	.
log_dist*passenger_c	1	66936	0.84	0.3587
month*toll_ind	1	66832	0.47	0.4916
month*rate_code	2	91.34	20.56	<.0001
log_dist*month	2	66822	0.93	0.3937
toll_ind*rate_code	0	.	.	.
log_dist*toll_ind	1	66828	0.03	0.8574
log_dist*rate_code	1	1	0.27	0.6929
passen*month*toll_in	7	66852	2.12	0.0379
passen*month*rate_co	5	1	11.22	0.2227
log_di*passeng*month	10	66768	5.42	<.0001
passen*toll_i*rate_c	0	.	.	.
log_di*passen*toll_i	0	.	.	.
log_di*passen*rate_c	0	.	.	.
month*toll_i*rate_co	0	.	.	.
log_di*month*toll_in	7	66820	6.29	<.0001
log_di*month*rate_co	3	66843	3.88	0.0087
pass*mont*toll*rate_	0	.	.	.

## The GLIMMIX Procedure

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
log_*pass*mont*toll_	2	66813	0.07	0.9351
log_*pass*toll*rate_	0	.	.	.
log_*mont*toll*rate_	1	66824	1.22	0.2698
log*pas*mon*tol*rate	8	66815	5.03	<.0001

## The GLIMMIX Procedure

Solution for Random Effects									
Effect	pickup_location_id	dropoff_location_id	pickup_time	dropoff_time	Estimate	Std Err Pred	DF	t Value	Pr >  t
pickup_location_id	P1				-0.01936	0.01163	354.9	-1.66	0.0970
pickup_location_id	P10				0.01345	0.009833	237.2	1.37	0.1727
pickup_location_id	P11				0.02196	0.01027	254.5	2.14	0.0334
pickup_location_id	P12				0.05018	0.009875	225.6	5.08	<.0001
pickup_location_id	P13				-0.01130	0.01033	259.1	-1.09	0.2752
pickup_location_id	P14				-0.01837	0.01166	357.1	-1.57	0.1162
pickup_location_id	P15				-0.01349	0.009685	211.8	-1.39	0.1652
pickup_location_id	P16				-0.02809	0.01455	498.1	-1.93	0.0541
pickup_location_id	P17				-0.00012	0.01057	276.5	-0.01	0.9909
pickup_location_id	P18				0.02432	0.01038	262.2	2.34	0.0198
pickup_location_id	P19				0.005773	0.01447	497.1	0.40	0.6901
pickup_location_id	P2				0.004153	0.01048	270.3	0.40	0.6923
pickup_location_id	P20				0.000876	0.009611	206.6	0.09	0.9275
pickup_location_id	P21				-0.04098	0.01280	430.3	-3.20	0.0015
pickup_location_id	P22				0.002152	0.009909	227.7	0.22	0.8283
pickup_location_id	P23				0.01807	0.01099	308.4	1.64	0.1013
pickup_location_id	P24				0.009141	0.009995	234	0.91	0.3613
pickup_location_id	P25				0.007546	0.01058	276.7	0.71	0.4764
pickup_location_id	P26				0.01947	0.009951	230.4	1.96	0.0516
pickup_location_id	P27				-0.07965	0.01887	431.2	-4.22	<.0001
pickup_location_id	P28				0.07251	0.01553	509.8	4.67	<.0001
pickup_location_id	P29				-0.07850	0.01846	446.4	-4.25	<.0001
pickup_location_id	P3				-0.04068	0.02296	275.2	-1.77	0.0776
pickup_location_id	P30				0.000901	0.01131	331.9	0.08	0.9366
pickup_location_id	P31				0.006009	0.01002	235.6	0.60	0.5491
pickup_location_id	P32				-0.00497	0.01068	284.9	-0.47	0.6421
pickup_location_id	P33				-0.00270	0.009589	205.1	-0.28	0.7787
pickup_location_id	P34				0.01397	0.01008	240.4	1.39	0.1672
pickup_location_id	P35				-0.01499	0.01111	317	-1.35	0.1782
pickup_location_id	P36				0.03529	0.009963	232.4	3.54	0.0005
pickup_location_id	P37				0.1544	0.01174	365	13.15	<.0001
pickup_location_id	P38				-0.00467	0.01064	282.4	-0.44	0.6610
pickup_location_id	P39				0.02416	0.01036	261.1	2.33	0.0205
pickup_location_id	P4				0.02572	0.009560	203.1	2.69	0.0077
pickup_location_id	P40				-0.01212	0.01031	256.7	-1.18	0.2408

## The GLIMMIX Procedure

Solution for Random Effects									
Effect	pickup_location_id	dropoff_location_id	pickup_time	dropoff_time	Estimate	Std Err Pred	DF	t Value	Pr >  t
pickup_location_id	P41				-0.09238	0.03424	66.62	-2.70	0.0088
pickup_location_id	P42				0.01373	0.009388	191.3	1.46	0.1454
pickup_location_id	P43				0.005962	0.01064	281.6	0.56	0.5756
pickup_location_id	P44				-0.00150	0.01158	351.6	-0.13	0.8974
pickup_location_id	P45				-0.00631	0.01036	260.4	-0.61	0.5431
pickup_location_id	P46				-0.00850	0.01137	336.2	-0.75	0.4551
pickup_location_id	P47				-0.08025	0.02094	350.1	-3.83	0.0002
pickup_location_id	P48				0.005703	0.01020	249.2	0.56	0.5767
pickup_location_id	P49				0.03675	0.009419	193.4	3.90	0.0001
pickup_location_id	P5				-0.04816	0.01797	406.4	-2.68	0.0077
pickup_location_id	P50				-0.00177	0.009624	207.3	-0.18	0.8541
pickup_location_id	P6				0.002947	0.01046	268.6	0.28	0.7784
pickup_location_id	P7				-0.00897	0.01023	251.4	-0.88	0.3814
pickup_location_id	P8				-0.00052	0.01385	479.4	-0.04	0.9702
pickup_location_id	P9				0.04323	0.009208	179.3	4.69	<.0001
dropoff_location_id		D1			-0.04878	0.01324	208.3	-3.69	0.0003
dropoff_location_id		D10			0.01012	0.01120	112.6	0.90	0.3685
dropoff_location_id		D11			-0.02447	0.01248	168.4	-1.96	0.0516
dropoff_location_id		D12			-0.03791	0.01267	177.9	-2.99	0.0031
dropoff_location_id		D13			-0.05337	0.01747	478.6	-3.06	0.0024
dropoff_location_id		D14			-0.00855	0.01232	160.7	-0.69	0.4887
dropoff_location_id		D15			-0.1182	0.03644	304.8	-3.24	0.0013
dropoff_location_id		D16			-0.03583	0.01209	150	-2.96	0.0035
dropoff_location_id		D17			-0.01824	0.01169	132.2	-1.56	0.1210
dropoff_location_id		D18			-0.02838	0.01304	197.4	-2.18	0.0307
dropoff_location_id		D19			-0.04020	0.01208	149.7	-3.33	0.0011
dropoff_location_id		D2			-0.00384	0.02086	631.7	-0.18	0.8542
dropoff_location_id		D20			-0.01766	0.01222	155.7	-1.45	0.1504
dropoff_location_id		D21			-0.03213	0.01159	128	-2.77	0.0064
dropoff_location_id		D22			-0.02513	0.01210	150.3	-2.08	0.0395
dropoff_location_id		D23			0.07583	0.01317	204.5	5.76	<.0001
dropoff_location_id		D24			0.1415	0.01912	572.5	7.40	<.0001
dropoff_location_id		D25			-0.00342	0.01340	217.6	-0.26	0.7989
dropoff_location_id		D26			0.03961	0.01913	574.4	2.07	0.0388
dropoff_location_id		D27			0.1346	0.01310	200.9	10.28	<.0001

## The GLIMMIX Procedure

Solution for Random Effects									
Effect	pickup_location_id	dropoff_location_id	pickup_time	dropoff_time	Estimate	Std Err Pred	DF	t Value	Pr >  t
dropoff_location_id		D28			0.03128	0.01111	109.1	2.82	0.0058
dropoff_location_id		D29			0.006095	0.01207	148.8	0.51	0.6142
dropoff_location_id		D3			-0.01506	0.01161	128.9	-1.30	0.1969
dropoff_location_id		D30			-0.02121	0.01261	174.5	-1.68	0.0943
dropoff_location_id		D31			-0.03606	0.01189	141.1	-3.03	0.0029
dropoff_location_id		D32			-0.02730	0.01217	153.7	-2.24	0.0264
dropoff_location_id		D33			-0.02655	0.01328	210.4	-2.00	0.0469
dropoff_location_id		D34			-0.01456	0.01213	152	-1.20	0.2320
dropoff_location_id		D35			0.1133	0.01502	316.3	7.55	<.0001
dropoff_location_id		D36			-0.05075	0.01228	158.9	-4.13	<.0001
dropoff_location_id		D37			-0.05309	0.01379	237.3	-3.85	0.0002
dropoff_location_id		D38			0.008854	0.01108	109.9	0.80	0.4262
dropoff_location_id		D39			0.06342	0.02690	614.6	2.36	0.0187
dropoff_location_id		D4			-0.07932	0.01309	200	-6.06	<.0001
dropoff_location_id		D40			-0.02449	0.01207	149	-2.03	0.0442
dropoff_location_id		D41			0.09418	0.01913	572.4	4.92	<.0001
dropoff_location_id		D42			-0.00156	0.02074	638.5	-0.08	0.9400
dropoff_location_id		D43			-0.01146	0.01194	143.4	-0.96	0.3388
dropoff_location_id		D44			0.07554	0.01466	311.9	5.15	<.0001
dropoff_location_id		D45			-0.03430	0.01185	139	-2.90	0.0044
dropoff_location_id		D46			0.03033	0.01105	106.7	2.74	0.0071
dropoff_location_id		D47			-0.1231	0.01592	376.6	-7.73	<.0001
dropoff_location_id		D48			-0.02031	0.01250	170	-1.62	0.1063
dropoff_location_id		D49			0.002590	0.01246	167.9	0.21	0.8356
dropoff_location_id		D5			0.1819	0.01463	292.1	12.43	<.0001
dropoff_location_id		D50			-0.02783	0.01219	154.8	-2.28	0.0238
dropoff_location_id		D6			-0.02444	0.01272	180.7	-1.92	0.0563
dropoff_location_id		D7			-0.01003	0.01202	146.5	-0.83	0.4053
dropoff_location_id		D8			0.04396	0.01125	114.3	3.91	0.0002
dropoff_location_id		D9			0.04440	0.01839	532.4	2.42	0.0161
pickup_time			0		-0.00310	0.006345	1	-0.49	0.7106
pickup_time			1		-0.00225	0.006077	1	-0.37	0.7741
pickup_time			2		-0.00037	0.005803	1	-0.06	0.9600
pickup_time			3		-0.00132	0.005541	1	-0.24	0.8512
pickup_time			4		-0.00012	0.005251	1	-0.02	0.9850

## The GLIMMIX Procedure

Solution for Random Effects									
Effect	pickup_location_id	dropoff_location_id	pickup_time	dropoff_time	Estimate	Std Err Pred	DF	t Value	Pr >  t
pickup_time			5		-0.00004	0.005248	1	-0.01	0.9954
pickup_time			6		-0.00185	0.005746	1	-0.32	0.8015
pickup_time			7		0.002333	0.006238	1	0.37	0.7722
pickup_time			8		-0.00093	0.006445	1	-0.14	0.9088
pickup_time			9		0.001547	0.006485	1	0.24	0.8509
pickup_time			10		0.001411	0.006455	1	0.22	0.8630
pickup_time			11		0.001163	0.006449	1	0.18	0.8864
pickup_time			12		0.000152	0.006470	1	0.02	0.9850
pickup_time			13		0.001504	0.006468	1	0.23	0.8545
pickup_time			14		-0.00162	0.006462	1	-0.25	0.8437
pickup_time			15		0.001387	0.006436	1	0.22	0.8649
pickup_time			16		0.000984	0.006394	1	0.15	0.9028
pickup_time			17		0.000041	0.006508	1	0.01	0.9960
pickup_time			18		0.001749	0.006591	1	0.27	0.8348
pickup_time			19		-0.00124	0.006605	1	-0.19	0.8817
pickup_time			20		-0.00290	0.006591	1	-0.44	0.7365
pickup_time			21		-0.00020	0.006567	1	-0.03	0.9808
pickup_time			22		0.000992	0.006540	1	0.15	0.9041
pickup_time			23		0.002670	0.006490	1	0.41	0.7515
dropoff_time			0		-0.02215	0.01300	33.12	-1.70	0.0977
dropoff_time			1		-0.02321	0.01344	37.16	-1.73	0.0923
dropoff_time			2		-0.04981	0.01403	44.73	-3.55	0.0009
dropoff_time			3		-0.06717	0.01483	53.42	-4.53	<.0001
dropoff_time			4		-0.08551	0.01646	80.15	-5.19	<.0001
dropoff_time			5		-0.09104	0.01760	93.9	-5.17	<.0001
dropoff_time			6		-0.1087	0.01482	45.63	-7.33	<.0001
dropoff_time			7		-0.04578	0.01350	33.46	-3.39	0.0018
dropoff_time			8		0.009225	0.01304	31.76	0.71	0.4845
dropoff_time			9		0.02286	0.01289	31.25	1.77	0.0858
dropoff_time			10		0.03086	0.01297	33.36	2.38	0.0232
dropoff_time			11		0.02743	0.01306	33.2	2.10	0.0434
dropoff_time			12		0.04437	0.01295	32.52	3.43	0.0017
dropoff_time			13		0.03925	0.01299	33.29	3.02	0.0048
dropoff_time			14		0.04017	0.01297	32.51	3.10	0.0040
dropoff_time			15		0.04423	0.01299	33.69	3.40	0.0017

## The GLIMMIX Procedure

Solution for Random Effects									
Effect	pickup_location_id	dropoff_location_id	pickup_time	dropoff_time	Estimate	Std Err Pred	DF	t Value	Pr >  t
dropoff_time				16	0.05969	0.01319	35.7	4.53	<.0001
dropoff_time				17	0.05785	0.01315	34.09	4.40	0.0001
dropoff_time				18	0.05160	0.01271	30.24	4.06	0.0003
dropoff_time				19	0.04460	0.01262	28.93	3.53	0.0014
dropoff_time				20	0.01292	0.01269	29.04	1.02	0.3168
dropoff_time				21	0.01196	0.01271	29.04	0.94	0.3542
dropoff_time				22	-0.00154	0.01276	29.18	-0.12	0.9051
dropoff_time				23	-0.00211	0.01282	30.47	-0.16	0.8702

month Least Squares Means								
month	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
1	Non-est	.	.	.	.	.	.	.
2	Non-est	.	.	.	.	.	.	.
3	Non-est	.	.	.	.	.	.	.
4	Non-est	.	.	.	.	.	.	.
5	Non-est	.	.	.	.	.	.	.
6	Non-est	.	.	.	.	.	.	.
7	Non-est	.	.	.	.	.	.	.
8	Non-est	.	.	.	.	.	.	.
9	Non-est	.	.	.	.	.	.	.
10	Non-est	.	.	.	.	.	.	.
11	Non-est	.	.	.	.	.	.	.
12	Non-est	.	.	.	.	.	.	.

## The GLIMMIX Procedure

## The GLIMMIX Procedure

Differences of month Least Squares Means Adjustment for Multiple Comparisons: Tukey													
month	_month	Estimate	Standard Error	DF	t Value	Pr >  t	Adj P	Alpha	Lower	Upper	Adj Lower	Adj Upper	
5	9	Non-est	.	.	.	.	.	.	.	.	.	.	
5	10	Non-est	.	.	.	.	.	.	.	.	.	.	
5	11	Non-est	.	.	.	.	.	.	.	.	.	.	
5	12	Non-est	.	.	.	.	.	.	.	.	.	.	
6	7	Non-est	.	.	.	.	.	.	.	.	.	.	
6	8	Non-est	.	.	.	.	.	.	.	.	.	.	
6	9	Non-est	.	.	.	.	.	.	.	.	.	.	
6	10	Non-est	.	.	.	.	.	.	.	.	.	.	
6	11	Non-est	.	.	.	.	.	.	.	.	.	.	
6	12	Non-est	.	.	.	.	.	.	.	.	.	.	
7	8	Non-est	.	.	.	.	.	.	.	.	.	.	
7	9	Non-est	.	.	.	.	.	.	.	.	.	.	
7	10	Non-est	.	.	.	.	.	.	.	.	.	.	
7	11	Non-est	.	.	.	.	.	.	.	.	.	.	
7	12	Non-est	.	.	.	.	.	.	.	.	.	.	
8	9	Non-est	.	.	.	.	.	.	.	.	.	.	
8	10	Non-est	.	.	.	.	.	.	.	.	.	.	
8	11	Non-est	.	.	.	.	.	.	.	.	.	.	
8	12	Non-est	.	.	.	.	.	.	.	.	.	.	
9	10	Non-est	.	.	.	.	.	.	.	.	.	.	
9	11	Non-est	.	.	.	.	.	.	.	.	.	.	
9	12	Non-est	.	.	.	.	.	.	.	.	.	.	
10	11	Non-est	.	.	.	.	.	.	.	.	.	.	
10	12	Non-est	.	.	.	.	.	.	.	.	.	.	
11	12	Non-est	.	.	.	.	.	.	.	.	.	.	

toll_ind Least Squares Means								
toll_ind	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
0	Non-est	.	.	.	.	.	.	.
1	Non-est	.	.	.	.	.	.	.

## The GLIMMIX Procedure

**Differences of toll\_ind Least Squares Means  
Adjustment for Multiple Comparisons: Tukey**

toll_ind	_toll_ind	Estimate	Standard Error	DF	t Value	Pr >  t	Adj P	Alpha	Lower	Upper	Adj Lower	Adj Upper
0	1	Non-est		.	.	.	.	.	.	.	.	.

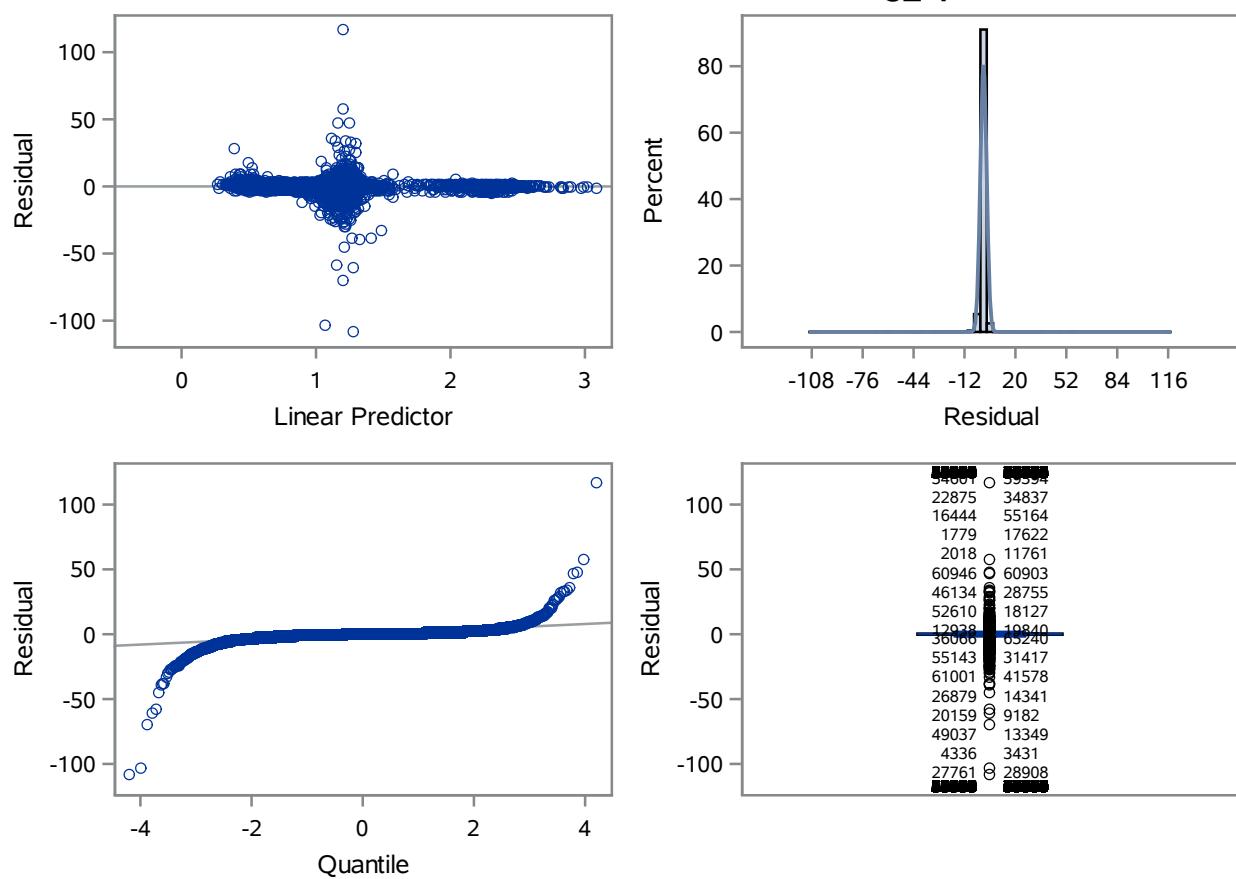
**rate\_code Least Squares Means**

rate_code	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
1	1.1689	0.2352	1	4.97	<.0001	0.05	0.7080	1.6298
2	1.4905	0.7145	1	2.09	0.0185	0.05	0.09018	2.8908
5	Non-est		.	.	.	.	.	.

**Differences of rate\_code Least Squares Means  
Adjustment for Multiple Comparisons: Tukey-Kramer**

rate_code	_rate_code	Estimate	Standard Error	DF	t Value	Pr >  t	Adj P	Alpha	Lower	Upper	Adj Lower	Adj Upper
1	2	-0.3216	0.7270	1	-0.44	0.3291	0.6582	0.05	-1.7465	1.1033	-1.7465	1.1033
1	5	Non-est		.	.	.	.	.	.	.	.	.
2	5	Non-est		.	.	.	.	.	.	.	.	.

## Conditional Studentized Residuals for log\_tip



## Log Model-response and distance logged, month and toll interactions-- Best Model

### The GLIMMIX Procedure

Model Information	
<b>Data Set</b>	WORK.CAB
<b>Response Variable</b>	log_tip
<b>Response Distribution</b>	Gaussian
<b>Link Function</b>	Identity
<b>Variance Function</b>	Default
<b>Variance Matrix</b>	Not blocked
<b>Estimation Technique</b>	Restricted Maximum Likelihood
<b>Degrees of Freedom Method</b>	Kenward-Roger
<b>Fixed Effects SE Adjustment</b>	Kenward-Roger

Class Level Information		
Class	Levels	Values
<b>month</b>	12	1 2 3 4 5 6 7 8 9 10 11 12
<b>pickup_time</b>	24	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
<b>dropoff_time</b>	24	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
<b>toll_ind</b>	2	0 1
<b>pickup_location_id</b>	50	P1 P10 P11 P12 P13 P14 P15 P16 P17 P18 P19 P2 P20 P21 P22 P23 P24 P25 P26 P27 P28 P29 P3 P30 P31 P32 P33 P34 P35 P36 P37 P38 P39 P4 P40 P41 P42 P43 P44 P45 P46 P47 P48 P49 P5 P50 P6 P7 P8 P9
<b>dropoff_location_id</b>	50	D1 D10 D11 D12 D13 D14 D15 D16 D17 D18 D19 D2 D20 D21 D22 D23 D24 D25 D26 D27 D28 D29 D3 D30 D31 D32 D33 D34 D35 D36 D37 D38 D39 D4 D40 D41 D42 D43 D44 D45 D46 D47 D48 D49 D5 D50 D6 D7 D8 D9
<b>rate_code</b>	3	1 2 5

Number of Observations Read	67193
Number of Observations Used	67193

Dimensions	
<b>G-side Cov. Parameters</b>	4
<b>R-side Cov. Parameters</b>	1
<b>Columns in X</b>	169
<b>Columns in Z</b>	148
<b>Subjects (Blocks in V)</b>	1
<b>Max Obs per Subject</b>	67193

## Log Model-response and distance logged, month and toll interactions-- Best Model

### The GLIMMIX Procedure

Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	4
Lower Boundaries	4
Upper Boundaries	0
Fixed Effects	Profiled
Residual Variance	Profiled
Starting From	Data

Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	46788.068623	.	6145.926
1	0	10	46740.066762	48.00186100	530.5191
2	0	2	46730.629132	9.43762927	3466.126
3	0	4	46730.511851	0.11728134	742.1259
4	0	3	46729.506941	1.00491059	1072.855
5	0	5	46727.937535	1.56940526	904.9574
6	0	2	46725.540377	2.39715877	306.4287
7	0	3	46725.020551	0.51982520	84.75676
8	0	3	46724.887211	0.13334012	37.43758
9	0	3	46724.868292	0.01891938	15.49481
10	0	3	46724.867329	0.00096243	8.001565
11	0	3	46724.867286	0.00004349	1.542567

Convergence criterion (GCONV=1E-8) satisfied.

Fit Statistics	
-2 Res Log Likelihood	46724.87
AIC (smaller is better)	46734.87
AICC (smaller is better)	46734.87
BIC (smaller is better)	46744.43
CAIC (smaller is better)	46749.43
HQIC (smaller is better)	46738.51
Generalized Chi-Square	7759.96
Gener. Chi-Square / DF	0.12

**Log Model-response and distance logged, month and toll interactions-- Best Model****The GLIMMIX Procedure**

Covariance Parameter Estimates		
Cov Parm	Estimate	Standard Error
pickup_location_id	0.001891	0.000482
dropoff_location_id	0.003850	0.000838
pickup_time	0.000015	0.000050
dropoff_time	0.002619	0.000814
Residual	0.1157	0.000632

**Log Model-response and distance logged, month and toll interactions-- Best Model****The GLIMMIX Procedure**

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
Intercept				1.5531	0.4632	67025	3.35	0.0008
log_dist				0.08711	.	0	.	.
passenger_count				-0.3808	0.3975	66961	-0.96	0.3381
month	1			2.6578	0.7195	66976	3.69	0.0002
month	2			0.1496	0.5225	66943	0.29	0.7746
month	3			-1.5890	0.5959	66994	-2.67	0.0077
month	4			-0.8436	0.3291	66949	-2.56	0.0104
month	5			-3.4362	0.6177	66942	-5.56	<.0001
month	6			-1.6203	0.2618	66982	-6.19	<.0001
month	7			1.7725	0.7552	66939	2.35	0.0189
month	8			-1.2113	0.3069	66963	-3.95	<.0001
month	9			0.5659	0.2071	66956	2.73	0.0063
month	10			-0.6288	0.3163	67011	-1.99	0.0468
month	11			-1.1821	0.3234	66990	-3.65	0.0003
month	12			0	.	.	.	.
toll_ind		0		0.8294	0.1917	67006	4.33	<.0001
toll_ind		1		0	.	.	.	.
rate_code			1	-0.5190	0.4613	66951	-1.13	0.2606
rate_code			2	0.8114	0.4669	66976	1.74	0.0823
rate_code			5	0	.	.	.	.
passenger_coun*month	1			-1.8284	0.5369	66963	-3.41	0.0007
passenger_coun*month	2			0.1050	0.4214	66959	0.25	0.8032
passenger_coun*month	3			-0.03908	0.4729	66974	-0.08	0.9341
passenger_coun*month	4			0.05678	0.03801	66916	1.49	0.1352
passenger_coun*month	5			1.4156	0.4132	66956	3.43	0.0006
passenger_coun*month	6			0.02826	0.03753	66864	0.75	0.4515
passenger_coun*month	7			-1.2823	0.6104	66943	-2.10	0.0357
passenger_coun*month	8			0.007775	0.03834	66974	0.20	0.8393
passenger_coun*month	9			-0.1563	0.04222	66955	-3.70	0.0002
passenger_coun*month	10			0.005036	0.03712	66929	0.14	0.8921
passenger_coun*month	11			-0.04715	0.04148	66920	-1.14	0.2556
passenger_coun*month	12			0	.	.	.	.
passenger_c*toll_ind		0		0.005029	0.005015	66963	1.00	0.3160
passenger_c*toll_ind		1		0	.	.	.	.

**Log Model-response and distance logged, month and toll interactions-- Best Model****The GLIMMIX Procedure**

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
passenger_rate_code			1	0.3664	0.3974	66961	0.92	0.3565
passenger_rate_code			2	0.3602	0.3966	66961	0.91	0.3638
passenger_rate_code			5	0	.	.	.	.
log_dist*passenger_c				0.007747	0.004263	66948	1.82	0.0692
month*toll_ind	1	0		-0.06605	0.03537	66951	-1.87	0.0618
month*toll_ind	1	1		0	.	.	.	.
month*toll_ind	2	0		0.01760	0.03575	66962	0.49	0.6225
month*toll_ind	2	1		0	.	.	.	.
month*toll_ind	3	0		-0.03526	0.03500	66930	-1.01	0.3137
month*toll_ind	3	1		0	.	.	.	.
month*toll_ind	4	0		-0.08447	0.03436	66970	-2.46	0.0140
month*toll_ind	4	1		0	.	.	.	.
month*toll_ind	5	0		-0.03121	0.03344	66967	-0.93	0.3507
month*toll_ind	5	1		0	.	.	.	.
month*toll_ind	6	0		-0.03687	0.03316	66936	-1.11	0.2662
month*toll_ind	6	1		0	.	.	.	.
month*toll_ind	7	0		-0.02937	0.03456	66928	-0.85	0.3955
month*toll_ind	7	1		0	.	.	.	.
month*toll_ind	8	0		0.01419	0.03388	66962	0.42	0.6755
month*toll_ind	8	1		0	.	.	.	.
month*toll_ind	9	0		-0.01380	0.03380	66952	-0.41	0.6831
month*toll_ind	9	1		0	.	.	.	.
month*toll_ind	10	0		-0.03482	0.03316	66934	-1.05	0.2937
month*toll_ind	10	1		0	.	.	.	.
month*toll_ind	11	0		-0.02913	0.03471	66899	-0.84	0.4014
month*toll_ind	11	1		0	.	.	.	.
month*toll_ind	12	0		0	.	.	.	.
month*toll_ind	12	1		0	.	.	.	.
month*rate_code	1		1	-2.6023	0.7196	66975	-3.62	0.0003
month*rate_code	1		2	-2.6259	0.7229	66977	-3.63	0.0003
month*rate_code	1		5	0	.	.	.	.
month*rate_code	2		1	-0.1817	0.5218	66942	-0.35	0.7276
month*rate_code	2		2	-0.3630	0.5261	66945	-0.69	0.4902
month*rate_code	2		5	0	.	.	.	.

## Log Model-response and distance logged, month and toll interactions-- Best Model

### The GLIMMIX Procedure

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
month*rate_code	3		1	1.6061	0.5962	66992	2.69	0.0071
month*rate_code	3		2	1.6386	0.5991	66992	2.74	0.0062
month*rate_code	3		5	0	.	.	.	.
month*rate_code	4		1	0.9204	0.3271	66952	2.81	0.0049
month*rate_code	4		2	0.7047	0.3302	66945	2.13	0.0328
month*rate_code	4		5	0	.	.	.	.
month*rate_code	5		1	3.4439	0.6171	66940	5.58	<.0001
month*rate_code	5		2	3.4154	0.6208	66937	5.50	<.0001
month*rate_code	5		5	0	.	.	.	.
month*rate_code	6		1	1.6430	0.2618	66981	6.28	<.0001
month*rate_code	6		2	1.4770	0.2643	66981	5.59	<.0001
month*rate_code	6		5	0	.	.	.	.
month*rate_code	7		1	-1.7558	0.7559	66939	-2.32	0.0202
month*rate_code	7		2	-2.0124	0.7581	66938	-2.65	0.0079
month*rate_code	7		5	0	.	.	.	.
month*rate_code	8		1	1.1642	0.3055	66962	3.81	0.0001
month*rate_code	8		2	1.0910	0.3081	66963	3.54	0.0004
month*rate_code	8		5	0	.	.	.	.
month*rate_code	9		1	-0.5618	0.2066	66954	-2.72	0.0065
month*rate_code	9		2	-0.3804	0.2091	66971	-1.82	0.0689
month*rate_code	9		5	0	.	.	.	.
month*rate_code	10		1	0.6399	0.3150	67011	2.03	0.0422
month*rate_code	10		2	0.5254	0.3177	67011	1.65	0.0982
month*rate_code	10		5	0	.	.	.	.
month*rate_code	11		1	1.2119	0.3222	66990	3.76	0.0002
month*rate_code	11		2	1.1603	0.3252	66991	3.57	0.0004
month*rate_code	11		5	0	.	.	.	.
month*rate_code	12		1	0	.	.	.	.
month*rate_code	12		2	0	.	.	.	.
month*rate_code	12		5	0	.	.	.	.
log_dist*month	1			-0.00368	0.01316	66955	-0.28	0.7794
log_dist*month	2			0.01424	0.01294	66960	1.10	0.2709
log_dist*month	3			-0.01259	0.01286	66956	-0.98	0.3277
log_dist*month	4			-0.00296	0.01293	66955	-0.23	0.8190

**Log Model-response and distance logged, month and toll interactions-- Best Model****The GLIMMIX Procedure**

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
log_dist*month	5			0.01504	0.01313	66952	1.15	0.2518
log_dist*month	6			-0.00360	0.01300	66952	-0.28	0.7816
log_dist*month	7			-0.00612	0.01318	66948	-0.46	0.6422
log_dist*month	8			0.01580	0.01325	66952	1.19	0.2330
log_dist*month	9			-0.00567	0.01304	66969	-0.43	0.6638
log_dist*month	10			0.03089	0.01295	66952	2.38	0.0171
log_dist*month	11			0.001674	0.01292	66963	0.13	0.8969
log_dist*month	12			0	.	.	.	.
toll_ind*rate_code		0	1	-0.9918	0.1859	66976	-5.33	<.0001
toll_ind*rate_code		0	2	-0.8303	0.1877	66972	-4.42	<.0001
toll_ind*rate_code		0	5	0	.	.	.	.
toll_ind*rate_code		1	1	0	.	.	.	.
toll_ind*rate_code		1	2	0	.	.	.	.
toll_ind*rate_code		1	5	0	.	.	.	.
log_dist*toll_ind		0		-0.01996	0.01998	65699	-1.00	0.3176
log_dist*toll_ind		1		0	.	.	.	.
log_dist*rate_code			1	0.2473	.	0	.	.
log_dist*rate_code			2	-0.09610	.	0	.	.
log_dist*rate_code			5	0.05859	.	0	.	.
passen*month*rate_co	1		1	1.8301	0.5369	66963	3.41	0.0007
passen*month*rate_co	1		2	1.7766	0.5369	66963	3.31	0.0009
passen*month*rate_co	1		5	0	.	.	.	.
passen*month*rate_co	2		1	-0.1039	0.4213	66959	-0.25	0.8052
passen*month*rate_co	2		2	-0.02368	0.4216	66962	-0.06	0.9552
passen*month*rate_co	2		5	0	.	.	.	.
passen*month*rate_co	3		1	0.04368	0.4728	66974	0.09	0.9264
passen*month*rate_co	3		2	-0.00049	0.4727	66973	-0.00	0.9992
passen*month*rate_co	3		5	0	.	.	.	.
passen*month*rate_co	4		1	-0.05119	0.03663	66912	-1.40	0.1622
passen*month*rate_co	4		2	0	.	.	.	.
passen*month*rate_co	4		5	0	.	.	.	.
passen*month*rate_co	5		1	-1.4088	0.4131	66956	-3.41	0.0007
passen*month*rate_co	5		2	-1.5021	0.4130	66956	-3.64	0.0003
passen*month*rate_co	5		5	0	.	.	.	.

# Log Model-response and distance logged, month and toll interactions-- Best Model

## The GLIMMIX Procedure

Solutions for Fixed Effects								
Effect	month	toll_ind	rate_code	Estimate	Standard Error	DF	t Value	Pr >  t
passen*month*rate_co	6		1	-0.03231	0.03608	66850	-0.90	0.3705
passen*month*rate_co	6		2	0	.	.	.	.
passen*month*rate_co	6		5	0	.	.	.	.
passen*month*rate_co	7		1	1.2802	0.6103	66943	2.10	0.0359
passen*month*rate_co	7		2	1.3345	0.6104	66942	2.19	0.0288
passen*month*rate_co	7		5	0	.	.	.	.
passen*month*rate_co	8		1	-0.00202	0.03681	66966	-0.05	0.9562
passen*month*rate_co	8		2	0	.	.	.	.
passen*month*rate_co	8		5	0	.	.	.	.
passen*month*rate_co	9		1	0.1577	0.04089	66957	3.86	0.0001
passen*month*rate_co	9		2	0	.	.	.	.
passen*month*rate_co	9		5	0	.	.	.	.
passen*month*rate_co	10		1	0.004087	0.03572	66926	0.11	0.9089
passen*month*rate_co	10		2	0	.	.	.	.
passen*month*rate_co	10		5	0	.	.	.	.
passen*month*rate_co	11		1	0.04717	0.04021	66905	1.17	0.2407
passen*month*rate_co	11		2	0	.	.	.	.
passen*month*rate_co	11		5	0	.	.	.	.
passen*month*rate_co	12		1	0	.	.	.	.
passen*month*rate_co	12		2	0	.	.	.	.
passen*month*rate_co	12		5	0	.	.	.	.
log_di*passeng*month	1			0.000153	0.006047	66940	0.03	0.9798
log_di*passeng*month	2			-0.01155	0.005871	66930	-1.97	0.0492
log_di*passeng*month	3			-0.00337	0.005838	66962	-0.58	0.5643
log_di*passeng*month	4			-0.01422	0.005843	66955	-2.43	0.0150
log_di*passeng*month	5			-0.00674	0.006025	66951	-1.12	0.2631
log_di*passeng*month	6			0.004766	0.005909	66951	0.81	0.4200
log_di*passeng*month	7			-0.00157	0.006133	66949	-0.26	0.7981
log_di*passeng*month	8			-0.00839	0.006057	66963	-1.39	0.1660
log_di*passeng*month	9			0.000277	0.006037	66959	0.05	0.9634
log_di*passeng*month	10			-0.01954	0.005878	66929	-3.32	0.0009
log_di*passeng*month	11			0.000582	0.005912	66958	0.10	0.9216
log_di*passeng*month	12			0	.	.	.	.

## Log Model-response and distance logged, month and toll interactions-- Best Model

### The GLIMMIX Procedure

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
log_dist	1	1	0.11	0.7999
passenger_count	1	66962	29.24	<.0001
month	11	66964	10.10	<.0001
toll_ind	1	66987	6.07	0.0137
rate_code	2	66687	186.03	<.0001
passenger_coun*month	11	66954	10.25	<.0001
passenger_c*toll_ind	1	66963	1.01	0.3160
passenger_*rate_code	2	66864	15.94	<.0001
log_dist*passenger_c	1	66963	4.41	0.0357
month*toll_ind	11	66948	1.40	0.1638
month*rate_code	16	66956	8.80	<.0001
log_dist*month	11	66957	1.85	0.0403
toll_ind*rate_code	2	66442	29.78	<.0001
log_dist*toll_ind	1	65699	1.00	0.3176
log_dist*rate_code	1	1	0.69	0.5596
passen*month*rate_co	16	66949	9.90	<.0001
log_di*passeng*month	11	66953	3.05	0.0004

**Log Model-response and distance logged, month and toll interactions-- Best Model**
**The GLIMMIX Procedure**

Solution for Random Effects									
Effect	pickup_location_id	dropoff_location_id	pickup_time	dropoff_time	Estimate	Std Err Pred	DF	t Value	Pr >  t
pickup_location_id	P1				-0.01828	0.01186	313.1	-1.54	0.1241
pickup_location_id	P10				0.01456	0.01028	206.1	1.42	0.1581
pickup_location_id	P11				0.02316	0.01050	220.9	2.21	0.0284
pickup_location_id	P12				0.05003	0.01012	195.9	4.95	<.0001
pickup_location_id	P13				-0.01126	0.01057	225.5	-1.06	0.2881
pickup_location_id	P14				-0.01830	0.01189	315.5	-1.54	0.1249
pickup_location_id	P15				-0.01377	0.009928	184	-1.39	0.1672
pickup_location_id	P16				-0.02716	0.01477	468.7	-1.84	0.0666
pickup_location_id	P17				0.000437	0.01080	241	0.04	0.9677
pickup_location_id	P18				0.02328	0.01061	228.1	2.19	0.0293
pickup_location_id	P19				0.007678	0.01470	467.1	0.52	0.6018
pickup_location_id	P2				0.004714	0.01072	235.3	0.44	0.6604
pickup_location_id	P20				0.001900	0.009854	179.4	0.19	0.8473
pickup_location_id	P21				-0.04113	0.01303	388.4	-3.16	0.0017
pickup_location_id	P22				0.001681	0.01015	197.9	0.17	0.8686
pickup_location_id	P23				0.01873	0.01122	269.9	1.67	0.0963
pickup_location_id	P24				0.009508	0.01024	203.4	0.93	0.3540
pickup_location_id	P25				0.008940	0.01080	241	0.83	0.4087
pickup_location_id	P26				0.01994	0.01019	200.2	1.96	0.0517
pickup_location_id	P27				-0.08115	0.01919	447.9	-4.23	<.0001
pickup_location_id	P28				0.08678	0.01553	489.5	5.59	<.0001
pickup_location_id	P29				-0.07887	0.01876	460.8	-4.20	<.0001
pickup_location_id	P3				-0.04202	0.02341	299.9	-1.80	0.0736
pickup_location_id	P30				0.001242	0.01154	291.3	0.11	0.9144
pickup_location_id	P31				0.005817	0.01026	204.9	0.57	0.5713
pickup_location_id	P32				-0.00538	0.01091	248.3	-0.49	0.6226
pickup_location_id	P33				-0.00239	0.009836	178.3	-0.24	0.8085
pickup_location_id	P34				0.01408	0.01032	208.9	1.36	0.1739
pickup_location_id	P35				-0.01579	0.01134	277.8	-1.39	0.1652
pickup_location_id	P36				0.03459	0.01021	201.9	3.39	0.0008
pickup_location_id	P37				0.1600	0.01191	318.3	13.43	<.0001
pickup_location_id	P38				-0.00536	0.01087	246	-0.49	0.6229
pickup_location_id	P39				0.02403	0.01060	227.3	2.27	0.0244
pickup_location_id	P4				0.02674	0.009807	176.6	2.73	0.0070

**Log Model-response and distance logged, month and toll interactions-- Best Model**
**The GLIMMIX Procedure**

Solution for Random Effects									
Effect	pickup_location_id	dropoff_location_id	pickup_time	dropoff_time	Estimate	Std Err Pred	DF	t Value	Pr >  t
pickup_location_id	P40				-0.01132	0.01054	223.5	-1.07	0.2842
pickup_location_id	P41				-0.1183	0.03543	73.17	-3.34	0.0013
pickup_location_id	P42				0.01446	0.009638	166.3	1.50	0.1353
pickup_location_id	P43				0.006700	0.01087	245.6	0.62	0.5382
pickup_location_id	P44				-0.00141	0.01181	309.8	-0.12	0.9051
pickup_location_id	P45				-0.00624	0.01060	226.8	-0.59	0.5564
pickup_location_id	P46				-0.00819	0.01160	295.5	-0.71	0.4808
pickup_location_id	P47				-0.08100	0.02120	379.1	-3.82	0.0002
pickup_location_id	P48				0.005683	0.01044	216.7	0.54	0.5868
pickup_location_id	P49				0.03677	0.009668	168.1	3.80	0.0002
pickup_location_id	P5				-0.05046	0.01982	428.2	-2.55	0.0113
pickup_location_id	P50				-0.00106	0.009867	180	-0.11	0.9148
pickup_location_id	P6				0.003512	0.01070	234	0.33	0.7431
pickup_location_id	P7				-0.00887	0.01046	218.3	-0.85	0.3973
pickup_location_id	P8				-0.00057	0.01408	443.5	-0.04	0.9680
pickup_location_id	P9				0.04328	0.009460	156	4.58	<.0001
dropoff_location_id		D1			-0.04870	0.01331	206.8	-3.66	0.0003
dropoff_location_id		D10			0.01009	0.01128	112.1	0.89	0.3728
dropoff_location_id		D11			-0.02451	0.01255	167.4	-1.95	0.0526
dropoff_location_id		D12			-0.03829	0.01274	176.5	-3.01	0.0030
dropoff_location_id		D13			-0.05448	0.01753	475.4	-3.11	0.0020
dropoff_location_id		D14			-0.00950	0.01239	159.6	-0.77	0.4441
dropoff_location_id		D15			-0.1234	0.03647	315.7	-3.38	0.0008
dropoff_location_id		D16			-0.03550	0.01216	149.1	-2.92	0.0041
dropoff_location_id		D17			-0.01832	0.01177	131.6	-1.56	0.1218
dropoff_location_id		D18			-0.02844	0.01311	195.7	-2.17	0.0312
dropoff_location_id		D19			-0.04080	0.01216	148.8	-3.36	0.0010
dropoff_location_id		D2			-0.00378	0.02057	621.2	-0.18	0.8542
dropoff_location_id		D20			-0.01761	0.01229	154.7	-1.43	0.1538
dropoff_location_id		D21			-0.03211	0.01166	127.4	-2.75	0.0068
dropoff_location_id		D22			-0.02473	0.01217	149.3	-2.03	0.0439
dropoff_location_id		D23			0.07575	0.01324	202.7	5.72	<.0001
dropoff_location_id		D24			0.1436	0.01919	570.7	7.49	<.0001
dropoff_location_id		D25			-0.00401	0.01347	215.5	-0.30	0.7662

## Log Model-response and distance logged, month and toll interactions-- Best Model

### The GLIMMIX Procedure

Solution for Random Effects									
Effect	pickup_location_id	dropoff_location_id	pickup_time	dropoff_time	Estimate	Std Err Pred	DF	t Value	Pr >  t
dropoff_location_id		D26			0.04326	0.01921	572.6	2.25	0.0247
dropoff_location_id		D27			0.1343	0.01317	199.4	10.19	<.0001
dropoff_location_id		D28			0.03103	0.01119	108.6	2.77	0.0065
dropoff_location_id		D29			0.006065	0.01214	147.8	0.50	0.6180
dropoff_location_id		D3			-0.01460	0.01168	128.2	-1.25	0.2137
dropoff_location_id		D30			-0.02148	0.01267	173.3	-1.70	0.0918
dropoff_location_id		D31			-0.03724	0.01196	140.2	-3.11	0.0022
dropoff_location_id		D32			-0.02750	0.01224	152.6	-2.25	0.0261
dropoff_location_id		D33			-0.02579	0.01335	208.6	-1.93	0.0547
dropoff_location_id		D34			-0.01459	0.01221	151.1	-1.20	0.2338
dropoff_location_id		D35			0.1123	0.01509	314.1	7.44	<.0001
dropoff_location_id		D36			-0.05031	0.01235	157.9	-4.07	<.0001
dropoff_location_id		D37			-0.05298	0.01381	234.9	-3.84	0.0002
dropoff_location_id		D38			0.009083	0.01121	109.4	0.81	0.4194
dropoff_location_id		D39			0.06727	0.02695	625.5	2.50	0.0128
dropoff_location_id		D4			-0.07837	0.01316	198.4	-5.96	<.0001
dropoff_location_id		D40			-0.02490	0.01214	148	-2.05	0.0421
dropoff_location_id		D41			0.09332	0.01921	571.3	4.86	<.0001
dropoff_location_id		D42			0.000887	0.02078	638	0.04	0.9659
dropoff_location_id		D43			-0.01151	0.01202	142.5	-0.96	0.3397
dropoff_location_id		D44			0.07449	0.01500	308.6	4.96	<.0001
dropoff_location_id		D45			-0.03418	0.01192	138.2	-2.87	0.0048
dropoff_location_id		D46			0.02941	0.01112	106.3	2.64	0.0094
dropoff_location_id		D47			-0.1232	0.01599	373.4	-7.70	<.0001
dropoff_location_id		D48			-0.02081	0.01258	168.8	-1.65	0.0999
dropoff_location_id		D49			0.001734	0.01252	166.2	0.14	0.8900
dropoff_location_id		D5			0.1871	0.01464	285.9	12.78	<.0001
dropoff_location_id		D50			-0.02807	0.01227	153.8	-2.29	0.0235
dropoff_location_id		D6			-0.02435	0.01279	179.3	-1.90	0.0586
dropoff_location_id		D7			-0.01115	0.01209	145.6	-0.92	0.3577
dropoff_location_id		D8			0.04382	0.01132	113.8	3.87	0.0002
dropoff_location_id		D9			0.04169	0.01836	524.9	2.27	0.0236
pickup_time			0		-0.00251	0.006278	1	-0.40	0.7582
pickup_time			1		-0.00171	0.005912	1	-0.29	0.8212

**Log Model-response and distance logged, month and toll interactions-- Best Model****The GLIMMIX Procedure**

Solution for Random Effects									
Effect	pickup_location_id	dropoff_location_id	pickup_time	dropoff_time	Estimate	Std Err Pred	DF	t Value	Pr >  t
pickup_time			2		-0.00033	0.005558	1	-0.06	0.9619
pickup_time			3		-0.00108	0.005237	1	-0.21	0.8703
pickup_time			4		-0.00008	0.004896	1	-0.02	0.9899
pickup_time			5		-0.00004	0.004896	1	-0.01	0.9949
pickup_time			6		-0.00147	0.005491	1	-0.27	0.8338
pickup_time			7		0.001989	0.006126	1	0.32	0.8002
pickup_time			8		-0.00076	0.006430	1	-0.12	0.9253
pickup_time			9		0.001191	0.006490	1	0.18	0.8845
pickup_time			10		0.001106	0.006435	1	0.17	0.8916
pickup_time			11		0.000965	0.006427	1	0.15	0.9051
pickup_time			12		0.000300	0.006463	1	0.05	0.9705
pickup_time			13		0.001153	0.006459	1	0.18	0.8876
pickup_time			14		-0.00161	0.006454	1	-0.25	0.8442
pickup_time			15		0.000884	0.006410	1	0.14	0.9127
pickup_time			16		0.000951	0.006341	1	0.15	0.9052
pickup_time			17		0.000210	0.006523	1	0.03	0.9795
pickup_time			18		0.001487	0.006693	1	0.22	0.8608
pickup_time			19		-0.00112	0.006709	1	-0.17	0.8945
pickup_time			20		-0.00232	0.006673	1	-0.35	0.7868
pickup_time			21		-0.00015	0.006629	1	-0.02	0.9858
pickup_time			22		0.000945	0.006581	1	0.14	0.9092
pickup_time			23		0.001992	0.006500	1	0.31	0.8107
dropoff_time			0		-0.02258	0.01295	32.01	-1.74	0.0909
dropoff_time			1		-0.02375	0.01340	36.06	-1.77	0.0847
dropoff_time			2		-0.05035	0.01407	43.7	-3.58	0.0009
dropoff_time			3		-0.06908	0.01477	52.5	-4.68	<.0001
dropoff_time			4		-0.08452	0.01641	79.59	-5.15	<.0001
dropoff_time			5		-0.09002	0.01753	93.02	-5.13	<.0001
dropoff_time			6		-0.1086	0.01474	44.18	-7.37	<.0001
dropoff_time			7		-0.04548	0.01345	32.04	-3.38	0.0019
dropoff_time			8		0.009186	0.01300	30.46	0.71	0.4853
dropoff_time			9		0.02389	0.01286	30.03	1.86	0.0730
dropoff_time			10		0.03160	0.01294	32.22	2.44	0.0203
dropoff_time			11		0.02785	0.01303	31.97	2.14	0.0404

## Log Model-response and distance logged, month and toll interactions-- Best Model

### The GLIMMIX Procedure

Solution for Random Effects									
Effect	pickup_location_id	dropoff_location_id	pickup_time	dropoff_time	Estimate	Std Err Pred	DF	t Value	Pr >  t
dropoff_time				12	0.04404	0.01292	31.33	3.41	0.0018
dropoff_time				13	0.03952	0.01296	32.13	3.05	0.0046
dropoff_time				14	0.04097	0.01294	31.31	3.17	0.0034
dropoff_time				15	0.04373	0.01295	32.58	3.38	0.0019
dropoff_time				16	0.05922	0.01314	34.57	4.51	<.0001
dropoff_time				17	0.05729	0.01313	32.78	4.36	0.0001
dropoff_time				18	0.05152	0.01271	29.03	4.05	0.0003
dropoff_time				19	0.04498	0.01261	27.72	3.57	0.0013
dropoff_time				20	0.01219	0.01268	27.77	0.96	0.3447
dropoff_time				21	0.01160	0.01269	27.76	0.91	0.3686
dropoff_time				22	-0.00208	0.01274	27.9	-0.16	0.8713
dropoff_time				23	-0.00108	0.01279	29.26	-0.08	0.9335

month Least Squares Means								
month	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
1	1.4799	0.3500	1	4.23	0.1479	0.05	-2.9677	5.9275
2	1.7275	0.3471	1	4.98	0.1262	0.05	-2.6825	6.1376
3	1.0702	0.3503	1	3.05	0.2014	0.05	-3.3810	5.5214
4	Non-est	.	.	.	.	.	.	.
5	1.2337	0.3628	1	3.40	0.1821	0.05	-3.3755	5.8428
6	Non-est	.	.	.	.	.	.	.
7	1.4568	0.3462	1	4.21	0.1485	0.05	-2.9416	5.8552
8	1.2104	0.3407	1	3.55	0.1747	0.05	-3.1188	5.5396
9	Non-est	.	.	.	.	.	.	.
10	Non-est	.	.	.	.	.	.	.
11	Non-est	.	.	.	.	.	.	.
12	Non-est	.	.	.	.	.	.	.

### **Log Model-response and distance logged, month and toll interactions-- Best Model**

## The GLIMMIX Procedure

## **Log Model-response and distance logged, month and toll interactions-- Best Model**

## The GLIMMIX Procedure

## **Log Model-response and distance logged, month and toll interactions-- Best Model**

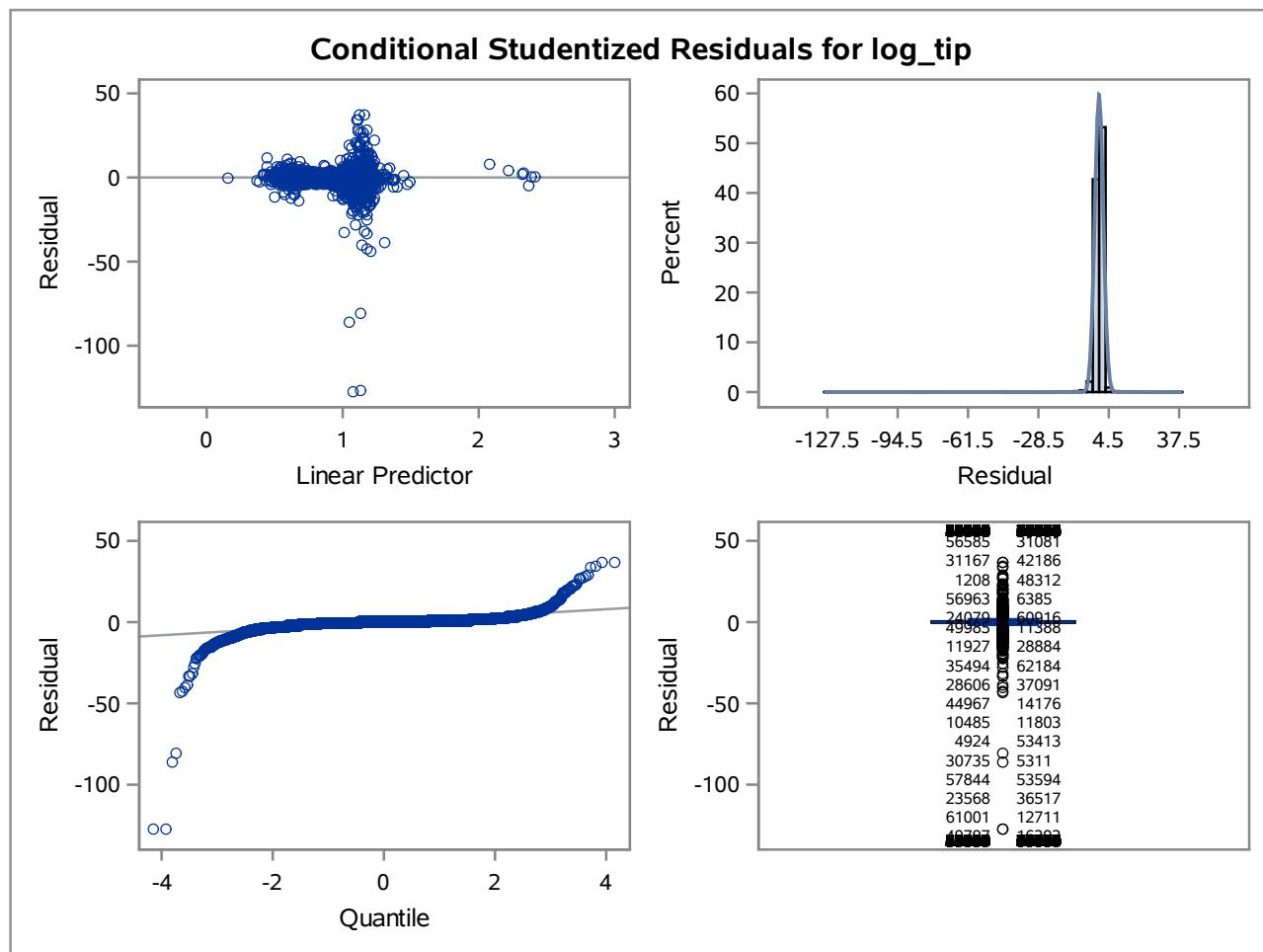
## The GLIMMIX Procedure

Differences of toll_ind Least Squares Means Adjustment for Multiple Comparisons: Tukey												
toll_ind	_toll_ind	Estimate	Standard Error	DF	t Value	Pr >  t	Adj P	Alpha	Lower	Upper	Adj Lower	Adj Upper
0	1	0.1885	0.07078	67038	2.66	0.0077	0.0077	0.05	0.04980	0.3272	0.04980	0.3272

rate_code Least Squares Means								
rate_code	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
1	1.1788	0.3004	1	3.92	0.1588	0.05	-2.6380	4.9957
2	2.2302	0.4125	1	5.41	0.1164	0.05	-3.0110	7.4713
5	Non-est	.	.	.	.	.	.	.

# Log Model-response and distance logged, month and toll interactions-- Best Model

## The GLIMMIX Procedure



## Log Model-response and distance logged, month and toll interactions-- Best Model

### The GLIMMIX Procedure

Model Information	
<b>Data Set</b>	WORK.CAB
<b>Response Variable</b>	log_tip
<b>Response Distribution</b>	Gaussian
<b>Link Function</b>	Identity
<b>Variance Function</b>	Default
<b>Variance Matrix</b>	Not blocked
<b>Estimation Technique</b>	Restricted Maximum Likelihood
<b>Degrees of Freedom Method</b>	Kenward-Roger
<b>Fixed Effects SE Adjustment</b>	Kenward-Roger

Class Level Information		
Class	Levels	Values
<b>month</b>	12	1 2 3 4 5 6 7 8 9 10 11 12
<b>pickup_time</b>	24	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
<b>dropoff_time</b>	24	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
<b>toll_ind</b>	2	0 1
<b>pickup_location_id</b>	50	P1 P10 P11 P12 P13 P14 P15 P16 P17 P18 P19 P2 P20 P21 P22 P23 P24 P25 P26 P27 P28 P29 P3 P30 P31 P32 P33 P34 P35 P36 P37 P38 P39 P4 P40 P41 P42 P43 P44 P45 P46 P47 P48 P49 P5 P50 P6 P7 P8 P9
<b>dropoff_location_id</b>	50	D1 D10 D11 D12 D13 D14 D15 D16 D17 D18 D19 D2 D20 D21 D22 D23 D24 D25 D26 D27 D28 D29 D3 D30 D31 D32 D33 D34 D35 D36 D37 D38 D39 D4 D40 D41 D42 D43 D44 D45 D46 D47 D48 D49 D5 D50 D6 D7 D8 D9
<b>rate_code</b>	3	1 2 5
<b>passenger_count</b>	6	1 2 3 4 5 6

<b>Number of Observations Read</b>	67193
<b>Number of Observations Used</b>	67193

Dimensions	
<b>G-side Cov. Parameters</b>	4
<b>R-side Cov. Parameters</b>	1
<b>Columns in X</b>	618
<b>Columns in Z</b>	148
<b>Subjects (Blocks in V)</b>	1
<b>Max Obs per Subject</b>	67193

## Log Model-response and distance logged, month and toll interactions-- Best Model

### The GLIMMIX Procedure

Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	4
Lower Boundaries	4
Upper Boundaries	0
Fixed Effects	Profiled
Residual Variance	Profiled
Starting From	Data

Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	46654.274751	.	6217.779
1	0	10	46605.554308	48.72044316	521.8617
2	0	2	46598.125771	7.42853725	4966.518
3	0	4	46597.944051	0.18171988	1627.145
4	0	3	46596.907865	1.03618627	1913.078
5	0	5	46594.860802	2.04706264	1805.661
6	0	2	46593.300244	1.56055753	425.6297
7	0	2	46591.498151	1.80209348	152
8	0	3	46591.290422	0.20772846	114.7767
9	0	3	46591.271245	0.01917714	72.41888
10	0	3	46591.268704	0.00254139	37.36881
11	0	3	46591.268623	0.00008043	7.901067

Convergence criterion (GCONV=1E-8) satisfied.

Fit Statistics	
-2 Res Log Likelihood	46591.27
AIC (smaller is better)	46601.27
AICC (smaller is better)	46601.27
BIC (smaller is better)	46610.83
CAIC (smaller is better)	46615.83
HQIC (smaller is better)	46604.91
Generalized Chi-Square	7705.44
Gener. Chi-Square / DF	0.12

## Log Model-response and distance logged, month and toll interactions-- Best Model

### The GLIMMIX Procedure

Covariance Parameter Estimates		
Cov Parm	Estimate	Standard Error
pickup_location_id	0.001892	0.000480
dropoff_location_id	0.003871	0.000842
pickup_time	0.000025	0.000057
dropoff_time	0.002597	0.000812
Residual	0.1152	0.000630

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
log_dist	1	1	0.17	0.7485
passenger_count	5	1	12.07	0.2150
month	10	1	14.33	0.2030
toll_ind	1	66782	1.57	0.2095
rate_code	1	66915	0.00	1.0000
month*passenger_coun	55	1	4.28	0.3692
toll_ind*passenger_c	5	66741	7.46	<.0001
rate_code*passenger_	8	1	8.46	0.2602
log_dist*passenger_c	5	66786	1.37	0.2310
month*toll_ind	11	66788	1.23	0.2597
month*rate_code	22	1	10.84	0.2358
log_dist*month	11	66787	2.28	0.0088
toll_ind*rate_code	2	66843	13.01	<.0001
log_dist*toll_ind	1	65620	0.32	0.5710
log_dist*rate_code	1	1	1.29	0.4600
month*toll_i*passeng	55	66772	3.36	<.0001
month*rate_c*passeng	54	1	3.68	0.3955
toll_i*rate_c*passen	5	66751	11.37	<.0001
month*toll_i*rate_co	15	66783	1.52	0.0897

# Log Model-response and distance logged, month and toll interactions-- Best Model

## The GLIMMIX Procedure

