

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

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
passenger_count	6	1 2 3 4 5 6

Number of Observations Read	67193
Number of Observations Used	67193

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

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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

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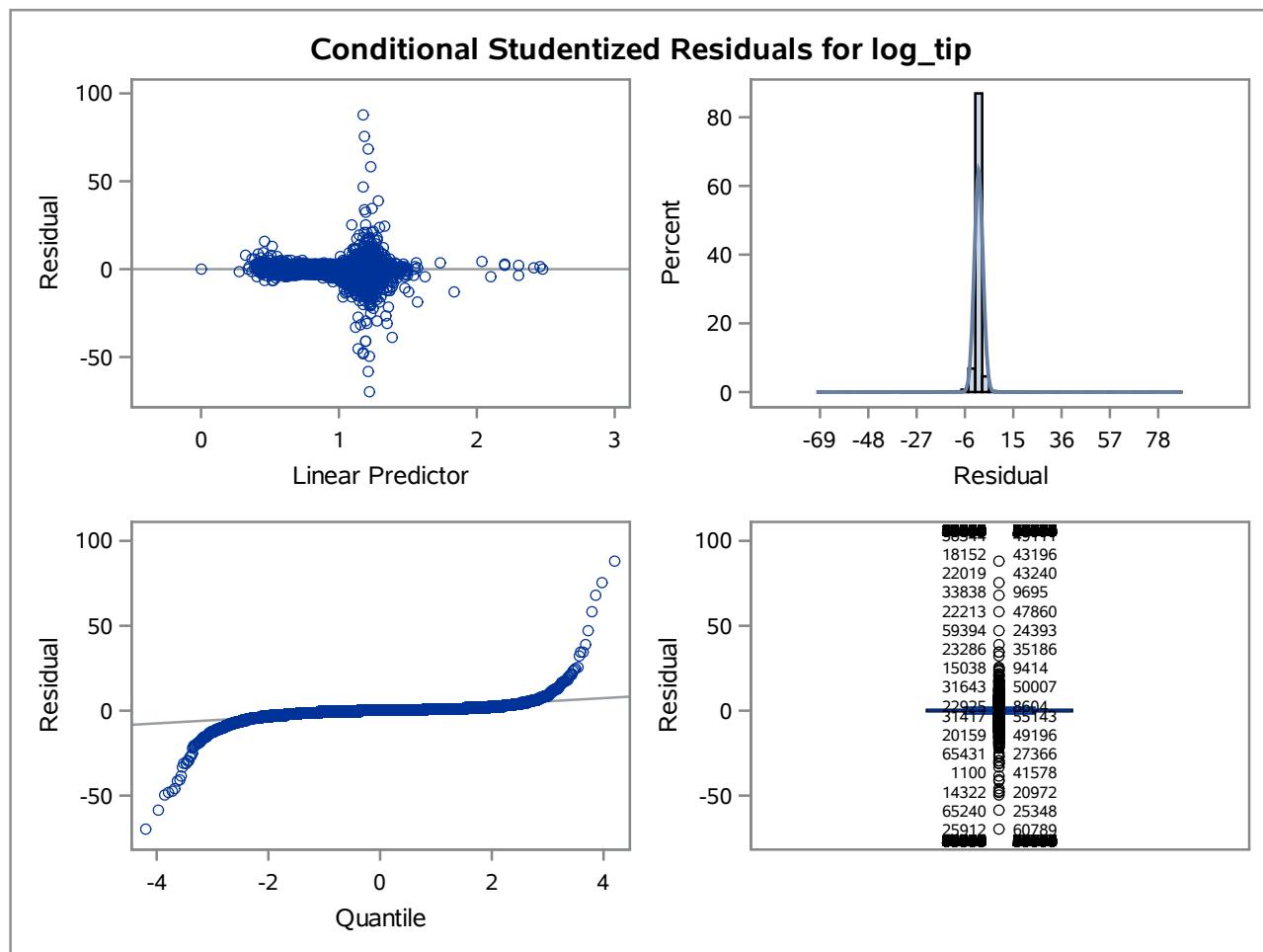
The GLIMMIX Procedure

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

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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
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
passenger_count	6	1 2 3 4 5 6

Number of Observations Read	67193
Number of Observations Used	67193

Dimensions	
G-side Cov. Parameters	3
R-side Cov. Parameters	1
Columns in X	183
Columns in Z	101
Subjects (Blocks in V)	1
Max Obs per Subject	67193

Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	3
Lower Boundaries	3
Upper Boundaries	0

The GLIMMIX Procedure

Optimization Information	
Fixed Effects	Profiled
Residual Variance	Profiled
Starting From	Data

Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	47814.97975	.	5855.458
1	0	10	47775.389938	39.58981256	477.345
2	0	7	47772.859514	2.53042342	300.7878
3	0	39	47770.062314	2.79719982	2105.091
4	0	7	47770.054111	0.00820285	464.1528
5	0	6	47769.368179	0.68593220	227.021
6	0	2	47768.545903	0.82227639	339.562
7	0	3	47768.460614	0.08528869	120.6734
8	0	3	47768.459873	0.00074083	8.118306
9	0	3	47768.459617	0.00025678	6.187622
10	0	3	47768.459616	0.00000009	0.195905

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

Fit Statistics	
-2 Res Log Likelihood	47768.46
AIC (smaller is better)	47776.46
AICC (smaller is better)	47776.46
BIC (smaller is better)	47784.11
CAIC (smaller is better)	47788.11
HQIC (smaller is better)	47779.37
Generalized Chi-Square	7874.23
Gener. Chi-Square / DF	0.12

Covariance Parameter Estimates		
Cov Parm	Estimate	Standard Error
pickup_location_id	0.002133	0.000515
dropoff_location_id	0.003890	0.000846
dropoff_time	7.451E-6	0.000011
Residual	0.1175	0.000642

The GLIMMIX Procedure

Solutions for Fixed Effects									
Effect	month	toll_ind	rate_code	passenger_count	Estimate	Standard Error	DF	t Value	Pr > t
Intercept					1.3540	0.1019	60583	13.29	<.0001
log_dist					0.1702	0.01628	66802	10.45	<.0001
passenger_count				1	0.01741	0.08035	66926	0.22	0.8284
passenger_count				2	0.005342	0.09027	66940	0.06	0.9528
passenger_count				3	0.3320	0.1253	66939	2.65	0.0081
passenger_count				4	0.3056	0.1879	66926	1.63	0.1038
passenger_count				5	-0.1583	0.1132	66956	-1.40	0.1619
passenger_count				6	0
month	1				-0.1445	0.1453	66947	-0.99	0.3199
month	2				0.002391	0.1269	66925	0.02	0.9850
month	3				0.1618	0.1212	66925	1.33	0.1819
month	4				0.3648	0.1393	66925	2.62	0.0088
month	5				-0.01729	0.1169	66930	-0.15	0.8824
month	6				0.1468	0.1134	66933	1.30	0.1953
month	7				-0.1083	0.1344	66924	-0.81	0.4204
month	8				0.03951	0.1190	66932	0.33	0.7399
month	9				-0.07827	0.1449	66923	-0.54	0.5891
month	10				-0.2578	0.1239	66925	-2.08	0.0375
month	11				0.3151	0.1302	66931	2.42	0.0155
month	12				0
toll_ind		0			-0.5122	0.08871	67014	-5.77	<.0001
toll_ind		1			0
rate_code			1		-0.00191	0.05473	67007	-0.03	0.9721
rate_code			2		0.3956	0.05687	66313	6.96	<.0001
rate_code			5		0
log_dist*month	1				-0.00912	0.008640	66931	-1.06	0.2913
log_dist*month	2				-0.00864	0.008490	66949	-1.02	0.3088
log_dist*month	3				-0.02079	0.008490	66943	-2.45	0.0143
log_dist*month	4				-0.03093	0.008490	66941	-3.64	0.0003
log_dist*month	5				-0.00361	0.008683	66938	-0.42	0.6772
log_dist*month	6				-0.00036	0.008647	66935	-0.04	0.9672
log_dist*month	7				-0.01344	0.008683	66928	-1.55	0.1217
log_dist*month	8				-0.00135	0.008696	66938	-0.16	0.8766
log_dist*month	9				-0.00527	0.008568	66934	-0.61	0.5387
log_dist*month	10				-0.00722	0.008566	66930	-0.84	0.3995

The GLIMMIX Procedure

Solutions for Fixed Effects									
Effect	month	toll_ind	rate_code	passenger_count	Estimate	Standard Error	DF	t Value	Pr > t
log_dist*month	11				-0.00130	0.008508	66946	-0.15	0.8784
log_dist*month	12				0
log_dist*toll_ind		0			0.1551	0.01517	66784	10.23	<.0001
log_dist*toll_ind		1			0
month*toll_i*passeng	1	0		1	0.1239	0.1996	66939	0.62	0.5348
month*toll_i*passeng	1	0		2	0.1179	0.2041	66938	0.58	0.5635
month*toll_i*passeng	1	0		3	-0.1984	0.2228	66939	-0.89	0.3732
month*toll_i*passeng	1	0		4	-0.2133	0.2647	66937	-0.81	0.4203
month*toll_i*passeng	1	0		5	0.2876	0.2156	66942	1.33	0.1822
month*toll_i*passeng	1	0		6	0.1359	0.1485	66947	0.92	0.3601
month*toll_i*passeng	1	1		1	0.2150	0.1478	66951	1.46	0.1456
month*toll_i*passeng	1	1		2	0.2374	0.1592	66946	1.49	0.1360
month*toll_i*passeng	1	1		3	-0.1489	0.2125	66942	-0.70	0.4837
month*toll_i*passeng	1	1		4	-0.1182	0.2821	66953	-0.42	0.6752
month*toll_i*passeng	1	1		5	0.2795	0.1836	66929	1.52	0.1279
month*toll_i*passeng	1	1		6	0
month*toll_i*passeng	2	0		1	-0.02719	0.1866	66925	-0.15	0.8841
month*toll_i*passeng	2	0		2	-0.03987	0.1914	66927	-0.21	0.8350
month*toll_i*passeng	2	0		3	-0.3648	0.2112	66930	-1.73	0.0842
month*toll_i*passeng	2	0		4	-0.2851	0.2545	66926	-1.12	0.2626
month*toll_i*passeng	2	0		5	0.1060	0.2036	66936	0.52	0.6026
month*toll_i*passeng	2	0		6	-0.06991	0.1309	66924	-0.53	0.5934
month*toll_i*passeng	2	1		1	-0.00794	0.1302	66926	-0.06	0.9513
month*toll_i*passeng	2	1		2	-0.07249	0.1488	66931	-0.49	0.6262
month*toll_i*passeng	2	1		3	-0.4060	0.2124	66930	-1.91	0.0559
month*toll_i*passeng	2	1		4	-0.08328	0.3225	66927	-0.26	0.7962
month*toll_i*passeng	2	1		5	0.1505	0.1731	66942	0.87	0.3845
month*toll_i*passeng	2	1		6	0
month*toll_i*passeng	3	0		1	-0.1891	0.1828	66925	-1.03	0.3007
month*toll_i*passeng	3	0		2	-0.1868	0.1877	66929	-1.00	0.3195
month*toll_i*passeng	3	0		3	-0.5529	0.2078	66931	-2.66	0.0078
month*toll_i*passeng	3	0		4	-0.4592	0.2521	66926	-1.82	0.0686
month*toll_i*passeng	3	0		5	-0.03291	0.2002	66936	-0.16	0.8695
month*toll_i*passeng	3	0		6	-0.1578	0.1255	66925	-1.26	0.2088
month*toll_i*passeng	3	1		1	-0.08962	0.1245	66924	-0.72	0.4715

The GLIMMIX Procedure

Solutions for Fixed Effects									
Effect	month	toll_ind	rate_code	passenger_count	Estimate	Standard Error	DF	t Value	Pr > t
month*toll_i*passeng	3	1		2	-0.1385	0.1382	66934	-1.00	0.3164
month*toll_j*passeng	3	1		3	-1.2666	0.2023	66935	-6.26	<.0001
month*toll_i*passeng	3	1		4	-0.4244	0.2704	66925	-1.57	0.1164
month*toll_j*passeng	3	1		5	-0.05219	0.1705	66946	-0.31	0.7594
month*toll_i*passeng	3	1		6	0
month*toll_i*passeng	4	0		1	-0.3787	0.1952	66926	-1.94	0.0524
month*toll_i*passeng	4	0		2	-0.3620	0.1998	66928	-1.81	0.0701
month*toll_i*passeng	4	0		3	-0.7517	0.2189	66929	-3.43	0.0006
month*toll_i*passeng	4	0		4	-0.7431	0.2615	66928	-2.84	0.0045
month*toll_i*passeng	4	0		5	-0.2223	0.2116	66936	-1.05	0.2933
month*toll_j*passeng	4	0		6	-0.4023	0.1430	66926	-2.81	0.0049
month*toll_i*passeng	4	1		1	-0.2533	0.1420	66926	-1.78	0.0744
month*toll_j*passeng	4	1		2	-0.3797	0.1539	66930	-2.47	0.0136
month*toll_i*passeng	4	1		3	-0.6065	0.1945	66927	-3.12	0.0018
month*toll_i*passeng	4	1		4	-0.6351	0.2681	66926	-2.37	0.0179
month*toll_i*passeng	4	1		5	-0.1710	0.1800	66947	-0.95	0.3423
month*toll_i*passeng	4	1		6	0
month*toll_i*passeng	5	0		1	-0.01371	0.1799	66928	-0.08	0.9393
month*toll_i*passeng	5	0		2	0.008185	0.1849	66931	0.04	0.9647
month*toll_i*passeng	5	0		3	-0.3013	0.2052	66936	-1.47	0.1419
month*toll_i*passeng	5	0		4	-0.4175	0.2503	66928	-1.67	0.0953
month*toll_i*passeng	5	0		5	0.1477	0.1976	66936	0.75	0.4549
month*toll_i*passeng	5	0		6	0.01441	0.1216	66931	0.12	0.9056
month*toll_i*passeng	5	1		1	0.03827	0.1198	66934	0.32	0.7495
month*toll_i*passeng	5	1		2	0.007791	0.1330	66950	0.06	0.9533
month*toll_i*passeng	5	1		3	0.006929	0.1901	66937	0.04	0.9709
month*toll_i*passeng	5	1		4	0.06956	0.2275	66932	0.31	0.7598
month*toll_i*passeng	5	1		5	-0.2122	0.1566	66942	-1.36	0.1754
month*toll_i*passeng	5	1		6	0
month*toll_i*passeng	6	0		1	-0.1874	0.1776	66929	-1.06	0.2914
month*toll_i*passeng	6	0		2	-0.1735	0.1827	66935	-0.95	0.3423
month*toll_i*passeng	6	0		3	-0.4959	0.2034	66935	-2.44	0.0148
month*toll_i*passeng	6	0		4	-0.4632	0.2484	66928	-1.86	0.0623
month*toll_i*passeng	6	0		5	-0.03222	0.1956	66940	-0.16	0.8692
month*toll_i*passeng	6	0		6	-0.2129	0.1181	66933	-1.80	0.0714

The GLIMMIX Procedure

Solutions for Fixed Effects									
Effect	month	toll_ind	rate_code	passenger_count	Estimate	Standard Error	DF	t Value	Pr > t
month*toll_i*passeng	6	1		1	-0.1675	0.1163	66934	-1.44	0.1499
month*toll_j*passeng	6	1		2	-0.1446	0.1307	66945	-1.11	0.2687
month*toll_i*passeng	6	1		3	-0.2316	0.1751	66940	-1.32	0.1859
month*toll_j*passeng	6	1		4	-0.2871	0.2557	66927	-1.12	0.2615
month*toll_i*passeng	6	1		5	0.08500	0.1545	66950	0.55	0.5822
month*toll_i*passeng	6	1		6	0
month*toll_i*passeng	7	0		1	0.07628	0.1918	66924	0.40	0.6908
month*toll_j*passeng	7	0		2	0.06961	0.1964	66926	0.35	0.7230
month*toll_i*passeng	7	0		3	-0.2447	0.2158	66929	-1.13	0.2570
month*toll_i*passeng	7	0		4	-0.09775	0.2593	66925	-0.38	0.7062
month*toll_j*passeng	7	0		5	0.2120	0.2085	66933	1.02	0.3094
month*toll_i*passeng	7	0		6	0.06107	0.1385	66924	0.44	0.6591
month*toll_j*passeng	7	1		1	0.07896	0.1371	66929	0.58	0.5646
month*toll_i*passeng	7	1		2	0.1712	0.1495	66926	1.15	0.2520
month*toll_i*passeng	7	1		3	0.1121	0.2104	66929	0.53	0.5940
month*toll_i*passeng	7	1		4	-0.5496	0.2526	66922	-2.18	0.0296
month*toll_i*passeng	7	1		5	0.4051	0.1764	66942	2.30	0.0216
month*toll_i*passeng	7	1		6	0
month*toll_i*passeng	8	0		1	-0.08465	0.1813	66929	-0.47	0.6406
month*toll_i*passeng	8	0		2	-0.05851	0.1863	66930	-0.31	0.7534
month*toll_i*passeng	8	0		3	-0.3867	0.2066	66932	-1.87	0.0613
month*toll_i*passeng	8	0		4	-0.3691	0.2508	66929	-1.47	0.1411
month*toll_i*passeng	8	0		5	0.06921	0.1991	66939	0.35	0.7281
month*toll_i*passeng	8	0		6	-0.09589	0.1234	66932	-0.78	0.4372
month*toll_i*passeng	8	1		1	-0.05974	0.1221	66933	-0.49	0.6246
month*toll_i*passeng	8	1		2	-0.02552	0.1343	66939	-0.19	0.8493
month*toll_i*passeng	8	1		3	-0.6676	0.1788	66955	-3.73	0.0002
month*toll_i*passeng	8	1		4	-0.3484	0.2694	66927	-1.29	0.1960
month*toll_i*passeng	8	1		5	0.01708	0.1629	66955	0.10	0.9165
month*toll_i*passeng	8	1		6	0
month*toll_i*passeng	9	0		1	0.05086	0.1993	66924	0.26	0.7986
month*toll_i*passeng	9	0		2	0.06180	0.2038	66926	0.30	0.7617
month*toll_i*passeng	9	0		3	-0.2530	0.2224	66928	-1.14	0.2555
month*toll_i*passeng	9	0		4	-0.2654	0.2638	66927	-1.01	0.3145
month*toll_i*passeng	9	0		5	0.1941	0.2154	66934	0.90	0.3677

The GLIMMIX Procedure

Solutions for Fixed Effects									
Effect	month	toll_ind	rate_code	passenger_count	Estimate	Standard Error	DF	t Value	Pr > t
month*toll_i*passeng	9	0		6	0.07817	0.1486	66923	0.53	0.5988
month*toll_j*passeng	9	1		1	0.1164	0.1473	66924	0.79	0.4296
month*toll_i*passeng	9	1		2	0.007360	0.1587	66928	0.05	0.9630
month*toll_j*passeng	9	1		3	-0.2554	0.1923	66933	-1.33	0.1840
month*toll_i*passeng	9	1		4	-0.1859	0.3302	66933	-0.56	0.5735
month*toll_i*passeng	9	1		5	0.07906	0.1820	66945	0.43	0.6639
month*toll_i*passeng	9	1		6	0
month*toll_j*passeng	10	0		1	0.2355	0.1846	66926	1.28	0.2019
month*toll_j*passeng	10	0		2	0.2445	0.1894	66928	1.29	0.1967
month*toll_i*passeng	10	0		3	-0.1292	0.2094	66931	-0.62	0.5374
month*toll_j*passeng	10	0		4	-0.03406	0.2534	66928	-0.13	0.8931
month*toll_i*passeng	10	0		5	0.3758	0.2019	66937	1.86	0.0626
month*toll_j*passeng	10	0		6	0.2079	0.1280	66926	1.62	0.1042
month*toll_i*passeng	10	1		1	0.2940	0.1266	66926	2.32	0.0202
month*toll_i*passeng	10	1		2	0.2738	0.1378	66930	1.99	0.0469
month*toll_i*passeng	10	1		3	-0.2601	0.1821	66929	-1.43	0.1532
month*toll_i*passeng	10	1		4	-0.3468	0.2607	66933	-1.33	0.1834
month*toll_i*passeng	10	1		5	0.5796	0.1614	66943	3.59	0.0003
month*toll_i*passeng	10	1		6	0
month*toll_i*passeng	11	0		1	-0.3325	0.1889	66927	-1.76	0.0784
month*toll_i*passeng	11	0		2	-0.3152	0.1936	66929	-1.63	0.1036
month*toll_i*passeng	11	0		3	-0.6648	0.2129	66931	-3.12	0.0018
month*toll_i*passeng	11	0		4	-0.7061	0.2562	66926	-2.76	0.0059
month*toll_i*passeng	11	0		5	-0.1639	0.2058	66935	-0.80	0.4260
month*toll_i*passeng	11	0		6	-0.3429	0.1344	66931	-2.55	0.0107
month*toll_i*passeng	11	1		1	-0.3082	0.1333	66934	-2.31	0.0208
month*toll_i*passeng	11	1		2	-0.2782	0.1459	66931	-1.91	0.0566
month*toll_i*passeng	11	1		3	-0.5821	0.2234	66930	-2.61	0.0092
month*toll_i*passeng	11	1		4	-0.3663	0.2464	66929	-1.49	0.1371
month*toll_i*passeng	11	1		5	-0.2476	0.1706	66943	-1.45	0.1467
month*toll_i*passeng	11	1		6	0
month*toll_i*passeng	12	0		1	-0.02161	0.08457	66927	-0.26	0.7983
month*toll_i*passeng	12	0		2	0.007365	0.09478	66938	0.08	0.9381
month*toll_i*passeng	12	0		3	-0.3582	0.1302	66937	-2.75	0.0060
month*toll_i*passeng	12	0		4	-0.3339	0.1928	66926	-1.73	0.0833

The GLIMMIX Procedure

Solutions for Fixed Effects									
Effect	month	toll_ind	rate_code	passenger_count	Estimate	Standard Error	DF	t Value	Pr > t
month*toll_i*passeng	12	0		5	0.1216	0.1180	66955	1.03	0.3029
month*toll_j*passeng	12	0		6	0
month*toll_i*passeng	12	1		1	0
month*toll_j*passeng	12	1		2	0
month*toll_i*passeng	12	1		3	0
month*toll_j*passeng	12	1		4	0
month*toll_i*passeng	12	1		5	0
month*toll_j*passeng	12	1		6	0

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
log_dist	1	66343	956.07	<.0001
passenger_count	5	66942	4.94	0.0002
month	11	66935	2.60	0.0026
toll_ind	1	66501	216.36	<.0001
rate_code	2	26244	221.80	<.0001
log_dist*month	11	66939	2.41	0.0054
log_dist*toll_ind	1	66784	104.58	<.0001
month*toll_i*passeng	126	66935	2.48	<.0001

passenger_count Least Squares Means								
passenger_count	Estimate	Standard Error	DF	t Value	Pr > t	Alpha	Lower	Upper
1	1.4186	0.02611	2185	54.33	<.0001	0.05	1.3674	1.4698
2	1.4033	0.02693	2469	52.10	<.0001	0.05	1.3505	1.4561
3	1.3950	0.03108	4279	44.89	<.0001	0.05	1.3341	1.4559
4	1.4247	0.03605	7406	39.52	<.0001	0.05	1.3540	1.4953
5	1.3623	0.02847	3059	47.85	<.0001	0.05	1.3065	1.4182
6	1.4056	0.03008	3753	46.73	<.0001	0.05	1.3467	1.4646

The GLIMMIX Procedure

Differences of passenger_count Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer										
passenger_count	_passenger_count	Estimate	Standard Error	DF	t Value	Pr > t	Adj P	Alpha	Lower	Upper
1	2	0.01524	0.008235	66945	1.85	0.0643	0.4334	0.05	-0.00090	0.03138
1	3	0.02356	0.01716	66936	1.37	0.1697	0.7433	0.05	-0.01007	0.05719
1	4	-0.00610	0.02533	66927	-0.24	0.8098	0.9999	0.05	-0.05575	0.04356
1	5	0.05621	0.01206	66951	4.66	<.0001	<.0001	0.05	0.03257	0.07985
1	6	0.01292	0.01530	66950	0.84	0.3984	0.9591	0.05	-0.01707	0.04291
2	3	0.008325	0.01834	66933	0.45	0.6499	0.9976	0.05	-0.02763	0.04427
2	4	-0.02134	0.02615	66926	-0.82	0.4145	0.9647	0.05	-0.07258	0.02991
2	5	0.04097	0.01370	66956	2.99	0.0028	0.0332	0.05	0.01412	0.06783
2	6	-0.00232	0.01662	66953	-0.14	0.8892	1.0000	0.05	-0.03490	0.03027
3	4	-0.02966	0.03017	66925	-0.98	0.3256	0.9235	0.05	-0.08879	0.02947
3	5	0.03265	0.02035	66946	1.60	0.1086	0.5956	0.05	-0.00724	0.07253
3	6	-0.01064	0.02242	66938	-0.47	0.6350	0.9970	0.05	-0.05458	0.03330
4	5	0.06231	0.02760	66936	2.26	0.0240	0.2117	0.05	0.008215	0.1164
4	6	0.01902	0.02916	66931	0.65	0.5142	0.9869	0.05	-0.03812	0.07616
5	6	-0.04329	0.01881	66953	-2.30	0.0214	0.1932	0.05	-0.08015	-0.00643

Differences of passenger_count Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer			
passenger_count	_passenger_count	Adj Lower	Adj Upper
1	2	-0.00823	0.03870
1	3	-0.02534	0.07246
1	4	-0.07830	0.06610
1	5	0.02184	0.09058
1	6	-0.03069	0.05653
2	3	-0.04395	0.06059
2	4	-0.09585	0.05318
2	5	0.001927	0.08002
2	6	-0.04969	0.04506
3	4	-0.1156	0.05632
3	5	-0.02534	0.09064
3	6	-0.07452	0.05324
4	5	-0.01634	0.1410
4	6	-0.06407	0.1021
5	6	-0.09689	0.01031

The GLIMMIX Procedure

month Least Squares Means								
month	Estimate	Standard Error	DF	t Value	Pr > t	Alpha	Lower	Upper
1	1.4015	0.03458	6405	40.52	<.0001	0.05	1.3337	1.4693
2	1.3973	0.03768	8664	37.08	<.0001	0.05	1.3234	1.4711
3	1.3436	0.03436	6185	39.10	<.0001	0.05	1.2763	1.4110
4	1.4264	0.03350	5665	42.57	<.0001	0.05	1.3607	1.4920
5	1.4186	0.03091	4175	45.90	<.0001	0.05	1.3580	1.4792
6	1.4468	0.03241	4992	44.64	<.0001	0.05	1.3833	1.5103
7	1.3993	0.03343	5602	41.86	<.0001	0.05	1.3337	1.4648
8	1.3639	0.03306	5386	41.25	<.0001	0.05	1.2990	1.4287
9	1.3797	0.03620	7506	38.12	<.0001	0.05	1.3088	1.4507
10	1.3499	0.03241	5006	41.65	<.0001	0.05	1.2864	1.4135
11	1.4480	0.03335	5558	43.42	<.0001	0.05	1.3826	1.5134
12	1.4441	0.03328	5537	43.39	<.0001	0.05	1.3788	1.5093

Differences of month Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer												
month	_month	Estimate	Standard Error	DF	t Value	Pr > t	Adj P	Alpha	Lower	Upper	Adj Lower	Adj Upper
1	2	0.004278	0.03553	66935	0.12	0.9042	1.0000	0.05	-0.06536	0.07392	-0.1118	0.1204
1	3	0.05791	0.03200	66945	1.81	0.0704	0.8132	0.05	-0.00482	0.1206	-0.04668	0.1625
1	4	-0.02481	0.03091	66950	-0.80	0.4221	0.9997	0.05	-0.08540	0.03577	-0.1258	0.07621
1	5	-0.01704	0.02871	66935	-0.59	0.5528	1.0000	0.05	-0.07330	0.03923	-0.1109	0.07678
1	6	-0.04526	0.02986	66948	-1.52	0.1295	0.9366	0.05	-0.1038	0.01325	-0.1428	0.05231
1	7	0.002267	0.03093	66941	0.07	0.9416	1.0000	0.05	-0.05835	0.06289	-0.09881	0.1033
1	8	0.03768	0.03077	66944	1.22	0.2208	0.9872	0.05	-0.02264	0.09799	-0.06289	0.1382
1	9	0.02181	0.03437	66947	0.63	0.5256	1.0000	0.05	-0.04554	0.08917	-0.09050	0.1341
1	10	0.05162	0.02998	66953	1.72	0.0852	0.8587	0.05	-0.00715	0.1104	-0.04637	0.1496
1	11	-0.04648	0.03108	66944	-1.50	0.1347	0.9422	0.05	-0.1074	0.01443	-0.1481	0.05508
1	12	-0.04255	0.03081	66936	-1.38	0.1673	0.9673	0.05	-0.1029	0.01784	-0.1432	0.05814
2	3	0.05364	0.03524	66927	1.52	0.1280	0.9349	0.05	-0.01544	0.1227	-0.06154	0.1688
2	4	-0.02909	0.03426	66932	-0.85	0.3958	0.9995	0.05	-0.09624	0.03805	-0.1411	0.08287
2	5	-0.02132	0.03226	66927	-0.66	0.5088	1.0000	0.05	-0.08455	0.04191	-0.1267	0.08412
2	6	-0.04954	0.03328	66927	-1.49	0.1366	0.9440	0.05	-0.1148	0.01569	-0.1583	0.05922
2	7	-0.00201	0.03426	66926	-0.06	0.9532	1.0000	0.05	-0.06915	0.06513	-0.1140	0.1099
2	8	0.03340	0.03411	66941	0.98	0.3276	0.9981	0.05	-0.03347	0.1003	-0.07809	0.1449
2	9	0.01753	0.03739	66930	0.47	0.6391	1.0000	0.05	-0.05575	0.09082	-0.1047	0.1397
2	10	0.04734	0.03341	66929	1.42	0.1565	0.9605	0.05	-0.01814	0.1128	-0.06184	0.1565

The GLIMMIX Procedure

Differences of month Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer												
month	_month	Estimate	Standard Error	DF	t Value	Pr > t	Adj P	Alpha	Lower	Upper	Adj Lower	Adj Upper
2	11	-0.05076	0.03439	66924	-1.48	0.1400	0.9473	0.05	-0.1182	0.01665	-0.1632	0.06164
2	12	-0.04682	0.03415	66928	-1.37	0.1703	0.9690	0.05	-0.1138	0.02011	-0.1584	0.06478
3	4	-0.08273	0.03059	66930	-2.70	0.0068	0.2237	0.05	-0.1427	-0.02278	-0.1827	0.01723
3	5	-0.07495	0.02835	66932	-2.64	0.0082	0.2552	0.05	-0.1305	-0.01938	-0.1676	0.01770
3	6	-0.1032	0.02952	66932	-3.50	0.0005	0.0239	0.05	-0.1610	-0.04533	-0.1996	-0.00672
3	7	-0.05565	0.03060	66926	-1.82	0.0690	0.8080	0.05	-0.1156	0.004322	-0.1556	0.04435
3	8	-0.02024	0.03044	66939	-0.66	0.5061	1.0000	0.05	-0.07990	0.03942	-0.1197	0.07924
3	9	-0.03610	0.03407	66936	-1.06	0.2894	0.9962	0.05	-0.1029	0.03068	-0.1475	0.07525
3	10	-0.00629	0.02965	66938	-0.21	0.8319	1.0000	0.05	-0.06441	0.05182	-0.1032	0.09061
3	11	-0.1044	0.03075	66928	-3.39	0.0007	0.0335	0.05	-0.1647	-0.04412	-0.2049	-0.00390
3	12	-0.1005	0.03048	66932	-3.30	0.0010	0.0459	0.05	-0.1602	-0.04072	-0.2001	-0.00084
4	5	0.007775	0.02712	66939	0.29	0.7743	1.0000	0.05	-0.04537	0.06092	-0.08084	0.09639
4	6	-0.02045	0.02831	66933	-0.72	0.4701	0.9999	0.05	-0.07594	0.03504	-0.1130	0.07208
4	7	0.02708	0.02945	66931	0.92	0.3578	0.9989	0.05	-0.03064	0.08480	-0.06917	0.1233
4	8	0.06249	0.02929	66944	2.13	0.0329	0.5982	0.05	0.005089	0.1199	-0.03322	0.1582
4	9	0.04663	0.03304	66931	1.41	0.1582	0.9617	0.05	-0.01814	0.1114	-0.06136	0.1546
4	10	0.07643	0.02845	66932	2.69	0.0072	0.2325	0.05	0.02068	0.1322	-0.01653	0.1694
4	11	-0.02167	0.02961	66929	-0.73	0.4642	0.9999	0.05	-0.07970	0.03636	-0.1184	0.07509
4	12	-0.01773	0.02932	66932	-0.60	0.5453	1.0000	0.05	-0.07519	0.03973	-0.1135	0.07808
5	6	-0.02823	0.02587	66932	-1.09	0.2753	0.9951	0.05	-0.07893	0.02248	-0.1128	0.05632
5	7	0.01931	0.02712	66931	0.71	0.4765	0.9999	0.05	-0.03385	0.07246	-0.06932	0.1079
5	8	0.05471	0.02691	66937	2.03	0.0421	0.6708	0.05	0.001962	0.1075	-0.03325	0.1427
5	9	0.03885	0.03096	66939	1.25	0.2095	0.9843	0.05	-0.02183	0.09953	-0.06232	0.1400
5	10	0.06866	0.02603	66937	2.64	0.0083	0.2583	0.05	0.01765	0.1197	-0.01640	0.1537
5	11	-0.02945	0.02728	66929	-1.08	0.2804	0.9955	0.05	-0.08291	0.02402	-0.1186	0.05970
5	12	-0.02551	0.02697	66930	-0.95	0.3443	0.9986	0.05	-0.07837	0.02736	-0.1137	0.06264
6	7	0.04753	0.02832	66929	1.68	0.0933	0.8784	0.05	-0.00798	0.1030	-0.04503	0.1401
6	8	0.08294	0.02814	66941	2.95	0.0032	0.1247	0.05	0.02778	0.1381	-0.00904	0.1749
6	9	0.06708	0.03203	66928	2.09	0.0362	0.6269	0.05	0.004304	0.1298	-0.03759	0.1717
6	10	0.09688	0.02727	66927	3.55	0.0004	0.0197	0.05	0.04343	0.1503	0.007750	0.1860
6	11	-0.00122	0.02848	66926	-0.04	0.9658	1.0000	0.05	-0.05705	0.05461	-0.09431	0.09187
6	12	0.002718	0.02818	66934	0.10	0.9232	1.0000	0.05	-0.05252	0.05796	-0.08939	0.09483
7	8	0.03541	0.02929	66944	1.21	0.2268	0.9884	0.05	-0.02201	0.09282	-0.06033	0.1311
7	9	0.01954	0.03305	66933	0.59	0.5543	1.0000	0.05	-0.04524	0.08433	-0.08848	0.1276

The GLIMMIX Procedure

Differences of month Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer												
month	_month	Estimate	Standard Error	DF	t Value	Pr > t	Adj P	Alpha	Lower	Upper	Adj Lower	Adj Upper
7	10	0.04935	0.02847	66932	1.73	0.0830	0.8528	0.05	-0.00644	0.1051	-0.04368	0.1424
7	11	-0.04875	0.02962	66926	-1.65	0.0998	0.8920	0.05	-0.1068	0.009302	-0.1456	0.04805
7	12	-0.04481	0.02933	66928	-1.53	0.1266	0.9332	0.05	-0.1023	0.01268	-0.1407	0.05105
8	9	-0.01586	0.03289	66950	-0.48	0.6296	1.0000	0.05	-0.08034	0.04861	-0.1234	0.09164
8	10	0.01394	0.02829	66949	0.49	0.6220	1.0000	0.05	-0.04150	0.06939	-0.07850	0.1064
8	11	-0.08416	0.02945	66943	-2.86	0.0043	0.1562	0.05	-0.1419	-0.02644	-0.1804	0.01208
8	12	-0.08022	0.02916	66946	-2.75	0.0059	0.2015	0.05	-0.1374	-0.02307	-0.1755	0.01508
9	10	0.02981	0.03214	66928	0.93	0.3537	0.9989	0.05	-0.03319	0.09281	-0.07524	0.1349
9	11	-0.06830	0.03317	66930	-2.06	0.0395	0.6524	0.05	-0.1333	-0.00328	-0.1767	0.04012
9	12	-0.06436	0.03294	66936	-1.95	0.0507	0.7247	0.05	-0.1289	0.000196	-0.1720	0.04328
10	11	-0.09810	0.02862	66926	-3.43	0.0006	0.0300	0.05	-0.1542	-0.04202	-0.1916	-0.00459
10	12	-0.09417	0.02833	66934	-3.32	0.0009	0.0420	0.05	-0.1497	-0.03865	-0.1867	-0.00159
11	12	0.003939	0.02949	66927	0.13	0.8937	1.0000	0.05	-0.05386	0.06174	-0.09244	0.1003

toll_ind Least Squares Means								
toll_ind	Estimate	Standard Error	DF	t Value	Pr > t	Alpha	Lower	Upper
0	1.1808	0.02275	1245	51.91	<.0001	0.05	1.1361	1.2254
1	1.6224	0.03597	7283	45.10	<.0001	0.05	1.5519	1.6929

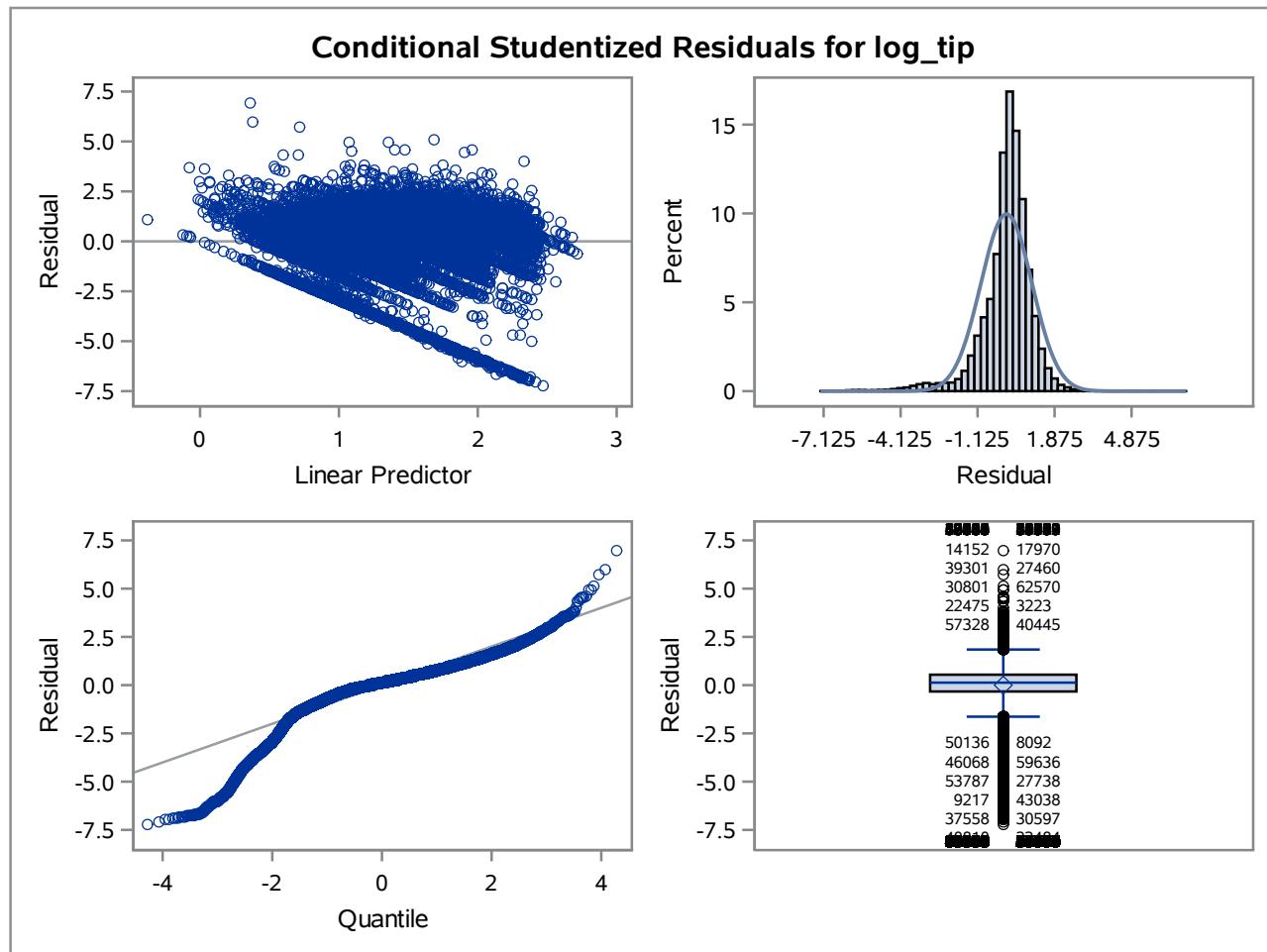
Differences of toll_ind Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer												
toll_ind	_toll_ind	Estimate	Standard Error	DF	t Value	Pr > t	Adj P	Alpha	Lower	Upper	Adj Lower	Adj Upper
0	1	-0.4416	0.02776	66201	-15.91	<.0001	<.0001	0.05	-0.4961	-0.3872	-0.4961	-0.3872

rate_code Least Squares Means									
rate_code	Estimate	Standard Error	DF	t Value	Pr > t	Alpha	Lower	Upper	
1	1.2684	0.01792	506.2	70.78	<.0001	0.05	1.2332	1.3036	
2	1.6660	0.02704	1962	61.62	<.0001	0.05	1.6129	1.7190	
5	1.2704	0.05729	30634	22.17	<.0001	0.05	1.1581	1.3827	

The GLIMMIX Procedure

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	-0.3975	0.01890	12939	-21.03	<.0001	<.0001	0.05	-0.4346	-0.3605	-0.4418	-0.3532
1	5	-0.00191	0.05473	67007	-0.03	0.9721	0.9993	0.05	-0.1092	0.1054	-0.1302	0.1264
2	5	0.3956	0.05687	66313	6.96	<.0001	<.0001	0.05	0.2841	0.5071	0.2623	0.5289



The UNIVARIATE Procedure
Variable: presid (Pearson Residual)

Moments			
N	67193	Sum Weights	67193
Mean	0	Sum Observations	0
Std Deviation	0.99812455	Variance	0.99625262
Skewness	-1.6979714	Kurtosis	6.75510706
Uncorrected SS	66940.2064	Corrected SS	66940.2064
Coeff Variation	.	Std Error Mean	0.00385055

Basic Statistical Measures			
Location		Variability	
Mean	0.00000	Std Deviation	0.99812
Median	0.12866	Variance	0.99625
Mode	-0.61562	Range	14.05074
		Interquartile Range	0.86853

Note: The mode displayed is the smallest of 14 modes with a count of 2.

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	0	Pr > t	1.0000
Sign	M	5796.5	Pr >= M	<.0001
Signed Rank	S	1.6658E8	Pr >= S	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	6.845182
99%	1.928526
95%	1.266778
90%	0.974546
75% Q3	0.540303
50% Median	0.128662
25% Q1	-0.328225
10%	-1.057047
5%	-1.655391
1%	-3.741932
0% Min	-7.205555

The UNIVARIATE Procedure
Variable: presid (Pearson Residual)

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-7.20556	1725	4.92290	7002
-7.03991	51549	5.09298	3348
-6.92083	43291	5.61430	38839
-6.90964	3489	5.90323	509
-6.88725	28200	6.84518	16