

The LOGISTIC Procedure

Model Information	
Data Set	WORK.MORTGAGE_SUPERPRIME
Response Variable	default_time
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	127216
Number of Observations Used	127216

Response Profile		
Ordered Value	default_time	Total Frequency
1	1	1419
2	0	125797

Probability modeled is default_time='1'.

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	15583.574	14655.296
SC	15593.327	14694.311
-2 Log L	15581.574	14647.296

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	934.2774	3	<.0001
Score	1114.5613	3	<.0001
Wald	828.1649	3	<.0001

The LOGISTIC Procedure

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-2.2111	0.1480	223.2248	<.0001
LTV_time	1	0.00753	0.000553	185.6788	<.0001
loan_age	1	-0.0477	0.00360	175.1323	<.0001
hpi_change	1	-0.0297	0.00137	467.6576	<.0001

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
LTV_time	1.008	1.006	1.009
loan_age	0.953	0.947	0.960
hpi_change	0.971	0.968	0.973

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	74.2	Somers' D	0.484
Percent Discordant	25.8	Gamma	0.484
Percent Tied	0.0	Tau-a	0.011
Pairs	178505943	c	0.742

The LOGISTIC Procedure

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Data Set	WORK.MORTGAGE_SUPERPRIME
Response Variable	default_time
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	127216
Number of Observations Used	127216

Response Profile		
Ordered Value	default_time	Total Frequency
1	1	1419
2	0	125797

Probability modeled is default_time='1'.

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	15583.574	14657.075
SC	15593.327	14705.843
-2 Log L	15581.574	14647.075

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	934.4985	4	<.0001
Score	1117.8540	4	<.0001
Wald	828.3577	4	<.0001

The LOGISTIC Procedure

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-2.2247	0.1508	217.5301	<.0001
LTV_time	1	0.00753	0.000553	185.4303	<.0001
loan_age	1	-0.0477	0.00360	175.1122	<.0001
REtype_SF_orig_time	1	0.0254	0.0541	0.2209	0.6383
hpi_change	1	-0.0297	0.00137	467.8883	<.0001

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
LTV_time	1.008	1.006	1.009
loan_age	0.953	0.947	0.960
REtype_SF_orig_time	1.026	0.923	1.140
hpi_change	0.971	0.968	0.973

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	74.2	Somers' D	0.485
Percent Discordant	25.8	Gamma	0.485
Percent Tied	0.0	Tau-a	0.011
Pairs	178505943	c	0.742

The LOGISTIC Procedure

Model Information	
Data Set	WORK.MORTGAGE_PRIME
Response Variable	default_time
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	302996
Number of Observations Used	302977

Response Profile		
Ordered Value	default_time	Total Frequency
1	1	7229
2	0	295748

Probability modeled is default_time='1'.

Note: 19 observations were deleted due to missing values for the response or explanatory variables.

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	68294.800	63902.220
SC	68305.421	63955.327
-2 Log L	68292.800	63892.220

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	4400.5798	4	<.0001
Score	4341.3842	4	<.0001
Wald	4047.6928	4	<.0001

The LOGISTIC Procedure

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-7.4215	0.0736	10169.2798	<.0001
LTV_time	1	0.0294	0.000696	1778.3481	<.0001
interest_rate_time	1	0.1506	0.00654	530.3684	<.0001
loan_age	1	-0.0222	0.00181	149.8697	<.0001
uer_time	1	0.0428	0.00891	23.0419	<.0001

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
LTV_time	1.030	1.028	1.031
interest_rate_time	1.163	1.148	1.177
loan_age	0.978	0.975	0.982
uer_time	1.044	1.026	1.062

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	73.3	Somers' D	0.466
Percent Discordant	26.7	Gamma	0.466
Percent Tied	0.0	Tau-a	0.022
Pairs	2137962292	c	0.733

The LOGISTIC Procedure

Model Information	
Data Set	WORK.MORTGAGE_PRIME
Response Variable	default_time
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	302996
Number of Observations Used	302977

Response Profile		
Ordered Value	default_time	Total Frequency
1	1	7229
2	0	295748

Probability modeled is default_time='1'.

Note: 19 observations were deleted due to missing values for the response or explanatory variables.

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	68294.800	64051.354
SC	68305.421	64104.461
-2 Log L	68292.800	64041.354

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	4251.4461	4	<.0001
Score	4314.5199	4	<.0001
Wald	4024.0379	4	<.0001

The LOGISTIC Procedure

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-7.5412	0.0743	10309.5194	<.0001
LTV_time	1	0.0313	0.000669	2186.1533	<.0001
interest_rate_time	1	0.1664	0.00634	688.8156	<.0001
REtype_SF_orig_time	1	-0.0841	0.0243	12.0164	0.0005
uer_time	1	-0.0181	0.00755	5.7350	0.0166

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
LTV_time	1.032	1.030	1.033
interest_rate_time	1.181	1.166	1.196
REtype_SF_orig_time	0.919	0.877	0.964
uer_time	0.982	0.968	0.997

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	73.2	Somers' D	0.464
Percent Discordant	26.8	Gamma	0.464
Percent Tied	0.0	Tau-a	0.022
Pairs	2137962292	c	0.732

The LOGISTIC Procedure

Model Information	
Data Set	WORK.MORTGAGE_SUBPRIME
Response Variable	default_time
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	192277
Number of Observations Used	192026

Response Profile		
Ordered Value	default_time	Total Frequency
1	1	6505
2	0	185521

Probability modeled is default_time='1'.

Note: 251 observations were deleted due to missing values for the response or explanatory variables.

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	56828.734	55158.176
SC	56838.899	55198.837
-2 Log L	56826.734	55150.176

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	1676.5582	3	<.0001
Score	1627.0247	3	<.0001
Wald	1616.4726	3	<.0001

The LOGISTIC Procedure

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-5.6182	0.0799	4946.0690	<.0001
LTV_time	1	0.0202	0.000587	1187.0210	<.0001
interest_rate_time	1	0.1303	0.00610	456.9355	<.0001
uer_time	1	-0.0843	0.00798	111.4176	<.0001

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
LTV_time	1.020	1.019	1.022
interest_rate_time	1.139	1.126	1.153
uer_time	0.919	0.905	0.934

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	65.4	Somers' D	0.308
Percent Discordant	34.6	Gamma	0.308
Percent Tied	0.0	Tau-a	0.020
Pairs	1206814105	c	0.654

The LOGISTIC Procedure

Model Information	
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Response Variable	default_time
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	192277
Number of Observations Used	192026

Response Profile		
Ordered Value	default_time	Total Frequency
1	1	6505
2	0	185521

Probability modeled is default_time='1'.

Note: 251 observations were deleted due to missing values for the response or explanatory variables.

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	56828.734	55159.602
SC	56838.899	55210.429
-2 Log L	56826.734	55149.602

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	1677.1323	4	<.0001
Score	1627.5701	4	<.0001
Wald	1616.9121	4	<.0001

The LOGISTIC Procedure

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-5.6326	0.0821	4702.4623	<.0001
LTV_time	1	0.0202	0.000587	1187.1101	<.0001
interest_rate_time	1	0.1302	0.00610	456.0399	<.0001
REtype_SF_orig_time	1	0.0211	0.0279	0.5725	0.4493
uer_time	1	-0.0843	0.00799	111.4646	<.0001

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
LTV_time	1.020	1.019	1.022
interest_rate_time	1.139	1.126	1.153
REtype_SF_orig_time	1.021	0.967	1.079
uer_time	0.919	0.905	0.934

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	65.4	Somers' D	0.308
Percent Discordant	34.6	Gamma	0.308
Percent Tied	0.0	Tau-a	0.020
Pairs	1206814105	c	0.654

The REG Procedure
Model: MODEL1
Dependent Variable: y_logistic

Number of Observations Read	2545
Number of Observations Used	2545

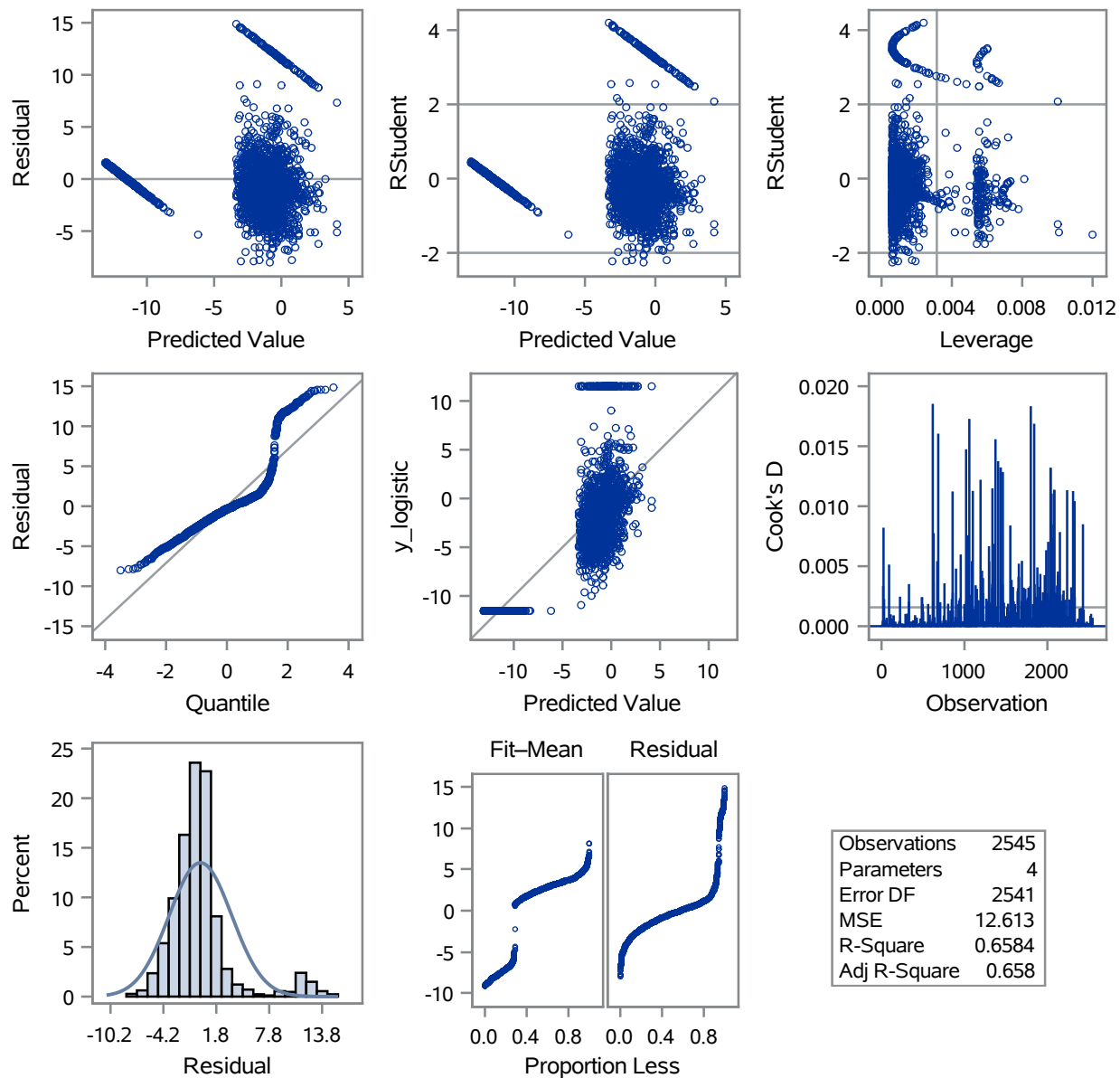
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	61785	20595	1632.81	<.0001
Error	2541	32050	12.61315		
Corrected Total	2544	93835			

Root MSE	3.55150	R-Square	0.6584
Dependent Mean	-3.94134	Adj R-Sq	0.6580
Coeff Var	-90.10890		

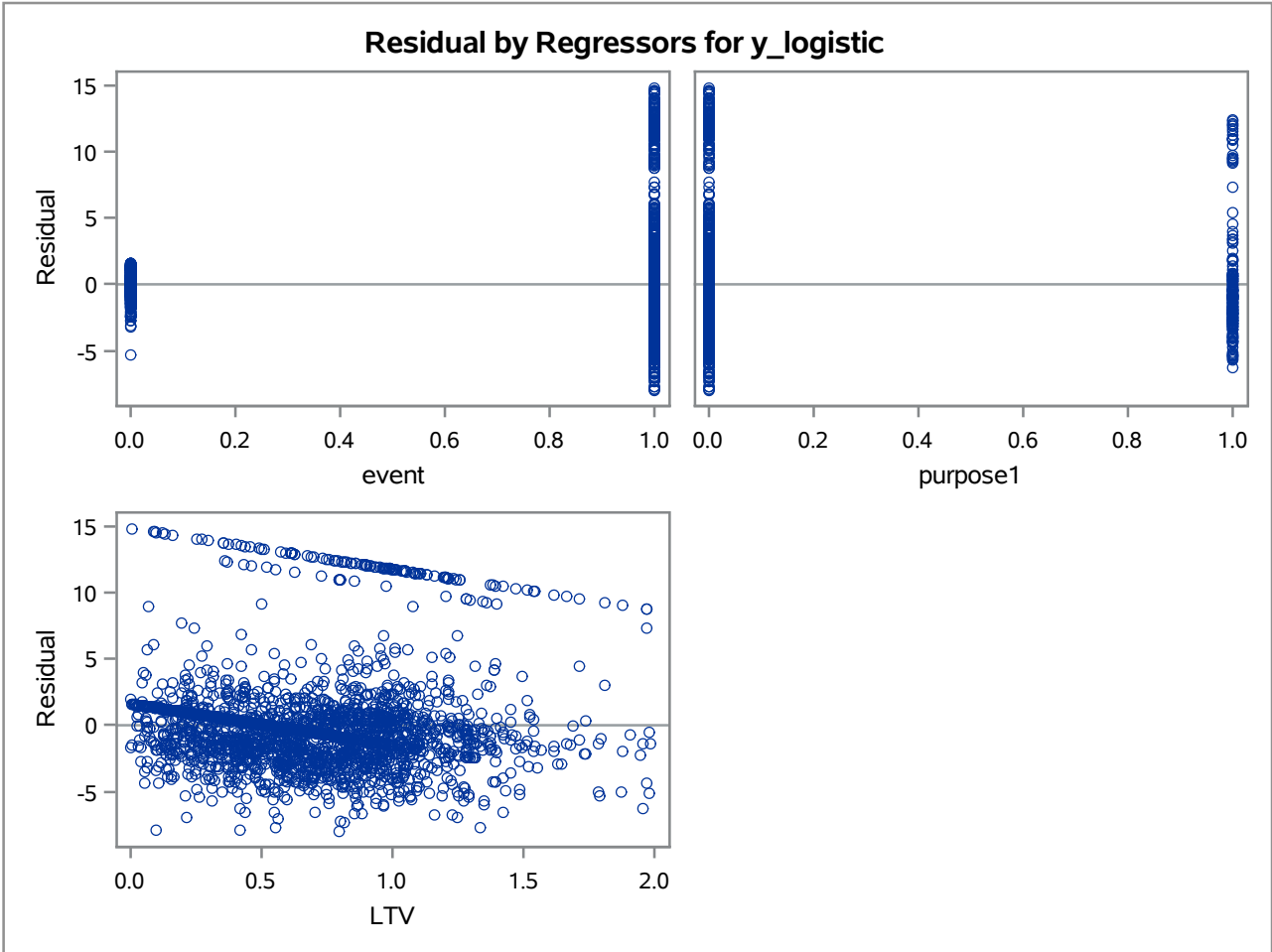
Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	-13.11730	0.16657	-78.75	<.0001
event	1	9.77088	0.16405	59.56	<.0001
purpose1	1	1.36373	0.27256	5.00	<.0001
LTV	1	3.10531	0.20302	15.30	<.0001

The REG Procedure
Model: MODEL1
Dependent Variable: y_logistic

Fit Diagnostics for y_logistic



The REG Procedure
Model: MODEL1
Dependent Variable: y_logistic



The MEANS Procedure

Variable	1st Pctl	99th Pctl
CCF	-12.3974473	1.0000000
CEQ	-0.1459586	0.8059328

The UNIVARIATE Procedure
Variable: CCF

Moments			
N	15153	Sum Weights	15153
Mean	-0.3695613	Sum Observations	-5599.9623
Std Deviation	1.873787	Variance	3.51107771
Skewness	-6.8548193	Kurtosis	57.1337927
Uncorrected SS	55269.3788	Corrected SS	53199.8494
Coeff Variation	-507.03009	Std Error Mean	0.01522197

Basic Statistical Measures			
Location		Variability	
Mean	-0.36956	Std Deviation	1.87379
Median	0.00000	Variance	3.51108
Mode	0.00000	Range	19.04000
		Interquartile Range	0.37609

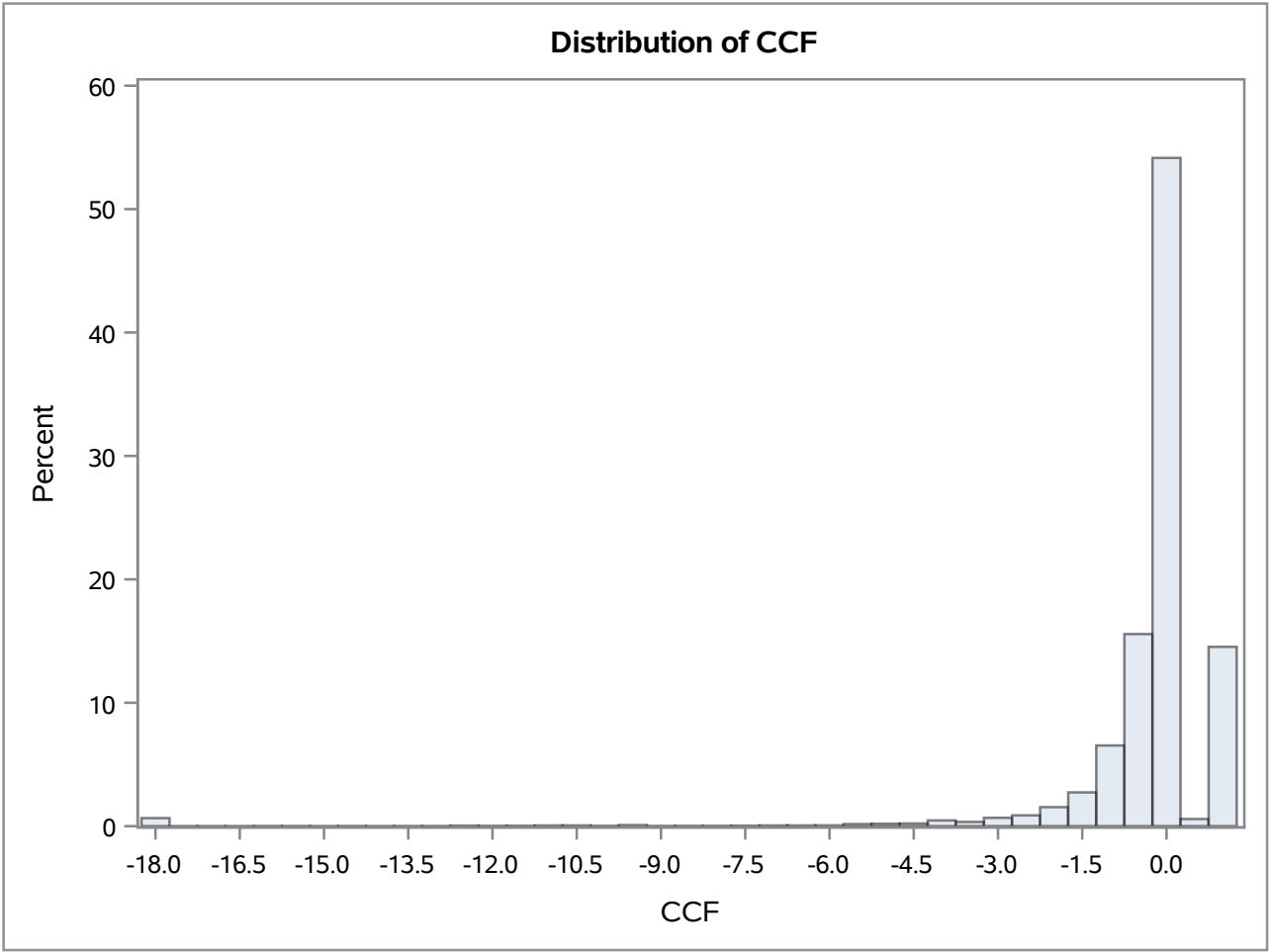
Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	-24.2781	Pr > t 	<.0001
Sign	M	-2111	Pr >= M 	<.0001
Signed Rank	S	-6083213	Pr >= S 	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	0.99000
99%	0.99000
95%	0.99000
90%	0.99000
75% Q3	0.00000
50% Median	0.00000
25% Q1	-0.37609
10%	-1.07873
5%	-1.99897
1%	-9.81060
0% Min	-18.05000

The UNIVARIATE Procedure
Variable: CCF

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-18.05	14930	0.99	15129
-18.05	14817	0.99	15136
-18.05	14795	0.99	15142
-18.05	14744	0.99	15149
-18.05	14476	0.99	15151

The UNIVARIATE Procedure



The UNIVARIATE Procedure
Variable: CEQ

Moments			
N	15153	Sum Weights	15153
Mean	0.00815511	Sum Observations	123.574307
Std Deviation	0.03646246	Variance	0.00132951
Skewness	1.71876241	Kurtosis	3.28530852
Uncorrected SS	21.1525101	Corrected SS	20.1447486
Coeff Variation	447.112062	Std Error Mean	0.00029621

Basic Statistical Measures			
Location		Variability	
Mean	0.00816	Std Deviation	0.03646
Median	-0.00032	Variance	0.00133
Mode	0.00000	Range	0.23300
		Interquartile Range	0.00645

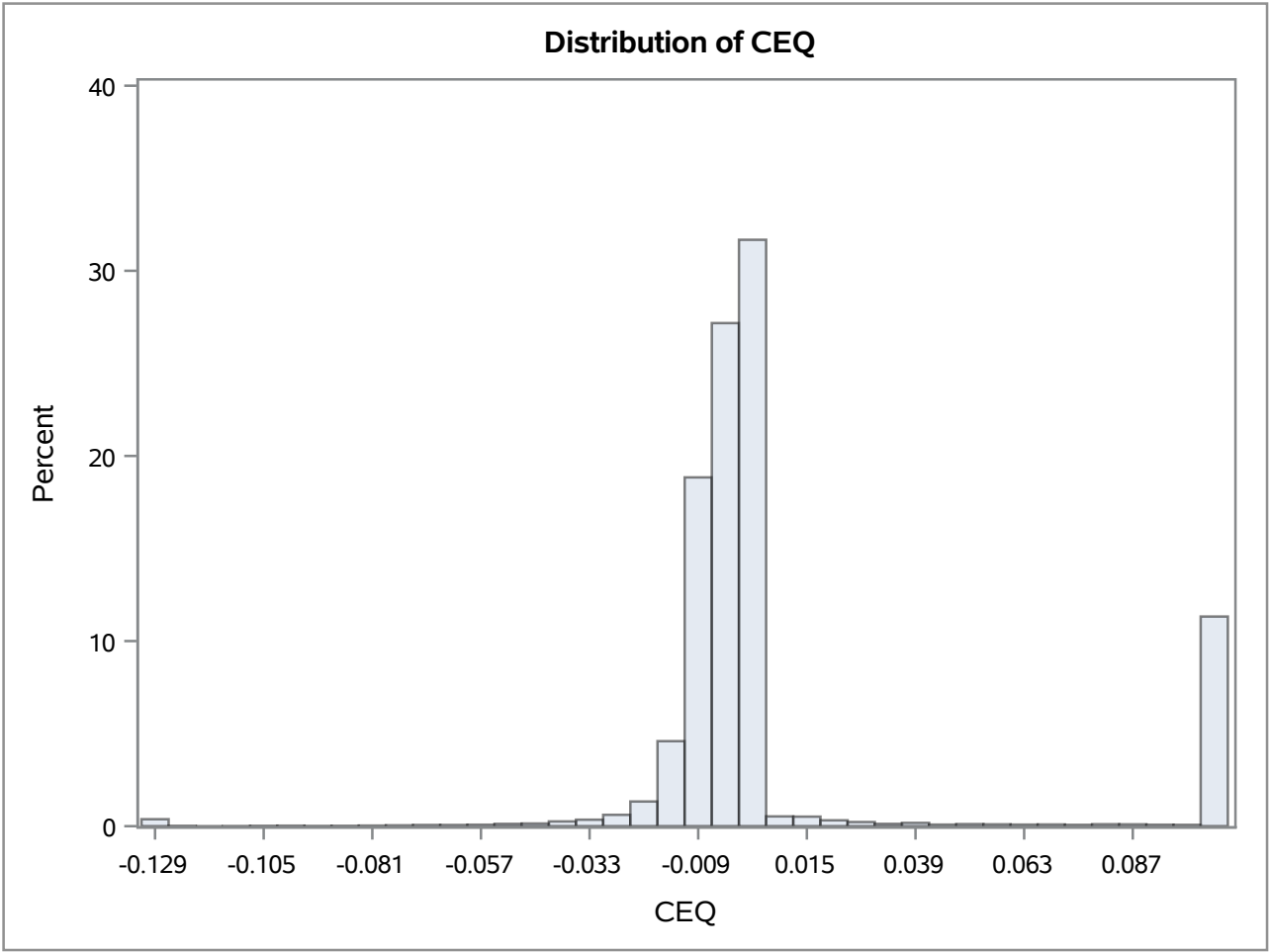
Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
Student's t	t	27.53169	Pr > t 	<.0001
Sign	M	-2938	Pr >= M 	<.0001
Signed Rank	S	-7633369	Pr >= S 	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	0.103000000
99%	0.103000000
95%	0.103000000
90%	0.103000000
75% Q3	0.000000000
50% Median	-0.000322821
25% Q1	-0.006454100
10%	-0.010917626
5%	-0.015142570
1%	-0.043683833
0% Min	-0.130000000

The UNIVARIATE Procedure
Variable: CEQ

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-0.13	15134	0.103	15129
-0.13	15102	0.103	15133
-0.13	15101	0.103	15148
-0.13	14702	0.103	15149
-0.13	14691	0.103	15151

The UNIVARIATE Procedure



The REG Procedure
Model: MODEL1
Dependent Variable: CCF

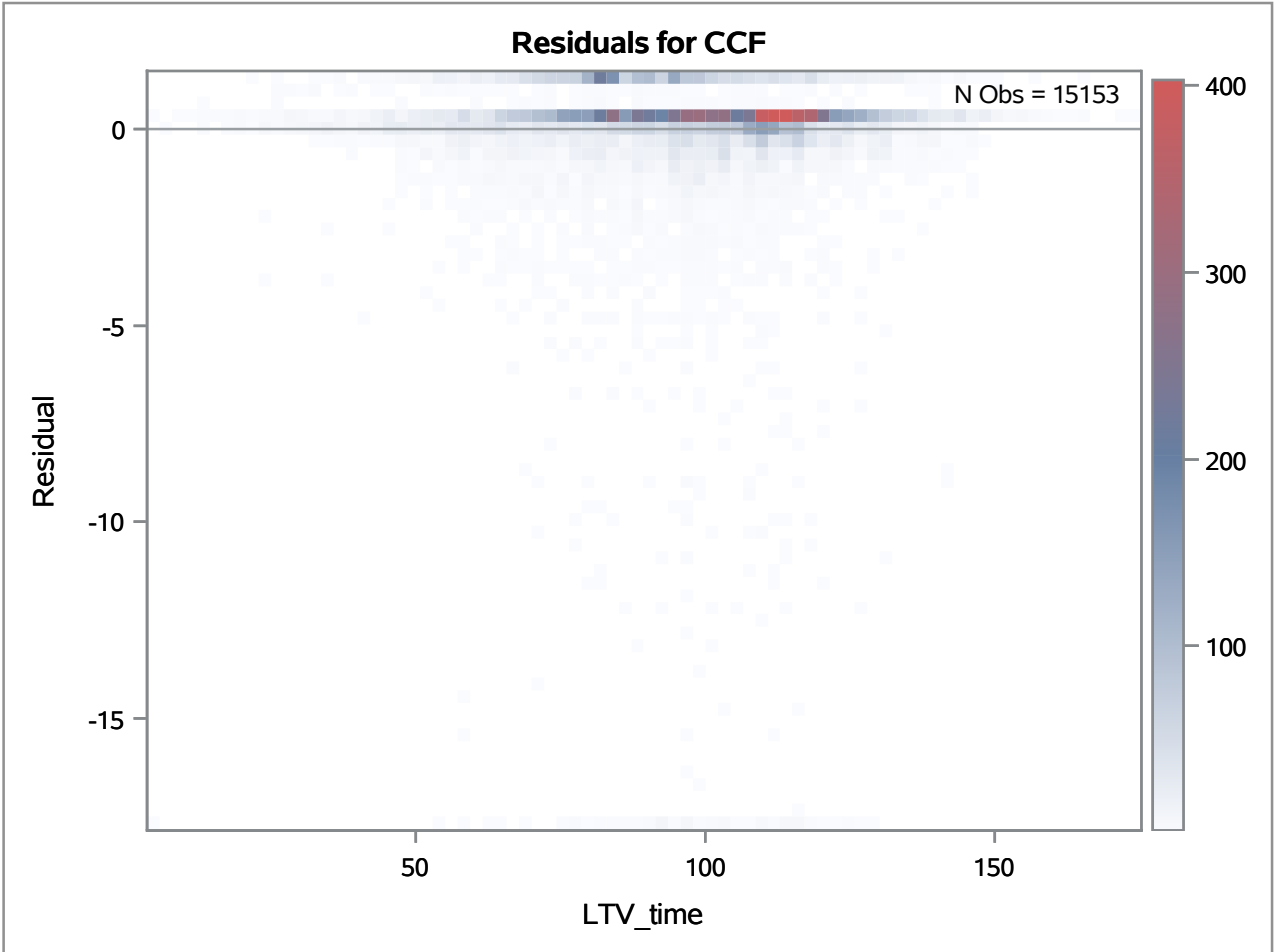
Number of Observations Read	15153
Number of Observations Used	15153

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	17.06338	17.06338	4.86	0.0275
Error	15151	53183	3.51018		
Corrected Total	15152	53200			

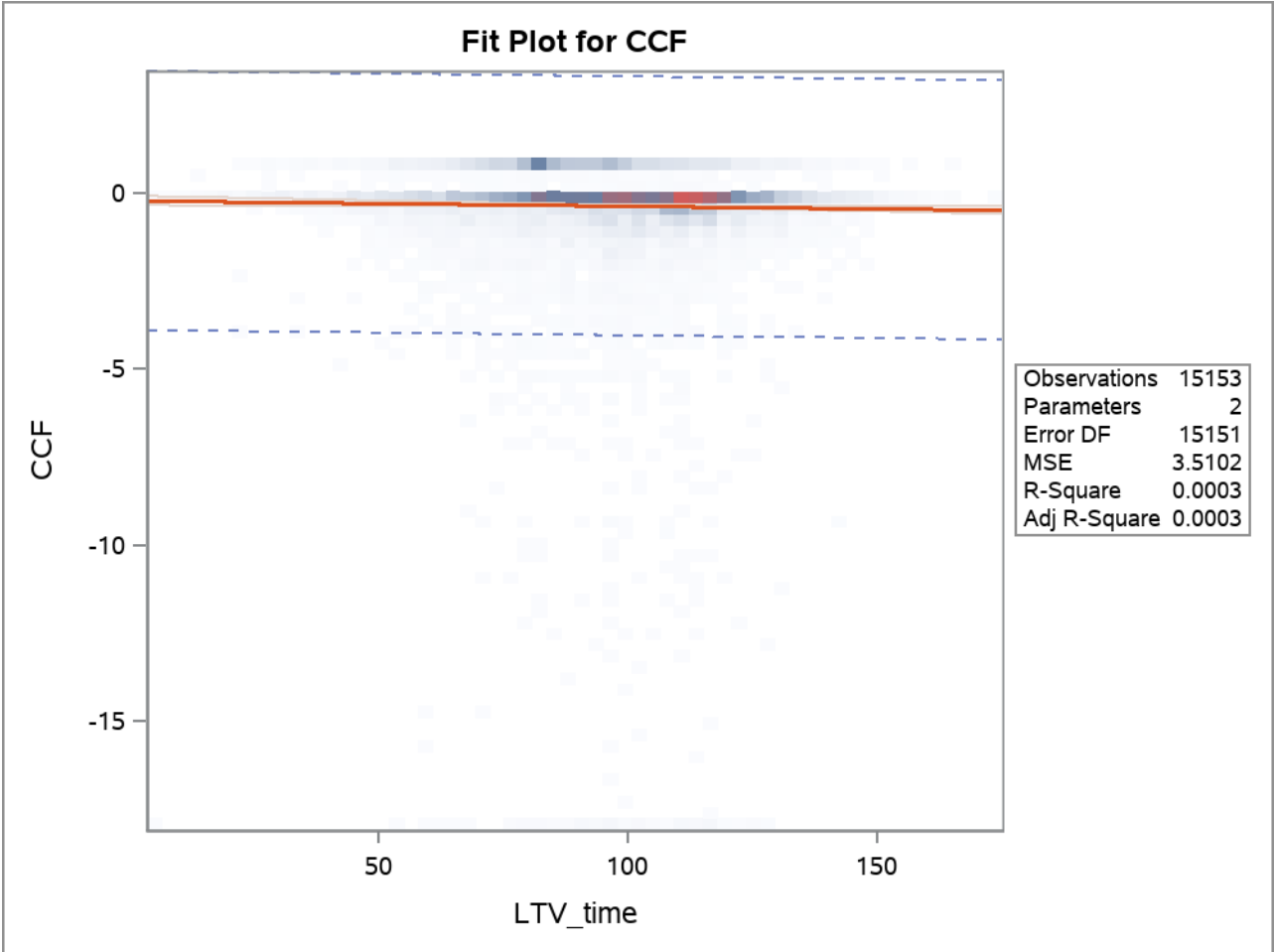
Root MSE	1.87355	R-Square	0.0003
Dependent Mean	-0.36956	Adj R-Sq	0.0003
Coeff Var	-506.96550		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	-0.22060	0.06926	-3.19	0.0014
LTV_time	1	-0.00154	0.00069690	-2.20	0.0275

The REG Procedure
Model: MODEL1
Dependent Variable: CCF



The REG Procedure
Model: MODEL1
Dependent Variable: CCF



The REG Procedure
Model: MODEL1
Dependent Variable: CEQ

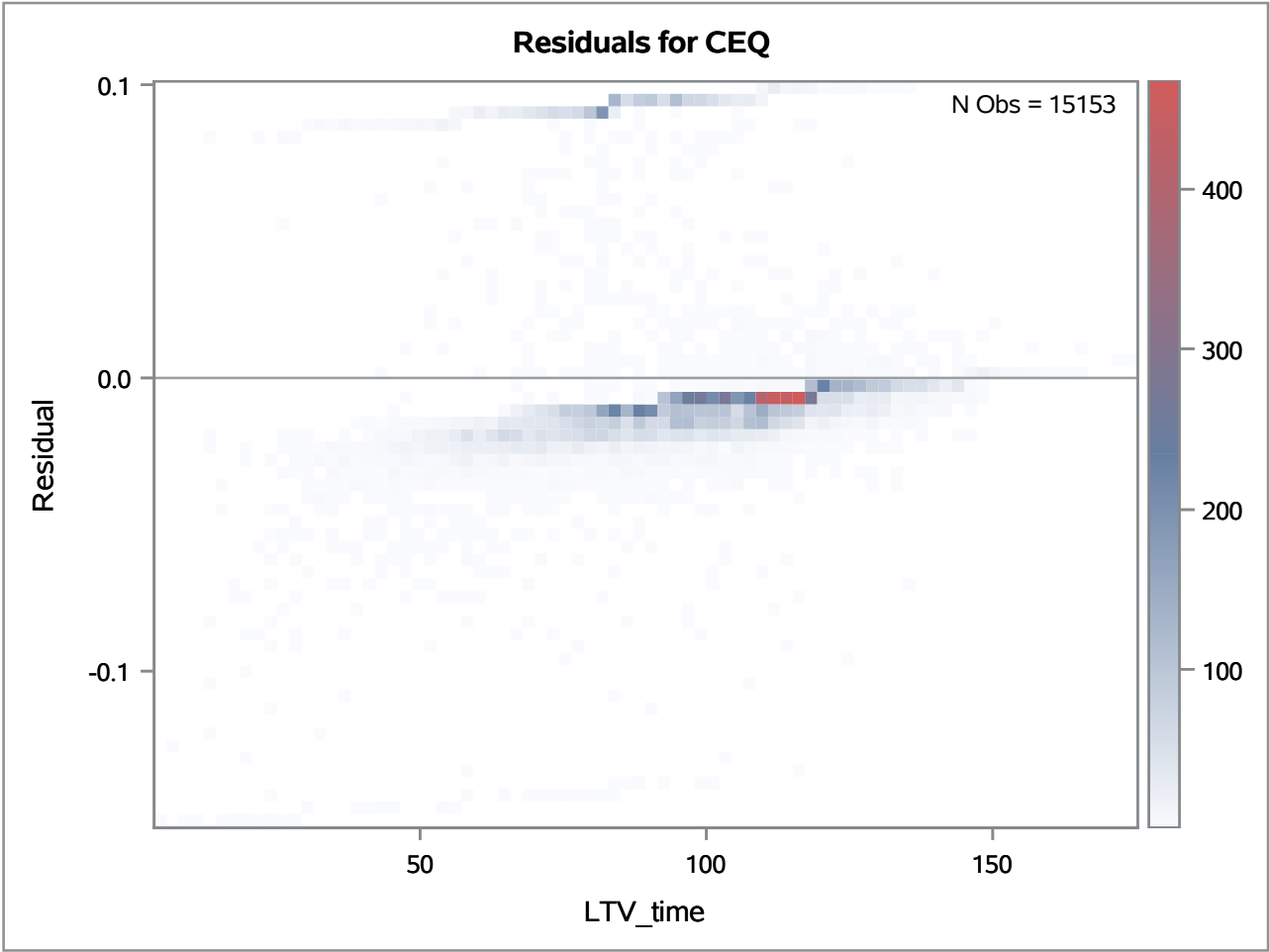
Number of Observations Read	15153
Number of Observations Used	15153

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.18168	0.18168	137.89	<.0001
Error	15151	19.96307	0.00132		
Corrected Total	15152	20.14475			

Root MSE	0.03630	R-Square	0.0090
Dependent Mean	0.00816	Adj R-Sq	0.0090
Coeff Var	445.10598		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	0.02353	0.00134	17.53	<.0001
LTV_time	1	-0.00015855	0.00001350	-11.74	<.0001

The REG Procedure
Model: MODEL1
Dependent Variable: CEQ



The REG Procedure
Model: MODEL1
Dependent Variable: CEQ

