The CONTENTS Procedure

Data Set Name	WORK.HMEQ	**Observations**	5960
Member Type	DATA	**Variables**	13
Engine	V9	**Indexes**	0
Created	10/25/2020 22:20:43	**Observation Length**	104
Last Modified	10/25/2020 22:20:43	**Deleted Observations**	0
Protection		**Compressed**	NO
Data Set Type		**Sorted**	NO
Label			
Data Representation	SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64		
Encoding	utf-8 Unicode (UTF-8)		

Engine/Host Dependent Information	
Data Set Page Size	131072
Number of Data Set Pages	5
First Data Page	1
Max Obs per Page	1258
Obs in First Data Page	1226
Number of Data Set Repairs	0
Filename	/saswork/SAS_work9B8A0001693B_odaws02-euw1.oda.sas.com/SAS_workF8580001693B_odaws02-euw1.oda.sas.com/hmeq.sas7bdat
Release Created	9.0401M6
Host Created	Linux
Inode Number	536949115
Access Permission	rw-r--r--
Owner Name	u44791576
File Size	768KB
File Size (bytes)	786432

Alphabetic List of Variables and Attributes			
#	**Variable**	**Type**	**Len**
1	BAD	Num	8
10	CLAGE	Num	8
12	CLNO	Num	8
13	DEBTINC	Num	8
9	DELINQ	Num	8
8	DEROG	Num	8
6	JOB	Char	7

The CONTENTS Procedure

Alphabetic List of Variables and Attributes			
#	**Variable**	**Type**	**Len**
2	LOAN	Num	8
3	MORTDUE	Num	8
11	NINQ	Num	8
5	REASON	Char	7
4	VALUE	Num	8
7	YOJ	Num	8

The MEANS Procedure

Variable	N	N Miss	Mean	Median	Std Dev	Minimum	Maximum
BAD	5960	0	0.1994966	0	0.3996555	0	1.0000000
LOAN	5960	0	18607.97	16300.00	11207.48	1100.00	89900.00
MORTDUE	5442	518	73760.82	65019.00	44457.61	2063.00	399550.00
VALUE	5848	112	101776.05	89235.50	57385.78	8000.00	855909.00
YOJ	5445	515	8.9222681	7.0000000	7.5739822	0	41.0000000
DEROG	5252	708	0.2545697	0	0.8460468	0	10.0000000
DELINQ	5380	580	0.4494424	0	1.1272659	0	15.0000000
CLAGE	5652	308	179.7662752	173.4666667	85.8100918	0	1168.23
NINQ	5450	510	1.1860550	1.0000000	1.7286750	0	17.0000000
CLNO	5738	222	21.2960962	20.0000000	10.1389332	0	71.0000000
DEBTINC	4693	1267	33.7799153	34.8182618	8.6017462	0.5244992	203.3121487

The FREQ Procedure

BAD	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	4771	80.05	4771	80.05
1	1189	19.95	5960	100.00

REASON	Frequency	Percent	Cumulative Frequency	Cumulative Percent
DebtCon	3928	68.82	3928	68.82
HomeImp	1780	31.18	5708	100.00
Frequency Missing = 252				

JOB	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Mgr	767	13.50	767	13.50
Office	948	16.69	1715	30.19
Other	2388	42.03	4103	72.22
ProfExe	1276	22.46	5379	94.68
Sales	109	1.92	5488	96.60
Self	193	3.40	5681	100.00
Frequency Missing = 279				

The UNIVARIATE Procedure
Variable: YOJ
BAD = 0

Moments			
N	4321	**Sum Weights**	4321
Mean	9.15494099	**Sum Observations**	39558.5
Std Deviation	7.67603348	**Variance**	58.92149
Skewness	0.93551141	**Kurtosis**	0.15840934
Uncorrected SS	616696.57	**Corrected SS**	254540.837
Coeff Variation	83.8457997	**Std Error Mean**	0.11677362

Basic Statistical Measures			
Location		**Variability**	
Mean	9.154941	**Std Deviation**	7.67603
Median	7.000000	**Variance**	58.92149
Mode	0.000000	**Range**	36.00000
		Interquartile Range	10.00000

Tests for Location: Mu0=0				
Test	**Statistic**		**p Value**	
Student's t	**t**	78.39905	**Pr > |t|**	<.0001
Sign	**M**	1982	**Pr >= |M|**	<.0001
Signed Rank	**S**	3929315	**Pr >= |S|**	<.0001

Quantiles (Definition 5)	
Level	**Quantile**
100% Max	36
99%	30
95%	25
90%	21
75% Q3	13
50% Median	7
25% Q1	3
10%	1
5%	0
1%	0
0% Min	0

The UNIVARIATE Procedure
Variable: YOJ
BAD = 0

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
0	5549	36	4741
0	5506	36	5030
0	5487	36	5074
0	5473	36	5259
0	5471	36	5288

Missing Values			
		Percent Of	
Missing Value	Count	All Obs	Missing Obs
.	450	9.43	100.00

The UNIVARIATE Procedure
Variable: YOJ
BAD = 1

Moments			
N	1124	**Sum Weights**	1124
Mean	8.02780249	**Sum Observations**	9023.25
Std Deviation	7.10073483	**Variance**	50.4204351
Skewness	1.20886661	**Kurtosis**	1.47086258
Uncorrected SS	129059.018	**Corrected SS**	56622.1487
Coeff Variation	88.4517879	**Std Error Mean**	0.21179716

Basic Statistical Measures			
Location		**Variability**	
Mean	8.027802	**Std Deviation**	7.10073
Median	6.000000	**Variance**	50.42044
Mode	2.000000	**Range**	41.00000
		Interquartile Range	10.00000

Tests for Location: Mu0=0				
Test	**Statistic**		**p Value**	
Student's t	**t**	37.90326	**Pr > |t|**	<.0001
Sign	**M**	533	**Pr >= |M|**	<.0001
Signed Rank	**S**	284355.5	**Pr >= |S|**	<.0001

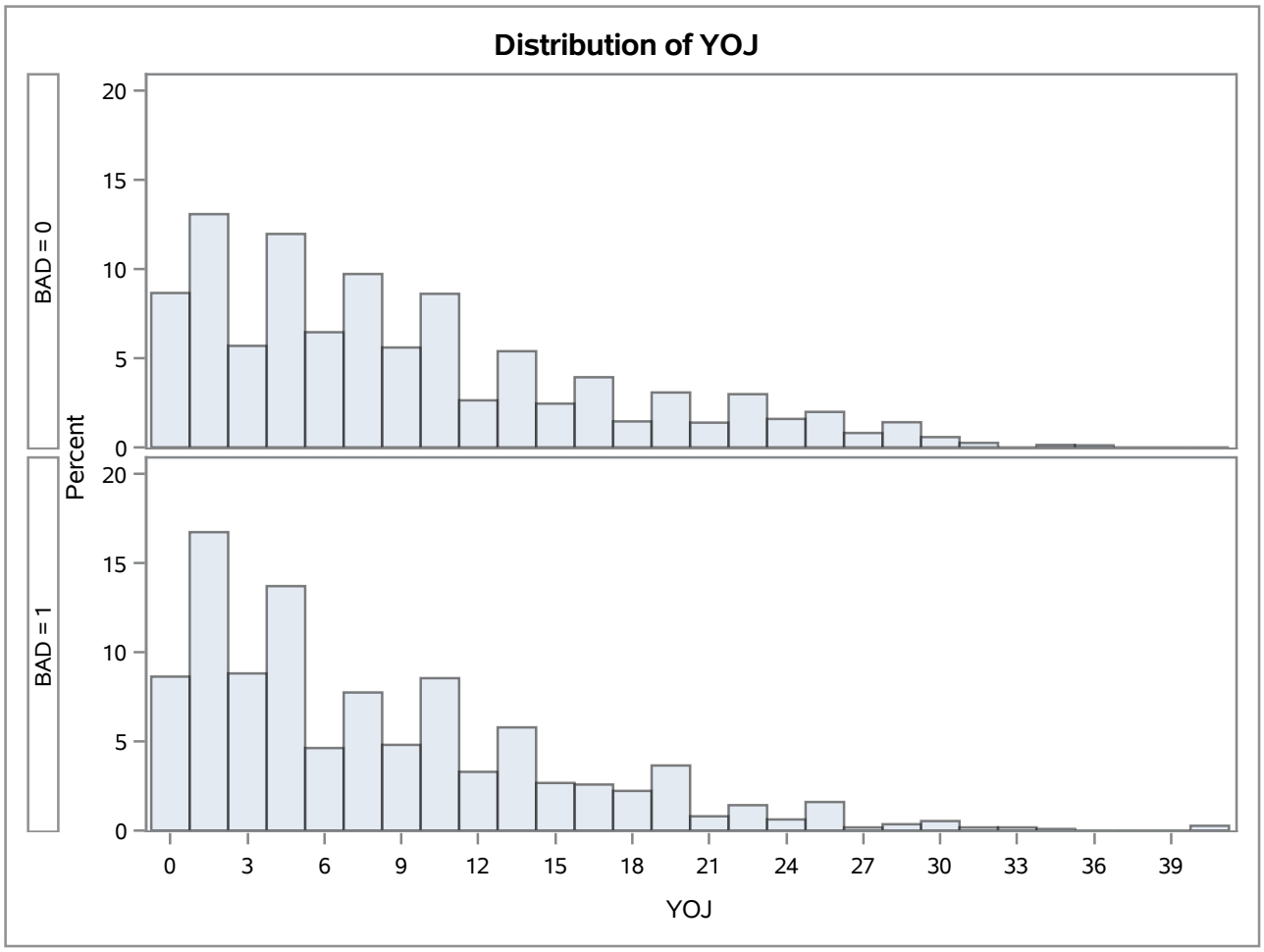
Quantiles (Definition 5)	
Level	**Quantile**
100% Max	41
99%	30
95%	22
90%	18
75% Q3	12
50% Median	6
25% Q1	2
10%	1
5%	0
1%	0
0% Min	0

The UNIVARIATE Procedure
Variable: YOJ
BAD = 1

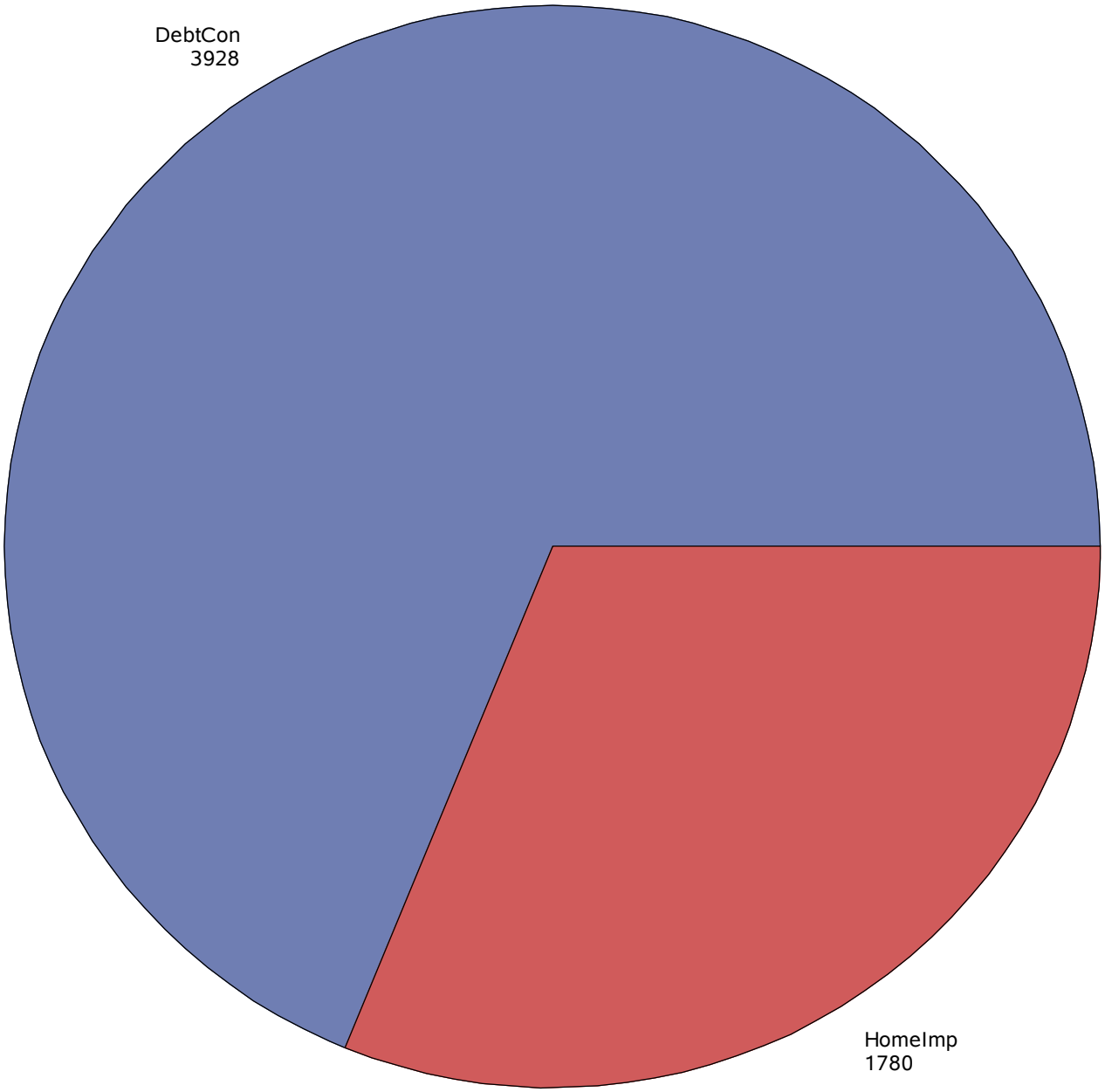
Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
0	5838	33	5901
0	5827	34	5674
0	5804	41	1828
0	5664	41	3161
0	5643	41	3871

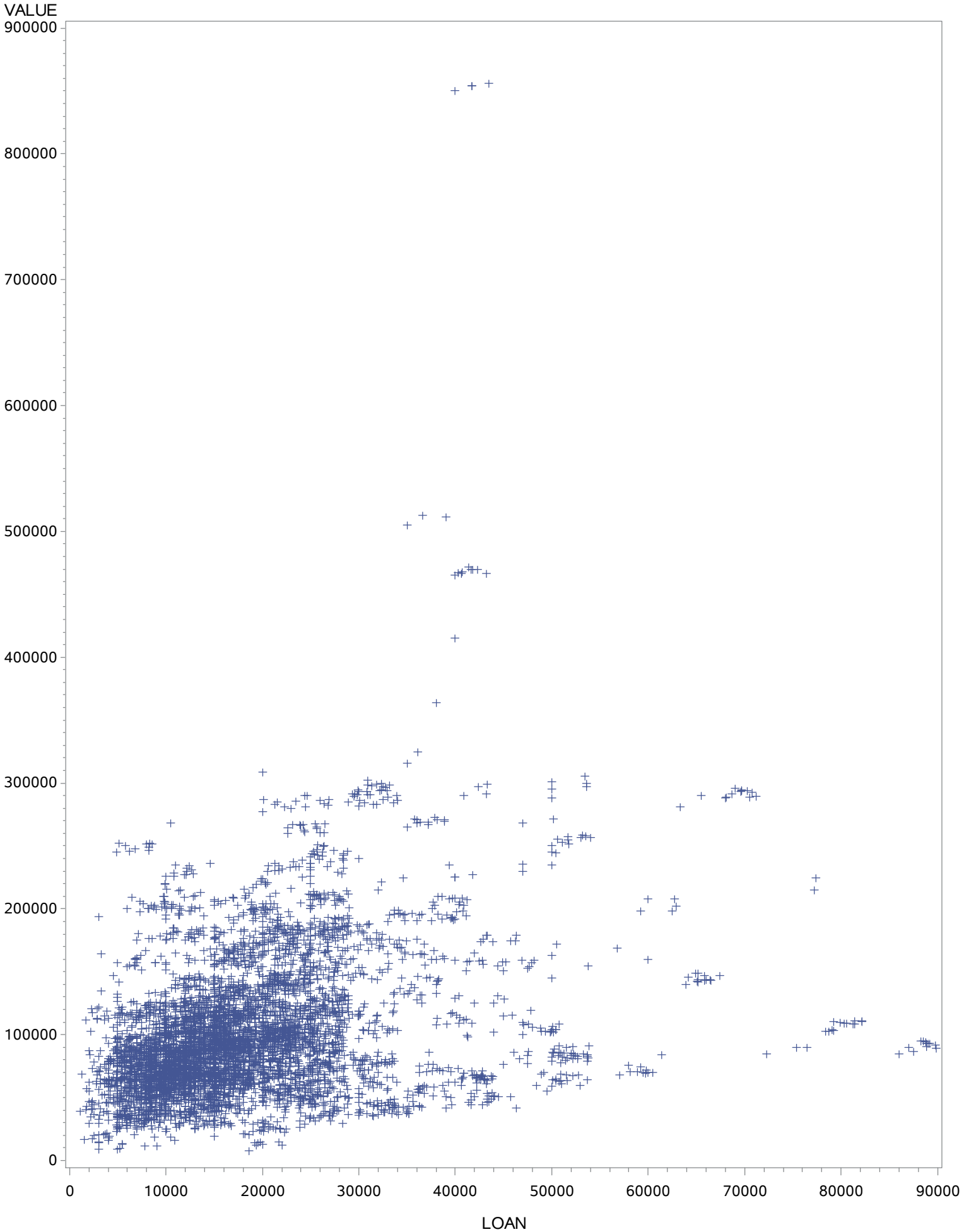
Missing Values			
		Percent Of	
Missing Value	Count	All Obs	Missing Obs
.	65	5.47	100.00

The UNIVARIATE Procedure



FREQUENCY of REASON




VALUE
900000
800000
700000
600000
500000
400000
300000
200000
100000
0
0
10000
20000
30000
40000
50000
60000
70000
80000
90000
LOAN

The LOGISTIC Procedure

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

Number of Observations Read	5960
Number of Observations Used	3364

Response Profile		
Ordered Value	**BAD**	**Total Frequency**
1	0	3064
2	1	300

Probability modeled is BAD=0.

Note: 2596 observations were deleted due to missing values for the response or explanatory variables.

Stepwise Selection Procedure

Class Level Information							
Class	**Value**	**Design Variables**					
REASON	**DebtCon**	1	0				
	HomeImp	0	1				
JOB	**Mgr**	1	0	0	0	0	0
	Office	0	1	0	0	0	0
	Other	0	0	1	0	0	0
	ProfExe	0	0	0	1	0	0
	Sales	0	0	0	0	1	0
	Self	0	0	0	0	0	1

Step 0. Intercept entered:

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

-2 Log L	=	2022.675

The LOGISTIC Procedure

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
625.0010	16	<.0001

Step 1. Effect DELINQ entered:

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	2024.675	1871.913
SC	2030.796	1884.155
-2 Log L	2022.675	1867.913

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	154.7625	1	<.0001
Score	254.2054	1	<.0001
Wald	145.9096	1	<.0001

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
349.3695	15	<.0001

Note: No effects for the model in Step 1 are removed.

Step 2. Effect DEBTINC entered:

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	2024.675	1732.051
SC	2030.796	1750.413
-2 Log L	2022.675	1726.051

The LOGISTIC Procedure

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	296.6249	2	<.0001
Score	397.7858	2	<.0001
Wald	220.6132	2	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
189.5447	14	<.0001

Note: No effects for the model in Step 2 are removed.

Step 3. Effect DEROG entered:

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

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1650.922
SC	2030.796	1675.406
-2 Log L	2022.675	1642.922

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	379.7535	3	<.0001
Score	545.2339	3	<.0001
Wald	263.8710	3	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
90.3632	13	<.0001

Note: No effects for the model in Step 3 are removed.

Step 4. Effect CLAGE entered:

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

The LOGISTIC Procedure

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	2024.675	1607.546
SC	2030.796	1638.151
-2 Log L	2022.675	1597.546

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	425.1290	4	<.0001
Score	575.8471	4	<.0001
Wald	288.5907	4	<.0001

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
47.4528	12	<.0001

Note: No effects for the model in Step 4 are removed.

Step 5. Effect JOB entered:

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	2024.675	1595.794
SC	2030.796	1657.003
-2 Log L	2022.675	1575.794

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	446.8811	9	<.0001
Score	597.0108	9	<.0001
Wald	297.1317	9	<.0001

The LOGISTIC Procedure

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
23.8989	7	0.0012

Note: No effects for the model in Step 5 are removed.

Step 6. Effect NINQ entered:

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

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1588.973
SC	2030.796	1656.303
-2 Log L	2022.675	1566.973

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	455.7025	10	<.0001
Score	605.6732	10	<.0001
Wald	300.7464	10	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
13.8915	6	0.0309

Note: No effects for the model in Step 6 are removed.

Step 7. Effect CLNO entered:

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

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1583.587
SC	2030.796	1657.038
-2 Log L	2022.675	1559.587

The LOGISTIC Procedure

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	463.0880	11	<.0001
Score	615.0014	11	<.0001
Wald	302.3805	11	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
6.9572	5	0.2238

Note: No effects for the model in Step 7 are removed.

Note: No (additional) effects met the 0.05 significance level for entry into the model.

Summary of Stepwise Selection							
	Effect						
Step	**Entered**	**Removed**	**DF**	**Number In**	**Score Chi-Square**	**Wald Chi-Square**	**Pr > ChiSq**
1	**DELINQ**		1	1	254.2054		<.0001
2	**DEBTINC**		1	2	142.1980		<.0001
3	**DEROG**		1	3	105.4667		<.0001
4	**CLAGE**		1	4	40.4196		<.0001
5	**JOB**		5	5	23.6862		0.0002
6	**NINQ**		1	6	9.6436		0.0019
7	**CLNO**		1	7	7.2242		0.0072

Type 3 Analysis of Effects			
Effect	**DF**	**Wald Chi-Square**	**Pr > ChiSq**
CLAGE	1	30.6003	<.0001
CLNO	1	7.1820	0.0074
DEBTINC	1	94.3510	<.0001
DELINQ	1	121.3538	<.0001
DEROG	1	49.9766	<.0001
JOB	5	24.0728	0.0002
NINQ	1	10.2919	0.0013

The LOGISTIC Procedure

Analysis of Maximum Likelihood Estimates						
Parameter		**DF**	**Estimate**	**Standard Error**	**Wald Chi-Square**	**Pr > ChiSq**
Intercept		1	4.5465	0.5633	65.1386	<.0001
CLAGE		1	0.00574	0.00104	30.6003	<.0001
CLNO		1	0.0204	0.00762	7.1820	0.0074
DEBTINC		1	-0.0996	0.0103	94.3510	<.0001
DELINQ		1	-0.7584	0.0688	121.3538	<.0001
DEROG		1	-0.7213	0.1020	49.9766	<.0001
JOB	**Mgr**	1	0.6078	0.3894	2.4372	0.1185
JOB	**Office**	1	1.1626	0.3983	8.5193	0.0035
JOB	**Other**	1	0.6241	0.3655	2.9163	0.0877
JOB	**ProfExe**	1	0.6390	0.3788	2.8464	0.0916
JOB	**Sales**	1	-0.8330	0.5253	2.5148	0.1128
JOB	**Self**	0	0	.	.	.
NINQ		1	-0.1199	0.0374	10.2919	0.0013

Odds Ratio Estimates			
Effect	**Point Estimate**	**95% Wald Confidence Limits**	
CLAGE	1.006	1.004	1.008
CLNO	1.021	1.006	1.036
DEBTINC	0.905	0.887	0.924
DELINQ	0.468	0.409	0.536
DEROG	0.486	0.398	0.594
JOB Mgr vs Self	1.836	0.856	3.939
JOB Office vs Self	3.198	1.465	6.981
JOB Other vs Self	1.867	0.912	3.821
JOB ProfExe vs Self	1.895	0.902	3.980
JOB Sales vs Self	0.435	0.155	1.217
NINQ	0.887	0.824	0.954

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	79.6	**Somers' D**	0.593
Percent Discordant	20.4	**Gamma**	0.593
Percent Tied	0.0	**Tau-a**	0.096
Pairs	919200	**c**	0.796

The LOGISTIC Procedure

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

Number of Observations Read	5960
Number of Observations Used	3364

Response Profile		
Ordered Value	**BAD**	**Total Frequency**
1	0	3064
2	1	300

Probability modeled is BAD=0.

Note: 2596 observations were deleted due to missing values for the response or explanatory variables.

Stepwise Selection Procedure

Class Level Information							
Class	**Value**	**Design Variables**					
REASON	**DebtCon**	1	0				
	HomeImp	0	1				
JOB	**Mgr**	1	0	0	0	0	0
	Office	0	1	0	0	0	0
	Other	0	0	1	0	0	0
	ProfExe	0	0	0	1	0	0
	Sales	0	0	0	0	1	0
	Self	0	0	0	0	0	1

Step 0. Intercept entered:

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

-2 Log L	=	2022.675

The LOGISTIC Procedure

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
625.0010	16	<.0001

Step 1. Effect DELINQ entered:

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

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1871.913
SC	2030.796	1884.155
-2 Log L	2022.675	1867.913

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	154.7625	1	<.0001
Score	254.2054	1	<.0001
Wald	145.9096	1	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
349.3695	15	<.0001

Note: No effects for the model in Step 1 are removed.

Step 2. Effect DEBTINC entered:

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

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1732.051
SC	2030.796	1750.413
-2 Log L	2022.675	1726.051

The LOGISTIC Procedure

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	296.6249	2	<.0001
Score	397.7858	2	<.0001
Wald	220.6132	2	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
189.5447	14	<.0001

Note: No effects for the model in Step 2 are removed.

Step 3. Effect DEROG entered:

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

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1650.922
SC	2030.796	1675.406
-2 Log L	2022.675	1642.922

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	379.7535	3	<.0001
Score	545.2339	3	<.0001
Wald	263.8710	3	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
90.3632	13	<.0001

Note: No effects for the model in Step 3 are removed.

Step 4. Effect CLAGE entered:

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

The LOGISTIC Procedure

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1607.546
SC	2030.796	1638.151
-2 Log L	2022.675	1597.546

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	425.1290	4	<.0001
Score	575.8471	4	<.0001
Wald	288.5907	4	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
47.4528	12	<.0001

Note: No effects for the model in Step 4 are removed.

Step 5. Effect JOB entered:

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

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1595.794
SC	2030.796	1657.003
-2 Log L	2022.675	1575.794

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	446.8811	9	<.0001
Score	597.0108	9	<.0001
Wald	297.1317	9	<.0001

The LOGISTIC Procedure

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
23.8989	7	0.0012

Note: No effects for the model in Step 5 are removed.

Step 6. Effect NINQ entered:

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

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1588.973
SC	2030.796	1656.303
-2 Log L	2022.675	1566.973

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	455.7025	10	<.0001
Score	605.6732	10	<.0001
Wald	300.7464	10	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
13.8915	6	0.0309

Note: No effects for the model in Step 6 are removed.

Step 7. Effect CLNO entered:

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

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1583.587
SC	2030.796	1657.038
-2 Log L	2022.675	1559.587

The LOGISTIC Procedure

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	463.0880	11	<.0001
Score	615.0014	11	<.0001
Wald	302.3805	11	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
6.9572	5	0.2238

Note: No effects for the model in Step 7 are removed.

Note: No (additional) effects met the 0.05 significance level for entry into the model.

Summary of Stepwise Selection							
	Effect						
Step	**Entered**	**Removed**	**DF**	**Number In**	**Score Chi-Square**	**Wald Chi-Square**	**Pr > ChiSq**
1	**DELINQ**		1	1	254.2054		<.0001
2	**DEBTINC**		1	2	142.1980		<.0001
3	**DEROG**		1	3	105.4667		<.0001
4	**CLAGE**		1	4	40.4196		<.0001
5	**JOB**		5	5	23.6862		0.0002
6	**NINQ**		1	6	9.6436		0.0019
7	**CLNO**		1	7	7.2242		0.0072

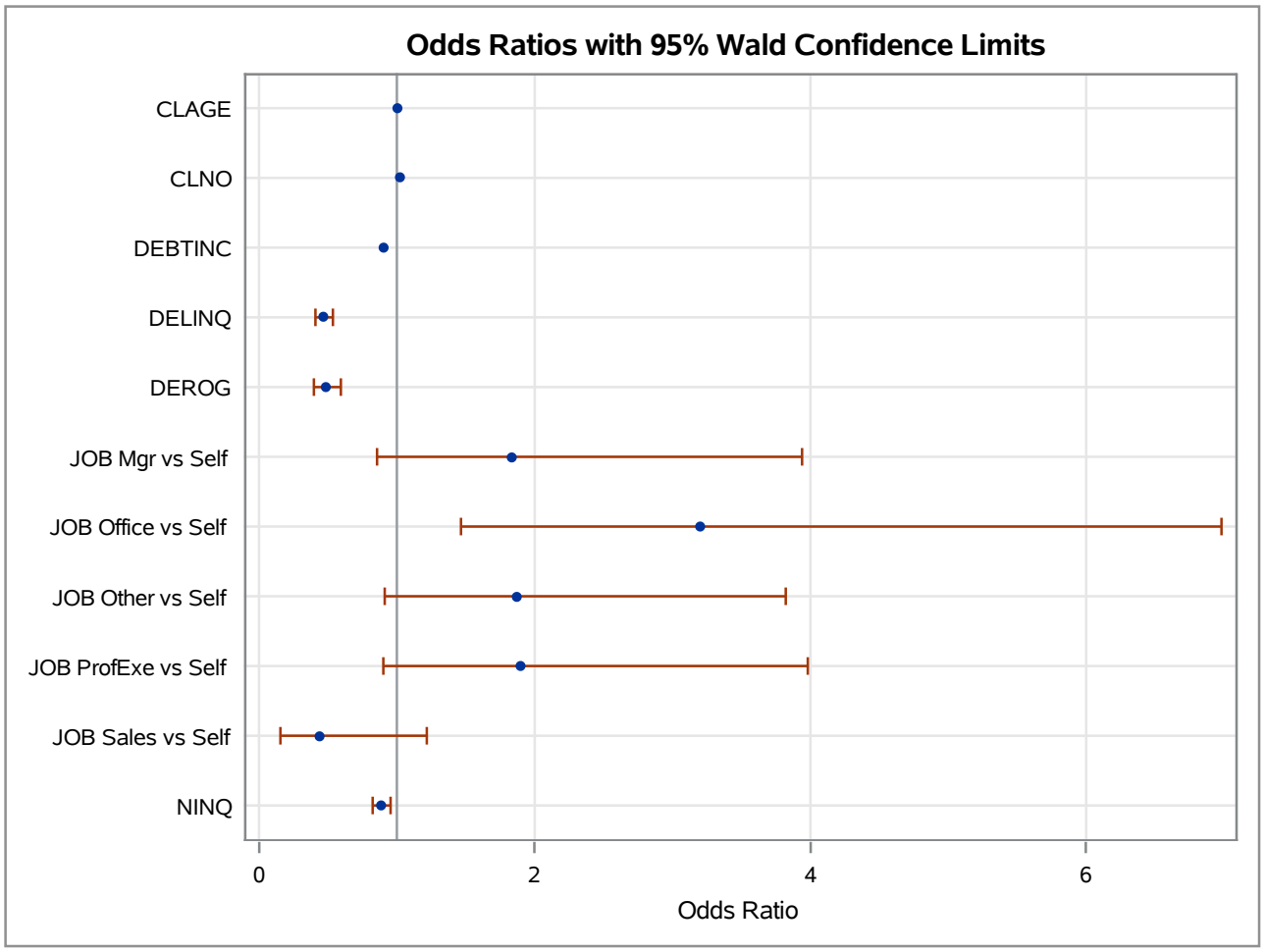
Type 3 Analysis of Effects			
Effect	**DF**	**Wald Chi-Square**	**Pr > ChiSq**
CLAGE	1	30.6003	<.0001
CLNO	1	7.1820	0.0074
DEBTINC	1	94.3510	<.0001
DELINQ	1	121.3538	<.0001
DEROG	1	49.9766	<.0001
JOB	5	24.0728	0.0002
NINQ	1	10.2919	0.0013

The LOGISTIC Procedure

Analysis of Maximum Likelihood Estimates						
Parameter		**DF**	**Estimate**	**Standard Error**	**Wald Chi-Square**	**Pr > ChiSq**
Intercept		1	4.5465	0.5633	65.1386	<.0001
CLAGE		1	0.00574	0.00104	30.6003	<.0001
CLNO		1	0.0204	0.00762	7.1820	0.0074
DEBTINC		1	-0.0996	0.0103	94.3510	<.0001
DELINQ		1	-0.7584	0.0688	121.3538	<.0001
DEROG		1	-0.7213	0.1020	49.9766	<.0001
JOB	**Mgr**	1	0.6078	0.3894	2.4372	0.1185
JOB	**Office**	1	1.1626	0.3983	8.5193	0.0035
JOB	**Other**	1	0.6241	0.3655	2.9163	0.0877
JOB	**ProfExe**	1	0.6390	0.3788	2.8464	0.0916
JOB	**Sales**	1	-0.8330	0.5253	2.5148	0.1128
JOB	**Self**	0	0	.	.	.
NINQ		1	-0.1199	0.0374	10.2919	0.0013

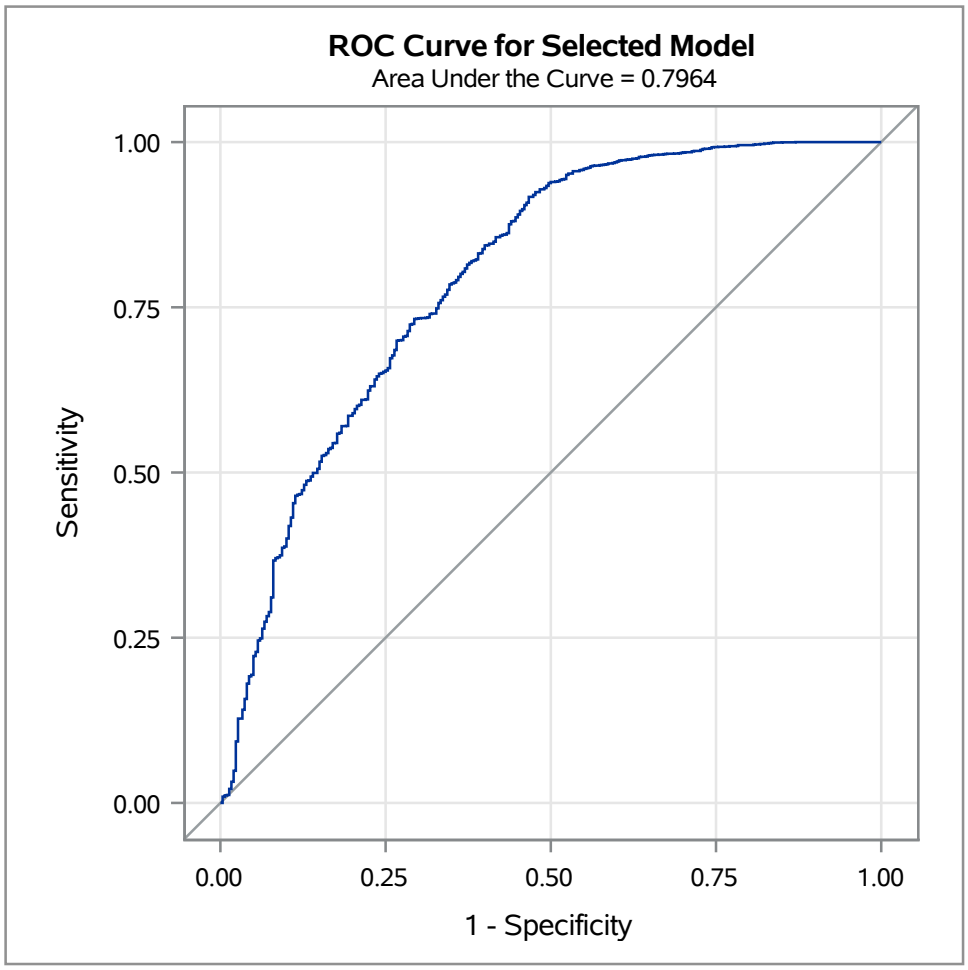
Odds Ratio Estimates			
Effect	**Point Estimate**	**95% Wald Confidence Limits**	
CLAGE	1.006	1.004	1.008
CLNO	1.021	1.006	1.036
DEBTINC	0.905	0.887	0.924
DELINQ	0.468	0.409	0.536
DEROG	0.486	0.398	0.594
JOB Mgr vs Self	1.836	0.856	3.939
JOB Office vs Self	3.198	1.465	6.981
JOB Other vs Self	1.867	0.912	3.821
JOB ProfExe vs Self	1.895	0.902	3.980
JOB Sales vs Self	0.435	0.155	1.217
NINQ	0.887	0.824	0.954

The LOGISTIC Procedure

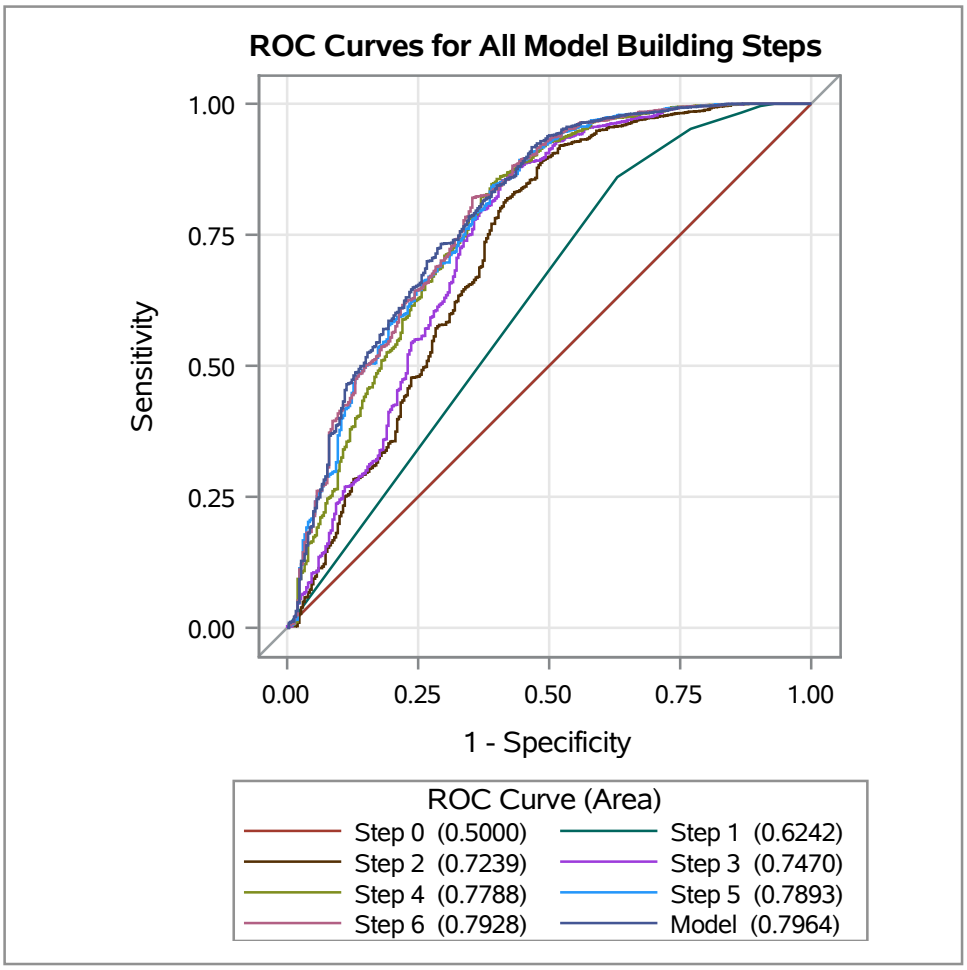


Association of Predicted Probabilities and Observed Responses			
Percent Concordant	79.6	**Somers' D**	0.593
Percent Discordant	20.4	**Gamma**	0.593
Percent Tied	0.0	**Tau-a**	0.096
Pairs	919200	**c**	0.796

The LOGISTIC Procedure



The LOGISTIC Procedure



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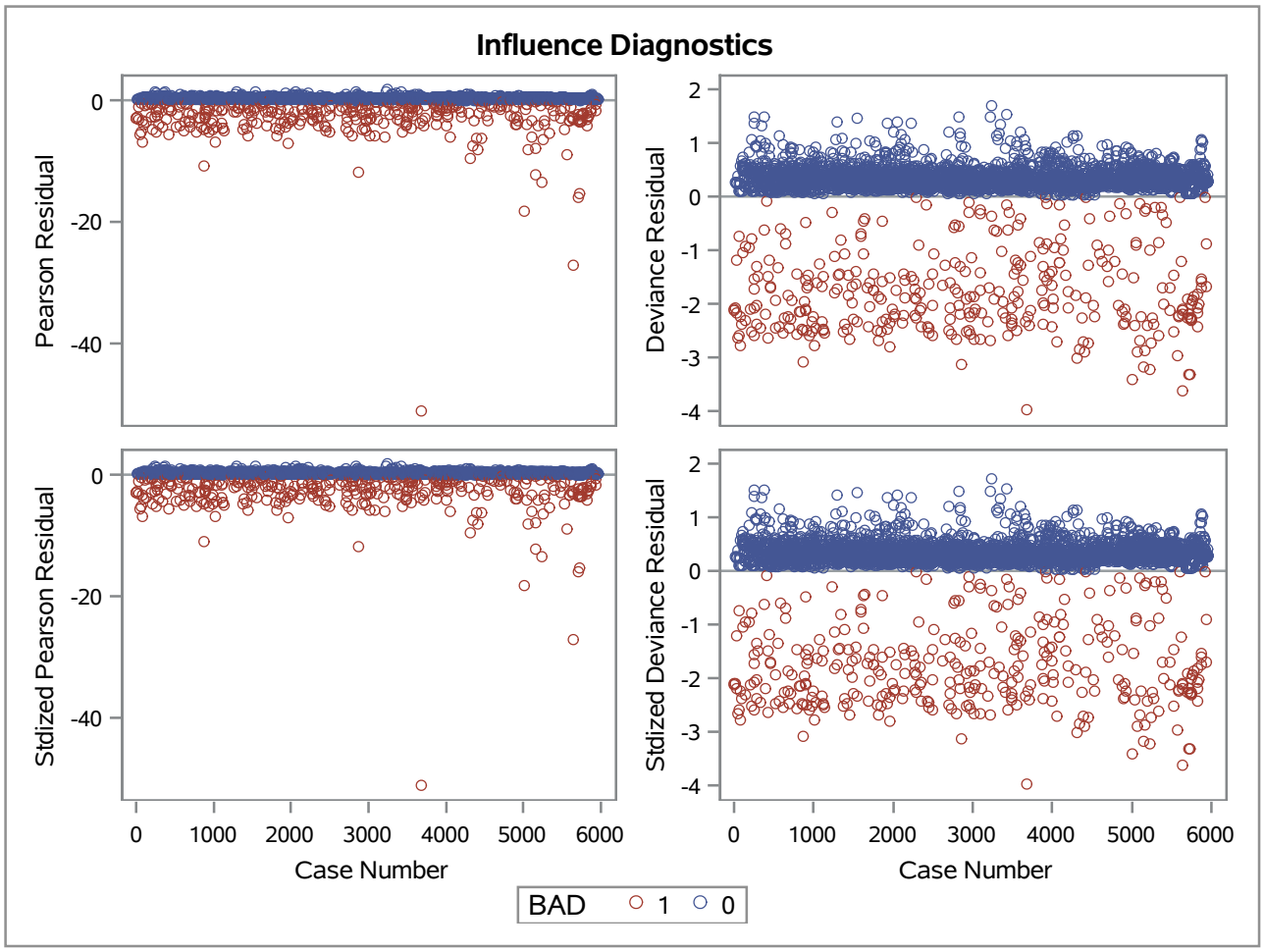
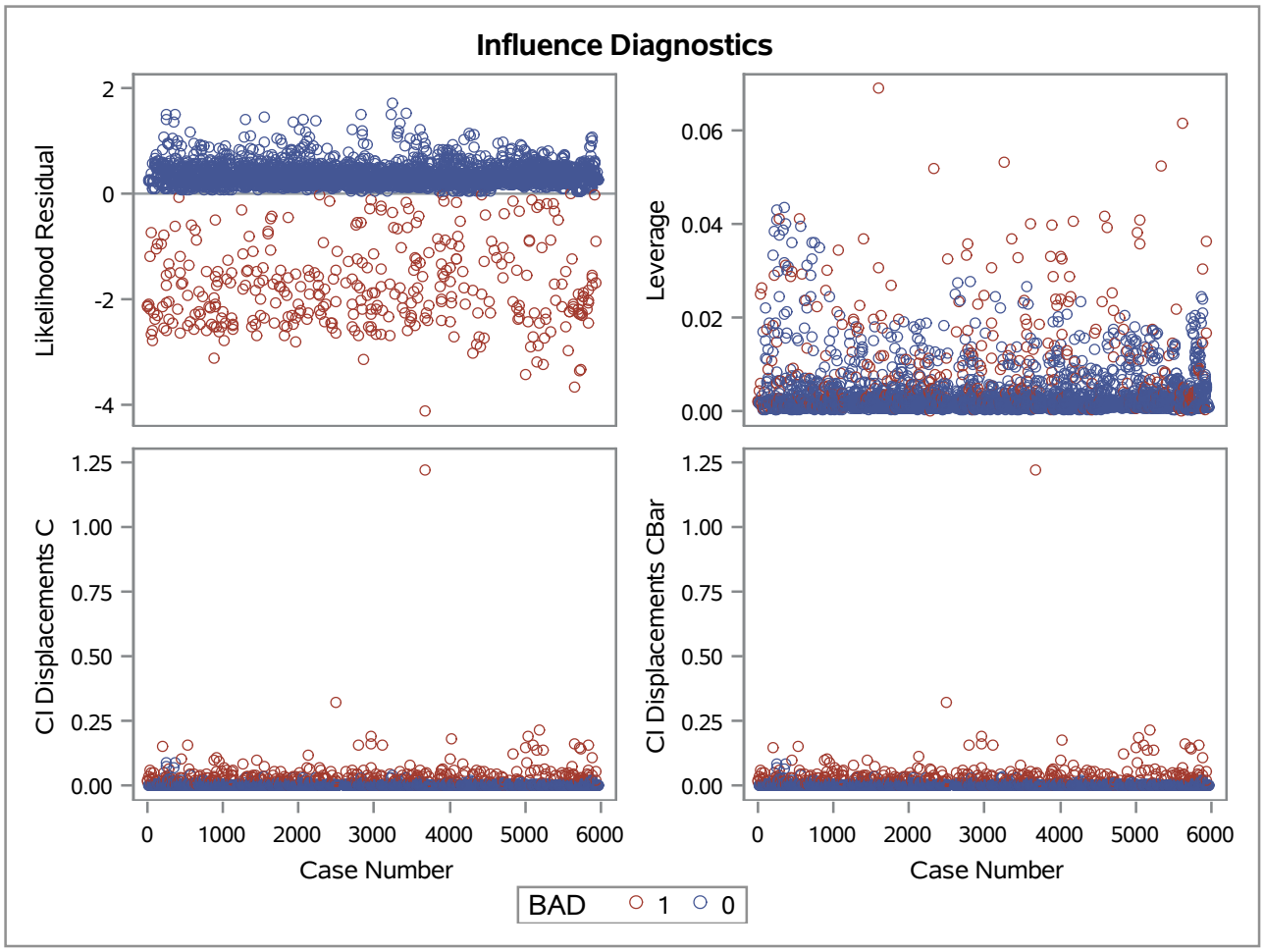


The LOGISTIC Procedure



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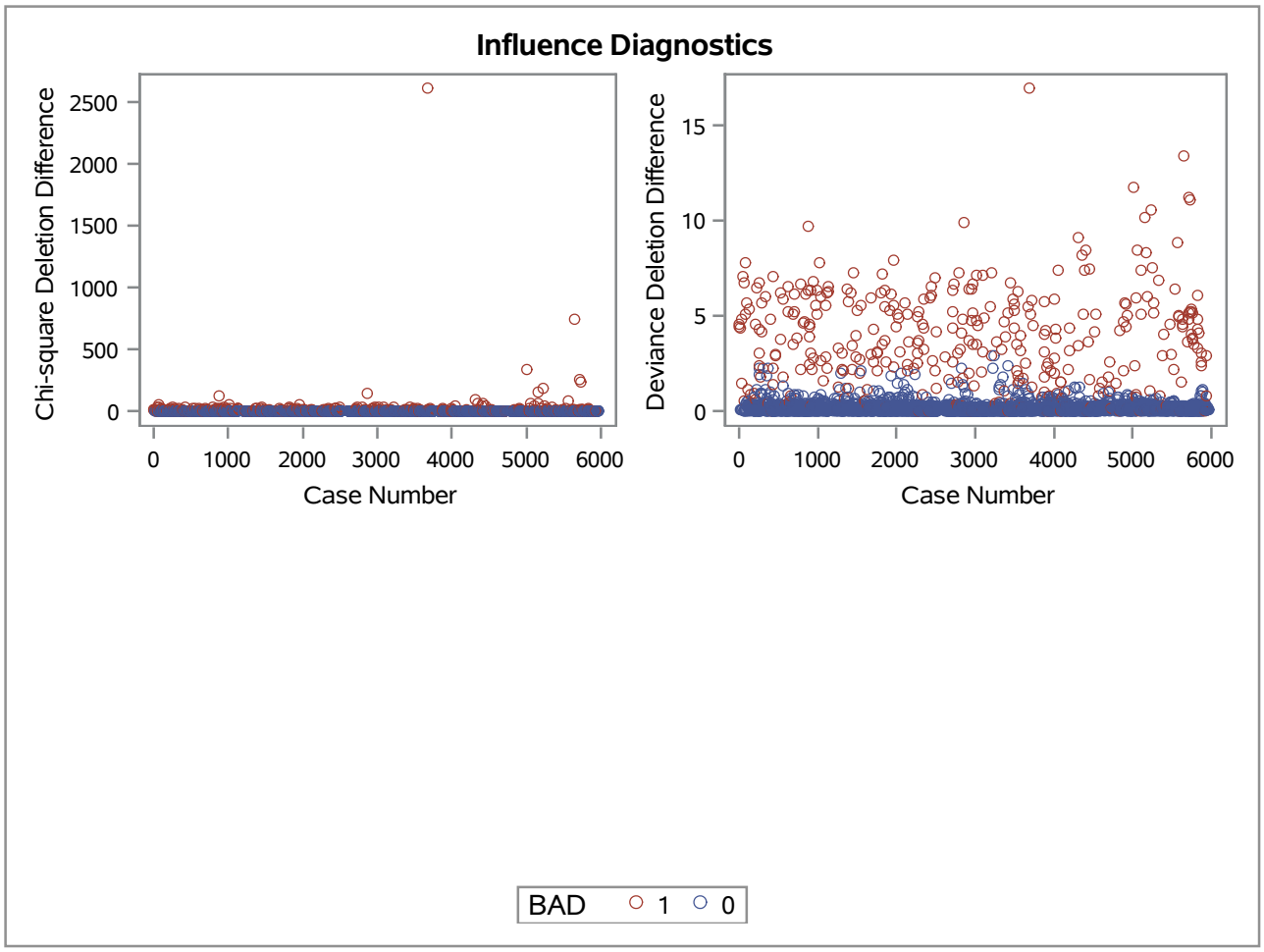
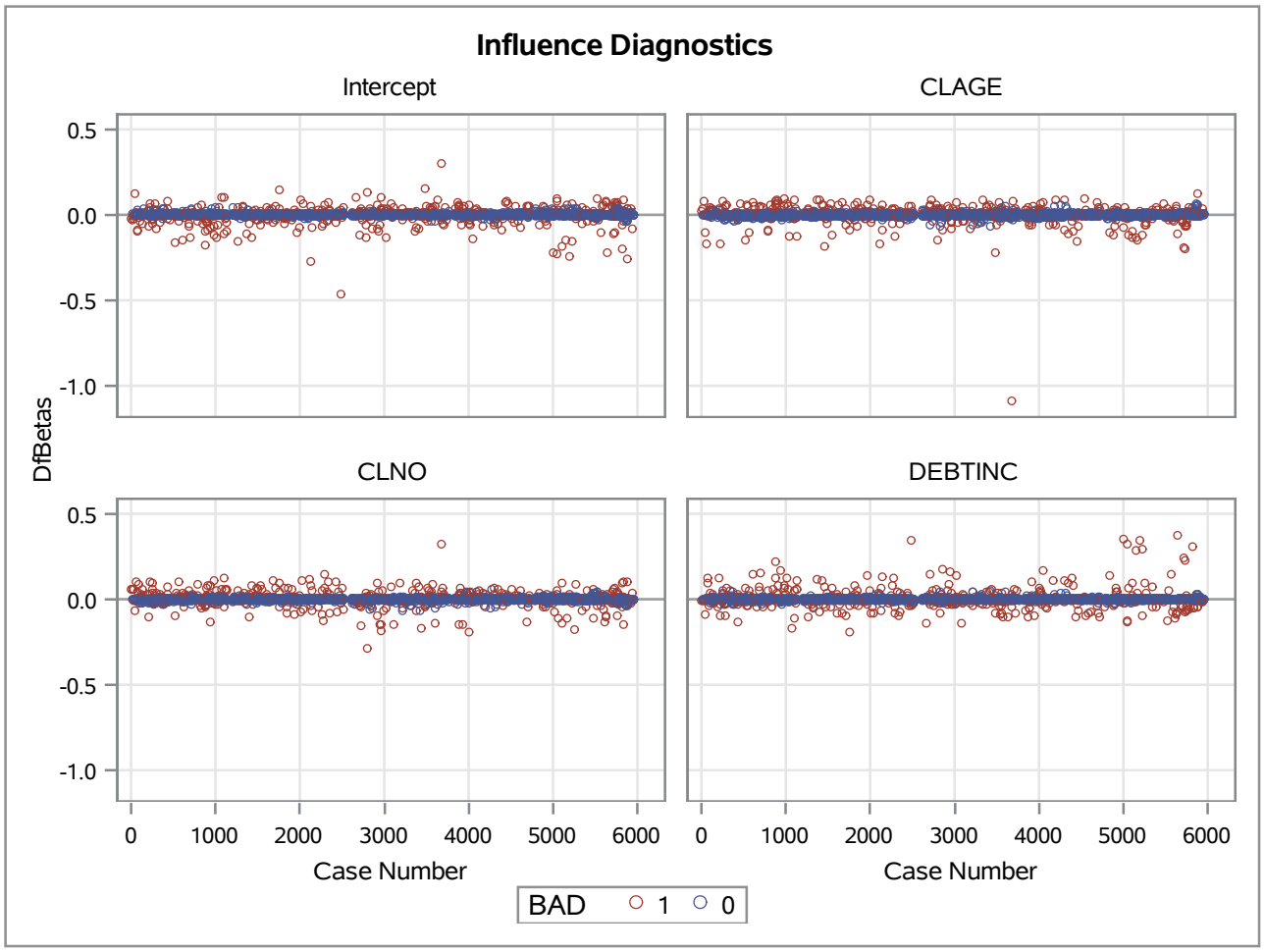
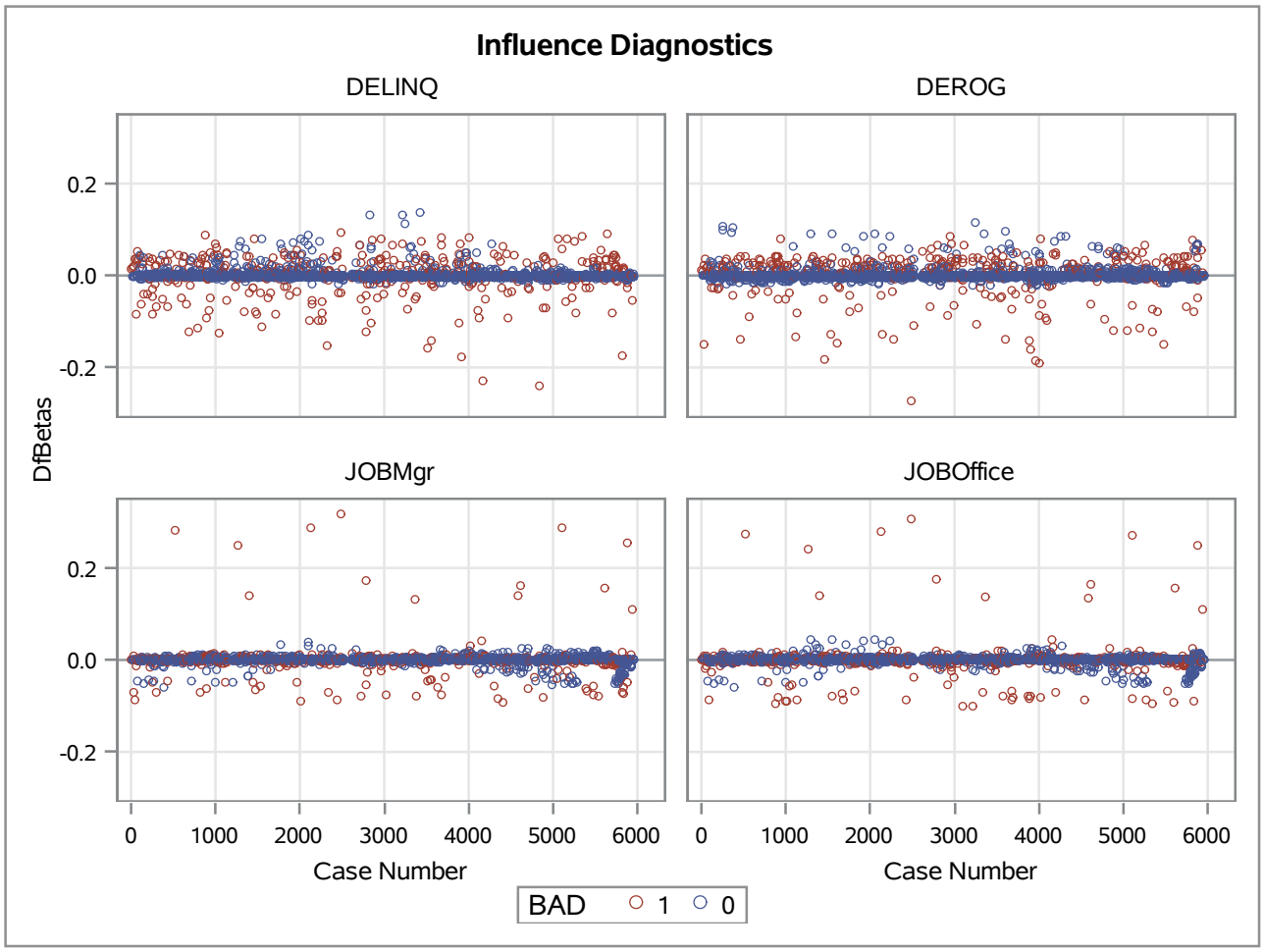


The LOGISTIC Procedure



The LOGISTIC Procedure



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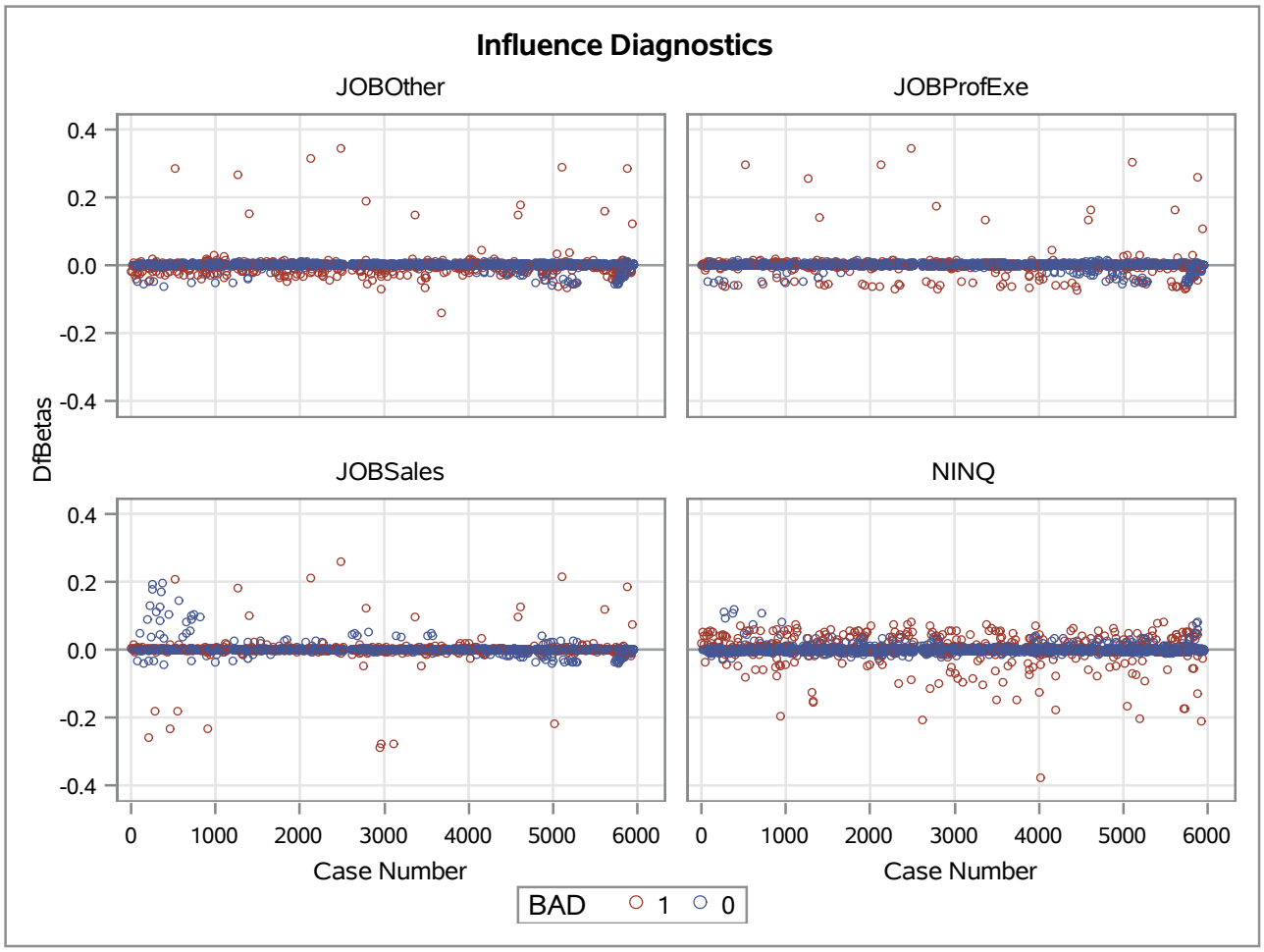

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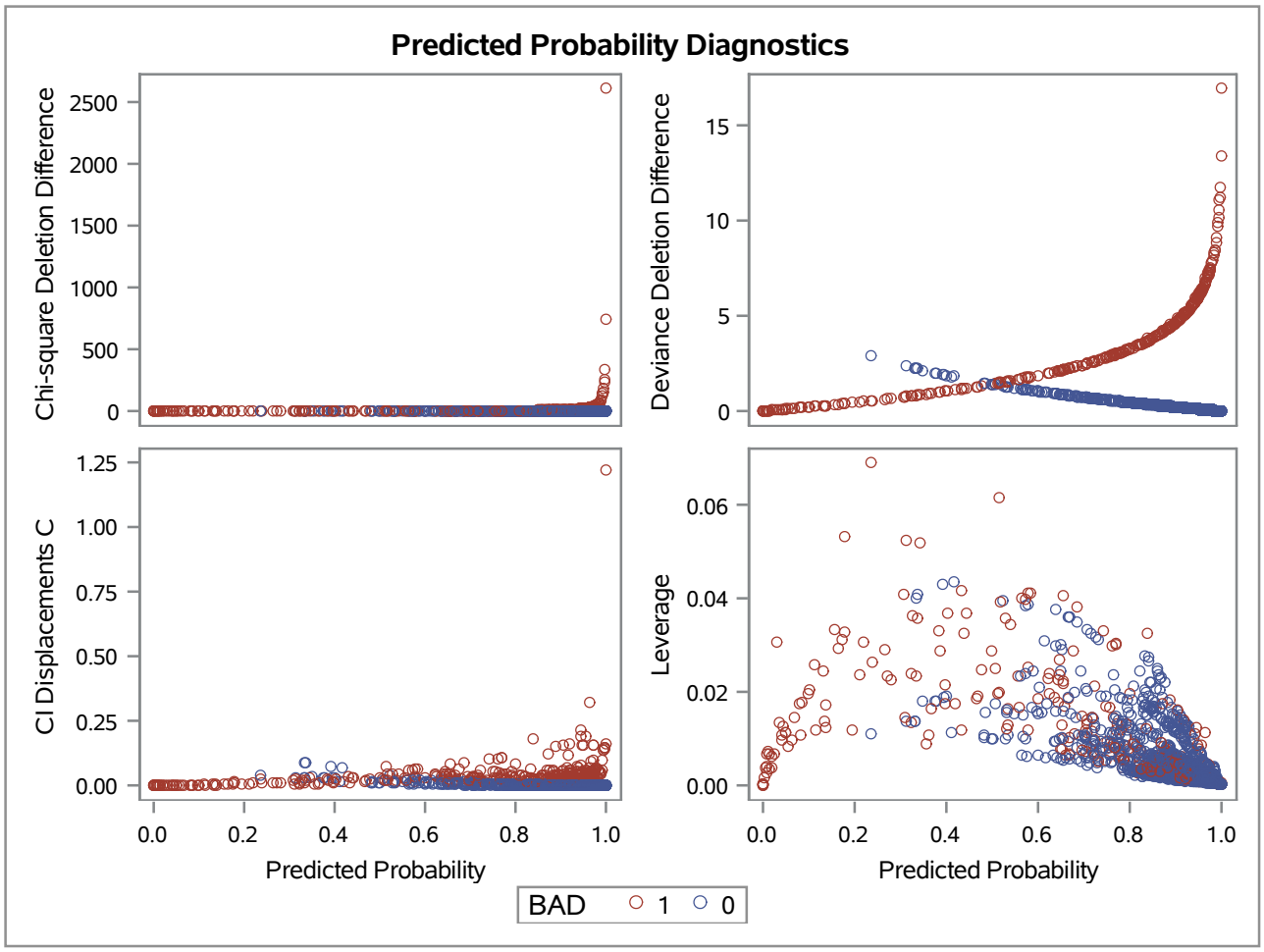
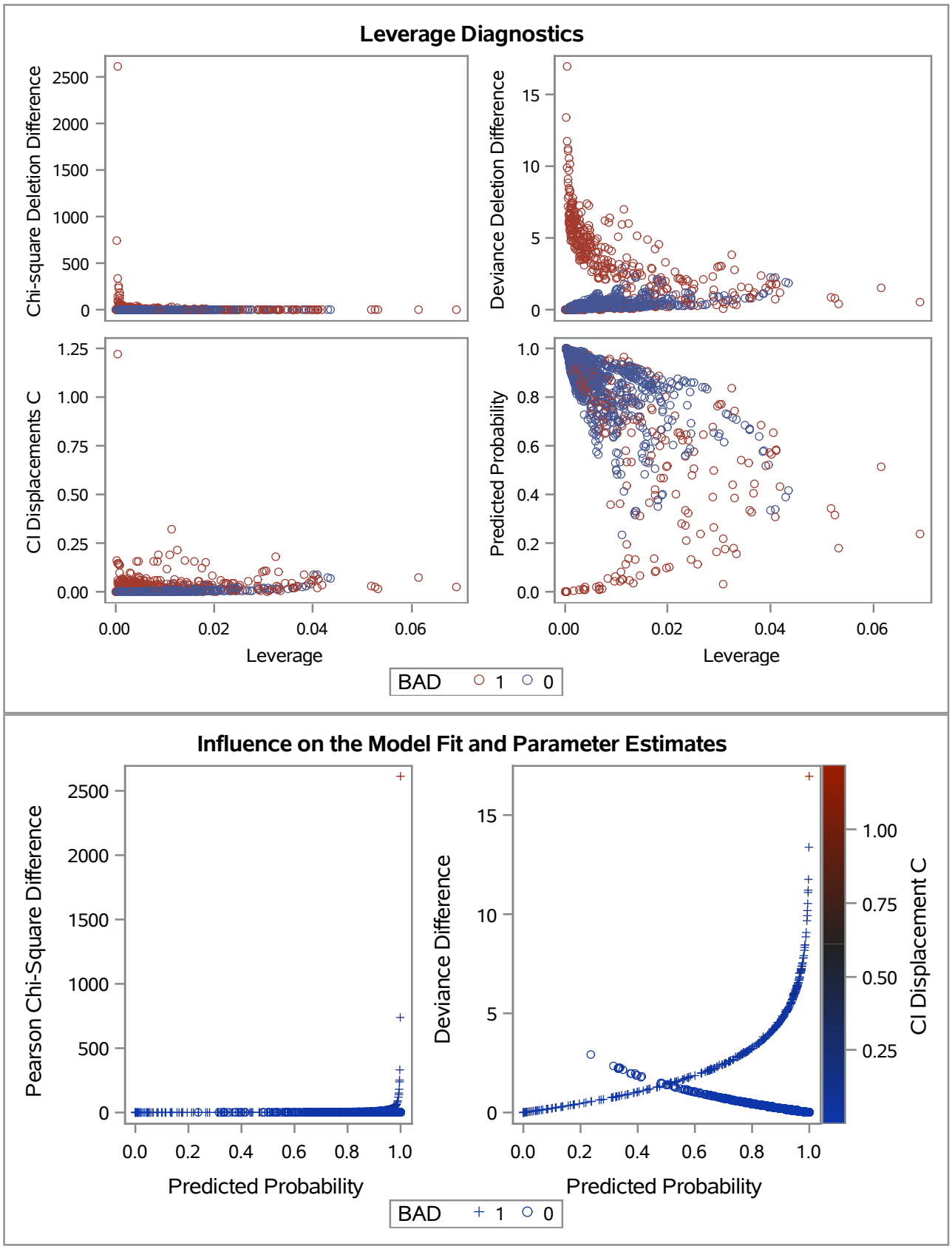
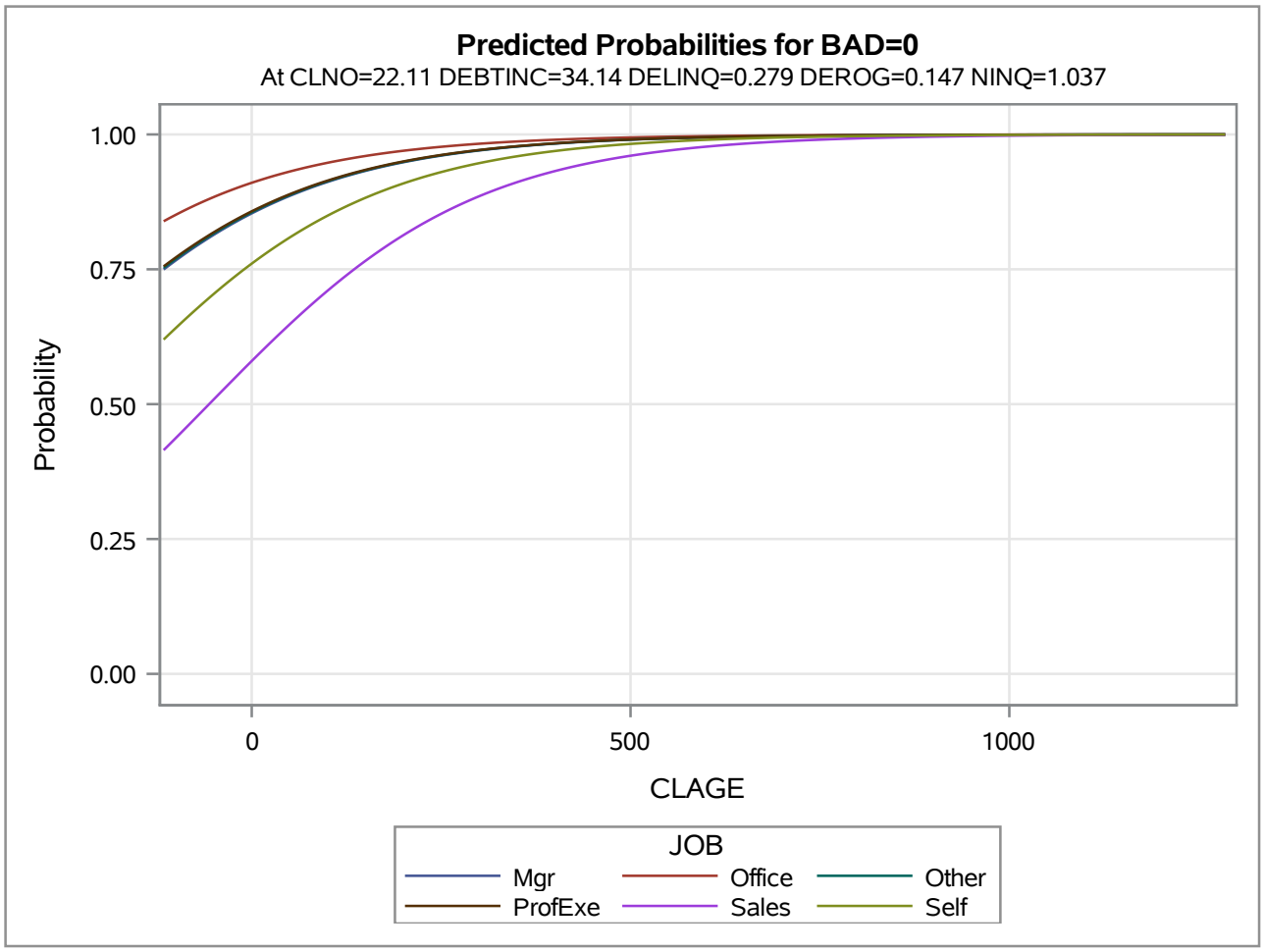


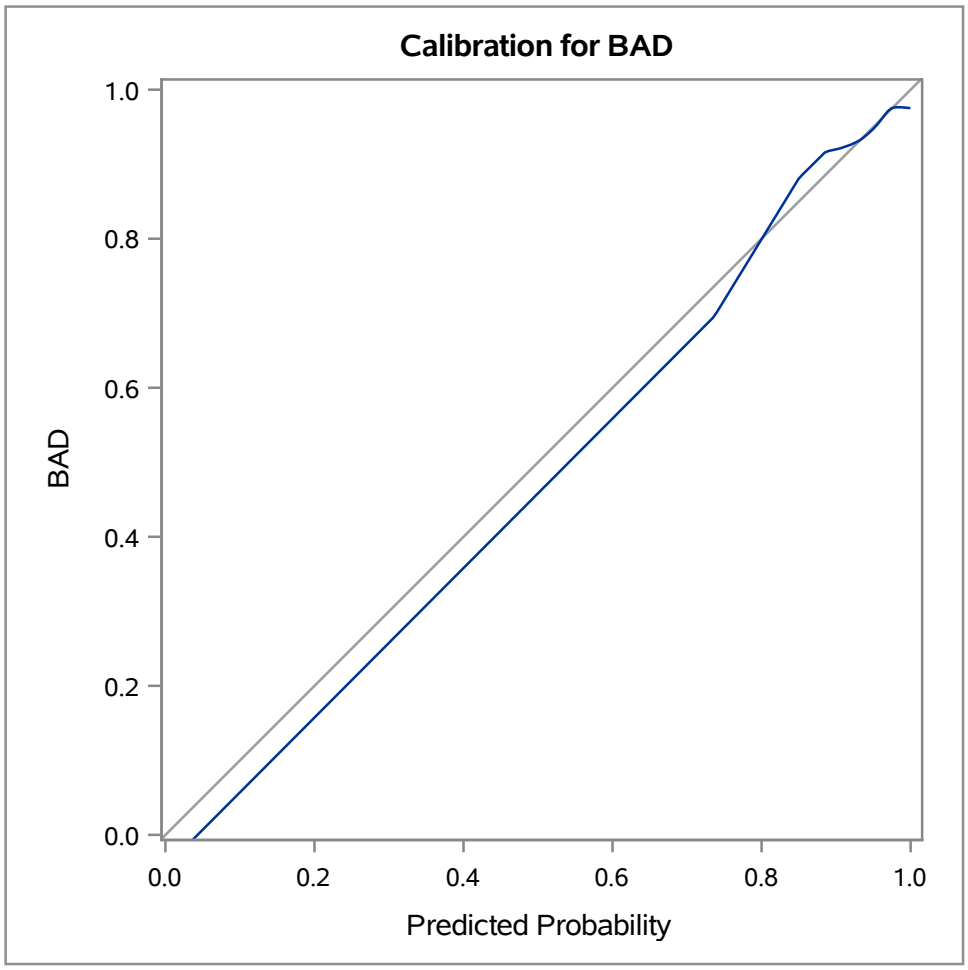
The LOGISTIC Procedure



The LOGISTIC Procedure



The LOGISTIC Procedure



The LOGISTIC Procedure

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

Number of Observations Read	5960
Number of Observations Used	3364

Response Profile		
Ordered Value	**BAD**	**Total Frequency**
1	0	3064
2	1	300

Probability modeled is BAD=1.

Note: 2596 observations were deleted due to missing values for the response or explanatory variables.

Stepwise Selection Procedure

Class Level Information							
Class	**Value**	**Design Variables**					
REASON	**DebtCon**	1	0				
	HomeImp	0	1				
JOB	**Mgr**	1	0	0	0	0	0
	Office	0	1	0	0	0	0
	Other	0	0	1	0	0	0
	ProfExe	0	0	0	1	0	0
	Sales	0	0	0	0	1	0
	Self	0	0	0	0	0	1

Step 0. Intercept entered:

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

-2 Log L	=	2022.675

The LOGISTIC Procedure

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
625.0010	16	<.0001

Step 1. Effect DELINQ entered:

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

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1871.913
SC	2030.796	1884.155
-2 Log L	2022.675	1867.913

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	154.7625	1	<.0001
Score	254.2054	1	<.0001
Wald	145.9096	1	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
349.3695	15	<.0001

Note: No effects for the model in Step 1 are removed.

Step 2. Effect DEBTINC entered:

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

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1732.051
SC	2030.796	1750.413
-2 Log L	2022.675	1726.051

The LOGISTIC Procedure

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	296.6249	2	<.0001
Score	397.7858	2	<.0001
Wald	220.6132	2	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
189.5447	14	<.0001

Note: No effects for the model in Step 2 are removed.

Step 3. Effect DEROG entered:

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

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1650.922
SC	2030.796	1675.406
-2 Log L	2022.675	1642.922

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	379.7535	3	<.0001
Score	545.2339	3	<.0001
Wald	263.8710	3	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
90.3632	13	<.0001

Note: No effects for the model in Step 3 are removed.

Step 4. Effect CLAGE entered:

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

The LOGISTIC Procedure

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1607.546
SC	2030.796	1638.151
-2 Log L	2022.675	1597.546

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	425.1290	4	<.0001
Score	575.8471	4	<.0001
Wald	288.5907	4	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
47.4528	12	<.0001

Note: No effects for the model in Step 4 are removed.

Step 5. Effect JOB entered:

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

Model Fit Statistics		
Criterion	**Intercept Only**	**Intercept and Covariates**
AIC	2024.675	1595.794
SC	2030.796	1657.003
-2 Log L	2022.675	1575.794

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	446.8811	9	<.0001
Score	597.0108	9	<.0001
Wald	297.1317	9	<.0001

The LOGISTIC Procedure

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
23.8989	7	0.0012

Note: No effects for the model in Step 5 are removed.

Step 6. Effect NINQ entered:

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	2024.675	1588.973
SC	2030.796	1656.303
-2 Log L	2022.675	1566.973

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	455.7025	10	<.0001
Score	605.6732	10	<.0001
Wald	300.7464	10	<.0001

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
13.8915	6	0.0309

Note: No effects for the model in Step 6 are removed.

Step 7. Effect CLNO entered:

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	2024.675	1583.587
SC	2030.796	1657.038
-2 Log L	2022.675	1559.587

The LOGISTIC Procedure

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	463.0880	11	<.0001
Score	615.0014	11	<.0001
Wald	302.3805	11	<.0001

Residual Chi-Square Test		
Chi-Square	**DF**	**Pr > ChiSq**
6.9572	5	0.2238

Note: No effects for the model in Step 7 are removed.

Note: No (additional) effects met the 0.05 significance level for entry into the model.

Summary of Stepwise Selection							
	Effect						
Step	**Entered**	**Removed**	**DF**	**Number In**	**Score Chi-Square**	**Wald Chi-Square**	**Pr > ChiSq**
1	**DELINQ**		1	1	254.2054		<.0001
2	**DEBTINC**		1	2	142.1980		<.0001
3	**DEROG**		1	3	105.4667		<.0001
4	**CLAGE**		1	4	40.4196		<.0001
5	**JOB**		5	5	23.6862		0.0002
6	**NINQ**		1	6	9.6436		0.0019
7	**CLNO**		1	7	7.2242		0.0072

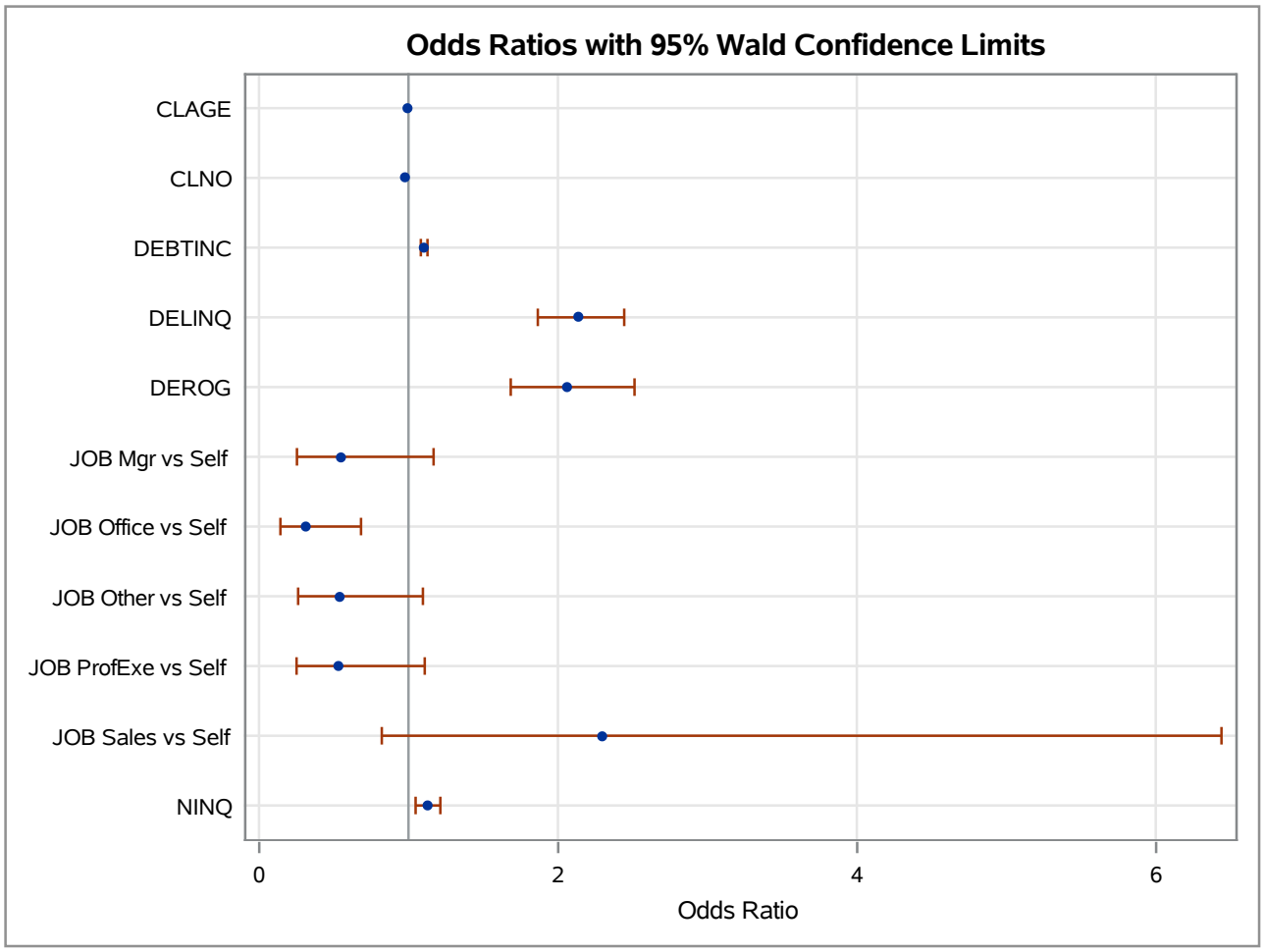
Type 3 Analysis of Effects			
Effect	**DF**	**Wald Chi-Square**	**Pr > ChiSq**
CLAGE	1	30.6003	<.0001
CLNO	1	7.1820	0.0074
DEBTINC	1	94.3510	<.0001
DELINQ	1	121.3538	<.0001
DEROG	1	49.9766	<.0001
JOB	5	24.0728	0.0002
NINQ	1	10.2919	0.0013

The LOGISTIC Procedure

Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept		1	-4.5465	0.5633	65.1386	<.0001
CLAGE		1	-0.00574	0.00104	30.6003	<.0001
CLNO		1	-0.0204	0.00762	7.1820	0.0074
DEBTINC		1	0.0996	0.0103	94.3510	<.0001
DELINQ		1	0.7584	0.0688	121.3538	<.0001
DEROG		1	0.7213	0.1020	49.9766	<.0001
JOB	Mgr	1	-0.6078	0.3894	2.4372	0.1185
JOB	Office	1	-1.1626	0.3983	8.5193	0.0035
JOB	Other	1	-0.6241	0.3655	2.9163	0.0877
JOB	ProfExe	1	-0.6390	0.3788	2.8464	0.0916
JOB	Sales	1	0.8330	0.5253	2.5148	0.1128
JOB	Self	0	0	.	.	.
NINQ		1	0.1199	0.0374	10.2919	0.0013

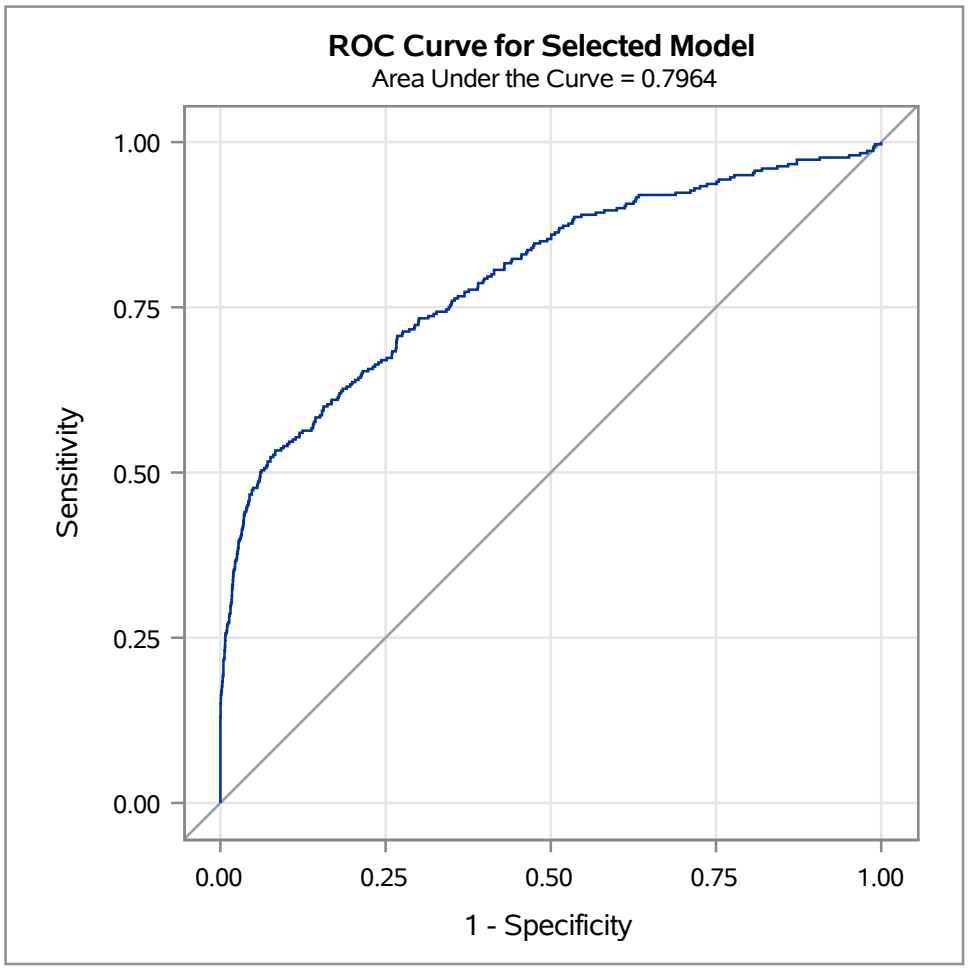
Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
CLAGE	0.994	0.992	0.996
CLNO	0.980	0.965	0.995
DEBTINC	1.105	1.083	1.127
DELINQ	2.135	1.865	2.443
DEROG	2.057	1.684	2.513
JOB Mgr vs Self	0.545	0.254	1.168
JOB Office vs Self	0.313	0.143	0.683
JOB Other vs Self	0.536	0.262	1.097
JOB ProfExe vs Self	0.528	0.251	1.109
JOB Sales vs Self	2.300	0.822	6.440
NINQ	1.127	1.048	1.213

The LOGISTIC Procedure



Association of Predicted Probabilities and Observed Responses			
Percent Concordant	79.6	**Somers' D**	0.593
Percent Discordant	20.4	**Gamma**	0.593
Percent Tied	0.0	**Tau-a**	0.096
Pairs	919200	**c**	0.796

The LOGISTIC Procedure



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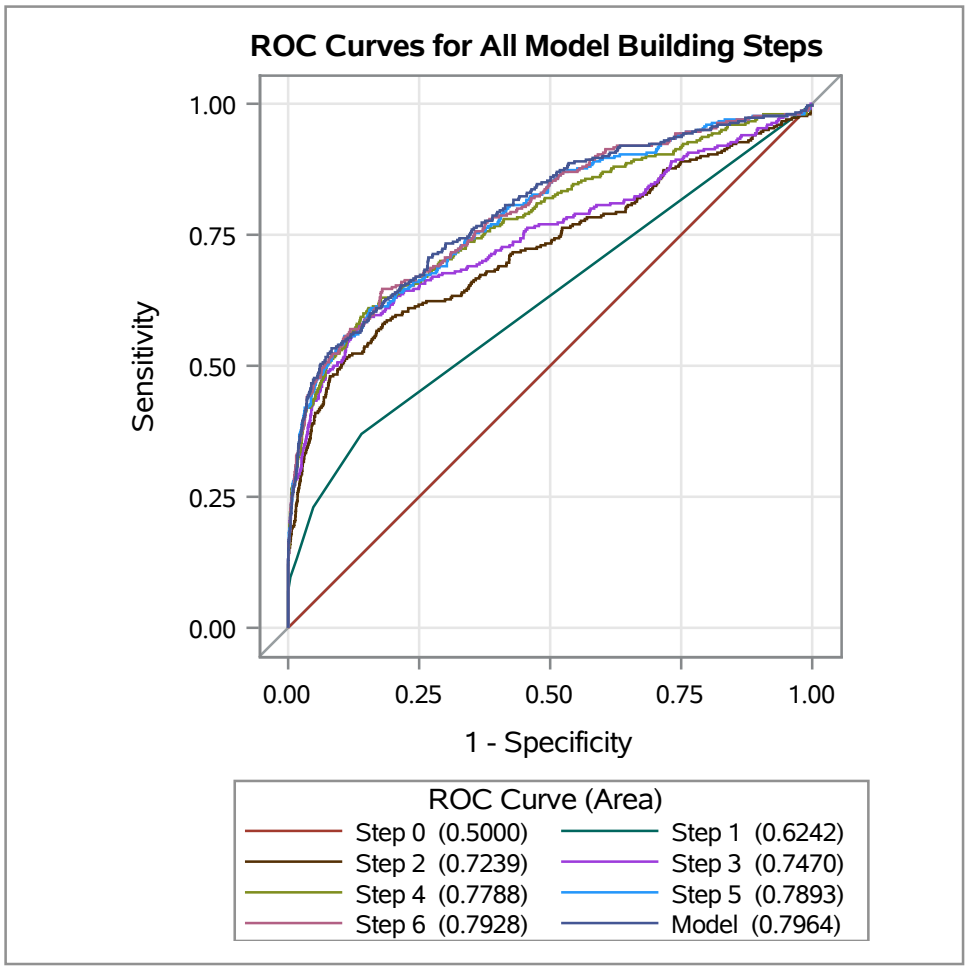

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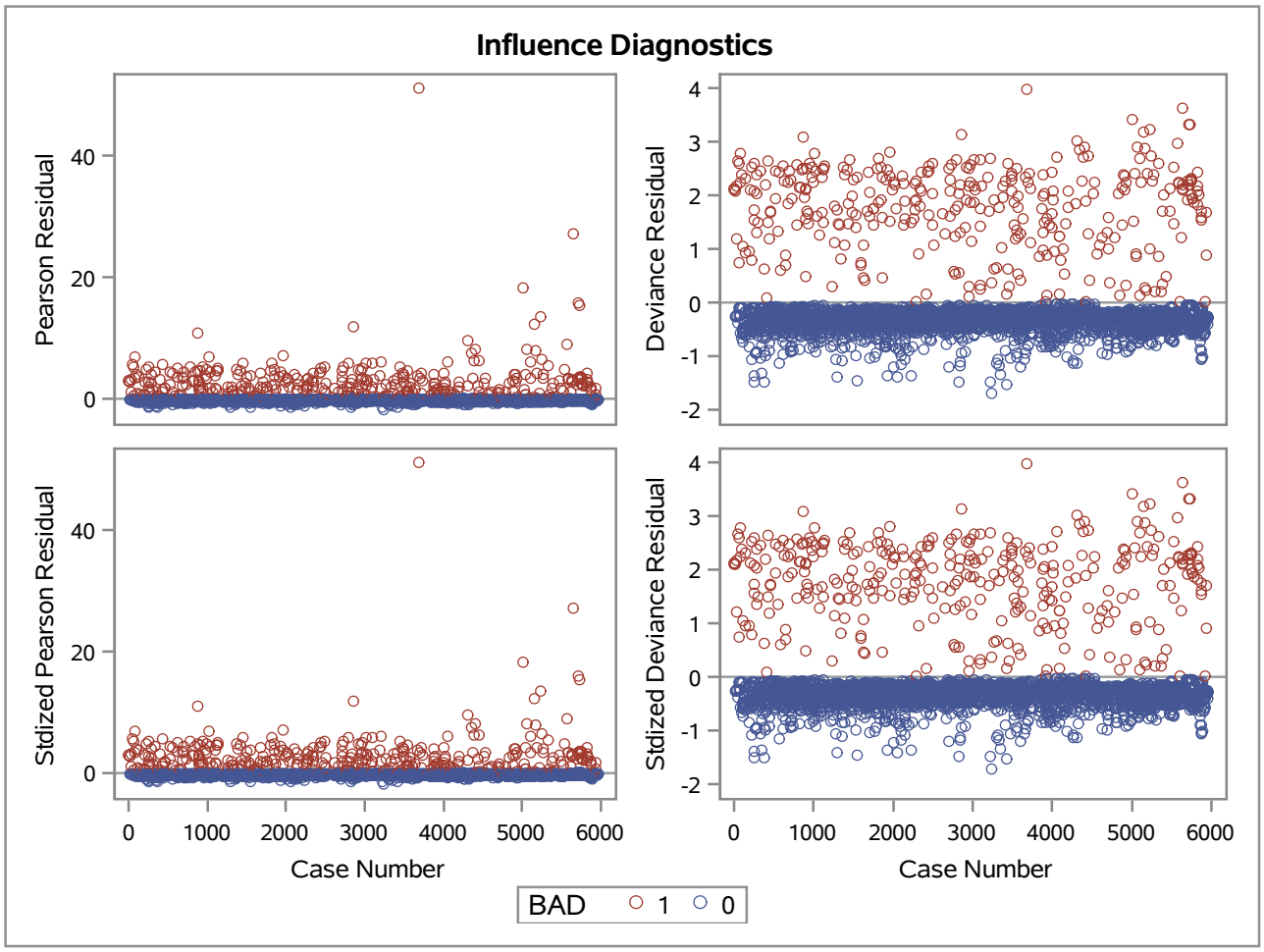

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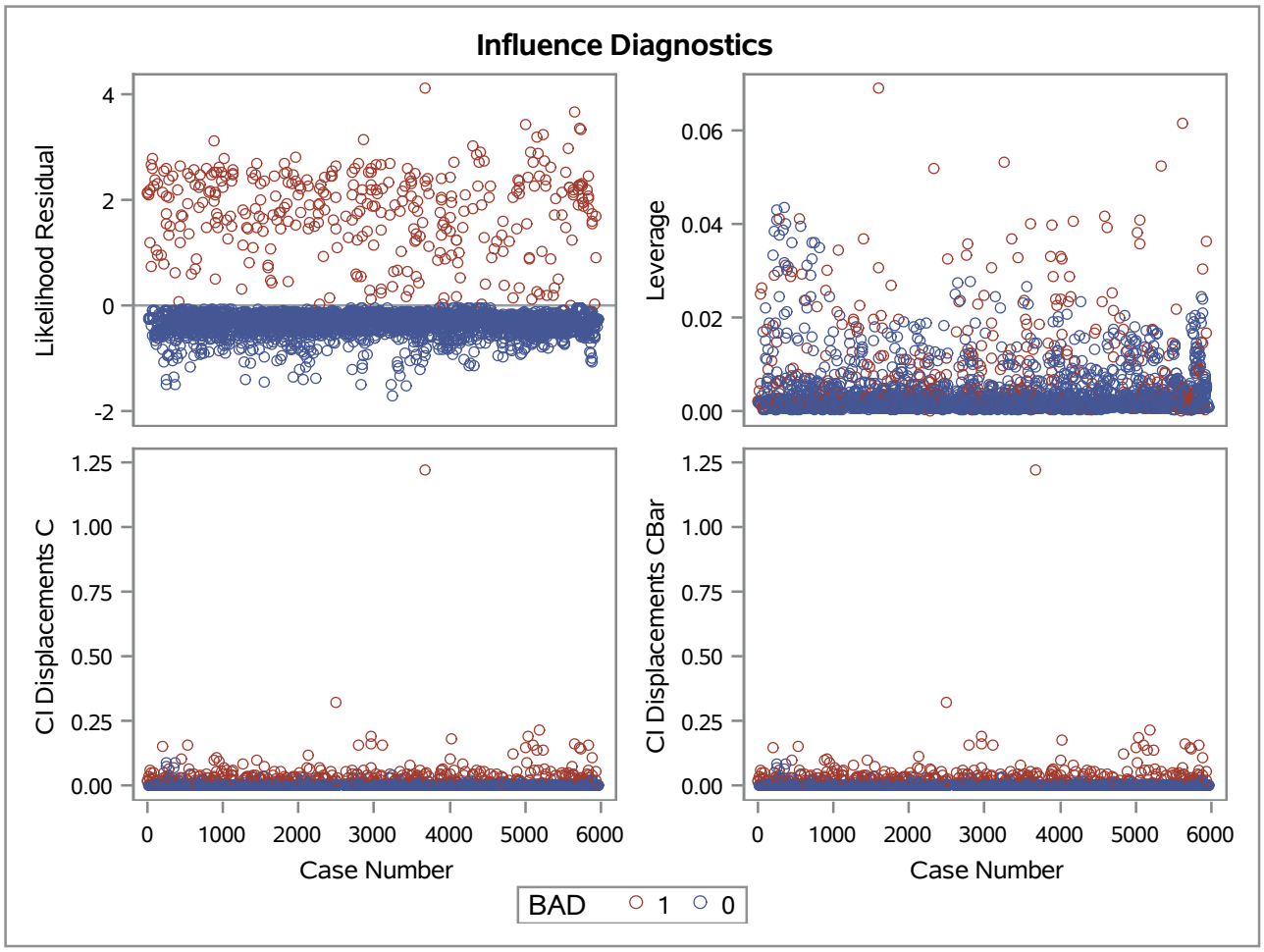

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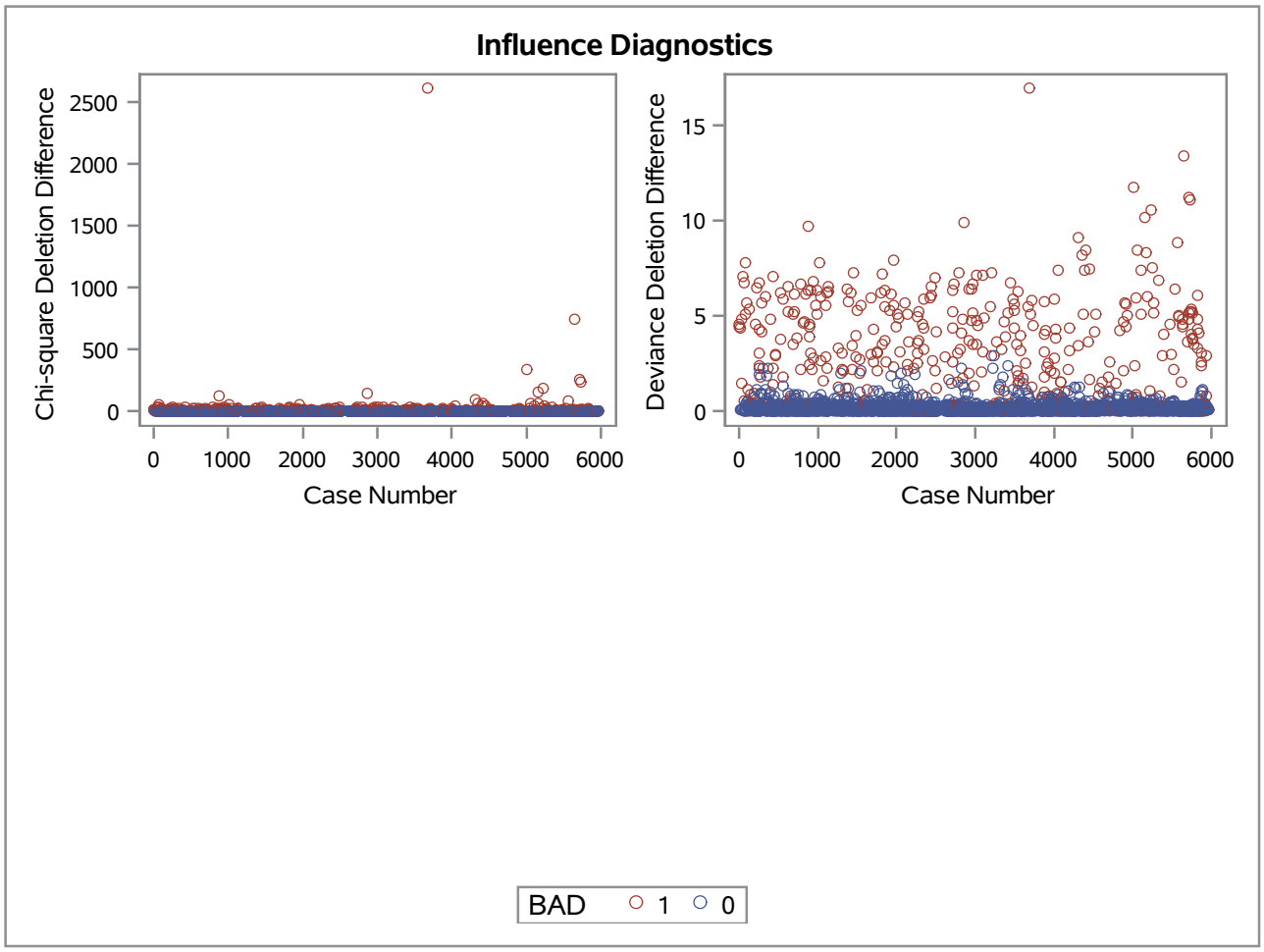

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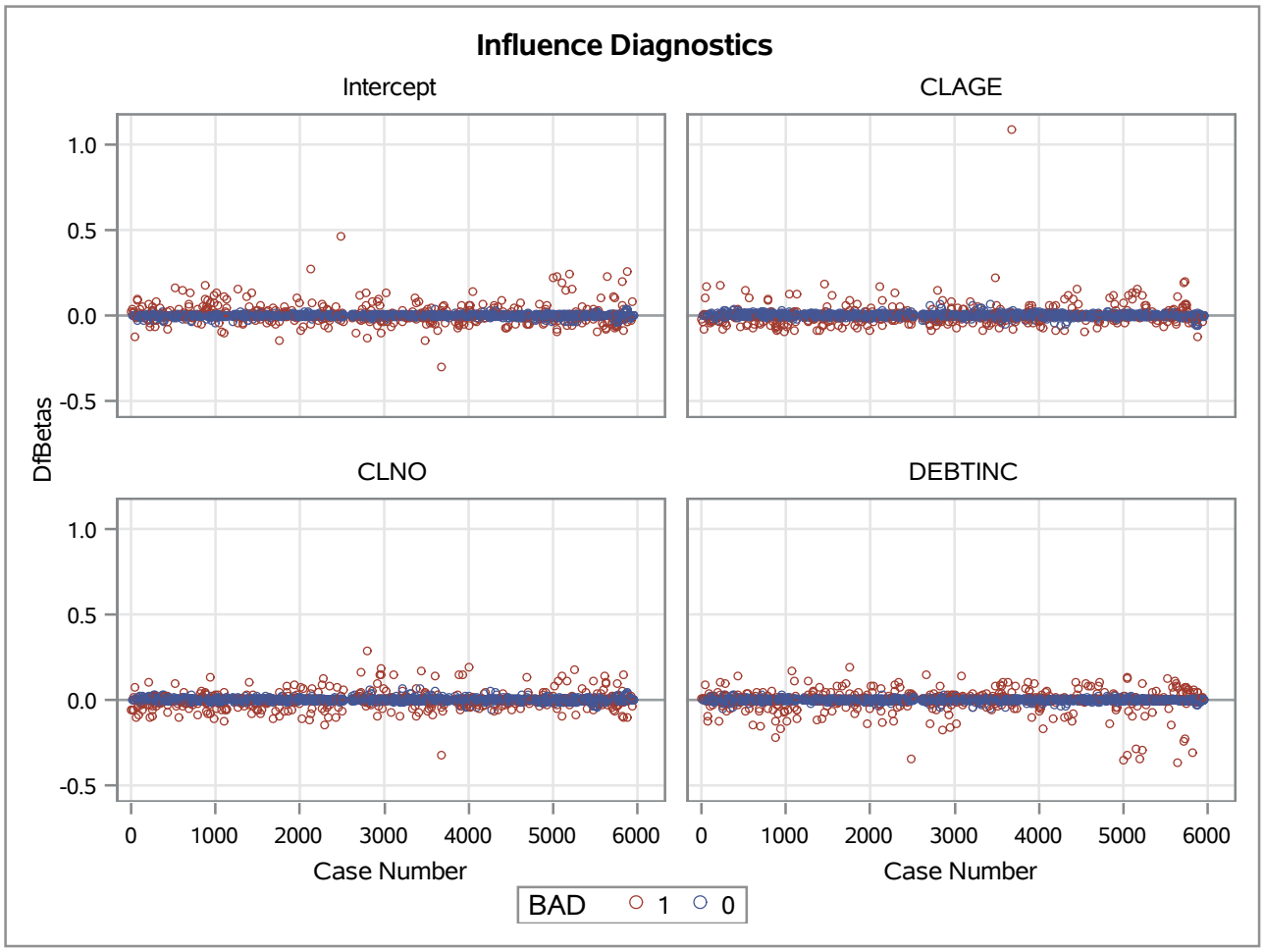

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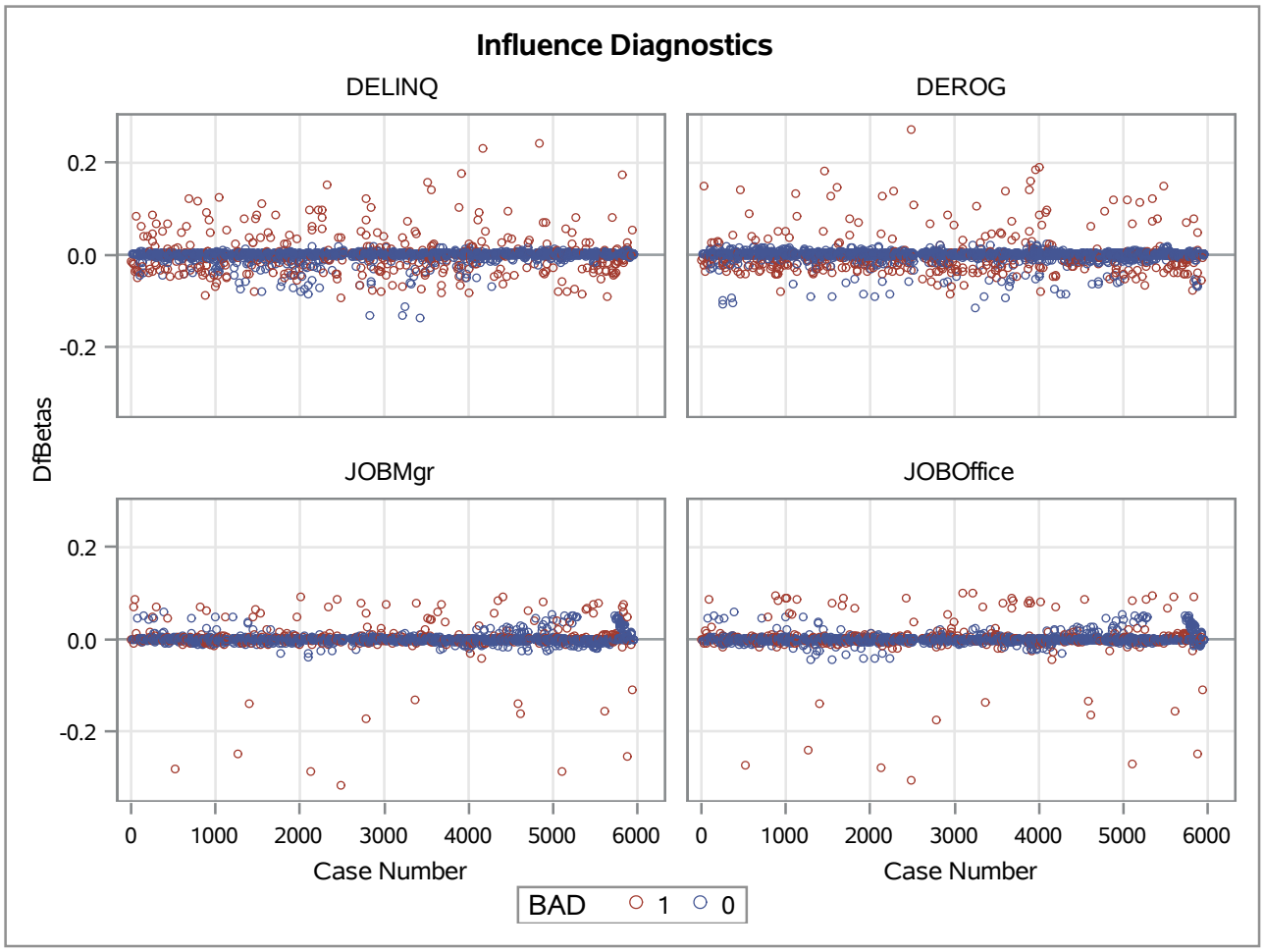

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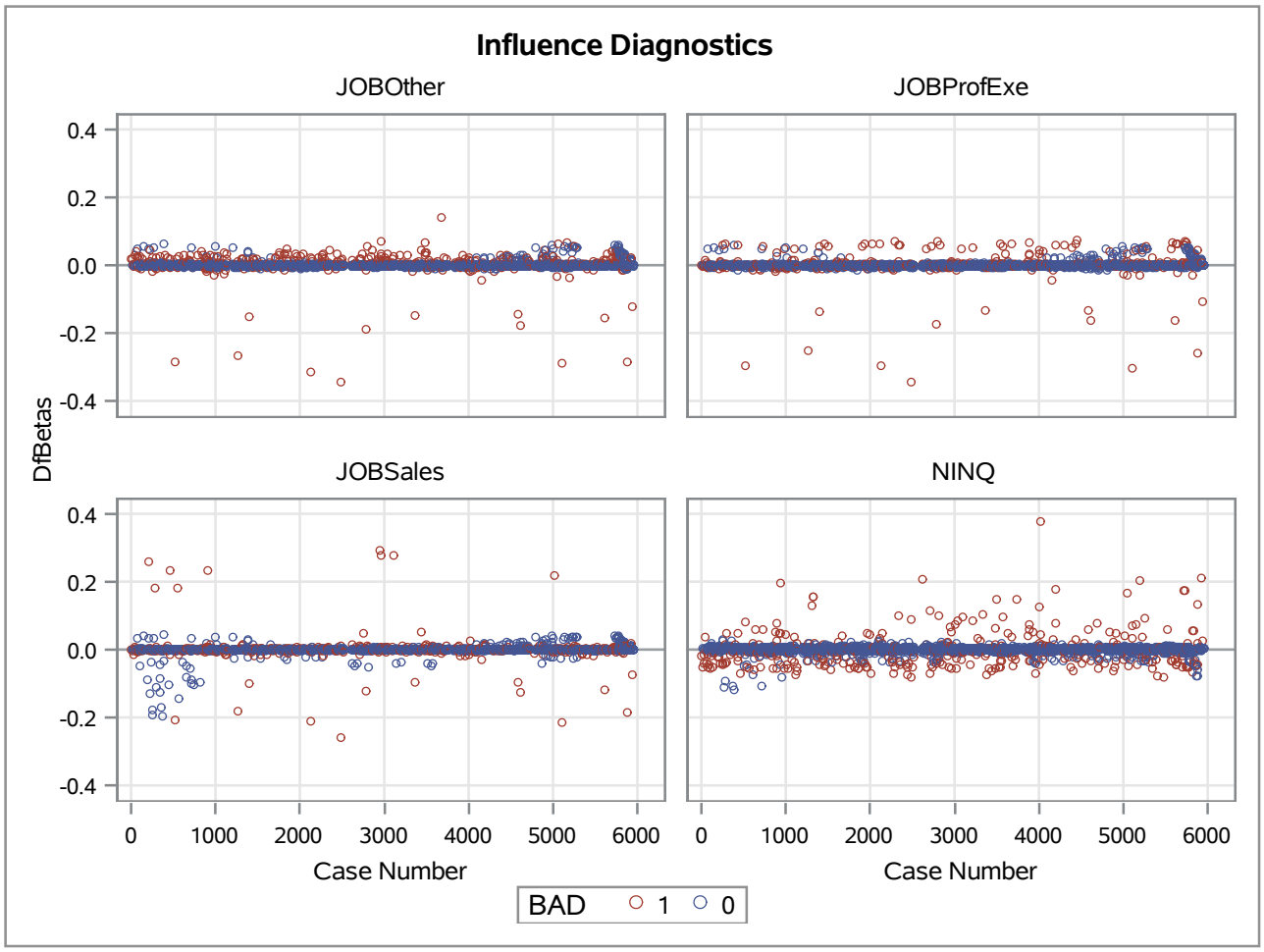
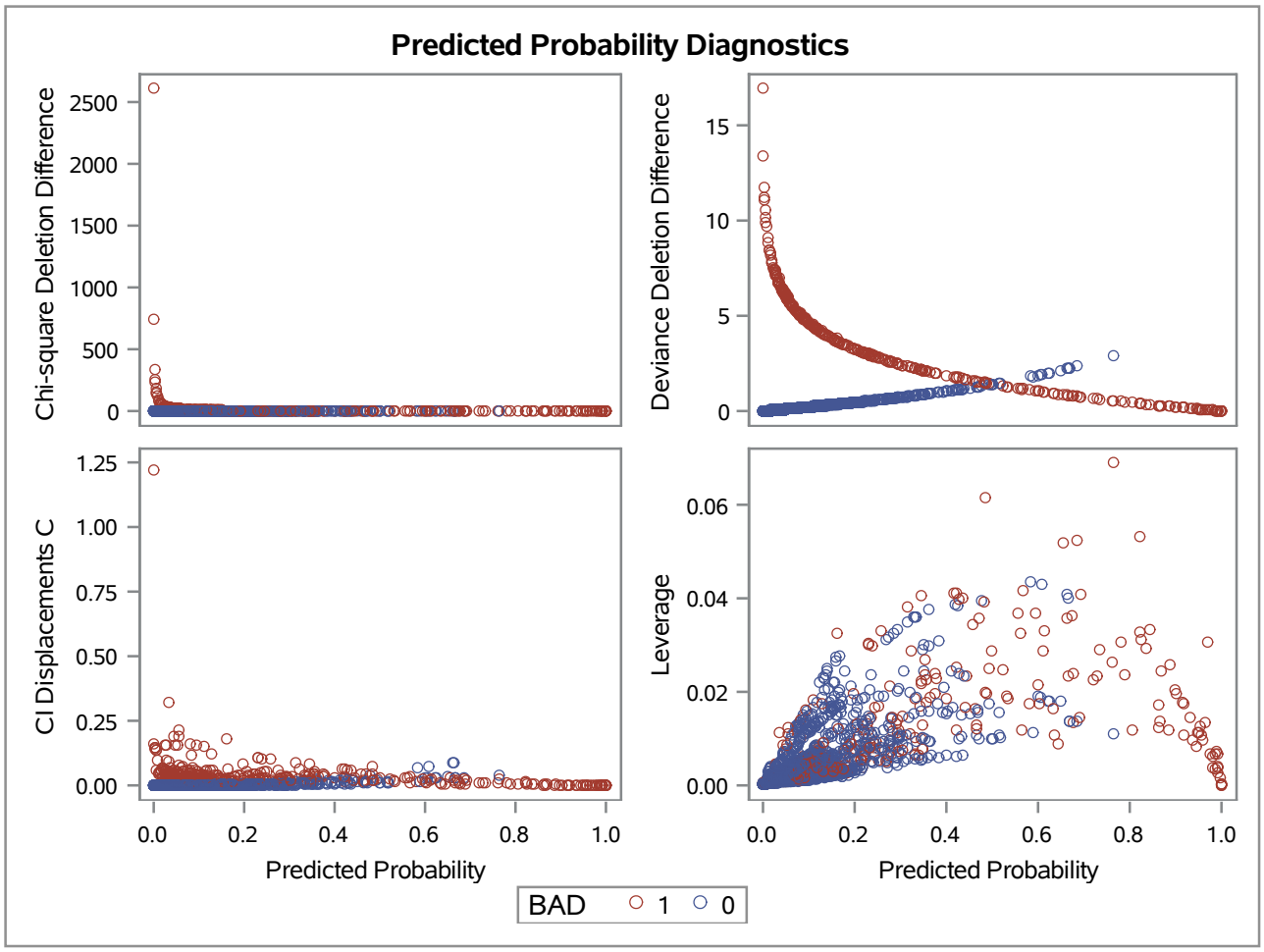
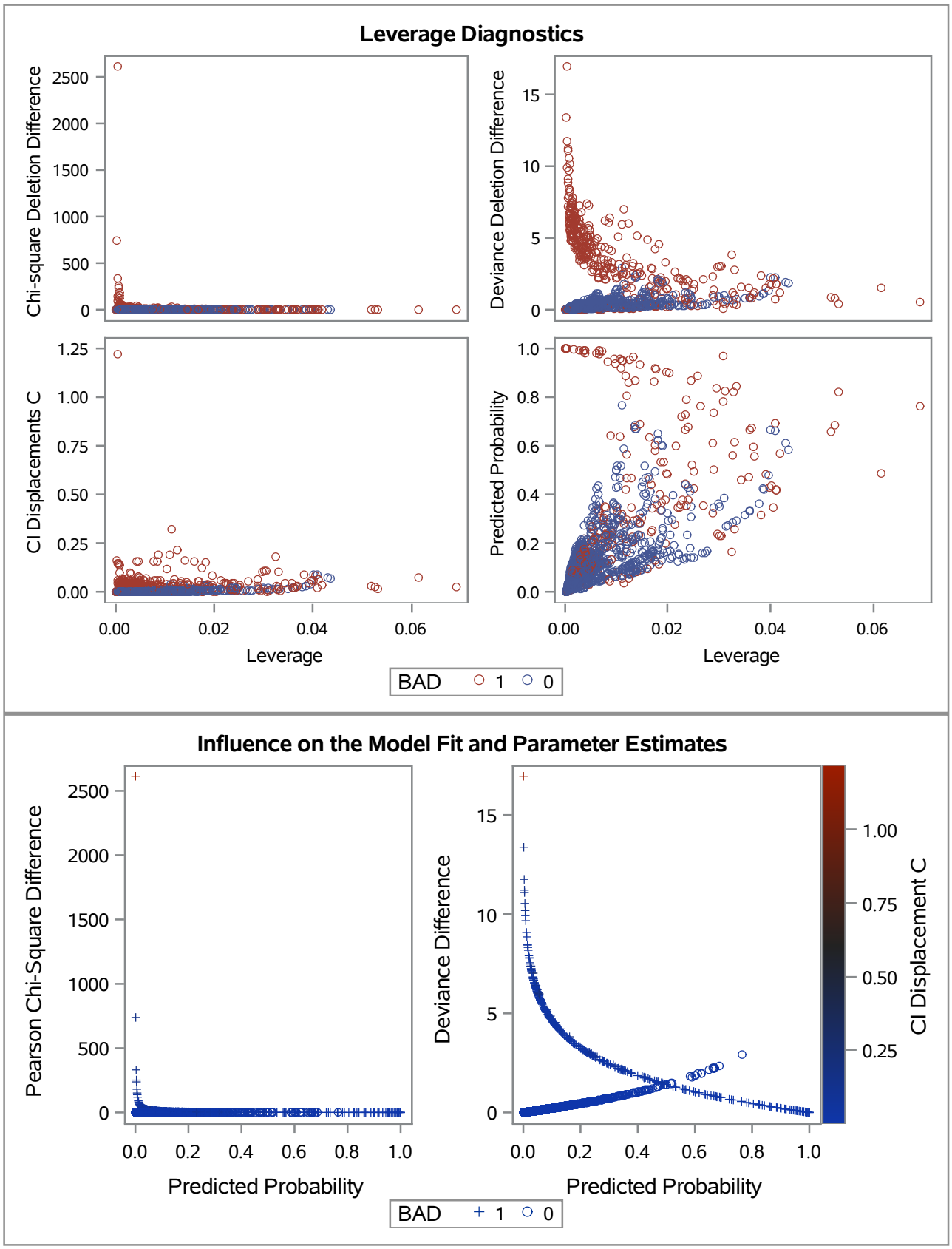


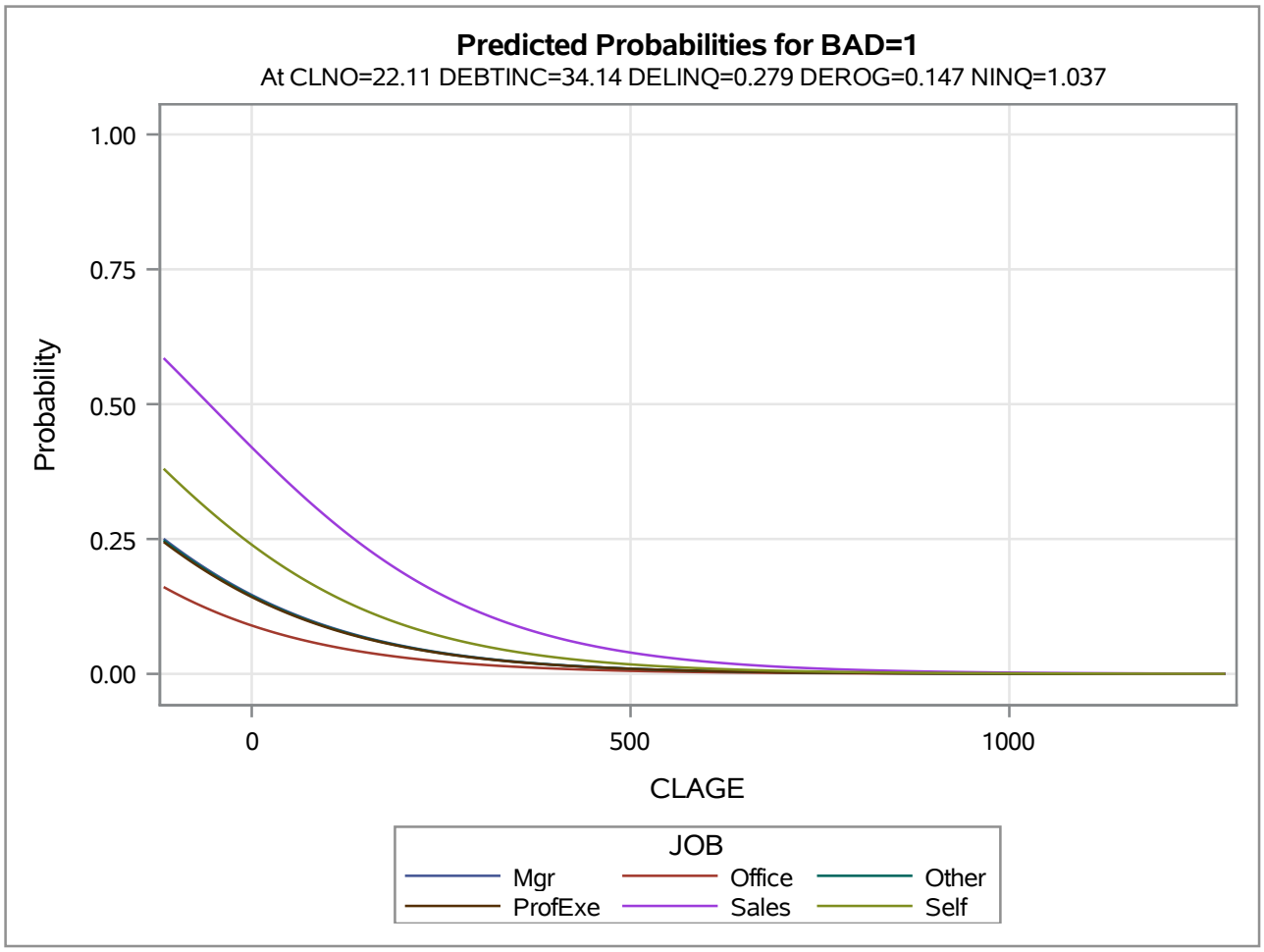
The LOGISTIC Procedure



The LOGISTIC Procedure



The LOGISTIC Procedure



The LOGISTIC Procedure