

Obs	BAD	LOAN	MORTDUE	VALUE	REASON	JOB	YOJ	DEROG	DELINQ	CLAGE	NINQ	CLNO	DEBTINC	APPDATE	CITY	STATE	DIVISION	REGION
1	1	1100	25860	39025	Homelmp	Other	10.5	0	0	94.366666667	1	9	.	22040	oregon	Wisconsin	East North Central	Midwest
2	1	1300	70053	68400	Homelmp	Other	7	0	2	121.833333333	0	14	.	22229	churchton	Maryland	South Atlantic	South
3	1	1500	13500	16700	Homelmp	Other	4	0	0	149.466666667	1	10	.	21396	orcas	Washington	Pacific	West
4	1	1500	.	.			.	.	.	.	.	.	.	22213	hastings	Florida	South Atlantic	South
5	0	1700	97800	112000	Homelmp	Office	3	0	0	93.333333333	0	14	.	22329	wilmington	California	Pacific	West
6	1	1700	30548	40320	Homelmp	Other	9	0	0	101.46600191	1	8	37.113613558	21534	olympia	Washington	Pacific	West
7	1	1800	48649	57037	Homelmp	Other	5	3	2	77.1	1	17	.	21936	williston	Florida	South Atlantic	South
8	1	1800	28502	43034	Homelmp	Other	11	0	0	88.766029879	0	8	36.884894093	21804	longview	Washington	Pacific	West
9	1	2000	32700	46740	Homelmp	Other	3	0	2	216.933333333	1	12	.	21724	elma	Washington	Pacific	West
10	1	2000	.	62250	Homelmp	Sales	16	0	0	115.8	0	13	.	21713	montclair	New Jersey	Middle Atlantic	Northeast

The CONTENTS Procedure

Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Informat
14	APPDATE	Num	8	BEST12.	BEST32.
1	BAD	Num	8	BEST12.	BEST32.
15	CITY	Char	19	\$19.	\$19.
10	CLAGE	Num	8	BEST12.	BEST32.
12	CLNO	Num	8	BEST12.	BEST32.
13	DEBTINC	Num	8	BEST12.	BEST32.
9	DELINQ	Num	8	BEST12.	BEST32.
8	DEROG	Num	8	BEST12.	BEST32.
17	DIVISION	Char	18	\$18.	\$18.
6	JOB	Char	7	\$7.	\$7.
2	LOAN	Num	8	BEST12.	BEST32.
3	MORTDUE	Num	8	BEST12.	BEST32.
11	NINQ	Num	8	BEST12.	BEST32.
5	REASON	Char	7	\$7.	\$7.
18	REGION	Char	9	\$9.	\$9.
16	STATE	Char	20	\$20.	\$20.
4	VALUE	Num	8	BEST12.	BEST32.
7	YOJ	Num	8	BEST12.	BEST32.

The MEANS Procedure

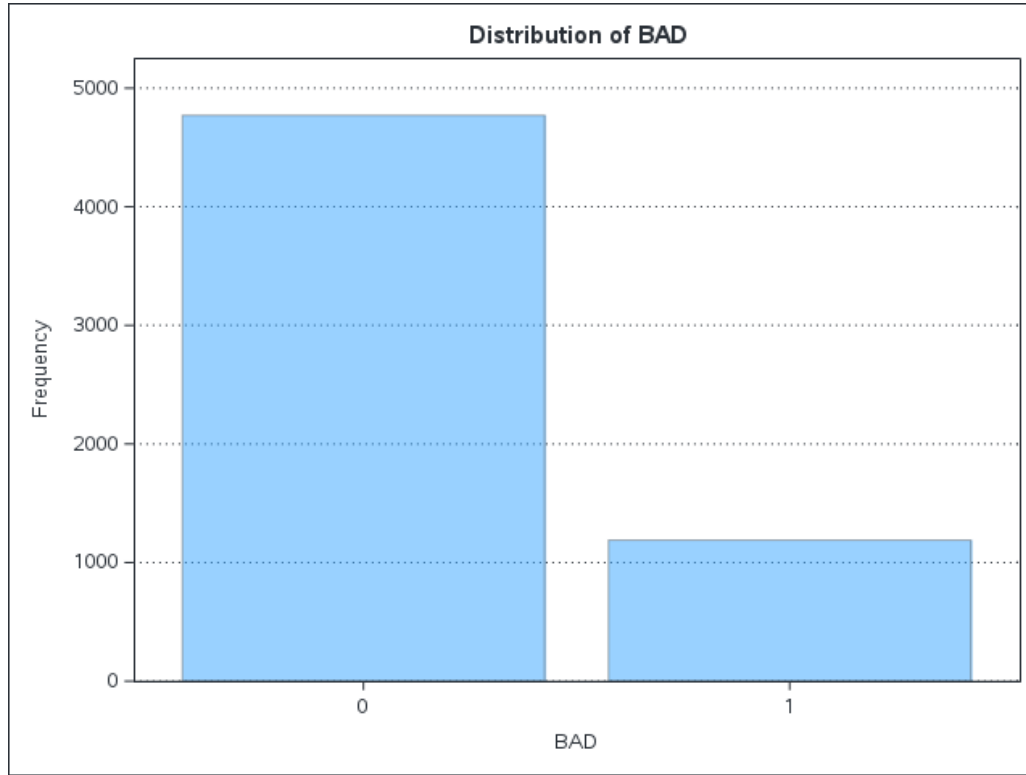
Variable	N	Mean	Std Dev	Minimum	Maximum
BAD	5960	0.1994966	0.3996555	0	1.0000000
LOAN	5960	18607.97	11207.48	1100.00	89900.00
MORTDUE	5442	73760.82	44457.61	2063.00	399550.00
VALUE	5848	101776.05	57385.78	8000.00	855909.00
YOJ	5445	8.9222681	7.5739822	0	41.0000000
DEROG	5252	0.2545697	0.8460468	0	10.0000000
DELINQ	5380	0.4494424	1.1272659	0	15.0000000
CLAGE	5652	179.7662752	85.8100918	0	1168.23
NINQ	5450	1.1860550	1.7286750	0	17.0000000
CLNO	5738	21.2960962	10.1389332	0	71.0000000
DEBTINC	4693	33.7799153	8.6017462	0.5244992	203.3121487
APPDATE	5960	21657.13	519.7568370	20820.00	22645.00

DistinctBAD	DistinctREASON	DistinctJOB	DistinctNINQ	DistinctCLNO	DistinctSTATE	DistinctDIVISION	DistinctREGION
2	2	6	16	62	51	9	4

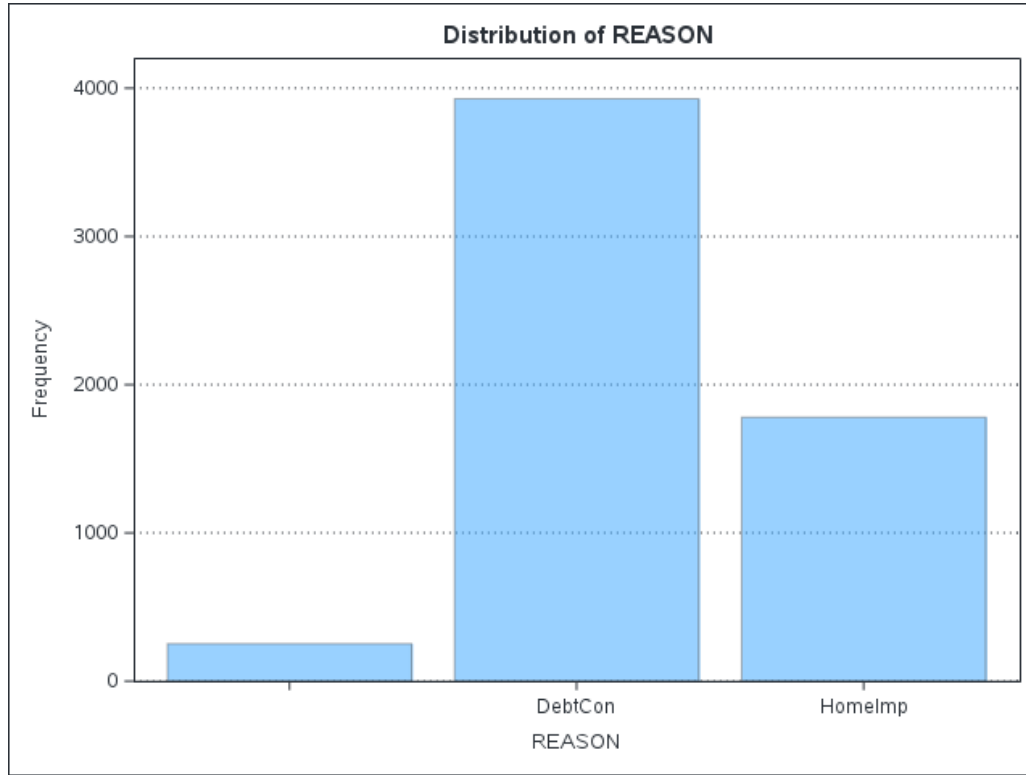
The FREQ Procedure

Number of Variable Levels			
Variable	Levels	Missing Levels	Nonmissing Levels
BAD	2	0	2
REASON	3	1	2
JOB	7	1	6
NINQ	17	1	16
CLNO	63	1	62
STATE	51	0	51
DIVISION	9	0	9
REGION	4	0	4

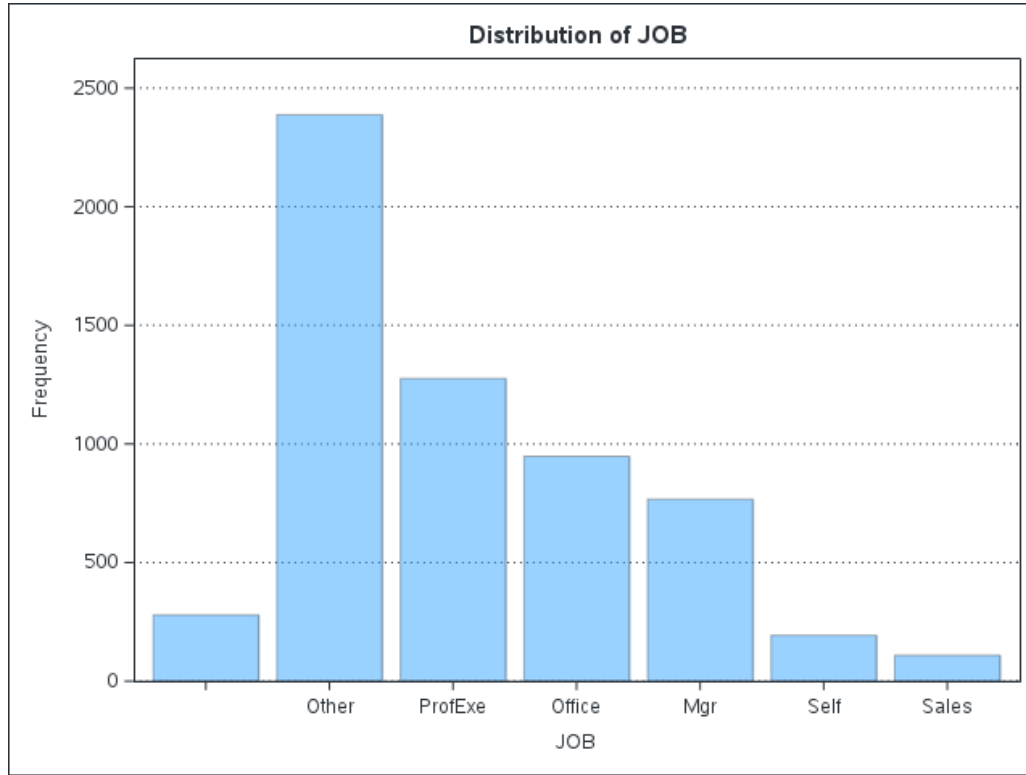
BAD	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	4771	80.05	4771	80.05
1	1189	19.95	5960	100.00



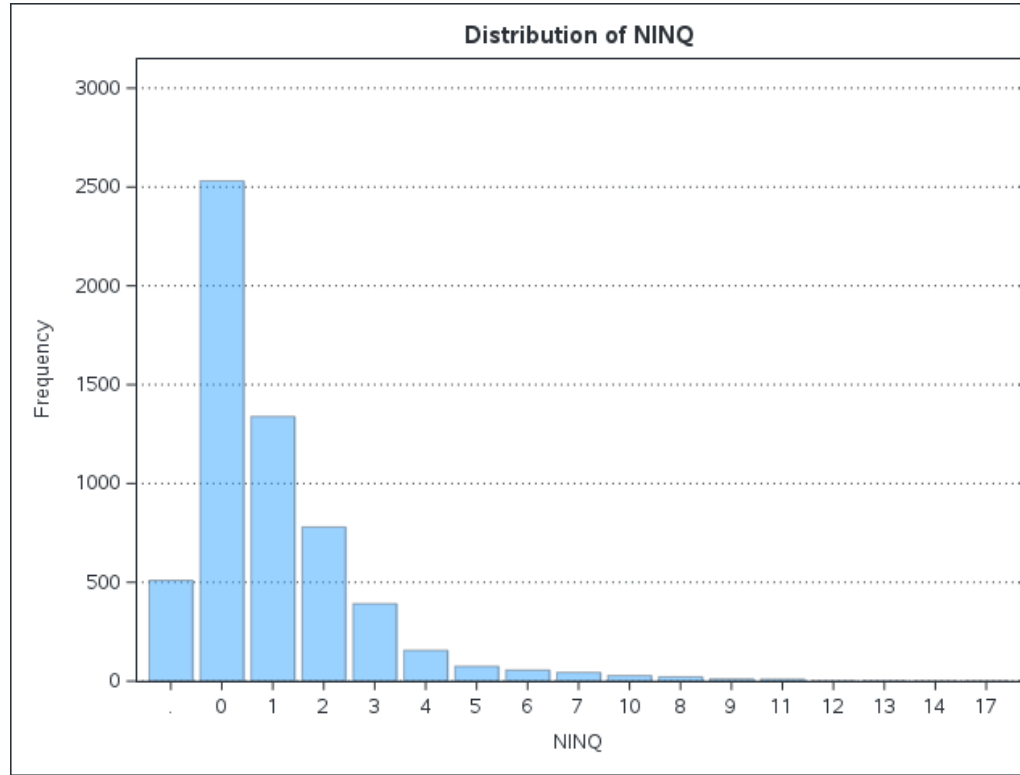
REASON	Frequency	Percent	Cumulative Frequency	Cumulative Percent
	252	4.23	252	4.23
DebtCon	3928	65.91	4180	70.13
Homelmp	1780	29.87	5960	100.00



JOB	Frequency	Percent	Cumulative Frequency	Cumulative Percent
	279	4.68	279	4.68
Other	2388	40.07	2667	44.75
ProfExe	1276	21.41	3943	66.16
Office	948	15.91	4891	82.06
Mgr	767	12.87	5658	94.93
Self	193	3.24	5851	98.17
Sales	109	1.83	5960	100.00



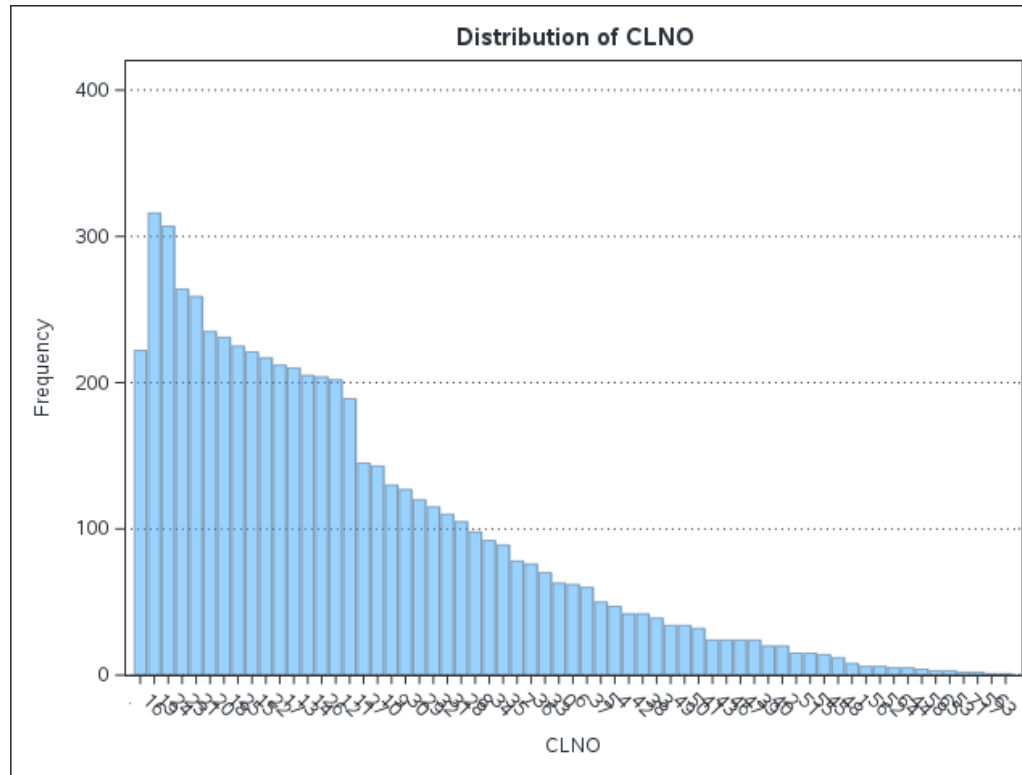
NINQ	Frequency	Percent	Cumulative Frequency	Cumulative Percent
.	510	8.56	510	8.56
0	2531	42.47	3041	51.02
1	1339	22.47	4380	73.49
2	780	13.09	5160	86.58
3	392	6.58	5552	93.15
4	156	2.62	5708	95.77
5	75	1.26	5783	97.03
6	56	0.94	5839	97.97
7	44	0.74	5883	98.71
10	28	0.47	5911	99.18
8	22	0.37	5933	99.55
9	11	0.18	5944	99.73
11	10	0.17	5954	99.90
12	2	0.03	5956	99.93
13	2	0.03	5958	99.97
14	1	0.02	5959	99.98
17	1	0.02	5960	100.00



CLNO	Frequency	Percent	Cumulative Frequency	Cumulative Percent
.	222	3.72	222	3.72
16	316	5.30	538	9.03
19	307	5.15	845	14.18
24	264	4.43	1109	18.61
23	259	4.35	1368	22.95
21	235	3.94	1603	26.90
20	231	3.88	1834	30.77
18	225	3.78	2059	34.55
25	221	3.71	2280	38.26
15	217	3.64	2497	41.90
22	212	3.56	2709	45.45
17	210	3.52	2919	48.98
13	205	3.44	3124	52.42
14	204	3.42	3328	55.84
26	202	3.39	3530	59.23
12	189	3.17	3719	62.40
11	145	2.43	3864	64.83
27	143	2.40	4007	67.23
10	130	2.18	4137	69.41

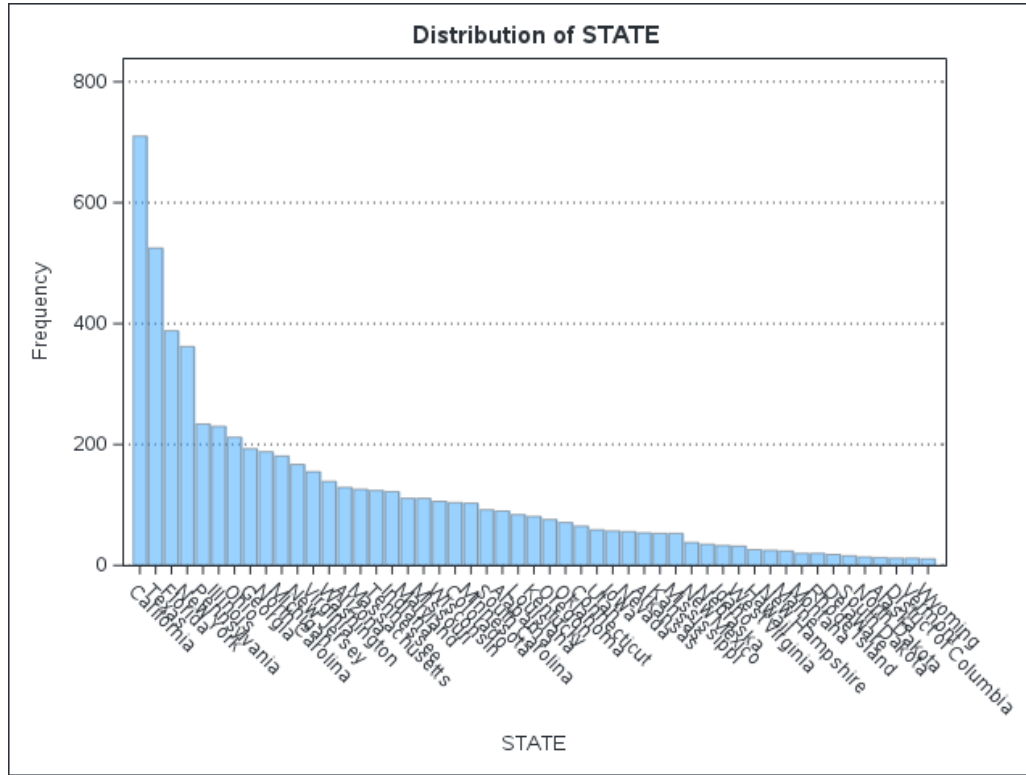
CLNO	Frequency	Percent	Cumulative Frequency	Cumulative Percent
9	127	2.13	4264	71.54
30	120	2.01	4384	73.56
29	115	1.93	4499	75.49
32	110	1.85	4609	77.33
31	105	1.76	4714	79.09
28	98	1.64	4812	80.74
8	92	1.54	4904	82.28
34	89	1.49	4993	83.78
35	78	1.31	5071	85.08
7	76	1.28	5147	86.36
36	70	1.17	5217	87.53
33	63	1.06	5280	88.59
0	62	1.04	5342	89.63
6	60	1.01	5402	90.64
37	50	0.84	5452	91.48
5	47	0.79	5499	92.27
4	42	0.70	5541	92.97
42	42	0.70	5583	93.67
38	39	0.65	5622	94.33
3	34	0.57	5656	94.90
49	34	0.57	5690	95.47
50	32	0.54	5722	96.01
41	24	0.40	5746	96.41
43	24	0.40	5770	96.81
46	24	0.40	5794	97.21
47	24	0.40	5818	97.62
39	20	0.34	5838	97.95
40	20	0.34	5858	98.29
2	15	0.25	5873	98.54
51	15	0.25	5888	98.79
55	14	0.23	5902	99.03
45	12	0.20	5914	99.23
48	8	0.13	5922	99.36
1	6	0.10	5928	99.46
56	6	0.10	5934	99.56
52	5	0.08	5939	99.65
64	5	0.08	5944	99.73
44	4	0.07	5948	99.80
58	3	0.05	5951	99.85
65	3	0.05	5954	99.90

CLNO	Frequency	Percent	Cumulative Frequency	Cumulative Percent
53	2	0.03	5956	99.93
71	2	0.03	5958	99.97
57	1	0.02	5959	99.98
63	1	0.02	5960	100.00

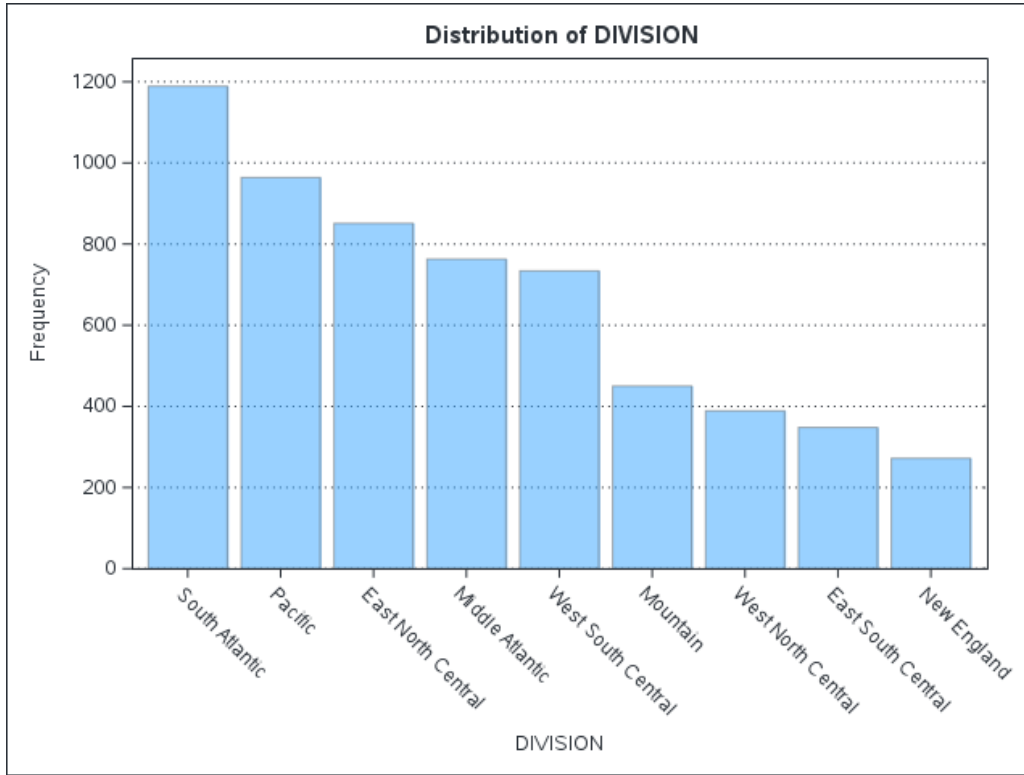


STATE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
California	710	11.91	710	11.91
Texas	525	8.81	1235	20.72
Florida	388	6.51	1623	27.23
New York	362	6.07	1985	33.31
Pennsylvania	234	3.93	2219	37.23
Illinois	230	3.86	2449	41.09
Ohio	212	3.56	2661	44.65
Georgia	193	3.24	2854	47.89
North Carolina	188	3.15	3042	51.04
Michigan	181	3.04	3223	54.08
New Jersey	167	2.80	3390	56.88
Virginia	155	2.60	3545	59.48

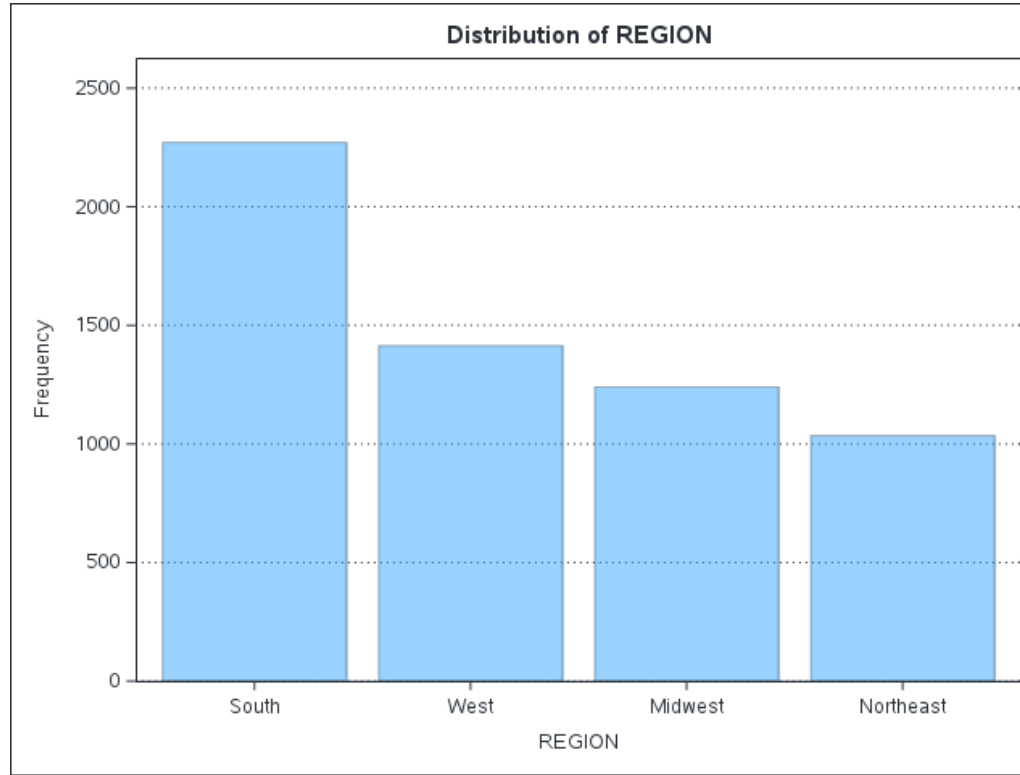
STATE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Washington	139	2.33	3684	61.81
Arizona	129	2.16	3813	63.98
Massachusetts	126	2.11	3939	66.09
Tennessee	124	2.08	4063	68.17
Indiana	122	2.05	4185	70.22
Maryland	111	1.86	4296	72.08
Missouri	111	1.86	4407	73.94
Wisconsin	106	1.78	4513	75.72
Colorado	104	1.74	4617	77.47
Minnesota	103	1.73	4720	79.19
South Carolina	92	1.54	4812	80.74
Alabama	90	1.51	4902	82.25
Louisiana	84	1.41	4986	83.66
Kentucky	81	1.36	5067	85.02
Oregon	76	1.28	5143	86.29
Oklahoma	71	1.19	5214	87.48
Connecticut	65	1.09	5279	88.57
Utah	59	0.99	5338	89.56
Iowa	57	0.96	5395	90.52
Nevada	56	0.94	5451	91.46
Arkansas	54	0.91	5505	92.37
Kansas	53	0.89	5558	93.26
Mississippi	53	0.89	5611	94.14
New Mexico	38	0.64	5649	94.78
Nebraska	35	0.59	5684	95.37
Idaho	33	0.55	5717	95.92
West Virginia	32	0.54	5749	96.46
Hawaii	26	0.44	5775	96.90
New Hampshire	25	0.42	5800	97.32
Maine	24	0.40	5824	97.72
Montana	20	0.34	5844	98.05
Rhode Island	20	0.34	5864	98.39
Delaware	18	0.30	5882	98.69
South Dakota	16	0.27	5898	98.96
North Dakota	14	0.23	5912	99.19
Alaska	13	0.22	5925	99.41
District of Columbia	12	0.20	5937	99.61
Vermont	12	0.20	5949	99.82
Wyoming	11	0.18	5960	100.00



DIVISION	Frequency	Percent	Cumulative Frequency	Cumulative Percent
South Atlantic	1189	19.95	1189	19.95
Pacific	964	16.17	2153	36.12
East North Central	851	14.28	3004	50.40
Middle Atlantic	763	12.80	3767	63.20
West South Central	734	12.32	4501	75.52
Mountain	450	7.55	4951	83.07
West North Central	389	6.53	5340	89.60
East South Central	348	5.84	5688	95.44
New England	272	4.56	5960	100.00



REGION	Frequency	Percent	Cumulative Frequency	Cumulative Percent
South	2271	38.10	2271	38.10
West	1414	23.72	3685	61.83
Midwest	1240	20.81	4925	82.63
Northeast	1035	17.37	5960	100.00



The FREQ Procedure

REASON	Frequency
Missing	252
Not Missing	5708

JOB	Frequency
Missing	279
Not Missing	5681

CITY	Frequency
Missing	12
Not Missing	5948

STATE	Frequency
Not Missing	5960

DIVISION	Frequency
----------	-----------

DIVISION	Frequency
Not Missing	5960

REGION	Frequency
Not Missing	5960

BAD	Frequency
Not Missing	5960

LOAN	Frequency
Not Missing	5960

MORTDUE	Frequency
Missing	518
Not Missing	5442

VALUE	Frequency
Missing	112
Not Missing	5848

YOJ	Frequency
Missing	515
Not Missing	5445

DEROG	Frequency
Missing	708
Not Missing	5252

DELINQ	Frequency
Missing	580
Not Missing	5380

CLAGE	Frequency
Missing	308
Not Missing	5652

NINQ	Frequency
Missing	510

NINQ	Frequency
Not Missing	5450

CLNO	Frequency
Missing	222
Not Missing	5738

DEBTINC	Frequency
Missing	1267
Not Missing	4693

APPDATE	Frequency
Not Missing	5960

MeanYOJ	MeanMORTDUE	MeanVALUE	MeanDEBTINC
9	73761	101776	34

The FREQ Procedure

REASON	Frequency
Missing	252
Not Missing	5708

JOB	Frequency
Missing	279
Not Missing	5681

STATE	Frequency
Not Missing	5960

DIVISION	Frequency
Not Missing	5960

REGION	Frequency
Not Missing	5960

BAD	Frequency
Not Missing	5960

LOAN	Frequency
Not Missing	5960

MORTDUE	Frequency
Not Missing	5960

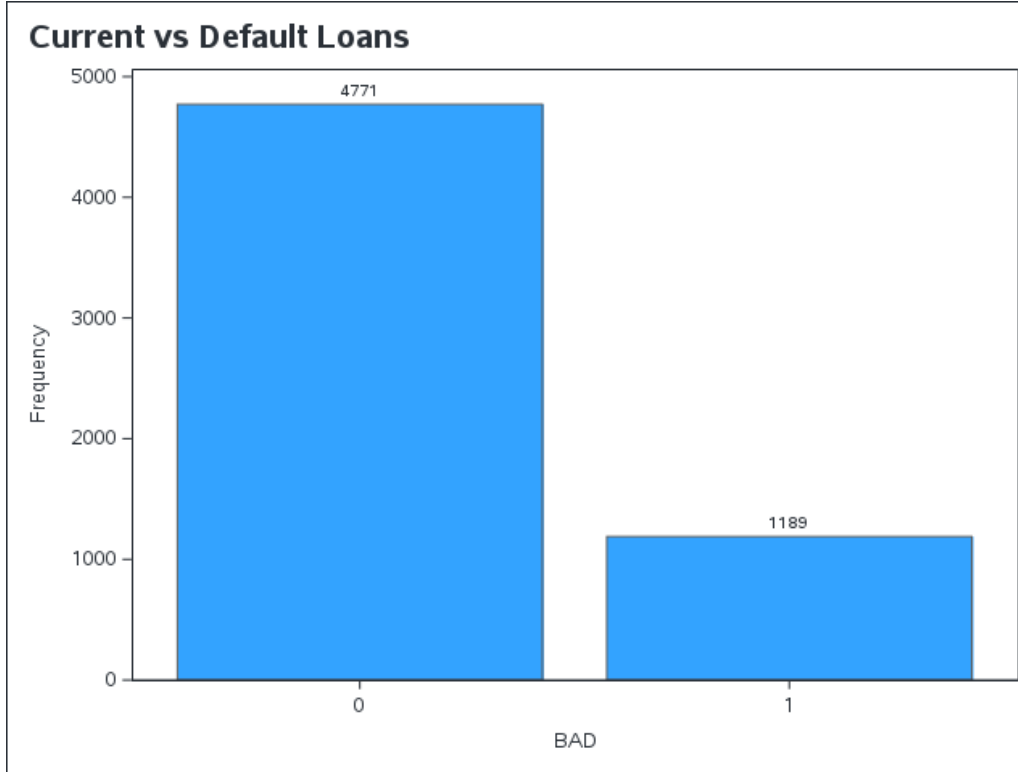
VALUE	Frequency
Not Missing	5960

YOJ	Frequency
Not Missing	5960

DEBTINC	Frequency
Not Missing	5960

APPDATE	Frequency
Not Missing	5960

Obs	BAD	LOAN	MORTDUE	VALUE	REASON	JOB	YOJ	DEBTINC	APPDATE	STATE	DIVISION	REGION
1	1	1100	25860	39025	Homelmp	Other	10.5	34	05MAY2020	Wisconsin	East North Central	Midwest
2	1	1300	70053	68400	Homelmp	Other	7	34	10NOV2020	Maryland	South Atlantic	South
3	1	1500	13500	16700	Homelmp	Other	4	34	31JUL2018	Washington	Pacific	West
4	1	1500	73761	101776			9	34	25OCT2020	Florida	South Atlantic	South
5	0	1700	97800	112000	Homelmp	Office	3	34	18FEB2021	California	Pacific	West
6	1	1700	30548	40320	Homelmp	Other	9	37	16DEC2018	Washington	Pacific	West
7	1	1800	48649	57037	Homelmp	Other	5	34	22JAN2020	Florida	South Atlantic	South
8	1	1800	28502	43034	Homelmp	Other	11	37	12SEP2019	Washington	Pacific	West
9	1	2000	32700	46740	Homelmp	Other	3	34	24JUN2019	Washington	Pacific	West
10	1	2000	73761	62250	Homelmp	Sales	16	34	13JUN2019	New Jersey	Middle Atlantic	Northeast



Current vs Default Loans

The LOGISTIC Procedure

Model Information	
Data Set	WORK.FINAL_HOME_EQUITY
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	5536

Response Profile		
Ordered Value	BAD	Total Frequency
1	0	4408
2	1	1128

Probability modeled is BAD='1'.

Note: 424 observations were deleted due to missing values for the response or explanatory variables.

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

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	5599.639	5376.438
SC	5606.258	5455.866
-2 Log L	5597.639	5352.438

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	245.2014	11	<.0001
Score	237.8228	11	<.0001
Wald	215.2625	11	<.0001

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
LOAN	1	35.9456	<.0001
MORTDUE	1	18.9778	<.0001
VALUE	1	7.0495	0.0079
REASON	1	3.1151	0.0776
JOB	5	65.1466	<.0001
YOJ	1	13.5376	0.0002
DEBTINC	1	75.1116	<.0001

Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq

Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept		1	-1.6218	0.2699	36.1084	<.0001
LOAN		1	-0.00002	3.976E-6	35.9456	<.0001
MORTDUE		1	-5.76E-6	1.322E-6	18.9778	<.0001
VALUE		1	2.534E-6	9.545E-7	7.0495	0.0079
REASON	DebtCon	1	-0.1345	0.0762	3.1151	0.0776
JOB	Mgr	1	-0.3659	0.1967	3.4587	0.0629
JOB	Office	1	-1.0851	0.2008	29.1945	<.0001
JOB	Other	1	-0.4303	0.1841	5.4597	0.0195
JOB	ProfExe	1	-0.7374	0.1910	14.9004	0.0001
JOB	Sales	1	0.0704	0.2747	0.0656	0.7979
YOJ		1	-0.0185	0.00502	13.5376	0.0002
DEBTINC		1	0.0477	0.00550	75.1116	<.0001

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
LOAN	1.000	1.000	1.000
MORTDUE	1.000	1.000	1.000
VALUE	1.000	1.000	1.000
REASON DebtCon vs Homelmp	0.874	0.753	1.015
JOB Mgr vs Self	0.694	0.472	1.020
JOB Office vs Self	0.338	0.228	0.501
JOB Other vs Self	0.650	0.453	0.933
JOB ProfExe vs Self	0.478	0.329	0.696
JOB Sales vs Self	1.073	0.626	1.838
YOJ	0.982	0.972	0.991
DEBTINC	1.049	1.038	1.060

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	64.6	Somers' D	0.292
Percent Discordant	35.4	Gamma	0.292
Percent Tied	0.0	Tau-a	0.095
Pairs	4972224	c	0.646

Store Information	
Item Store	WORK.MYMODEL
Data Set Created From	WORK.FINAL_HOME_EQUITY
Created By	PROC LOGISTIC
Date Created	09JAN24:22:14:40
Response Variable	BAD
Link Function	Logit
Distribution	Binary
Class Variables	REASON JOB BAD
Model Effects	Intercept LOAN MORTDUE VALUE REASON JOB YOJ DEBTINC

Current vs Default Loans

Obs	BAD	LOAN	MORTDUE	VALUE	REASON	JOB	YOJ	DEBTINC	APPDATE	STATE	DIVISION	REGION	Predicted	LCLM	UCLM
1	1	1100	25860	39025	Homelmp	Other	10.5	34	05MAY2020	Wisconsin	East North Central	Midwest	0.33144	0.29521	0.36978
2	1	1300	70053	68400	Homelmp	Other	7	34	10NOV2020	Maryland	South Atlantic	South	0.30538	0.27093	0.34215
3	1	1500	13500	16700	Homelmp	Other	4	34	31JUL2018	Washington	Pacific	West	0.35975	0.31954	0.40203
4	1	1500	73761	101776			9	34	25OCT2020	Florida	South Atlantic	South	.	.	.
5	0	1700	97800	112000	Homelmp	Office	3	34	18FEB2021	California	Pacific	West	0.18824	0.15378	0.22834
6	1	1700	30548	40320	Homelmp	Other	9	37	16DEC2018	Washington	Pacific	West	0.36147	0.32371	0.40102
7	1	1800	48649	57037	Homelmp	Other	5	34	22JAN2020	Florida	South Atlantic	South	0.33130	0.29644	0.36813
8	1	1800	28502	43034	Homelmp	Other	11	37	12SEP2019	Washington	Pacific	West	0.35671	0.31866	0.39666
9	1	2000	32700	46740	Homelmp	Other	3	34	24JUN2019	Washington	Pacific	West	0.35335	0.31567	0.39295
10	1	2000	73761	62250	Homelmp	Sales	16	34	13JUN2019	New Jersey	Middle Atlantic	Northeast	0.36790	0.27199	0.47554
11	1	2000	22608	101776			18	34	20JUL2020	California	Pacific	West	.	.	.
12	1	2000	20627	29800	Homelmp	Office	11	34	10APR2017	Florida	South Atlantic	South	0.20094	0.16520	0.24217
13	1	2000	45000	55000	Homelmp	Other	3	34	07JUN2021	Wisconsin	East North Central	Midwest	0.34204	0.30566	0.38037
14	0	2000	64536	87400		Mgr	2.5	34	22JUN2021	Pennsylvania	Middle Atlantic	Northeast	.	.	.
15	1	2100	71000	83850	Homelmp	Other	8	34	05NOV2017	Michigan	East North Central	Midwest	0.30456	0.27104	0.34029
16	1	2200	24280	34687	Homelmp	Other	9	34	31JAN2019	California	Pacific	West	0.33135	0.29595	0.36876
17	1	2200	90957	102600	Homelmp	Mgr	7	34	17DEC2019	Illinois	East North Central	Midwest	0.30734	0.26141	0.35744
18	1	2200	23030	101776			19	4	18APR2019	California	Pacific	West	.	.	.
19	1	2300	28192	40150	Homelmp	Other	4.5	34	18MAY2019	Alaska	Pacific	West	0.34752	0.31079	0.38616
20	0	2300	102370	120953	Homelmp	Office	2	32	09NOV2021	Texas	West South Central	South	0.17418	0.14119	0.21298
21	1	2300	37626	46200	Homelmp	Other	3	34	14AUG2017	Pennsylvania	Middle Atlantic	Northeast	0.34497	0.30828	0.38360
22	1	2400	50000	73395	Homelmp	ProfExe	5	34	18NOV2021	California	Pacific	West	0.27091	0.23186	0.31384
23	1	2400	28000	40800	Homelmp	Mgr	12	34	26MAY2017	Minnesota	West North Central	Midwest	0.33096	0.28152	0.38444
24	1	2400	18000	101776	Homelmp	Mgr	22	34	30JAN2018	Virginia	South Atlantic	South	0.33702	0.27541	0.40472
25	1	2400	73761	17180	Homelmp	Other	9	34	21FEB2019	Georgia	South Atlantic	South	0.26189	0.22348	0.30430