

The LOGISTIC Procedure

Model Information	
Data Set	WORK.BKVALID
Response Variable	RESP
Number of Response Levels	2
Number of Observations	46
Model	binary logit
Optimization Technique	Fisher's scoring

Response Profile		
Ordered Value	RESP	Total Frequency
1	1	21
2	0	25

Probability modeled is RESP='1'.

Model Convergence Status
Iteration limit reached without convergence.

WARNING: Convergence was not attained in 0 iterations. You may want to increase the maximum number of iterations (MAXITER= option) or change the convergence criteria (ABSFCONV=, FCONV=, GCONV=, XCONV= options) in the MODEL statement.

WARNING: The LOGISTIC procedure continues in spite of the above warning. Results shown are based on the last maximum likelihood iteration. Validity of the model fit is questionable.

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	65.421	40.828
SC	67.250	49.971
-2 Log L	63.421	30.828

R-Square	0.5076	Max-rescaled R-Square	0.6786
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Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	32.5937	4	<.0001
Score	22.3037	4	0.0002
Wald	10.8011	4	0.0289

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WARNING: The validity of the model fit is questionable.

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	2.7086	1.6425	2.7194	0.0991
CF_TD	1	-3.0627	4.0829	0.5627	0.4532
NI_TA	1	-2.9378	10.1238	0.0842	0.7717
CA_CL	1	-1.7008	0.7713	4.8622	0.0275
CA_NS	1	1.7572	2.3506	0.5588	0.4547

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
CF_TD	0.047	<0.001	139.709
NI_TA	0.053	<0.001	>999.999
CA_CL	0.183	0.040	0.828
CA_NS	5.796	0.058	580.726

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	93.7	Somers' D	0.876
Percent Discordant	6.1	Gamma	0.878
Percent Tied	0.2	Tau-a	0.444
Pairs	525	c	0.938

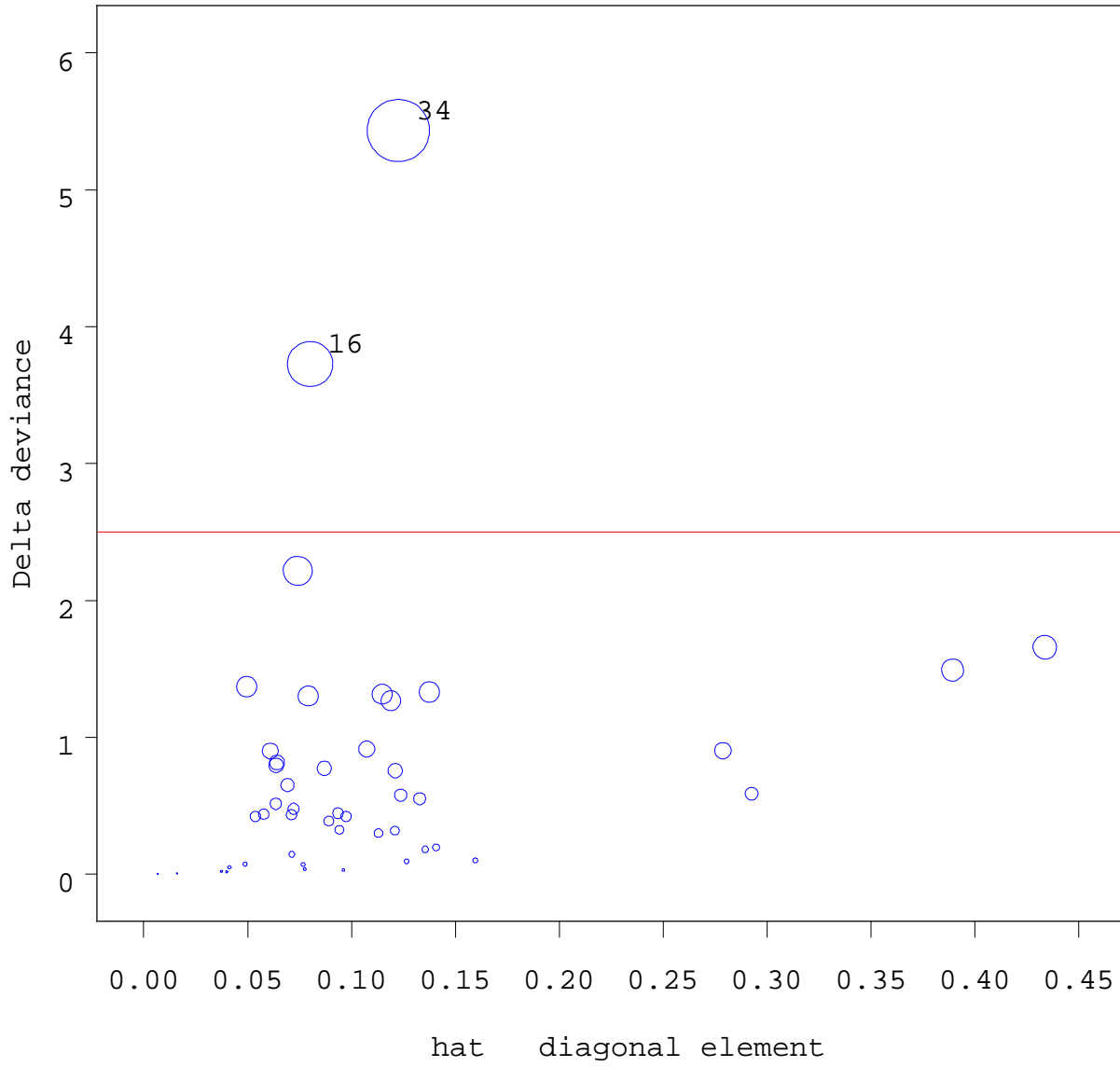
Partition for the Hosmer and Lemeshow Test					
Group	Total	RESP = 1		RESP = 0	
		Observed	Expected	Observed	Expected
1	5	0	0.05	5	4.95
2	5	0	0.52	5	4.48
3	5	1	1.05	4	3.95
4	5	0	1.58	5	3.42
5	5	1	2.14	4	2.86
6	5	4	2.97	1	2.03
7	5	5	3.93	0	1.07
8	5	4	4.26	1	0.74
9	6	6	5.78	0	0.22

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Hosmer and Lemeshow Goodness-of-Fit Test		
Chi-Square	DF	Pr > ChiSq
6.5703	7	0.4750

Outliers and influential observations



Predicted probability - bkvalid data

New Group - cutoff 0.5=0

RESP	CF_TD	NI_TA	CA_CL	CA_NS	ID	Predicted probability	Lower 95% Confidence Limit	Upper 95% Confidence Limit
1	0.1454	0.05	1.8762	0.2723	15	0.35519	0.15298	0.62689
1	0.3703	0.1098	1.9941	0.3828	16	0.18738	0.05272	0.48856
0	0.5135	0.1001	2.4871	0.5368	22	0.07980	0.00602	0.55399
0	0.0769	0.0195	2.0069	0.5304	23	0.48359	0.28114	0.69158
0	0.3776	0.1075	3.2651	0.3548	24	0.02428	0.00187	0.24823
0	0.1933	0.0473	2.2506	0.3309	25	0.21945	0.07850	0.48129
0	0.3248	0.0718	4.2401	0.6279	26	0.00990	0.00022	0.31515
0	0.3132	0.0511	4.45	0.6852	27	0.00845	0.00012	0.37981
0	0.1184	0.0499	2.521	0.6925	28	0.29492	0.08574	0.65102
0	-0.0173	0.0233	2.0538	0.3484	29	0.45317	0.17922	0.75875
0	0.2169	0.0779	2.3489	0.397	30	0.18511	0.06589	0.42246
0	0.1703	0.0695	1.7973	0.5174	31	0.45886	0.21897	0.71945
0	0.146	0.0518	2.1692	0.55	32	0.35120	0.16421	0.59861
0	-0.0985	-0.0123	2.5029	0.5778	33	0.45132	0.16036	0.77986
0	0.1379	0.0728	2.6123	0.5151	35	0.18761	0.05710	0.46824
0	0.1486	0.0564	2.2347	0.5563	36	0.32397	0.14232	0.58054
0	0.1633	0.0486	2.308	0.1978	37	0.18059	0.04301	0.51940
0	0.2907	0.0597	1.8381	0.3786	38	0.30615	0.11187	0.60716
0	0.5383	0.1064	2.3293	0.4835	39	0.08589	0.00677	0.56429
0	-0.333	-0.0854	3.0124	0.473	40	0.42235	0.05087	0.90888
0	0.4785	0.091	1.2444	0.1847	41	0.30656	0.04477	0.80658
0	0.5603	0.1112	4.2918	0.4443	42	0.00286	0.00003	0.22955
0	0.2029	0.0792	1.9936	0.3018	43	0.26776	0.10243	0.53954
0	0.4746	0.138	2.9166	0.4487	44	0.03480	0.00339	0.27661
0	0.1661	0.0351	2.4527	0.137	45	0.13774	0.02164	0.53566
0	0.5808	0.0371	5.0594	0.1268	46	0.00052	0.00000	0.35529

New Group - cutoff 0.5=1

RESP	CF_TD	NI_TA	CA_CL	CA_NS	ID	Predicted probability	Lower 95% Confidence Limit	Upper 95% Confidence Limit
1	-0.4485	-0.4106	1.0865	0.4526	1	0.98574	0.29142	0.99991
1	-0.5633	-0.3114	1.5134	0.1642	2	0.95535	0.32575	0.99895
1	0.0643	0.0156	1.0077	0.3978	3	0.81013	0.48078	0.95160
1	-0.0721	-0.093	1.4544	0.2589	4	0.76564	0.39101	0.94325
1	-0.1002	-0.0917	1.5644	0.6683	5	0.85795	0.51881	0.97129

Predicted probability - bkvalid data

New Group - cutoff 0.5=1

RESP	CF_TD	NI_TA	CA_CL	CA_NS	ID	Predicted probability	Lower 95% Confidence Limit	Upper 95% Confidence Limit
1	-0.1421	-0.0651	0.7066	0.2794	6	0.93240	0.63173	0.99106
1	0.0351	0.0147	1.5046	0.708	7	0.77607	0.38446	0.95057
1	-0.0653	-0.0566	1.3737	0.4032	8	0.80952	0.56169	0.93375
1	0.0724	-0.0076	1.3723	0.3361	9	0.68259	0.42630	0.86156
1	-0.1353	-0.1433	1.4196	0.4347	10	0.86913	0.48496	0.97910
1	-0.2298	-0.2961	0.331	0.1824	11	0.98270	0.46406	0.99973
1	0.0713	0.0205	1.3124	0.2497	12	0.65397	0.32892	0.87934
1	0.0109	0.0011	2.1495	0.6969	13	0.55986	0.24576	0.83237
1	-0.2777	-0.2316	1.1918	0.6601	14	0.96683	0.58476	0.99835
1	-0.0757	-0.0821	1.5077	0.4215	17	0.79542	0.51326	0.93479
1	0.0451	0.0263	1.6756	0.9494	18	0.78777	0.21739	0.98024
1	0.0115	-0.0032	1.2602	0.6038	19	0.83207	0.50883	0.95951
1	0.1227	0.1055	1.1434	0.1655	20	0.59120	0.10732	0.94564
1	-0.2843	-0.2703	1.2722	0.5128	21	0.95733	0.41637	0.99858
0	0.1398	-0.0312	0.4611	0.2643	34	0.88617	0.47304	0.98541