

The LOGISTIC Procedure

Model Information	
Data Set	WORK.DATA
Response Variable	Category
Number of Response Levels	39
Model	cumulative logit
Optimization Technique	Fisher's scoring

Number of Observations Read	878048
Number of Observations Used	878047

Response Profile		
Ordered Value	Category	Total Frequency
1	0	42214
2	1	126182
3	2	174900
4	3	53781
5	4	44724
6	5	92304
7	6	23000
8	7	76876
9	8	8555
10	9	36755
11	10	31414
12	11	4280
13	12	10608
14	13	53971
15	14	4540
16	15	9985
17	16	7326
18	17	25989
19	18	16679
20	19	2341
21	20	1946
22	21	2268
23	22	4388
24	23	7484
25	24	4320

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Response Profile		
Ordered Value	Category	Total Frequency
26	25	1513
27	26	491
28	27	1903
29	28	289
30	29	1166
31	30	508
32	31	1225
33	32	148
34	33	256
35	34	146
36	35	406
37	36	6
38	37	3138
39	38	22

Probabilities modeled are cumulated over the lower Ordered Values.

Note: 1 observation was deleted due to missing values for the response or explanatory variables.

Backward Elimination Procedure

Step 0. 49 effects were entered.

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

Score Test for the Proportional Odds Assumption		
Chi-Square	DF	Pr > ChiSq
753663.651	370	<.0001

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	4706974.0	4688469.4
SC	4707418.1	4689030.3
-2 Log L	4706898.0	4688373.4

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Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	18524.6491	10	<.0001
Score	16906.6394	10	<.0001
Wald	19673.9566	10	<.0001

Note: Seconds was removed because of its redundancy.

Step 1. Effect PdDistrict is removed:

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

Score Test for the Proportional Odds Assumption		
Chi-Square	DF	Pr > ChiSq
629619.447	333	<.0001

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	4706974.0	4688467.6
SC	4707418.1	4689016.8
-2 Log L	4706898.0	4688373.6

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	18524.4472	9	<.0001
Score	16903.1251	9	<.0001
Wald	19675.5232	9	<.0001

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
0.2181	1	0.6405

Step 2. Effect Y is removed:

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

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Score Test for the Proportional Odds Assumption		
Chi-Square	DF	Pr > ChiSq
616885.869	296	<.0001

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	4706974.0	4688466.0
SC	4707418.1	4689003.5
-2 Log L	4706898.0	4688374.0

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	18524.0751	8	<.0001
Score	16902.8641	8	<.0001
Wald	19674.8333	8	<.0001

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
0.5962	2	0.7422

Note: No (additional) effects met the 0.05 significance level for removal from the model.

Summary of Backward Elimination					
Step	Effect Removed	DF	Number In	Wald Chi-Square	Pr > ChiSq
1	PdDistrict	1	9	0.2190	0.6398
2	Y	1	8	0.3516	0.5532

Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	0	1	69.0850	7.6249	82.0919	<.0001
Intercept	1	1	70.6385	7.6249	85.8252	<.0001
Intercept	2	1	71.6413	7.6249	88.2789	<.0001
Intercept	3	1	71.8962	7.6249	88.9083	<.0001
Intercept	4	1	72.1036	7.6249	89.4218	<.0001
Intercept	5	1	72.5361	7.6249	90.4978	<.0001
Intercept	6	1	72.6484	7.6249	90.7781	<.0001

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Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	7	1	73.0551	7.6249	91.7973	<.0001
Intercept	8	1	73.1046	7.6249	91.9218	<.0001
Intercept	9	1	73.3324	7.6249	92.4954	<.0001
Intercept	10	1	73.5521	7.6249	93.0506	<.0001
Intercept	11	1	73.5844	7.6249	93.1322	<.0001
Intercept	12	1	73.6671	7.6249	93.3417	<.0001
Intercept	13	1	74.1836	7.6249	94.6552	<.0001
Intercept	14	1	74.2381	7.6249	94.7942	<.0001
Intercept	15	1	74.3667	7.6249	95.1228	<.0001
Intercept	16	1	74.4702	7.6249	95.3878	<.0001
Intercept	17	1	74.9250	7.6249	96.5566	<.0001
Intercept	18	1	75.3474	7.6249	97.6482	<.0001
Intercept	19	1	75.4220	7.6249	97.8416	<.0001
Intercept	20	1	75.4881	7.6249	98.0132	<.0001
Intercept	21	1	75.5705	7.6249	98.2274	<.0001
Intercept	22	1	75.7505	7.6249	98.6958	<.0001
Intercept	23	1	76.1525	7.6249	99.7461	<.0001
Intercept	24	1	76.4835	7.6249	100.6150	<.0001
Intercept	25	1	76.6302	7.6249	101.0014	<.0001
Intercept	26	1	76.6827	7.6249	101.1399	<.0001
Intercept	27	1	76.9165	7.6249	101.7574	<.0001
Intercept	28	1	76.9572	7.6249	101.8652	<.0001
Intercept	29	1	77.1403	7.6249	102.3503	<.0001
Intercept	30	1	77.2317	7.6249	102.5929	<.0001
Intercept	31	1	77.4934	7.6249	103.2893	<.0001
Intercept	32	1	77.5301	7.6249	103.3873	<.0001
Intercept	33	1	77.5970	7.6249	103.5657	<.0001
Intercept	34	1	77.6372	7.6250	103.6731	<.0001
Intercept	35	1	77.7584	7.6250	103.9968	<.0001
Intercept	36	1	77.7603	7.6250	104.0019	<.0001
Intercept	37	1	82.7309	7.6279	117.6319	<.0001
Day		1	0.00102	0.000212	22.9776	<.0001
DayOfWeek		1	0.00427	0.000945	20.4003	<.0001
Hour		1	0.0131	0.000285	2112.2936	<.0001
Minutes		1	0.000777	0.000100	59.9855	<.0001

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Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Month		1	-0.00314	0.000544	33.3539	<.0001
Resolution		1	-0.1192	0.000924	16641.8160	<.0001
X		1	0.7219	0.0618	136.6692	<.0001
Year		1	0.00809	0.000514	248.0335	<.0001

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Day	1.001	1.001	1.001
DayOfWeek	1.004	1.002	1.006
Hour	1.013	1.013	1.014
Minutes	1.001	1.001	1.001
Month	0.997	0.996	0.998
Resolution	0.888	0.886	0.889
X	2.058	1.824	2.323
Year	1.008	1.007	1.009

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	50.5	Somers' D	0.060
Percent Discordant	44.5	Gamma	0.063
Percent Tied	5.0	Tau-a	0.054
Pairs	348055469472	c	0.530