Logistic Regression Results

The LOGISTIC Procedure

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

Number of Observations Read	26444
Number of Observations Used	26444

Response Profile		
Ordered Value	HighPayment	Total Frequency
1	0	14141
2	1	12303

Probability modeled is HighPayment='1'.

Class Level Information							
Class	Value	Design Variables					
BodyPartRegion	Head	1	0	0	0	0	0
	Lower Extremities	0	1	0	0	0	0
	Multiple Body Parts	0	0	1	0	0	0
	Neck	0	0	0	1	0	0
	Non-Standard Code	0	0	0	0	1	0
	Trunk	0	0	0	0	0	1
	Upper Extremities	0	0	0	0	0	0
ClaimantType	Indemnity	1	0				
	Medical Only	0	1				
	Report Only	-1	-1				
Gender	Female	1	0				
	Male	0	1				
	Not Available	-1	-1				
IsDenied	0	1					
	1	-1					
IsFatality	0	1					
	1	-1					

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	36533.314	1901.200
SC	36541.497	2040.307
-2 Log L	36531.314	1867.200

R-Square	0.7304	Max-rescaled R-Square	0.9755

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Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	34664.1141	16	<.0001
Score	10966.1241	16	<.0001
Wald	953.8861	16	<.0001

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
ClaimantAge_at_DOI	1	0.0896	0.7647
OtherPaid	1	1.3204	0.2505
TotalPaid	1	681.8228	<.0001
AvgWeeklyWage	1	0.2564	0.6126
BodyPartRegion	6	1.6177	0.9513
ClaimantType	2	0.5071	0.7760
Gender	2	0.7914	0.6732
IsDenied	1	0.9599	0.3272
IsFatality	1	0.0005	0.9823

Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept		1	-27.7824	138.3	0.0403	0.8408
ClaimantAge_at_DOI		1	-0.00154	0.00516	0.0896	0.7647
OtherPaid		1	0.000968	0.000842	1.3204	0.2505
TotalPaid		1	0.0408	0.00156	681.8228	<.0001
AvgWeeklyWage		1	-0.00013	0.000264	0.2564	0.6126
BodyPartRegion	Head	1	-0.0442	0.2121	0.0435	0.8348
BodyPartRegion	Lower Extremities	1	-0.0126	0.1584	0.0063	0.9368
BodyPartRegion	Multiple Body Parts	1	0.0213	0.2086	0.0105	0.9185
BodyPartRegion	Neck	1	0.2355	0.2988	0.6209	0.4307
BodyPartRegion	Non-Standard Code	1	-0.6197	0.9040	0.4700	0.4930
BodyPartRegion	Trunk	1	0.1043	0.1835	0.3233	0.5697
ClaimantType	Indemnity	1	0.2741	116.8	0.0000	0.9981
ClaimantType	Medical Only	1	0.1173	116.8	0.0000	0.9992
Gender	Female	1	0.2857	0.3521	0.6582	0.4172
Gender	Male	1	0.3120	0.3517	0.7869	0.3750
IsDenied	0	1	-0.1336	0.1364	0.9599	0.3272
IsFatality	0	1	-1.6435	74.1010	0.0005	0.9823

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	99.9	Somers' D	0.998
Percent Discordant	0.1	Gamma	0.999
Percent Tied	0.0	Tau-a	0.497
Pairs	173976723	c	0.999

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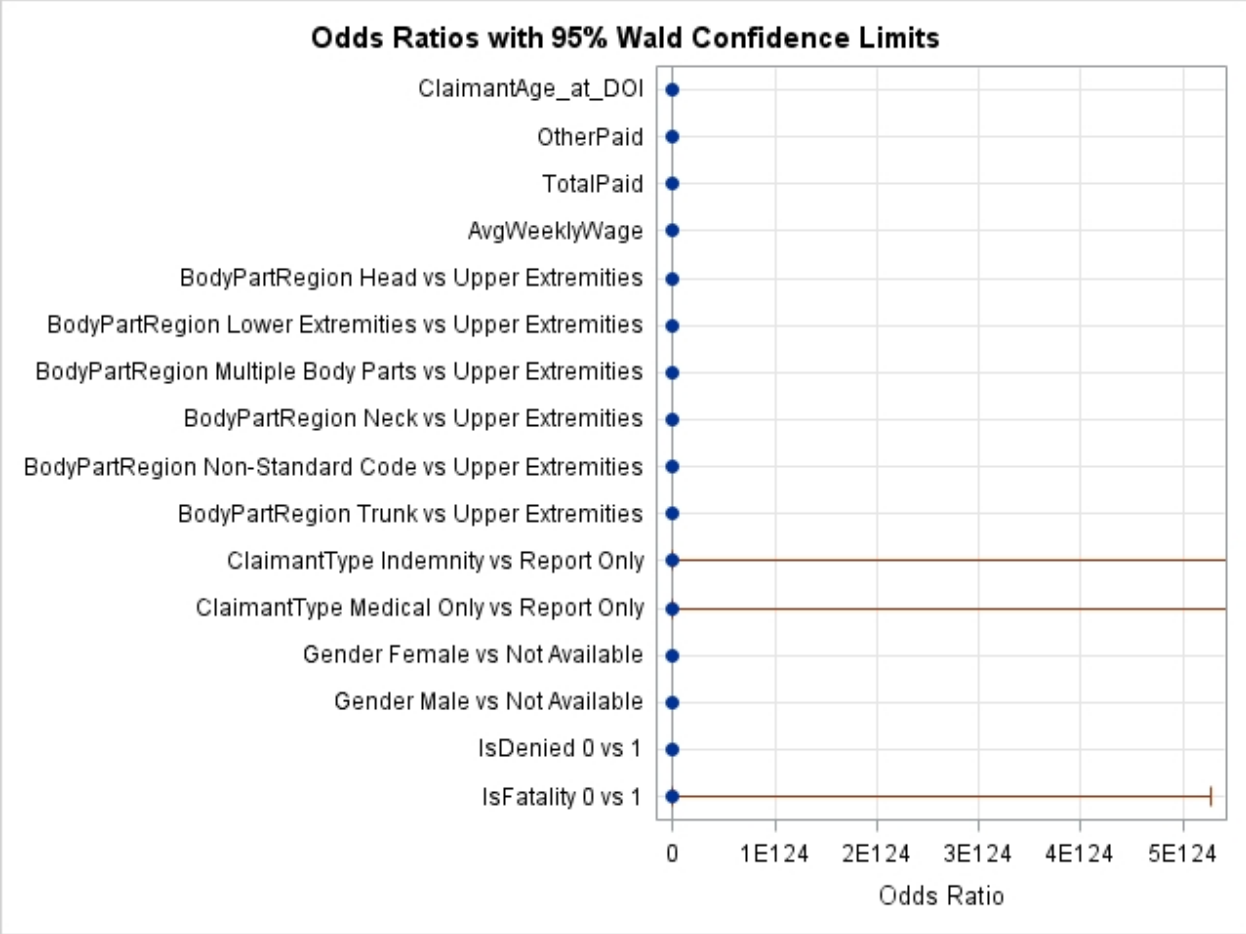
Odds Ratio Estimates and Wald Confidence Intervals				
Effect	Unit	Estimate	95% Confidence Limits	
ClaimantAge_at_DOI	1.0000	0.998	0.988	1.009
OtherPaid	1.0000	1.001	0.999	1.003
TotalPaid	1.0000	1.042	1.038	1.045
AvgWeeklyWage	1.0000	1.000	0.999	1.000
BodyPartRegion Head vs Upper Extremities	1.0000	0.957	0.631	1.450
BodyPartRegion Lower Extremities vs Upper Extremities	1.0000	0.988	0.724	1.347
BodyPartRegion Multiple Body Parts vs Upper Extremities	1.0000	1.022	0.679	1.538
BodyPartRegion Neck vs Upper Extremities	1.0000	1.266	0.705	2.273
BodyPartRegion Non-Standard Code vs Upper Extremities	1.0000	0.538	0.091	3.165
BodyPartRegion Trunk vs Upper Extremities	1.0000	1.110	0.775	1.590
ClaimantType Indemnity vs Report Only	1.0000	1.946	<0.001	>999.999
ClaimantType Medical Only vs Report Only	1.0000	1.663	<0.001	>999.999
Gender Female vs Not Available	1.0000	2.419	0.314	18.638
Gender Male vs Not Available	1.0000	2.483	0.323	19.117
IsDenied 0 vs 1	1.0000	0.765	0.448	1.307
IsFatality 0 vs 1	1.0000	0.037	<0.001	>999.999

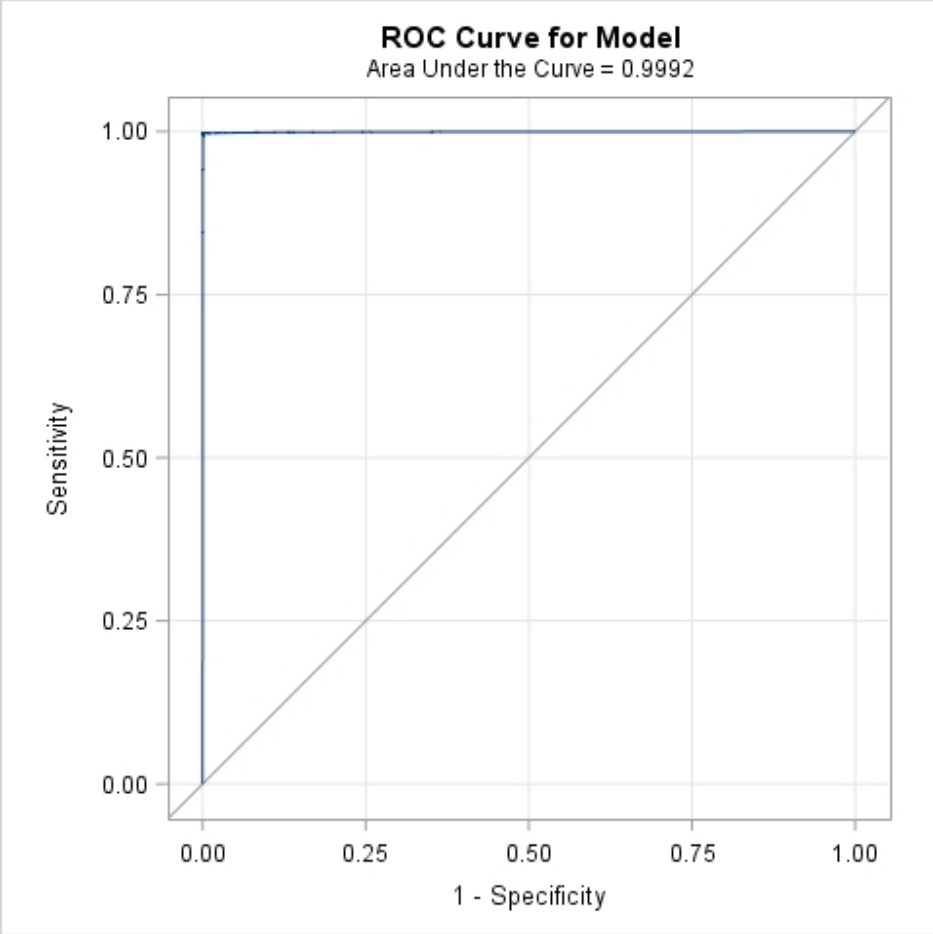
Logistic Regression Results

The LOGISTIC Procedure



Logistic Regression Results

The LOGISTIC Procedure



Partition for the Hosmer and Lemeshow Test					
		HighPayment = 1		HighPayment = 0	
Group	Total	Observed	Expected	Observed	Expected
1	8018	4	0.01	8014	8017.99
2	2640	6	0.04	2634	2639.96
3	2644	12	19.20	2632	2624.80
4	2644	1788	1785.90	856	858.10
5	1291	1290	1290.85	1	0.15
6	9207	9203	9206.99	4	0.01

Hosmer and Lemeshow Goodness-of-Fit Test		
Chi-Square	DF	Pr > ChiSq
4686.2993	4	<.0001

Note: In calculating the Expected values, predicted probabilities less than 1E-6 and greater than 0.999999 were changed to 1E-6 and 0.999999 respectively.

Logistic Regression Results

The LOGISTIC Procedure

Classification Table

Prob Level	Correct		Incorrect		Percentages				
	Event	Non-Event	Event	Non-Event	Correct	Sensi-tivity	Speci-ficity	False POS	False NEG
0.000	12303	0	14141	0	46.5	100.0	0.0	53.5	.
0.020	12284	12936	1205	19	95.4	99.8	91.5	8.9	0.1
0.040	12282	13168	973	21	96.2	99.8	93.1	7.3	0.2
0.060	12280	13306	835	23	96.8	99.8	94.1	6.4	0.2
0.080	12279	13391	750	24	97.1	99.8	94.7	5.8	0.2
0.100	12277	13470	671	26	97.4	99.8	95.3	5.2	0.2
0.120	12277	13525	616	26	97.6	99.8	95.6	4.8	0.2
0.140	12277	13583	558	26	97.8	99.8	96.1	4.3	0.2
0.160	12276	13647	494	27	98.0	99.8	96.5	3.9	0.2
0.180	12276	13685	456	27	98.2	99.8	96.8	3.6	0.2
0.200	12276	13724	417	27	98.3	99.8	97.1	3.3	0.2
0.220	12275	13763	378	28	98.5	99.8	97.3	3.0	0.2
0.240	12274	13809	332	29	98.6	99.8	97.7	2.6	0.2
0.260	12273	13837	304	30	98.7	99.8	97.9	2.4	0.2
0.280	12272	13870	271	31	98.9	99.7	98.1	2.2	0.2
0.300	12272	13900	241	31	99.0	99.7	98.3	1.9	0.2
0.320	12272	13927	214	31	99.1	99.7	98.5	1.7	0.2
0.340	12271	13950	191	32	99.2	99.7	98.6	1.5	0.2
0.360	12271	13972	169	32	99.2	99.7	98.8	1.4	0.2
0.380	12269	14004	137	34	99.4	99.7	99.0	1.1	0.2
0.400	12269	14029	112	34	99.4	99.7	99.2	0.9	0.2
0.420	12269	14054	87	34	99.5	99.7	99.4	0.7	0.2
0.440	12269	14075	66	34	99.6	99.7	99.5	0.5	0.2
0.460	12269	14093	48	34	99.7	99.7	99.7	0.4	0.2
0.480	12267	14117	24	36	99.8	99.7	99.8	0.2	0.3
0.500	12257	14127	14	46	99.8	99.6	99.9	0.1	0.3
0.520	12239	14131	10	64	99.7	99.5	99.9	0.1	0.5
0.540	12227	14134	7	76	99.7	99.4	100.0	0.1	0.5
0.560	12206	14135	6	97	99.6	99.2	100.0	0.0	0.7
0.580	12186	14135	6	117	99.5	99.0	100.0	0.0	0.8
0.600	12172	14135	6	131	99.5	98.9	100.0	0.0	0.9
0.620	12138	14135	6	165	99.4	98.7	100.0	0.0	1.2
0.640	12114	14135	6	189	99.3	98.5	100.0	0.0	1.3
0.660	12085	14135	6	218	99.2	98.2	100.0	0.0	1.5
0.680	12070	14135	6	233	99.1	98.1	100.0	0.0	1.6
0.700	12045	14135	6	258	99.0	97.9	100.0	0.0	1.8
0.720	12015	14135	6	288	98.9	97.7	100.0	0.0	2.0
0.740	11998	14135	6	305	98.8	97.5	100.0	0.0	2.1
0.760	11972	14135	6	331	98.7	97.3	100.0	0.1	2.3
0.780	11940	14135	6	363	98.6	97.0	100.0	0.1	2.5
0.800	11904	14135	6	399	98.5	96.8	100.0	0.1	2.7

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Classification Table

Prob Level	Correct		Incorrect		Percentages				
	Event	Non-Event	Event	Non-Event	Correct	Sensi-tivity	Speci-ficity	False POS	False NEG
0.820	11875	14135	6	428	98.4	96.5	100.0	0.1	2.9
0.840	11826	14135	6	477	98.2	96.1	100.0	0.1	3.3
0.860	11788	14135	6	515	98.0	95.8	100.0	0.1	3.5
0.880	11749	14135	6	554	97.9	95.5	100.0	0.1	3.8
0.900	11694	14135	6	609	97.7	95.0	100.0	0.1	4.1
0.920	11629	14135	6	674	97.4	94.5	100.0	0.1	4.6
0.940	11549	14136	5	754	97.1	93.9	100.0	0.0	5.1
0.960	11437	14136	5	866	96.7	93.0	100.0	0.0	5.8
0.980	11273	14136	5	1030	96.1	91.6	100.0	0.0	6.8
1.000	0	14141	0	12303	53.5	0.0	100.0	.	46.5