LOGISTIC MODEL (2):Unsafe=Weight Region Size

The LOGISTIC Procedure

Model Information	
Data Set	STAT1.SAFETY
Response Variable	Unsafe
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	96
Number of Observations Used	96

Response Profile		
Ordered Value	Unsafe	Total Frequency
1	0	66
2	1	30

Probability modeled is Unsafe=1.

Class Level Information			
Class	Value	Design Variables	
Region	Asia	0	
	N America	1	
Size	1	1	0
	2	0	1
	3	0	0

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	121.249	94.004
SC	123.813	106.826
-2 Log L	119.249	84.004

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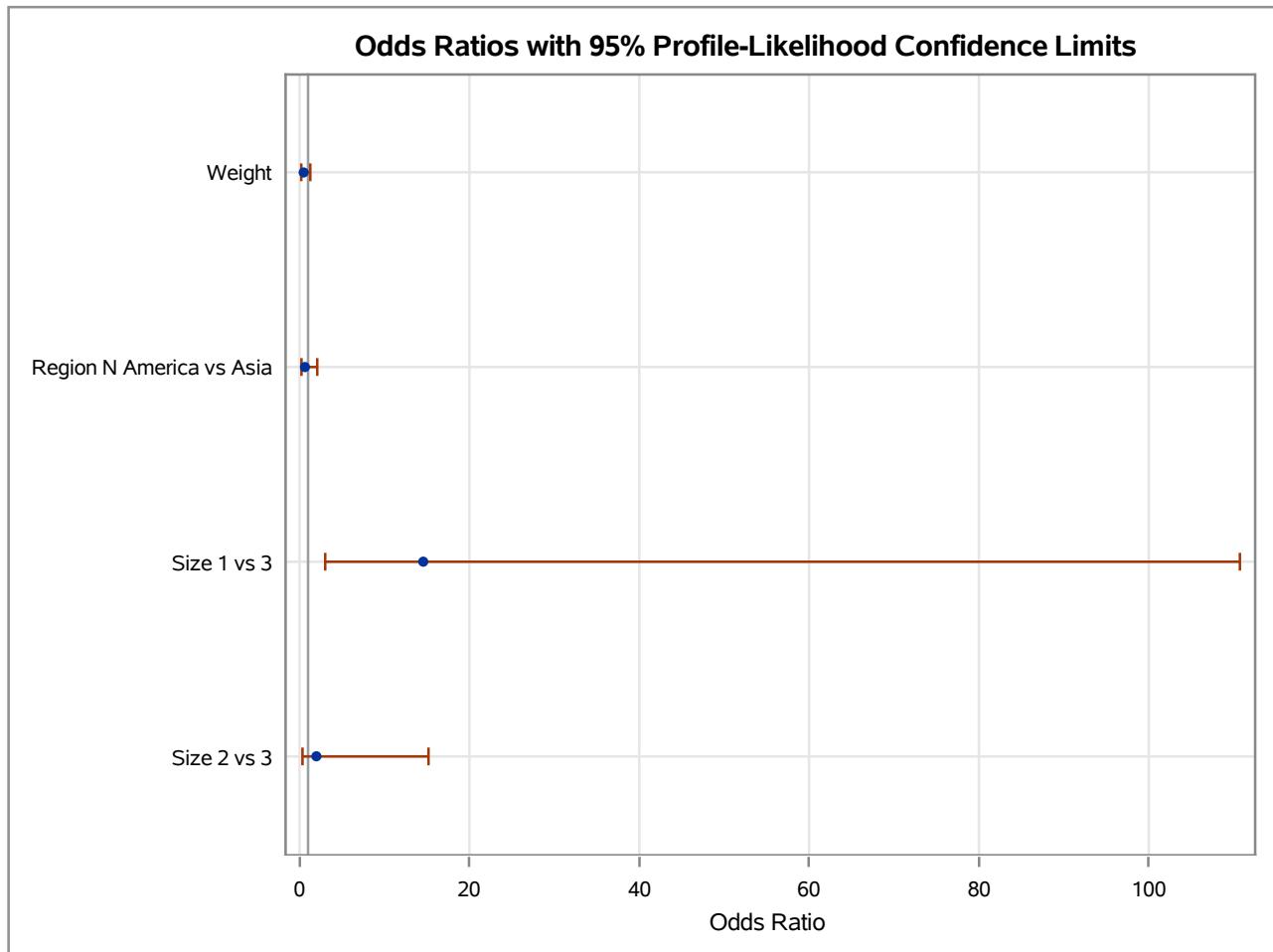
Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	35.2441	4	<.0001
Score	32.8219	4	<.0001
Wald	23.9864	4	<.0001

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
Weight	1	2.1176	0.1456
Region	1	0.4506	0.5020
Size	2	15.3370	0.0005

Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept		1	0.0500	1.8008	0.0008	0.9778
Weight		1	-0.6678	0.4589	2.1176	0.1456
Region	N America	1	-0.3775	0.5624	0.4506	0.5020
Size	1	1	2.6783	0.8810	9.2422	0.0024
Size	2	1	0.6582	0.9231	0.5085	0.4758

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	81.9	Somers' D	0.696
Percent Discordant	12.3	Gamma	0.739
Percent Tied	5.8	Tau-a	0.302
Pairs	1980	c	0.848

Odds Ratio Estimates and Profile-Likelihood Confidence Intervals				
Effect	Unit	Estimate	95% Confidence Limits	
Weight	1.0000	0.513	0.201	1.260
Region N America vs Asia	1.0000	0.686	0.225	2.081
Size 1 vs 3	1.0000	14.560	3.018	110.732
Size 2 vs 3	1.0000	1.931	0.343	15.182

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Odds Ratios with 95% Profile-Likelihood Confidence Limits

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Predicted Probabilities for Unsafe=1