Statistics for Table of death_occur by state_ind

Statistic	DF	Value	Prob
Chi-Square	8	1314.9627	<.0001
Likelihood Ratio Chi-Square	8	1189.5235	<.0001
Mantel-Haenszel Chi-Square	1	8.0881	0.0045
Phi Coefficient		0.0300	
Contingency Coefficient		0.0300	
Cramer's V		0.0300	

Statistics for Table of death_occur by event_ind

Statistic	DF	Value	Prob
Chi-Square	15	16739.4923	<.0001
Likelihood Ratio Chi-Square	15	12070.2618	<.0001
Mantel-Haenszel Chi-Square	1	57.0007	<.0001
Phi Coefficient		0.1071	
Contingency Coefficient		0.1065	
Cramer's V		0.1071	

Statistics for Table of death_occur by season

Statistic	DF	Value	Prob
Chi-Square	3	500.6193	<.0001
Likelihood Ratio Chi-Square	3	469.1665	<.0001
Mantel-Haenszel Chi-Square	1	89.1978	<.0001
Phi Coefficient		0.0185	
Contingency Coefficient		0.0185	
Cramer's V		0.0185	

Variable: YEAR

death_occur	N	Mean	Std Dev	Std Err	Minimum	Maximum
No	1448883	2003.5	11.7342	0.00975	1950.0	2018.0
Yes	9333	2002.4	14.2819	0.1478	1950.0	2018.0
Diff (1-2)		1.0363	11.7523	0.1220		

death_occur	Method	Mean	95% CL Mean		Std Dev	95% CL Std Dev	
No		2003.5	2003.5	2003.5	11.7342	11.7207	11.7477
Yes		2002.4	2002.2	2002.7	14.2819	14.0800	14.4898
Diff (1-2)	Pooled	1.0363	0.7971	1.2755	11.7523	11.7388	11.7658
Diff (1-2)	Satterthwaite	1.0363	0.7459	1.3267			

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	1.46E6	8.49	<.0001
Satterthwaite	Unequal	9413.3	6.99	<.0001

Variable: time_length_hr

death_occur	N	Mean	Std Dev	Std Err	Minimum	Maximum
No	1448883	35.0058	142.3	0.1182	0	8828.0
Yes	9333	24.7434	77.4034	0.8012	0	744.0
Diff (1-2)		10.2624	142.0	1.4745		

death_occur	Method	Mean	95% CL Mean		Std Dev	95% CL Std Dev	
No		35.0058	34.7741	35.2376	142.3	142.2	142.5
Yes		24.7434	23.1729	26.3140	77.4034	76.3088	78.5302
Diff (1-2)	Pooled	10.2624	7.3723	13.1525	142.0	141.8	142.2
Diff (1-2)	Satterthwaite	10.2624	8.6748	11.8500			

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	1.46E6	6.96	<.0001
Satterthwaite	Unequal	9742.8	12.67	<.0001

Variable: tot_injuries

death_occur	N	Mean	Std Dev	Std Err	Minimum	Maximum
No	1448883	0.0538	1.5377	0.00128	0	500.0
Yes	9333	8.7250	47.3750	0.4904	0	1700.0
Diff (1-2)		-8.6711	4.0881	0.0425		

death_occur	Method	Mean	95% CL Mean		Std Dev	95% CL Std Dev	
No		0.0538	0.0513	0.0563	1.5377	1.5359	1.5395
Yes		8.7250	7.7637	9.6862	47.3750	46.7050	48.0646
Diff (1-2)	Pooled	-8.6711	-8.7543	-8.5879	4.0881	4.0834	4.0928
Diff (1-2)	Satterthwaite	-8.6711	-9.6324	-7.7099			

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	1.46E6	-204.25	<.0001
Satterthwaite	Unequal	9332.1	-17.68	<.0001

Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	112897.80	95453.517
SC	112910.00	95819.299
-2 Log L	112895.80	95393.517

Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	17502.2878	29	<.0001
Score	55957.5870	29	<.0001
Wald	10490.0225	29	<.0001

Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
YEAR	1	7.6097	0.0058
time_length_hr	1	73.5056	<.0001
tot_injuries	1	2443.8462	<.0001
state_ind	8	769.5190	<.0001
event_ind	15	6152.6293	<.0001
season	3	39.4265	<.0001

Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept		1	0.3265	2.0200	0.0261	0.8716
YEAR		1	-0.00277	0.00100	7.6097	0.0058
time_length_hr		1	-0.00155	0.000181	73.5056	<.0001
tot_injuries		1	0.0976	0.00197	2443.8462	<.0001
state_ind	Northeast	1	-0.0838	0.0396	4.4883	0.0341
state_ind	Northern Rockies & Plains	1	-0.6243	0.0579	116.1095	<.0001
state_ind	Northwest	1	0.5416	0.0607	79.6593	<.0001
state_ind	South	1	0.2043	0.0336	37.0370	<.0001
state_ind	Southeast	1	0.0566	0.0374	2.2841	0.1307
state_ind	Southwest	1	0.5182	0.0491	111.6015	<.0001
state_ind	Upper Midwest	1	-0.2178	0.0448	23.6598	<.0001
state_ind	West/Pacific	1	0.8532	0.0518	271.7544	<.0001
event_ind	Dryness	1	-1.3763	0.2078	43.8781	<.0001
event_ind	Flood	1	0.5805	0.0890	42.5115	<.0001
event_ind	Fog/Smoke	1	0.3692	0.1243	8.8190	0.0030
event_ind	Hail	1	-4.8831	0.2683	331.3631	<.0001
event_ind	Heat	1	2.3285	0.0912	652.0464	<.0001
event_ind	Hurricane/Trop Storm	1	1.6263	0.1136	205.0388	<.0001
event_ind	Landslide	1	0.6669	0.2420	7.5933	0.0059
event_ind	Thunderstorm	1	-0.4171	0.0895	21.6981	<.0001
event_ind	Tides	1	-9.0823	52.6321	0.0298	0.8630
event_ind	Tornado	1	1.0728	0.0926	134.2322	<.0001
event_ind	Tsunami	1	1.5083	1.0298	2.1451	0.1430
event_ind	Volcanic Ash	1	-9.5948	135.7	0.0050	0.9436
event_ind	Wildfire	1	0.6711	0.1339	25.1289	<.0001
event_ind	Winds	1	-0.4052	0.1022	15.7247	<.0001
event_ind	Winter Weather	1	0.4064	0.0892	20.7542	<.0001
season	Fall	1	0.0503	0.0379	1.7564	0.1851
season	Summer	1	-0.0569	0.0320	3.1578	0.0756
season	Winter	1	0.1680	0.0342	24.0698	<.0001

Odds Ratio Estimates		
Effect	Point Estimate	95% Wald Confidence Limits
YEAR	0.997	0.995 0.999
time_length_hr	0.998	0.998 0.999
tot_injuries	1.103	1.098 1.107
state_ind Northeast vs Central Ohio Valley	0.920	0.851 0.994
state_ind Northern Rockies & Plains vs Central Ohio Valley	0.536	0.478 0.600
state_ind Northwest vs Central Ohio Valley	1.719	1.526 1.936
state_ind South vs Central Ohio Valley	1.227	1.149 1.310
state_ind Southeast vs Central Ohio Valley	1.058	0.983 1.139
state_ind Southwest vs Central Ohio Valley	1.679	1.525 1.848
state_ind Upper Midwest vs Central Ohio Valley	0.804	0.737 0.878
state_ind West/Pacific vs Central Ohio Valley	2.347	2.121 2.598
event_ind Dryness vs Rain	0.253	0.168 0.379
event_ind Flood vs Rain	1.787	1.501 2.128
event_ind Fog/Smoke vs Rain	1.447	1.134 1.846
event_ind Hail vs Rain	0.008	0.004 0.013
event_ind Heat vs Rain	10.263	8.583 12.271
event_ind Hurricane/Trop Storm vs Rain	5.085	4.070 6.353
event_ind Landslide vs Rain	1.948	1.212 3.131
event_ind Thunderstorm vs Rain	0.659	0.553 0.785
event_ind Tides vs Rain	<0.001	<0.001 >999.999
event_ind Tornado vs Rain	2.924	2.438 3.505
event_ind Tsunami vs Rain	4.519	0.600 34.015
event_ind Volcanic Ash vs Rain	<0.001	<0.001 >999.999
event_ind Wildfire vs Rain	1.956	1.505 2.543
event_ind Winds vs Rain	0.667	0.546 0.815
event_ind Winter Weather vs Rain	1.501	1.261 1.788
season Fall vs Spring	1.052	0.976 1.133
season Summer vs Spring	0.945	0.887 1.006
season Winter vs Spring	1.183	1.106 1.265

Frequency Row Pct	Table of death_occur by death_pred		
		death_pred	
death_occur	0	1	Total
No	1448671 99.99	212 0.01	1448883
Yes	8913 95.50	420 4.50	9333
Total	1457584	632	1458216

Obs	YEAR	state_ind	event_ind	time_length_hr	season	tot_injuries	death_occur	death_pred	phat	lcl	ucl
1	1962	South	Hail	0.00000	Fall	0	No	0	0.00006	0.00004	0.00010
2	2002	Northeast	Tornado	0.58333	Spring	122	Yes	1	0.99954	0.99926	0.99971
3	1987	Central Ohio Valley	Thunderstorm	0.00000	Summer	0	Yes	0	0.00350	0.00324	0.00377
4	2014	Northeast	Winter Weather	6.50000	Winter	160	No	1	0.99998	0.99996	0.99999