

Fatal Crash Analysis At The County-level In Tennessee



Data and Results

- Socio-demographic, socio-economic, traffic, and crash data were obtained from US Census Bureau and Tennessee DOT (2008-2012)
- Negative Binomial Analysis

Parameter Estimates

Parameter	Coeff. Estimate	Standard Error	95% Wald Confidence Interval		Hypothesis Test	Sig.
			Lower	Upper	Wald Chi-Square	
Under 18 years	0.001	0.002	-0.003	0.005	0.156	0.693
Age 65+	-0.002	0.003	-0.007	0.003	0.510	0.475
Language	-0.001	0.002	-0.003	0.002	0.129	0.719
Mean Travel Time	-0.005	0.002	-0.008	-0.002	7.959	0.005
Poverty	-0.003	0.001	-0.005	-0.001	5.833	0.016
Population density	0.048	0.020	0.009	0.087	5.718	0.017
Seatbelt Citation	-0.005	0.002	-0.009	-0.001	6.983	0.008

Deviance = 1.182, Pearson chi-square = 1, Adjusted Log Likelihood = -346.98, AIC = 838.15, BIC = 861.14

- Study implications