

Appendix C – Collision Data

INVESTIGAT	COUNTY_NAM	ROADWAY_NU	ROADWAY_NA	ROADV	ROAD	LATITUDE1	LONGITUDE1	MILEPOINT_	COLLISION1	TIME	INTERSECT1	INTEFUNITS_INVO	MOTOR_VEH1	KILLED	INJURED	WEATHER	ROADWAY_C_DIRECTIONS1	MANNER_OF1	LIGHT_CON1	
BARDSTOWN POLICE DEPARTMENT	090	US0150	SPRINGFIELD	RD	E	37.76310000	-85.34870000	7.4730	3/22/2009	0335			1	1	0	0 CLEAR	DRY	COLLISION WITH FIXED OBJECT NON - INTERSECTION - FIRS	SINGLE VEHICLE	DARK-HWY NOT LIGHTED
NELSON COUNTY SHERIFF DEPT.	090	US0150	SPRINGFIELD	RD		37.76320000	-85.34740000	7.5420	12/21/2007	0208			2	2	0	1 RAINING	WET	SIDESWIPE COLLISION - OPPOSITE DIRECTION	SIDESWIPE-OPPOSITE DIRECTION	DARK-HWY NOT LIGHTED
NELSON COUNTY SHERIFF DEPT.	090	US0150	SPRINGFIELD	RD		37.76320000	-85.34710000	7.5580	4/7/2009	1514			1	1	0	0 CLOUDY	DRY	COLLISION WITH FIXED OBJECT NON - INTERSECTION - FIRS	SINGLE VEHICLE	DAYLIGHT
NELSON COUNTY SHERIFF DEPT.	090	US0150	SPRINGFIELD	RD		37.76320000	-85.34530000	7.6650	6/21/2009	1440			2	2	0	0 CLEAR	DRY	REAR END IN TRAFFIC - ONE VEHICLE STOPPED	REAR END	DAYLIGHT
KY STATE POLICE, POST 15	115	US0150	BARDSTOWN	RD		37.76320000	-85.34480000	0.0190	11/25/2009	2018			2	2	0	2 CLOUDY	DRY	1 VEHICLE ENTERING/LEAVING ENTRANCE	ANGLE	DARK-HWY NOT LIGHTED
WASHINGTON CTY SHERIFF DEPT	115	US0150	BARDSTOWN	RD		37.76320000	-85.34430000	0.0500	12/20/2008	1810	CROAKES STATION	RD	2	2	0	0 CLOUDY	DRY	OPPOSING LEFT TURN	OPPOSING LEFT TURN	DARK-HWY NOT LIGHTED
WASHINGTON CTY SHERIFF DEPT	115	US0150	BARDSTOWN	RD		37.76320000	-85.34430000	0.0500	12/4/2009	1910			2	2	0	0 CLEAR	DRY	1 VEHICLE ENTERING/LEAVING ENTRANCE	ANGLE	DARK-HWY NOT LIGHTED
KY STATE POLICE, POST 15	115	US0150	BARDSTOWN	RD		37.76330000	-85.34370000	0.0870	11/11/2009	1600			1	1	0	0 CLOUDY	DRY	OCCUPANT FELL FROM MOVING VEHICLE	SINGLE VEHICLE	DAYLIGHT
KY STATE POLICE, POST 15	115	US0150	BARDSTOWN	RD		37.76320000	-85.34310000	0.1210	4/20/2009	1619	CONNOR	RD	2	2	0	0 CLEAR	DRY	REAR END - OTHER	REAR END	DAYLIGHT
WASHINGTON CTY SHERIFF DEPT	115	US0150	BARDSTOWN	RD		37.76320000	-85.34300000	0.1240	11/20/2009	1954			2	2	0	0 CLEAR	DRY	1 VEHICLE ENTERING/LEAVING ENTRANCE	ANGLE	DARK-HWY NOT LIGHTED
WASHINGTON CTY SHERIFF DEPT	115	US0150	BARDSTOWN	RD		37.76330000	-85.34300000	0.1260	5/16/2009	2159	CONNOR	RD	2	2	0	0 CLEAR	DRY	ANGLE COLLISION - ONE VEHICLE TURNING LEFT	ANGLE	DARK-HWY NOT LIGHTED

Crash Calculations for 0.3 mile Spots

County:	Nelson/Washington
Route:	US150
Period:	6/30/2007 to 5/31/2010

The procedure used below is from The Kentucky Transportation Center, University of Kentucky, College of Engineering, Research Report KTC-09-16/KSP2--09-1F titled "Analysis of Traffic Crash Data in Kentucky (2004-2008).

$$MV = \text{Million Vehicles} = \frac{(AADT) * (\text{No. of Years}) * (365 \text{ days/yr.})}{(10^6)}$$

Functional Class Rate (See table Below)

$$RC = \text{Critical Accident Rate} = (\text{Functional Class Rate}) + K * \sqrt{((\text{Functional Class Rate}) / (MV))} + 1 / (2 * (MV))$$

$$\text{Total Accident Rate} = \frac{\text{Total Number of Accidents}}{MVM}$$

$$\text{Critical Rate Factor} = \frac{\text{Total Accident Rate}}{RC}$$

INPUT

Number of Years = 3

K = 2.576

Functional Class Rates are for 2004 thru 2008

Functional Class Rate Table 3-Year Period		
Highway Type	Rural Acc. Rates	Urban Acc. Rates
One-Lane	0.74	
Two-Lane	0.64	0.94
Three-Lane	0.42	1.44
Four-Lane Divided	0.32	0.88
Four-Lane Undivided	0.69	1.48
Interstate	0.15	0.3
Parkway	0.18	0.31
All	0.44	0.82

Note: Crash rates are in terms of crashes per million vehicles.

INPUT					OUTPUT			
Begin Milepoint	End Milepoint	AADT	Functional Class Rate	Total No. Accidents	MV	RC	Total Acc. Rate	Critical Rate Factor
Nelson Co. 7.512	Washington Co. 23.2	8430	0.64	10	9.23	1.37	1.1	0.79