

South Carolina Roadway Departure Crashes 2004 – 2008

Roadway Departure Crash Definition:

A non-intersection crash which occurs after a vehicle crosses an edge line, a centerline, or otherwise leaves the traveled way. Includes all non-intersection head-on and sideswipe collisions.

NOTE: This is a new definition based on the work of the FHWA Office of Safety Design's Roadway Departure Team Working Group that convened in late 2008 to develop a consistent, clear definition of a Roadway Departure crash. SCDOT is using the terms "roadway departure" crash and "run-off-road" crash synonymously.

What is the extent of the problem?

- In the five-year period, January 1, 2004 – December 31, 2008 there were 134,975 roadway departure (RD) traffic crashes in South Carolina. During this five-year period, the number of RD crashes has remained essentially flat, fluctuating slightly from a low of 25,953 in 2005 to a high of 28,232 in 2008.
- These crashes resulted in the deaths of 2,794 persons. The number of RD crash fatalities has remained fairly constant over this period with the most (612) in 2007 and the fewest (507) in 2006.
- RD crashes resulted in 59,029 non-fatal injuries during the past five years. The trend in RD crash injuries has increased slightly since 2005. The 12,178 injuries in 2008 represent a nearly 11% increase over the 10,994 figure from 2005. The most RD injuries occurred in 2004 – 12,369.

Where Did These Crashes Occur?

- During this five-year period, Greenville County had the highest total number of RD crashes with 11,786, followed by Charleston and Richland counties with 11,469 and 10,567, respectively.
- Greenville also had the most RD fatalities with 171, followed by Lexington, Horry and Charleston with 141, 131 and 130, respectively.
- With 49,152 reported RD crashes during the past five years, secondary routes had more than 36% of the RD crashes, by far the most of any of the five route categories. A distant second were the US Primaries with 24,742 RD crashes. The fewest RD crashes occurred on the County roads with 15,204.
- Secondary routes also had the most RD related fatalities with 1,228, nearly half of the 2,794 total. A distant second was the SC Primary routes with 614. County roads had the fewest RD fatalities with 149.

Who is involved?

- Of the 2,794 persons killed in these crashes, 2,089 (74.8%) were males and 705 (25.2%) were females.
- 415** or 14.9%, of the 2,794 RD fatalities were persons under the age of 20;
- 778** or 27.8%, were age 20-29;
- 484** or 17.3% were 30-39;
- 478**, or 17.1% were 40-49;
- 326**, or 11.7% were 50-59;
- 158** or 5.7% were 60-69;
- 142** or 5.1% were 70 or older. (13 of the fatalities had an unspecified or unknown age).

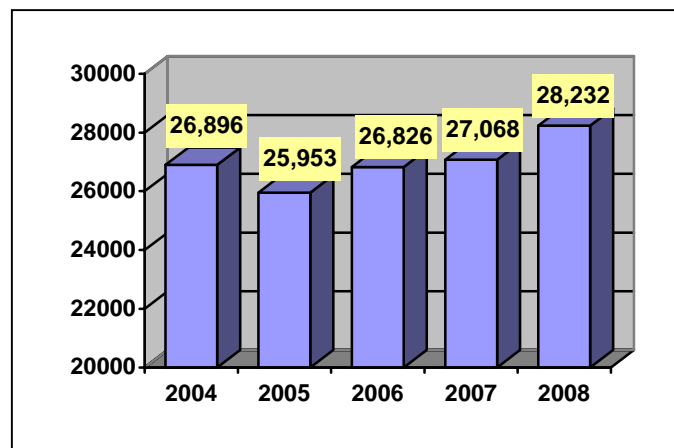
How/Why did these crashes occur?

- ❑ “Driving too fast for Conditions” was the leading probable cause of RD crashes during the past five years with 49,284 crashes. This accounted for more than *one-third* of all RD crashes in the state.
- ❑ The leading probable cause for fatalities in RD crashes was also “Driving Too Fast for Conditions” with 968 fatalities. This was followed closely by “Driving under the Influence with 841 fatalities. All other causes had fewer than 250 fatalities.
- ❑ The leading first harmful event in RD crashes was “Collision with a Motor Vehicle in Transit” with 44,424 crashes, including 534 fatalities. The first harmful event “Collision with Tree” had fewer RD crashes overall, with 18,411 crashes; however, this event accounted for more fatalities with 794. An additional 15,962 RD crashes resulting in 268 fatalities involved a collision with a ditch. The fourth leading first harmful event (third in fatalities) was “Vehicle Overturning” with 11,387 RD crashes and 404 fatalities. The fifth leading first harmful event in RD crashes was “Collision with Median Barrier” with 6,016 crashes; twenty-six (26) fatalities occurred in these RD crashes.

When did these crashes occur?

- ❑ For RD crashes during the last five years, the leading time of day was the “afternoon rush” period from 3:01pm to 6:00pm, with 24,254 crashes. A close second was the “afternoon work” period from 12:01pm – 3:00pm, with 20,271 RD crashes. The fewest RD crashes occurred during the “early morning” period from 3:01am - 6:00am, with 10,985 crashes.
- ❑ The leading period for RD fatalities was the “late night” period from 12:01 - midnight to 3:00am, with 510 fatalities. The second leading period for RD fatalities was the “early night” period from 9:01pm – midnight, with 458 persons killed. The fewest RD fatalities occurred during the “morning work” period from 9:01am – noon, with 184 fatalities, the only one of the eight time periods with fewer than 200 fatalities.
- ❑ December, by a small margin, was the leading month for RD crashes during the past five years with 11,918 crashes. December was followed by June’s total of 11,835 RD crashes. The fewest RD crashes occurred during February with 10,204 crashes.
- ❑ May had the most RD fatalities, with 270 reported. July had the second highest number of RD fatalities, with 256 fatalities reported. The fewest RD fatalities were reported in February, with 202.
- ❑ The leading day of the week, by far, for RD crashes was Saturday with 11,075 crashes, followed by Friday with 9,300 RD crashes. The fewest RD crashes occurred on Wednesday, with 6,971 crashes.
- ❑ The leading day for RD fatalities was Saturday, with 600 fatalities reported. Sunday was the second leading day for RD fatalities, with 503. Wednesday had the fewest RD fatalities, with 296.
- ❑ The leading year for RD crashes was 2008 when 28,232 occurred. The most RD fatalities occurred in 2004, with 612. The lowest number of RD crashes occurred in 2005 with 25,953; the fewest RD fatalities were reported in 2006, with 507.

**RD Crashes
2004 - 2008**



**Road Departure Crashes
SC
2004-2008**

Year	Crash Type			Total	Persons Killed	Persons Injured
	Fatal	Injury	Property Damage Only			
2004	549	8,522	17,825	26,896	612	12,369
2005	525	7,670	17,758	25,953	579	10,994
2006	475	8,226	18,125	26,826	507	11,712
2007	524	8,406	18,138	27,068	582	11,776
2008	472	8,747	19,013	28,232	514	12,178
Totals	2,545	41,571	90,859	134,975	2,794	59,029

**Road Departure Crashes
SC
2004-2008**

County	Crash Type			Total	Persons Killed	Persons Injured
	Fatal	Injury	Property Damage Only			
ABBEVILLE	7	270	347	624	9	373
AIKEN	89	1,495	3,129	4,713	94	2,051
ALLENDALE	9	136	136	281	10	241
ANDERSON	100	1,750	3,459	5,309	106	2,456
BAMBERG	12	200	205	417	12	301
BARNWELL	20	246	287	553	25	357
BEAUFORT	42	763	1,914	2,719	48	1,082
BERKELEY	100	1,329	2,519	3,948	114	1,964
CALHOUN	32	242	647	921	37	340
CHARLESTON	120	3,078	8,271	11,469	130	4,207
CHEROKEE	44	822	1,665	2,531	52	1,177
CHESTER	42	412	714	1,168	44	629
CHESTERFIELD	45	484	558	1,087	46	697
CLARENDON	53	420	784	1,257	58	708
COLLETON	78	788	1,224	2,090	91	1,204
DARLINGTON	53	831	1,435	2,319	59	1,212
DILLON	41	518	996	1,555	45	828
DORCHESTER	58	842	2,026	2,926	63	1,142
EDGEFIELD	19	314	469	802	20	410
FAIRFIELD	44	450	645	1,139	50	700
FLORENCE	81	1,222	3,264	4,567	90	1,785
GEORGETOWN	41	568	863	1,472	45	798
GREENVILLE	157	2,871	8,758	11,786	171	3,910
GREENWOOD	23	689	1,219	1,931	25	939
HAMPTON	26	297	396	719	27	453

(Continued)

**Road Departure Crashes
SC
2004-2008**

County	Crash Type			Total	Persons Killed	Persons Injured
	Fatal	Injury	Property Damage Only			
HORRY	121	2,239	5,641	8,001	131	3,111
JASPER	57	477	1,215	1,749	64	758
KERSHAW	47	622	1,059	1,728	52	870
LANCASTER	44	648	1,045	1,737	49	956
LAURENS	58	1,055	2,094	3,207	61	1,449
LEE	22	298	497	817	25	423
LEXINGTON	125	2,101	4,894	7,120	141	3,016
MCCORMICK	11	123	174	308	11	177
MARION	25	423	564	1,012	32	701
MARLBORO	20	377	522	919	24	557
NEWBERRY	35	544	1,249	1,828	36	777
OCONEE	45	748	1,284	2,077	47	1,006
ORANGEBURG	111	1,242	2,460	3,813	122	1,860
PICKENS	55	1,006	1,916	2,977	57	1,352
RICHLAND	103	2,550	7,914	10,567	109	3,527
SALUDA	17	256	405	678	19	360
SPARTANBURG	125	2,445	5,894	8,464	129	3,320
SUMTER	52	923	1,627	2,602	63	1,375
UNION	17	400	484	901	17	616
WILLIAMSBURG	35	559	616	1,210	42	812
YORK	84	1,498	3,375	4,957	92	2,042
Totals	2,545	41,571	90,859	134,975	2,794	59,029

RD Fatalities by State - 2007

(Based on FARS Figures which differ substantially from state database figures)

California – 2,007	50.5%
Texas – 1,739	51.7%
Florida – 1,220	38.0%
North Carolina – 1,045	62.4%
Georgia – 874	53.3%
Pennsylvania – 847	56.8%
Tennessee – 783	64.7%
Ohio – 713	56.7%
Alabama – 709	63.9%
<i>South Carolina - 674</i>	<i>63.2%</i>
<i>US – 22,080</i>	<i>53.8%</i>

Percentage of Total Fatalities in Right Column

(Four States had RD percentages above 70% - Wyoming (76.7); Vermont (72.7); West Virginia (71.2); and Montana (70.0))

RD Fatalities vs. Non-RD Fatalities 2004 - 2008

