COMMERCIAL VEHICLE SAFETY IN LOUISIANA

An Analysis of Truck Crashes for 2010

Prepared by
Helmut Schneider, Ph.D.
(hschnei@lsu.edu, 225-578-2516)
Highway Safety Research Group
Louisiana State University

May 27, 2011

$Commercial\ Vehicle\ Safety-2010$

TABLE OF CONTENTS

Summary	4
Overview	5
Analysis of Crashes by Month	8
Violations	9
Manner of Collision	11
Interstate Corridors	12
Work-Zone Crashes	
Seat Belt Usage	16
Hazardous Material	16
Distractions	19
Changes of Number of Crashes by Parish	20
Rural CMV Crashes	21
Bus Crashes	22

$Commercial\ Vehicle\ Safety-2010$

LIST OF TABLES

Table 1: CMV Crashes 2006-2010	5
Figure 1: CMV Crashes 2006-2010	
Figure 2: CMV Crashes by Severity: 2006-2010	6
Figure 3: CMV and Non-CMV Fatal Crashes: 2006-2010	7
Figure 4: Fatal CMV Crashes by Year: 2006-2010	7
Table 2: CMV and all Crashes 2006-2010 per 100 Million Miles Traveled	8
Table 3: CMV Crashes by Month in 2010	
Table 4: Violations as Percentage of Drivers and Percent of all Violations	9
Figure 5: CMV and Non-CMV Driver Violations: 2005-2010	10
Table 5: Type of Violation of CMV Driver	10
Table 6: Manner of Collision	11
Figure 6: Interstate 10 Corridor	12
Figure 7: Cumulative Percentage of Interstate 10 Crashes 2010 and 2009	12
Figure 8: Interstate 10 in New Orleans Mileposts 200 to 230	13
Figure 9: Cumulative Percent of Interstate 12 Crashes 2010 and 2009	13
Figure 10: Interstate 12 Crashes	
Figure 11: Interstate 20 Corridor	14
Figure 12: Cumulative Frequency of CMV Crashes on Interstate 20	14
Table 7: Work-Zone CMV Crashes on Interstates (2009-2010)	15
Table 8: Seat Belt Usage	16
Table 9: Hazardous Material Crashes	17
Table 10: Type of Hazardous Material in CMV Crashes	18
Table 11: Distractions	19
Figure 13: Cell Phone Use as a Distraction	19
Table 12: CMV Crashes by Parishes	20
Table 13: CMV Crashes by Highway Type 2010	21
Table 13a: Percentage of Rural CMV Crashes 2010	22
Table 14: CMV Bus Crashes in 2010	
Figure 14: Bus Crashes by Year	23
Figure 15: Bus-Crash Injuries by Year	23

Summary

In 2010, the total number of reported CMV crashes increased by 6% compared to 2009. The number of fatal CMV crashes increased from 74 in 2009 to 93 in 2010, an increase of 26%. The number of injury CMV crashes decreased from 1,596 to 1,578 during the same period, a decline of 1%.

The percentage of CMV drivers in fatal crashes cited for violations increased in 2010 compared to 2009. The percentage of violations in fatal crashes that went to the CMV driver increased from 27% in 2009 to 33% in 2010. Careless operation was the most frequent citation. In injury and property damage crashes, the driver of the CMV was cited for violations 51% of the time. Within this same year, careless operation accounted for the majority of violations committed in association with commercial vehicle crashes. Careless operation made up 37.2% of all violations given to the driver of the CMV and 34.9% given to the driver of the other vehicle. Other violations with relatively high occurrence rates were following too closely at 8.7% and failure to yield at 12.8%.

The manner of collision most common in CMV crashes are rear-end types at 30% and non-collision types (single vehicle crashes) at 19.4%. For fatal crashes, the types were head-on collisions at 26%, rear-end collisions at 21.7%, right angle collisions at 16.3%, and non-collision with motor vehicle at 14%.

During 2010, 25% of all CMV crashes in Louisiana occurred on interstates, 37% occurred on state highways, and 20% occurred on U.S. highways. In 2009, the respective percentages were 25%, 36%, and 21%. From 2009 to 2010, the number of fatal interstate crashes increased from 22 to 23, an increase of 5%. US highway experienced an increase in fatal crashes of 67% and state highways saw an increase of 41%. Thus the overall increase in CMV related fatalities of 26% was largely due to the increase of fatalities on US and State highways with very little changes on interstates.

Fatal CMV crashes in work zones increased by 40% from 2009 to 2010. For 2010, there was a 63% increase in the number of fatal crashes in 5 miles of construction zone from 8 in 2009 to 13 in 2010. Also notable is an increase in all crashes within the 5 miles before and after construction zones, i.e., from 476 in 2009 to 699 in 2010, while the number of crashes within construction zones also increased from 230 in 2009 to 261 in 2010.

Commercial Vehicle Safety – 2010

Overview

Table 1 depicts CMV crashes from 2006 to 2010 and shows that the fatal CMV crashes have increased by 26% from 2009 to 2010. The 5-year change in fatal CMV crashes was -11%. The injury crashes declined by 1% while the PDO crashes increased by 12%. The total CMV crashes increase by 6% from 2009 to 2010 while there was a 5% decline in all vehicle crashes. Fatal CMV crashes as percentage of all fatal crashes have increased in 2010 by 4.6 percentage points from 2009 and the CMV injury as percent of all injury crashes increased by 0.2 percentage points. The fatal CMV crashes as percent of all crashes was about 15%, which is the highest percentage in the past five years. Overall the data indicate that after a two-year decline the CMV crashes are on an upward trend again with fatalities rising the most.

Table 1: CMV Crashes 2006-2010

	Year	2006	2007	2008	2009	2010	1-Year %	5-Year %
	Fatal	105	118	102	74	93	Change 26%	Change
				_				-11%
CMV	Injury	1922	2120	1950	1596	1578	-1%	-18%
Crashes	PDO	2093	2110	2115	1816	2031	12%	-3%
	Total CMV	4120	4348	4167	3486	3702	6%	-10%
	Fatal	2.5%	2.7%	2.4%	2.1%	2.5%	0.4%	0.0%
CMV Crash	Injury	47%	49%	47%	46%	43%	-3.2%	-4.0%
Percentages	PDO	51%	49%	51%	52%	55%	2.8%	4.1%
	Total CMV	2.54%	2.72%	2.64%	2.24%	2.50%	0.27%	0.0%
	Fatal	890	900	820	729	631	-13.4%	-29%
All crashes	Injury	48,800	48,200	46,500	45,300	42,300	-6.6%	-13%
7 th orderice	PDO	112,500	110,700	110,700	109,800	104,900	-4.5%	-7%
	Total	162,190	159,800	158,020	155,829	147,831	-5.1%	-9%
	Fatal	12%	13%	12%	10%	15%	4.6%	2.9%
% CMV	Injury	3.9%	4.4%	4.2%	3.5%	3.7%	0.2%	-0.2%
70 CIVIV	PDO	1.9%	1.9%	1.9%	1.7%	1.9%	0.3%	0.1%
	Total	2.5%	2.7%	2.6%	2.2%	2.5%	0.3%	0.0%

Figure 1: CMV Crashes 2006-2010

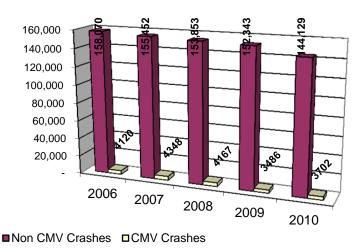


Figure 1 highlights the number of all crashes and CMV crashes from 2006 to 2010. There were 418 fewer CMV crashes since 2006 and 13,941 fewer non-CMV crashes. In addition, CMV crashes accounted for 2.5% of all crashes in 2010 up by 0.3 percentage points, namely 2.2% in 2009.

Figure 2: CMV Crashes by Severity: 2006-2010

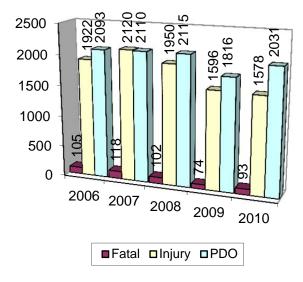


Figure 2 shows CMV crashes by severity. While all injury crashes declined by 6.6% from 2009 to 2010, CMV injury crashes fell only by 1% in the same period. CMV property-damage-only crashes increased by 12% from 2009 to 2010, while all CMV crashes combined increased by 6%.

Figure 3: CMV and Non-CMV Fatal Crashes: 2006-2010

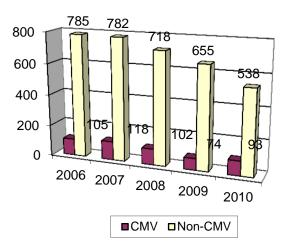


Figure 3 illustrates fatal CMV crashes and all fatal crashes during 2006-2010. The decline in the number of non-CMV fatal crashes was considerably large while the CMV fatal crashes experienced an increase of 26% or 19 fatalities.

Figure 4: Fatal CMV Crashes by Year: 2006-2010

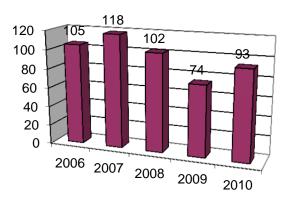


Figure 4 shows the trend of fatal CMV crashes. Although the number of fatal CMV crashes increased by 19 fatalities from 2009 to 2010, it was 12 lower than in 2006.

Due to a steady increase in Louisiana traffic over the years, the number of crashes should be adjusted by the vehicle miles traveled (VMT). The vehicle miles traveled were obtained from the FMCSA website which are however only available until 2007. Table 2 depicts the estimated crashes per 100 million miles traveled based on the assumption that the VMT for commercial vehicles has not changed since 2007. Although the fatal crash rate for CMV crashes increased from 1.4 in 2009 to 1.7 in 2010, the 5-year trend shows a decline in fatal crash rate from 2.2 in 2006 to 1.7 in 2010.

Table 2: CMV and all Crashes 2006-2010 per 100 Million Miles Traveled

		CMV	Crashes			All crashe	S	
Year	Fatal	Injury	PDO	Total CMV	Fatal	Injury	PDO	Total
2006	2.2	40.1	43.7	86.0	2.0	108.4	250.0	360.4
2007	2.2	39.8	39.7	81.7	2.0	106.2	243.8	352.0
2008	1.9	36.4	39.4	77.7	1.8	102.4	243.8	348.1
2009	1.4	29.8	33.9	65.0	1.6	100.7	244.0	346.3
2010	1.7	29.4	37.9	69.0	1.4	94.0	233.1	328.5

Analysis of Crashes by Month

Table 3 displays CMV crash information for 2010 by month. As the data in Table 3 indicates, March had the highest number of fatal crashes (14) accounting for over 10% of the total fatal CMV crashes for 2010. March and April were the two deadliest months with 17 fatalities each in 2010.

Table 3: CMV Crashes by Month in 2010

	FATAL	TOTAL	INJURY	PDO	TOTAL	TOTAL TRUCKS AND	
MONTH	CRASHES	KILLED	CRASHES	100	CRASHES	BUSSES	% CRASHES
JANUARY	2	2	124	173	299	325	8%
FEBRUARY	7	8	100	146	253	262	7%
MARCH	14	17	157	184	355	376	10%
APRIL	11	17	142	166	319	338	9%
MAY	12	14	121	186	319	341	9%
JUNE	7	8	144	177	328	341	9%
JULY	3	6	127	196	326	349	9%
AUGUST	4	5	151	169	324	338	9%
SEPTEMBER	5	6	133	135	273	291	7%
OCTOBER	12	14	149	200	361	383	10%
NOVEMBER	4	4	125	156	285	307	8%
DECEMBER	12	13	105	143	260	275	7%
TOTAL	93	114	1578	2031	3702	3926	100%

Violations

The percentage of CMV drivers in fatal crashes who received a citation has increased by 6 percentage points from 2009 to 2010 and the percentage of citations in fatal crashes going to the CMV driver has increased by 5 percentage points. In 2010, of all CMV drivers in fatal crashes, 33% were cited for a violation and 34% of the citations went to the CMV driver compared to 29% in 2009. However, it should be noted that the percentage in 2009 was the lowest in the past 5 years and the percentage of 2010 is back to the levels before 2009. For both injury and property damage crashes, the driver of the CMV was cited for a violation 51% of the time in both instances.

Table 4: Violations as Percentage of Drivers and Percent of all Violations

								ĺ		
Ø	VIOLATIONS	FATAL	CRASHES	INJURY	CRASHES		PDO	TOTAL CRASHES		
Drivers		Truck Driver	Passenger Car Driver							
ge of	2005	31%	47%	52%	44%	47%	50%	49%	47%	
Percentage	2006	32%	66%	50%	50%	50%	54%	49%	52%	
Perc	2007	35%	68%	47%	53%	48%	53%	47%	54%	
As I	2008	32%	78%	49%	49%	48%	55%	48%	53%	
	2009	27%	66%	51%	48%	49%	53%	49%	51%	
	2010	33%	68%	51%	49%	51%	55%	51%	52%	
Violations	VIOLATIONS	FATAL	CRASHES	INJURY	CRASHES		PDO	TOTAL	CRASHES	
of Viola		Truck Driver	Passenger Car Driver							
	2005	37%	63%	39%	61%	40%	60%	39%	61%	
ercentage	2006	30%	70%	50%	50%	53%	47%	51%	49%	
rce	2007	38%	62%	48%	52%	53%	47%	50%	50%	
	2008	33%	67%	50%	50%	51%	49%	50%	50%	
As	2009	29%	71%	51%	49%	52%	48%	51%	49%	
	2010	34%	66%	52%	48%	54%	46%	52%	48%	

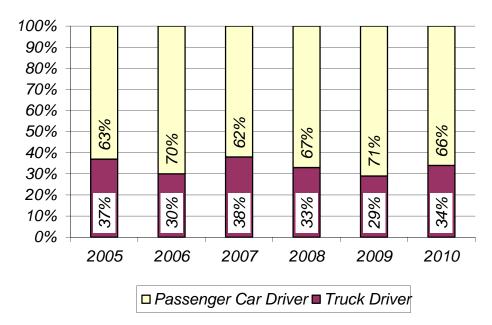


Figure 5: CMV and Non-CMV Driver Violations: 2005-2010

Figure 5 shows that there was a 5-percentage point shift in the percentage of all violations in fatal crashes from 29% in 2009 to 34% in 2010 for the CMV driver receiving a violation which is closer to the level before 2009. In non-fatal crashes, the violations remain evenly distributed between the CMV driver and the driver of the other vehicle.

Table 5: Type of Violation of CMV Driver

VIOLATIONS	FATAL CRASHES	INJURY CRASHES	PDO	TOTAL CRASHES
OVER STATED SPEED LIMIT	0	3	1	4
OVER SAFE SPEED LIMIT	1	13	16	30
FAILURE TO YIELD	6	130	118	254
FOLLOWING TOO CLOSELY	0	95	78	173
DRIVING LEFT OF CENTER	4	11	26	41
CUT IN/IMPROPER PASS	0	23	43	66
OTHER IMPROPER TURNING	0	22	29	51
DISREGARDED TRAF CNTL	0	36	25	61
FAILED TO DIM HEADLTS	0	1	0	1
VEHICLE CONDITION	1	23	58	82
DRIVER CONDITION	2	19	18	39
CARELESS OPERATION	11	313	414	738
IMPROPER BACKING	1	23	35	59
NO VIOLATION	67	809	1055	1931
OTHER	0	57	118	175
TOTAL VIOLATION	33	855	1094	1982
COLUMN % OF VIOLATIONS IN CRASH	33%	51%	51%	51%
ROW % OF VIOLATIONS IN CRASH	34%	52%	54%	52%

Commercial Vehicle Safety - 2010

Table 5 shows the types of violations drivers receive. In 2010, careless operation accounts for the majority of violations, 11 occurrences or 33%, in association with fatal commercial vehicle crashes. Other violations with relatively high occurrence rates for all crashes were failure to yield at 12.8% and following too closely at 8.7%.

Manner of Collision

Table 6 shows the manner of collision. "Head-on", "right angle", and "rear-end" collisions make up more than 67.8% [(24+15+20) / (92-5)] of all fatal multi-vehicle CMV crashes.

Table 6: Manner of Collision

MANNER OF COLLISION	FATAL CRASHES		INJURY CRASHES		F	PDO		OTAL ASHES
HEAD-ON	24	26.1%	47	3.0%	29	1.5%	100	2.8%
LEFT TURN - ANGLE	2	2.2%	41	2.6%	59	3.0%	102	2.8%
LEFT TURN - OPPOSITE DIRECTION	2	2.2%	52	3.4%	43	2.2%	97	2.7%
LEFT TURN - SAME DIRECTION	2	2.2%	25	1.6%	36	1.8%	63	1.7%
NON-COLLISION WITH MOTOR VEHICLE	13	14.1%	205	13.2%	487	24.5%	705	19.4%
OTHER	5	5.4%	131	8.4%	177	8.9%	313	8.6%
REAR END	20	21.7%	548	35.3%	521	26.2%	1089	30.0%
RIGHT ANGLE	15	16.3%	228	14.7%	235	11.8%	478	13.2%
RIGHT TURN - OPPOSITE DIRECTION	1	1.1%	4	0.3%	7	0.4%	12	0.3%
RIGHT TURN - SAME DIRECTION	0	0.0%	20	1.3%	32	1.6%	52	1.4%
SIDESWIPE - OPPOSITE DIRECTION	4	4.3%	62	4.0%	58	2.9%	124	3.4%
SIDESWIPE - SAME DIRECTION	4	4.3%	189	12.2%	301	15.2%	494	13.6%
TOTAL	92	100.0%	1552	100.0%	1985	100.0%	3629	100.0%

Interstate Corridors

There are two main corridors in Louisiana, (1) Interstate 10/12 corridor in south Louisiana from the Texas state line to the Mississippi state line and (2) Interstate 20 corridor in north Louisiana from the Texas state line to the Mississippi state line. Both corridors have significant interstate traffic.

Interstate 10/12 Corridor

Interstate 10/12 corridor includes 16 parishes, and these parishes accounted for over half of all truck crashes in the past three years.

Figure 6: Interstate 10 Corridor



The corridor includes Louisiana Interstates 10, 110, 210, 310, 610, 12, 55, 59 and parts of Interstate 49 as shown in Figure 6. The major US Highways along the corridor are US 90, 190 and 61.

Figure 7: Cumulative Percentage of Interstate 10 Crashes 2010 and 2009

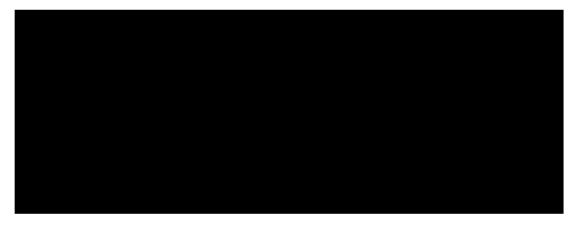


Figure 7 shows the cumulative frequency of commercial vehicle crashes for 2010 and 2009 by milepost on Interstate 10 along with all fatal crashes. The comparison between 2009 and 2010 shows that the percentage of crashes within the first 50 miles of interstate 10 has decreased slightly from 27% to 21%. The most pronounced area for CMV crashes in 2010 was between

Commercial Vehicle Safety - 2010

milepost 200 and 230 where 20% of all crashes on Interstate 10 occurred. Figure 8 shows the concentration of CMV crashes between I55 and the Causeway.

Figure 8: Interstate 10 in New Orleans Mileposts 200 to 230



Figure 9: Cumulative Percent of Interstate 12 Crashes 2010 and 2009



Figure 9 shows a significant decrease in the cumulative percent of CMV crashes from 30% in 2009 to 20% in 2010 within the first 10 miles of Interstate 12.

Figure 10 shows the Interstate 10/12 corridor between Baton Rouge and Slidell.

Figure 10: Interstate 12 Crashes



Interstate 20 Corridors

Figure 11: Interstate 20 Corridor



The Interstate 20 corridor includes 10 parishes. These parishes account for 15% of all commercial vehicle crashes in the last three years. As illustrated in

Figure 11, the corridor includes Interstates 20, 220 and parts of Interstate 49. The major US Highways along the corridor are US 61, 65, 71, 80, 165 and 167.

Figure 12: Cumulative Frequency of CMV Crashes on Interstate 20

Figure 12 shows the cumulative frequency of commercial motor vehicle crashes by milepost on Interstate 20 along with all crashes. The percentage of CMV crashes within the first 50 miles of interstate 20 was about the same in 2010 as in 2009.



Work-Zone Crashes

It is difficult to give an exact account of crashes in construction zones. There is a field on the crash report that should be marked when a crash occurs in a construction zone. However, the field is often marked incorrectly because of inconsistent use of the term work zone. Sometimes it may be marked as construction zone because grass cutting or utility work is done. To get a better assessment of work zone crashes we obtained construction projects for the year 2010 with the construction times from the Louisiana Department of Transportation and Development. Then we counted crashes that were within the time interval of the construction project. To avoid including crashes which occurred after construction has been completed but final inspection was not done we counted only crashes that were marked as work zone related on the crash report.

Table 7 shows the number of CMV crashes in work zones for 2010 and the number of CMV crashes within 5 miles of a construction zone. Table 7 shows that the number of fatal CMV crashes on all interstates increased from 22 in 2009 to 23 in 2010 and the number of fatal crashes in construction zones decreased from 1 in 2009 to 0 in 2010.

The number of fatal crashes in the 5 miles before and after construction zones increased from 9 in 2009 to 14 in 2010. The number of fatal crashes per day mile increased from 9.9 in 2009 to 12.6 in 2010. Also seen in Table 7 is an increase in all crashes within the 5 miles before and after construction zones, i.e., from 230 in 2009 to 261 in 2010, while the number of crashes within construction zones was the same in 2010 as in 2009, namely 20.

Table 7: Work-Zone CMV Crashes on Interstates (2009-2010)

			2010		2009			Percentage Change					
	WHER E	FATAL	INJURY	PDO	ALL	FATAL	INJURY	PDO	ALL	FATAL	INJURY	PDO	ALL
	Count	23	331	582	936	22	352	506	880	5%	-6%	15%	6%
ALL CMV CRASHES ON INTERSTATES	PER 100,000 Day- MILES	7.0	101	178	286	6.7	108	155	269	5%	-6%	15%	6%
	Count	0	11	9	20	1	10	9	20	-100%	10%	0%	0%
CONSTRUCTION ZONES	PER 100,000 Day- MILES	0.0	21	17	37	2.5	25	22	49	-100%	-16%	24%	24%
	Count	14	102	145	261	10	90	130	230	40%	13%	12%	13%
WITHIN 5 MILES OF CONSTRUCTION ZONES	PER 100,000 Day- MILES	8.5	62	88	158	7.6	68	99	175	12%	-9%	- 11%	-9%
	Count	14	91	136	241	9	80	121	210	56%	14%	12%	15%
IN 5 MILES OF CONSTRUCTION ZONE	PER 100,000 Day- MILES	12.6	82	122	216	9.9	88	133	231	27%	-7%	-8%	-6%

Seat Belt Usage

Table 8 shows that in 2010, 58% of CMV drivers killed in a crash did not wear a seat belt while 56% of all drivers killed in all crashes were not wearing a seat belt. However, since the number of CMV drivers killed is relatively small, this percentage varies greatly from year to year. As seen in Table 8, the percentage of CMV drivers killed in crashes while not wearing a seatbelt was 29% in 2006. On average, CMV drivers killed used seat belts at a higher rate than those drivers killed while driving other cars did.

Table 8: Seat Belt Usage

			CMV	Drivers				All I	Drivers			
Year	# of Drivers Killed w/o Seatbelt	Total # of Drivers Killed*	% of Drivers Killed w/o Seatbelt	# of Drivers Seriously Injured w/o Seatbelt	Total # of Drivers Injured*	% of Drivers Seriously Injured	# of Drivers Killed w/o Seatbelt	Total # of Drivers Killed*	% of Drivers Killed w/o Seatbelt	# of Drivers Seriously Injured w/o Seatbelt	Total # of Drivers Injured*	% of Drivers Seriously Injured
2001	8	12	67%	4	12	33%	294	461	64%	249	794	31%
2002	2	6	33%	3	10	30%	270	422	64%	279	876	32%
2003	5	8	62%	3	16	19%	290	452	64%	239	739	32%
2004	6	9	67%	3	8	38%	290	495	59%	213	717	30%
2005	8	11	73%	5	19	26%	237	391	61%	187	703	27%
2006	2	7	29%	2	13	15%	284	457	62%	177	690	26%
2007	14	20	70%	2	8	25%	247	399	62%	183	727	25%
2008	9	16	56%	2	11	18%	222	346	64%	181	659	27%
2009	3	5	60%	5	11	45%	218	345	63%	151	574	26%
2010	7	12	58%	3	12	25%	146	259	56%	130	514	25%
Average	6	11	58%	3	12	27%	250	403	62%	199	699	28%

^{*}Total includes only drivers where seatbelt use is known.

Hazardous Material

CMV crashes involving trucks carrying hazardous material are of particular interest due to their potential danger to the environment and community when hazardous materials are released. Over the past eight years, on average, about one out of five crashes involving hazardous material results in a release of the hazardous material. The actual percentage of release may be higher since many of the trucks identified as transporting hazardous material may actually be returning with an empty load, thus the percentage of releases based on crashes with full loads of hazardous material may be much higher than the 15% shown in Table 9 for 2010.

Commercial Vehicle Safety – 2010

Table 9: Hazardous Material Crashes

			%
Year	Transport	Released	Released
2002	96	19	20%
2003	82	13	16%
2004	58	15	26%
2005	86	15	17%
2006	102	19	19%
2007	127	20	16%
2008	94	16	17%
2009	102	19	19%
2010	99	15	15%

The interstates accounted for 46% of all crashes involving hazardous materials in 2010. Specifically, Interstate 10 accounts for 55% of all hazardous material crashes on interstates in 2010. US highways account for 23% of all hazardous material crashes in 2010, with US 90 accounting for 31% of hazardous material crashes on US highways. State highways accounted for 42% of all hazardous crashes in 2010.

The types of hazardous material reported in CMV crashes are displayed in Table 10. On average, 40% of the hazardous material crashes involve flammable liquids and 16% involve flammable gases.

$Commercial\ Vehicle\ Safety-2010$

Table 10: Type of Hazardous Material in CMV Crashes

		200)5	200)6	200)7	20	008	20	009	20	010
PLC	Material	Trans	Rel.										
	CORROSIVE GASES (CANADA)	0	0	1	1	0	0	0	0	0	0	0	0
80	CORROSIVE MATERIALS	19	2	17	3	29	3	18	2	17	5	19	4
	DANGEROUS WASTES (CANADA)	0	0	0	0	0	0	0	0	0	0	0	0
	DANGEROUS WHEN WET MATERIALS	0	0	0	0	0	0	0	0	0	0	0	0
92	ENVIRON HAZARDOUS SUBSTANCES(CANADA)	1	0	0	0	4	1	0	0	0	0	0	0
11	EXPLOSIVES-MASS EXPLOXION HAZARD	0	0	1	0	1	0	0	0	0	0	0	0
14	EXPLOSIVES WITH A NO SIGNIFICANT BLAST HAZARD	0	0	1	0	0	0	1	0	0	0	0	0
	EXPLOSIVES WITH A PREDOMINANTLY A FIRE HAZARD	0	0	2	0	1	1	1	0	0	0	0	0
12	EXPLOSIVES-PROJECTION HAZARD	0	0	0	0	0	0	0	0	0	0	0	0
	EXTREMELY INSENSITIVE DETONATING ARTICLES	0	0	0	0	0	0	0	0	0	0	0	0
21	FLAMMABLE GASSES	1	0	13	1	21	3	23	2	17	4	19	3
30	FLAMMABLE LIQUIDS	56	10	59	13	53	8	74	13	58	6	52	6
41	FLAMMABLE SOLIDS	0	0	1	0	0	0	4	0	3	1	1	0
23	GASES TOXIC BY INHALATION	0	0	1	0	2	0	1	0	0	0	0	0
	INFECTIOUS SUBSTANCES	0	0	0	0	1	0	0	0	0	0	0	0
	MISC DANGEROUS GOODS(CANADA)	1	0	1	0	4	1	0	0	0	0	0	0
91	NON-FLAM, NON-TOXIC COMPRESSED GASES	7	2	5	1	8	2	7	0	5	1	7	2
22	ORGANIC PEROXIDES	0	0	0	0	0	0	0	0	0	0	0	0
	OXIDIZERS	0	0	0	0	0	0	1	0	2	2	0	0
51	RADIOACTIVE MATERIALS	0	0	0	0	0	0	1	0	0	0	0	0
70	SPONTANEOUSLY COMBUSTIBLE MATERIALS	1	1	0	0	0	0	2	1	0	0	0	0
42	TOXIC MATIERALS	0	0	0	0	3	1	5	0	0	0	1	0
	Total	86	15	102	19	127	20	138	18	204	38	99	15

Distractions

Although distractions play an important role in all crashes, including CMV crashes no fatal CMV crashes were reported in 2010, where cell phone usage was the cause of distraction. Table 11 shows the breakdown of crashes by type of distraction.

Table 11: Distractions

	FATAL	INJURY	PDO	TOTAL
CELL PHONE	0	2	7	9
OTHER ELECTRONIC DEVICE (PAGER, PALM PILOT, NAVIGATION DEVICE, ETC.)	0	2	6	8
OTHER INSIDE THE VEHICLE	0	22	38	60
OTHER OUTSIDE THE VEHICLE	0	34	41	75
NOT DISTRACTED	77	1356	1748	3181
UNKNOWN	22	232	293	547

Figure 13: Cell Phone Use as a Distraction

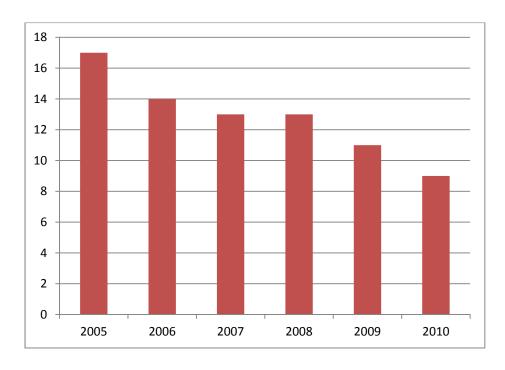


Figure 13 shows that crashes involving cell phone usage of CMV drivers have decreased by 53% from 2005 to 2010, namely from 17 in 2005 to 9 in 2010.

Changes of Number of Crashes by Parish

The 15 parishes with the highest number of CMV crashes are listed in Table 12. In 2010, Louisiana experienced a significant increase in CMV crashes along the I10/I12 corridor. St. Tammany, Tangipahoa, Orleans, and West Baton Rouge Parishes have all shown increases in CMV crashes ranging from 9% to 20%. The exception was East Baton Rouge Parish, which had a 2% decrease in CMV crashes. Ouachita, Caddo, and Bossier Parishes also had an increase in CMV crashes, with 33%, 5% and 4%, respectively. Lafourche, Rapides, and Calcasieu Parishes all experienced significant reductions in crashes ranging from 20% to 14%.

Table 12: CMV Crashes by Parishes

	FATAL C	RASHES	TOTAL C	RASHES		2010-2000
PARISH	2010	2009	2010	2009	Diff	% Change
EAST BATON						
ROUGE	3	3	304	311	-7	-2%
JEFFERSON	1	1	188	205	-17	-8%
CALCASIEU	2	2	173	202	-29	-14%
LAFAYETTE	2	1	183	185	-2	-1%
ST. TAMMANY	4	4	142	126	16	13%
TANGIPAHOA	3	0	118	103	15	15%
CADDO	5	5	195	186	9	5%
ORLEANS	1	0	236	217	19	9%
LAFOURCHE	4	4	89	107	-18	-17%
LIVINGSTON	1	1	84	89	-5	-6%
RAPIDES	3	3	86	107	-21	-20%
TERREBONNE	2	2	85	83	2	2%
BOSSIER	5	4	117	113	4	4%
OUACHITA	2	2	125	94	31	33%
WEST BATON						
ROUGE	2	3	73	61	12	20%
State	93	74	3702	3497	205	6%

Rural CMV Crashes

Table 13 displays the count of crashes on rural roads by highway type. Although the data shows that rural roads account for most of the fatal and injury crashes, rural roads make up the majority of the roadway sections. From 2009 to 2010, the fatal CMV crashes on US highways increased by 67%, the fatal CMV crashes on state highways increased by 41%, and the fatal CMV crashes on interstates increased by 5%. The injury crashes during the same period reflects a 6% decline on interstates, a 9% decline on US highways, and a 6% increase on state highways. Overall, the crashes by highway type percentages experienced very little movement from 2009 to 2010 with state highways experiencing an increase of 11%, US highways experiencing an increase of 3% and interstates experiencing an increase of 6%.

Table 13: CMV Crashes by Highway Type 2010

HIGHWAY TYPE	FAT	AL CRAS	HES	INJURY CRASHES		PDO			TOTAL			
	2010 CRASH	2009 CRASH	Difference	2010 CRASH	2009 CRASH	Difference	2010 CRASH	2009 CRASH	Difference	2010 CRASH	2009 CRASH	Difference
INTERSTATE	23	22	5%	331	352	-6%	582	506	15%	936	880	6%
US HIGHWAY	25	15	67%	345	380	-9%	377	333	13%	747	728	3%
STATE HIGHWAY	45	32	41%	608	576	6%	728	634	15%	1381	1242	11%
PARISH ROAD	0	3	- 100%	103	98	5%	131	157	-17%	234	258	-9%
CITY STREET	0	2	- 100%	187	188	-1%	201	173	16%	388	363	7%
TOTAL	93	74	26%	1574	1594	-1%	2019	1803	12%	3686	3471	6%
% Interstates	25%	30%	-5%	21%	22%	-1%	29%	28%	1%	25%	25%	0%
% US	27%	20%	7%	22%	24%	-2%	19%	18%	0%	20%	21%	-1%
% State	48%	43%	5%	39%	36%	2%	36%	35%	1%	37%	36%	2%
State&Interstate	100%	93%	7%	82%	82%	0%	84%	82%	2%	83%	82%	1%

Table 13a: Percentage of Rural CMV Crashes 2010

	Fatal	Injury	PDO	Total
Interstates	57%	53%	64%	59%
US	84%	59%	55%	59%
State	87%	72%	77%	74%
Parish	0%	91%	90%	91%
City	0%	0%	1%	1%
Total	78%	64%	68%	60%

Table 13a gives a different perspective of rural versus urban crashes. The crash report does not permit us to determine if a crash was urban or rural. The only indicator that may be used is the city code. Table 13a shows the percentage of crashes by severity and highway type that were coded with city code 00. This code is most often used by the state police to identify crashes that occurred outside of city limits. However, some crashes worked by state police could have been inside city limits. About 57% of the fatal interstate CMV crashes occurred on rural areas and about 53% of the injury interstate CMV crashes occurred on rural areas.

Bus Crashes

The number of CMV bus crashes, injuries, and fatalities is depicted in Table 14. In 2010, there were 82 large bus crashes where one person was killed and 258 passengers injured inside the bus. There were 37 small bus crashes with 56 passengers injured. There were 171 school bus crashes with 352 passengers injured in the bus. Overall, there were 5 people killed in 290 bus crashes and 872 people injured.

Table 14: CMV Bus Crashes in 2010

Year		Vehicle Type	School Bus	Small Bus	Large Bus	Total
		Number of Crashes	176	34	84	294
	Inside Bus	Number Killed	0	0	0	0
2009		Number Injured	462	48	140	650
	In Bus	Number Killed	2	0	1	3
	Crash	Number Injured	569	73	194	836
		Number of Crashes	171	37	82	290
	Inside Bus	Number Killed	0	0	1	1
2010		Number Injured	352	56	258	666
	In Bus	Number Killed	3	0	2	5
	Crash	Number Injured	470	80	322	872

Figure 14 shows the trend in bus crashes. Generally, bus crashes have been declining with a slight increase across all bus types in 2010. The 2006 year was marked by the post Katrina clean-up and thus the number of crashes was relative low because of less bus traffic.

Figure 14: Bus Crashes by Year

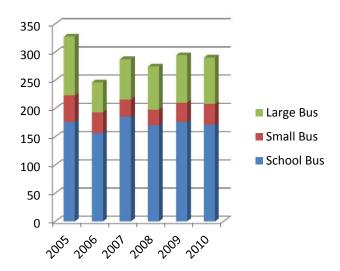
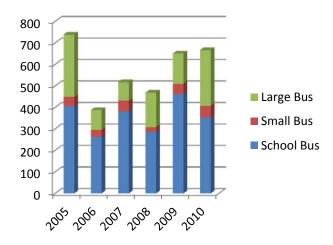


Figure 15: Bus-Crash Injuries by Year



Although the number of bus crashes has decreased slightly from 2009 to 2010 from 294 to 290, the number of injuries has increased from 836 to 872. The years 2005 and 2006 were affected by hurricane Katrina and thus may not be suitable for comparisons.

$Commercial\ Vehicle\ Safety-2010$

the crash pounds o	Note: Definition of Reportable Truck Crashes: To qualify for reporting to the SafetyNET, the crash has to involve a private or public motor carrier, a truck weight of at least 10,001 pounds or above, a tow of one of the vehicles, or the transportation of a person to medical treatment away from the crash scene, or a fatality.					