

Commercial Vehicle Safety - 2021

**COMMERCIAL VEHICLE SAFETY
IN LOUISIANA
An Analysis of Truck Crashes for 2021**

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Summary

In 2021, the total number of reported CMV crashes increased by 13.6% compared to 2020. The number of fatal CMV crashes increased from 89 in 2020 to 114 in 2021, an increase of 28.1%. The number of injury CMV crashes increased from 1,851 to 2,157 during the same period, an increase of 16.5%.

The percentage of CMV drivers in fatal crashes cited for violations stayed the same from 2020 to 2021 at 32.3%. Careless Operation and Failure to Yield were the most frequent citations. CMV drivers in injury and property damage crashes were cited for violations 47.9% and 49.3% of the time, respectively. Within this same year, careless operation accounted for the majority of violations committed in association with commercial vehicle crashes. Careless operation made up 35.0% of all violations given to the driver of the CMV in fatal crashes and 35.66% in all crashes. Other violations with relatively high occurrence rates were failure to yield, with 12.5% in fatal and 12.2% in all crashes. Since careless operation is often a proxy for speed violations, we can look at the combined percentage of speed and careless operation violations. For fatal CMV crashes, the combined violations (speeding & careless operation) make up 40.0% of all violations the CMV driver receives. In all CMV crashes, this percentage is 37.3%. When failure to yield is included, these percentages increase to 52.5% for fatal crashes and 49.6% for all crashes.

The manner of collision most common in all CMV crashes are rear-end types at 29.0% and non-collision types (single vehicle crashes) at 20.54%. For fatal crashes, the types were rear-end collisions at 35.09%, right angle collisions at 18.42%, head-on collisions at 16.67%, and non-collision with motor vehicle crashes at 15.79%.

During 2021, 35.69% of all CMV crashes in Louisiana occurred on interstates, 29.56% occurred on state highways, and 16.25% occurred on U.S. highways. In 2020, the respective percentages were 37.14%, 30.35%, and 18.43%. From 2020 to 2021, the number of fatal interstate crashes increased significantly from 22 to 49. U.S. highways experienced no change in fatal crashes and state highways saw a decrease of 2.7%. Thus, the overall increase in CMV related fatalities of 28.1% was largely due to the increase of fatalities on interstates.

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The number of fatal CMV crashes in work zones increased from 11 to 16 from 2020 to 2021. The number of fatal crashes within 5 miles of the construction zone (construction zone plus 5 miles on either end) decreased by 43.8%, namely from 16 to 23. However, the number of fatal crashes in the 5 miles approaching the construction zone from either end (excluding the construction zones) increased from 5 in 2020 to 7 in 2021.

These counts are based on the construction schedule provided by the LA DOTD and may thus differ from the actual number of crashes occurring in construction zones because the schedule may not accurately reflect the actual times work was being done.

Overview

This section provides an overview of the most important issues relating to CMV crashes in 2021 and trend data for the past five years. Table 1 depicts CMV crashes from 2016 to 2021 and shows that the fatal CMV crashes have increased by 28.1% from 2020 to 2021 while the 5-year change in fatal CMV crashes was 28.1%. The CMV involved injury crashes increased by 16.5% while the CMV involved PDO crashes increased by 14.3% from 2020 to 2021. The total number of CMV crashes increased by 15.8% from 2020 to 2021, a slightly smaller increase than for all vehicle crashes, which was 16.5%.

Table 1: CMV Crashes 2016-2021

Year	CMV Crashes				CMV Crashes Percentages				All Crashes				%CMV			
	Fatal	Injury	PDO	Total CMV	Fatal	Injury	PDO	Total CMV	Fatal	Injury	PDO	Total	Fatal	Injury	PDO	Total
2016	89	2,276	1,724	4,089	2.2%	55.7%	42.2%	2.4%	704	49,835	123,096	173,635	12.6%	4.6%	1.4%	2.4%
2017	96	2,216	1,805	4,117	2.3%	53.8%	43.8%	2.5%	706	47,454	117,772	165,932	13.6%	4.7%	1.5%	2.5%
2018	95	2,191	1,799	4,085	2.3%	53.6%	44.0%	2.5%	719	45,987	117,084	163,790	13.2%	4.8%	1.5%	2.5%
2019	90	2,094	1,655	3,839	2.3%	54.5%	43.1%	2.4%	681	44,587	114,965	160,233	13.2%	4.7%	1.4%	2.4%
2020	89	1,851	1,727	3,667	2.4%	50.5%	47.1%	2.6%	762	40,111	98,050	138,923	11.7%	4.6%	1.8%	2.6%
2021	114	2,157	1,974	4,245	2.7%	50.8%	46.5%	2.6%	864	46,629	114,371	161,864	13.2%	4.6%	1.7%	2.6%
1 Yr % Change	28.1%	16.5%	14.3%	15.8%	0.3%	0.3%	-0.6%	0.0%	13.4%	16.2%	16.6%	16.5%	1.5%	0.0%	0.0%	0.0%
5 Yr % Change	28.1%	-5.2%	14.5%	3.8%	0.5%	-4.8%	4.3%	0.3%	22.7%	-6.4%	-7.1%	-6.8%	0.6%	0.1%	0.3%	0.3%
Average	24.2%	1.5%	13.3%	7.2%	0.4%	-2.8%	2.5%	0.1%	20.9%	2.3%	0.2%	0.9%	0.3%	0.0%	0.2%	0.1%

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While injury crashes involving all motor vehicles increased by 16.2% from 2020 to 2021, CMV injury crashes was roughly the same increased, 16.5%, in the same period. CMV property damage crashes increased by 14.3% from 2020 to 2021, while all CMV crashes combined increased by 15.8%.

The number of CMV crashes is expected to follow the trend of all crashes. Thus, the CMV crashes as a percent of all crashes may provide some insight in how programs specifically designed for the reduction of CMV crashes have worked. Fatal CMV crashes as a percent of all fatal crashes increased in 2021 by 1.5 percentage points compared to 2020 while the CMV injury crashes as percent of all injury crashes increased slightly by 0.01 percentage points compared to 2020.

Figure 1: CMV and Non-CMV Crashes 2016-2021

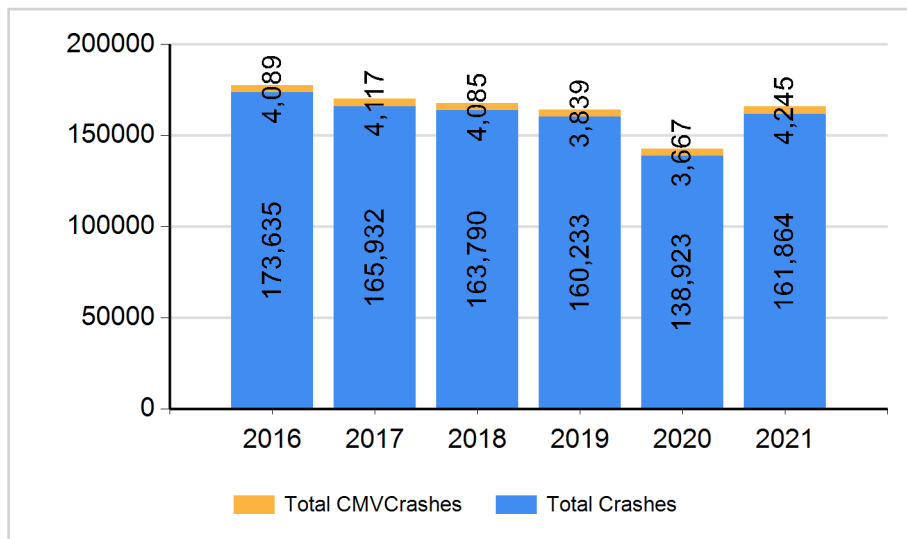
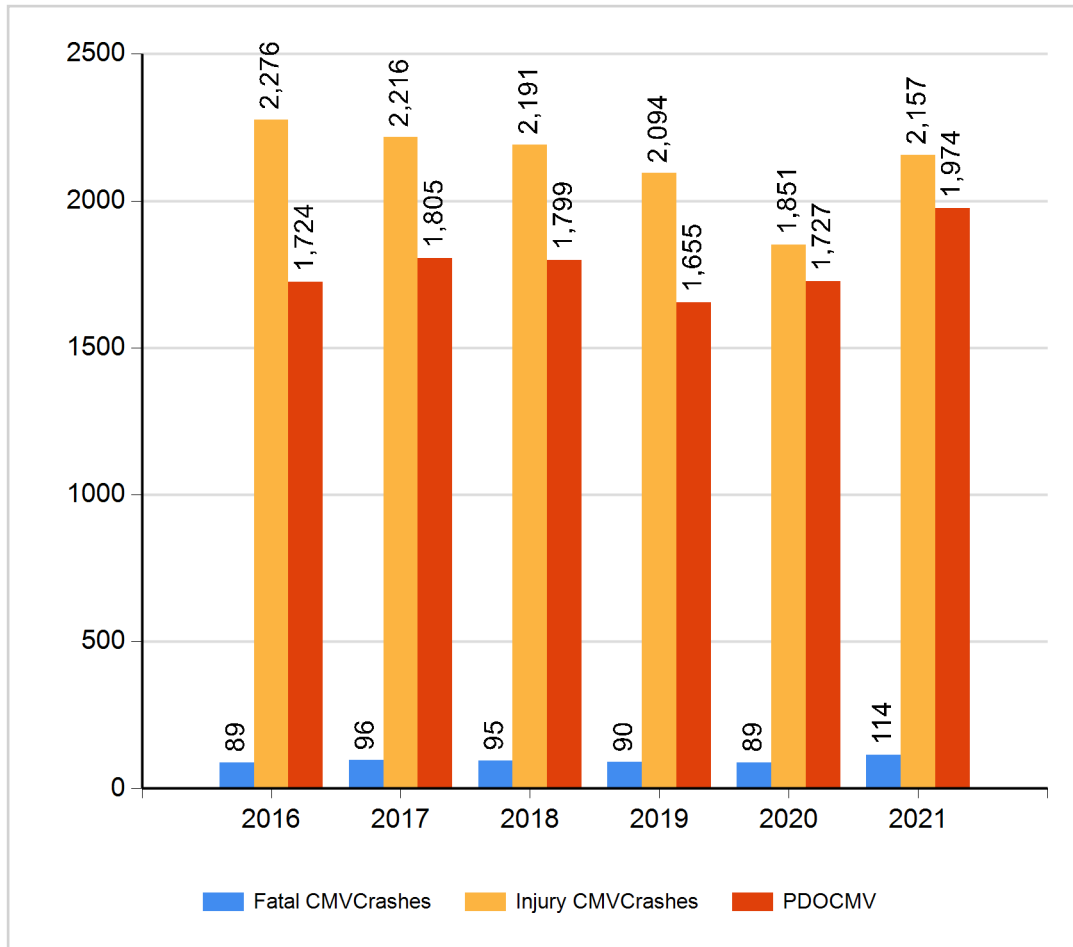


Figure 1 highlights the number of all crashes and CMV crashes from 2016 to 2021. There were 578 more CMV crashes and 22,941 more non-CMV crashes in 2021 compared to 2020. In addition, as Table 1 shows, CMV crashes accounted for 2.6% of all crashes in 2021, which is same percentage as in 2020.

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Figure 2 shows that the number of fatal, injury, and PDO CMV crashes all increased from 2020 to 2021.

Figure 2: CMV Crashes by Severity: 2016-2021



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Figure 3: CMV and Non-CMV Fatal Crashes 2016-2021

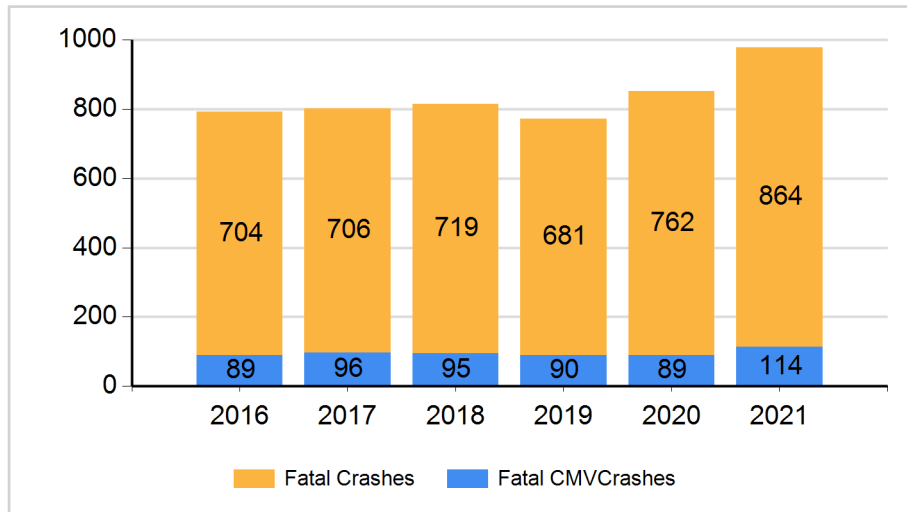
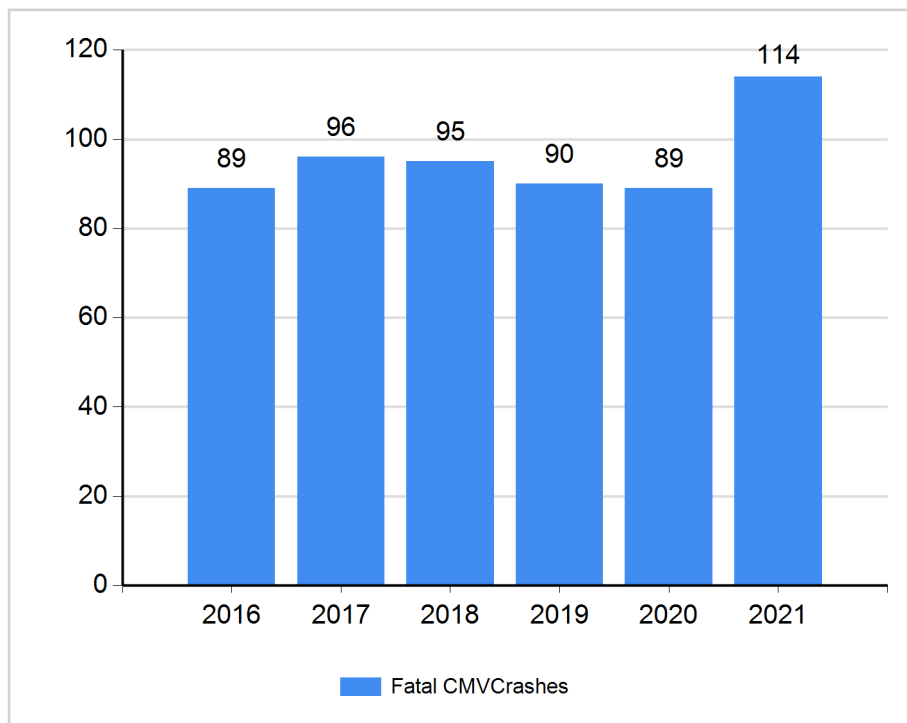


Figure 4: Fatal CMV Crashes by Year: 2016-2021



Figures 3 and 4 illustrate fatal non-CMV and CMV crashes from 2016 to 2021. While the increase in the number of non-CMV fatal crashes was 13.4% from 2020 to 2021, the CMV fatal crashes experienced a large increase of 28.1%, which amounts to 25 more fatal CMV crashes and 26.7% more fatalities. Figure 4 shows the trend of fatal CMV crashes which indicates that 2016 and 2020 had the lowest numbers of fatal CMV crashes in the past five years. In fact, 2016 and 2020 had the lowest number of CMV fatal crashes since at least 1999 when the yearly report was first compiled.

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Due to a steady increase in Louisiana traffic over the years, the number of crashes should be adjusted by the vehicle miles traveled (VMT) by commercial vehicles. In past reports, vehicle miles traveled for CMVs were obtained from the FMCSA website which was discontinued in 2007. The new FMCSA guidelines now proposes to use total VMT rather than commercial vehicle VMT. Table 2 depicts the fatal crashes, injury crashes, PDO crashes, and all crashes per 100 million miles traveled by all vehicles. The fatality rate for CMV crashes was 0.22 in 2021, an increase from 0.17 in 2020. While these crash rates can be used to look at trends, it is important to note that with the new measure used by FMCSA the CMV rates cannot be compared with the rates for all vehicles because of the use of total VMT to normalize CMV crashes.

**The 2021 VMT was not available at the time of this report.
The VMT for 2020 was used for 2021 and this number will change.**

Table 2: CMV and All Crashes 2016-2021 per 100 Million Miles Traveled

Year	CMV Crash Rates				Crash Rates for All Vehicles			
	Fatal Crash Rate	Injury Crash Rate	PDO Crash Rate	Total CMV Crash Rate	Fatal Crash Rate	Injury Crash Rate	PDO Crash Rate	Total Crash Rate
2016	0.18	4.64	3.52	8.34	1.44	101.65	251.09	354.19
2017	0.20	4.50	3.67	8.36	1.43	96.40	239.24	337.08
2018	0.19	4.38	3.59	8.16	1.44	91.86	233.89	327.27
2019	0.18	4.08	3.22	7.48	1.33	86.82	223.85	312.00
2020	0.17	3.60	3.36	7.14	1.48	78.10	190.92	270.51
2021	0.22	4.20	3.84	8.27	1.68	90.79	222.70	315.20

Analysis of Crashes by Month

Since monthly crash data fluctuates considerably from year to year, it is difficult to conclude that the month of the year has any effect on the number of crashes. Specifically, the fatal crash count exhibits large variations since small crash numbers vary more, percentage wise, than large crash numbers.

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Table 3: CMV Crashes by Month in 2021

MONTH	FATAL CRASHES	TOTAL KILLED	INJURY CRASHES	PDO	TOTAL CRASHES	TOTAL TRUCKS AND BUSES	% CRASHES
January	8	8	151	128	287	297	6.8%
February	5	5	136	125	266	295	6.3%
March	8	9	183	176	367	393	8.6%
April	10	12	166	159	335	360	7.9%
May	7	7	170	161	338	352	8.0%
June	9	11	167	166	342	377	8.1%
July	11	12	185	139	335	355	7.9%
August	6	8	176	173	355	377	8.4%
September	16	19	201	218	435	468	10.2%
October	11	14	239	185	435	459	10.2%
November	12	14	180	167	359	382	8.5%
December	11	12	203	177	391	413	9.2%
TOTAL	114	131	2157	1974	4245	4528	100.0%

Nevertheless, as the data in Table 3 indicates, September had the highest number of fatal crashes with 16 fatal crashes and 19 deaths. The analysis of the CMV crash data for 2021 indicates yearly fatal crash counts in any given month may vary from 5 to 16 with the three highest months being September, October, and November, and with 19, 14, and 14 people killed.

Violations

There are two ways one can evaluate the citations in CMV crashes, depending on whether we use the number of drivers or the number of citations as the denominator. In a crash, either the CMV driver or the non-CMV driver or both may receive a citation. Thus, when the number of CMV drivers and the number of car drivers are used as the denominator, respectively, the two percentages do not add up to 100%. They may be lower or higher than 100% if there are many crashes where no driver received a citation, and this percentage will be higher than 100% if there are many crashes where both drivers received a citation. For instance, in 2014 the two percentages added up to more than 100% for fatal crashes. The average of both percentages approximates the percentage of all drivers involved in CMV crashes that received citations.

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The percentage of CMV drivers in fatal crashes who received a citation remained the same from 2020 to 2021 at 32.3%. For injury and property damage crashes, 47.9% and 49.3% of the CMV drivers were cited for violations, respectively. Also 53.2% of non-CMV drivers received citations in fatal CMV crashes in 2021. These figures show that in fatal crashes non-CMV drivers continued to have a higher percentage of citations than CMV drivers. In PDO crashes 49.3% of CMV drivers and 56.4% of non-CMV drivers received citations. The percentages of CMV drivers receiving citations in injury crashes was 47.9% which is slightly lower than the 48.4% received by non-CMV drivers.

Secondly, we can look at the percentage of citations going to CMV versus the non-CMV driver. These two percentages add up to 100% all of the time. Even if the percentage of all citations in crashes would decline to say 10%, still half, for example, could go to the CMV driver and half could go to the non-CMV driver. The percentage of citations in fatal crashes going to the CMV driver has very slightly decreased from 2020 to 2021, i.e. from 33.0% in 2020 to 32.3% in 2021 (see Table 4b). For injury and property damage only crashes (PDO) the CMV driver received 49.7% and 52.7% of violations, respectively.

Table 4a: Violations as a Percentage of Drivers

As Percentage of Drivers								
Year	FATAL CRASHES		INJURY CRASHES		PDO		TOTAL CRASHES	
	CMV Driver	Passenger Car Driver	CMV Driver	Passenger Car Driver	CMV Driver	Passenger Car Driver	CMV Driver	Passenger Car Driver
2016	26.5%	57.5%	48.5%	48.2%	48.2%	56.0%	47.9%	51.3%
2017	39.3%	56.7%	50.0%	48.9%	46.4%	58.0%	48.1%	52.6%
2018	35.2%	45.9%	48.3%	48.2%	48.4%	56.6%	48.0%	51.3%
2019	45.5%	62.5%	47.6%	50.1%	50.5%	55.4%	48.8%	52.3%
2020	32.3%	65.6%	45.5%	50.8%	49.8%	55.7%	47.2%	53.2%
2021	32.3%	53.2%	47.9%	48.4%	49.3%	56.4%	48.1%	51.8%

*These are the percentage of drivers receiving citations.

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Table 4b: Violations as a Percentage of all Violations

As Percentage of Violations								
YEAR	FATAL CRASHES		INJURY CRASHES		PDO		TOTAL CRASHES	
	CMV Driver	Passenger Car Driver	CMV Driver	Passenger Car Driver	CMV Driver	Passenger Car Driver	CMV Driver	Passenger Car Driver
2016	29.9%	70.1%	49.2%	50.8%	51.3%	48.7%	49.7%	50.3%
2017	41.6%	58.4%	50.7%	49.3%	49.9%	50.1%	50.1%	49.9%
2018	42.7%	57.3%	50.4%	49.6%	52.0%	48.0%	50.9%	49.1%
2019	50.5%	49.5%	48.3%	51.7%	54.0%	46.0%	50.7%	49.3%
2020	33.0%	67.0%	46.9%	53.1%	53.2%	46.8%	49.5%	50.5%
2021	32.3%	67.7%	49.7%	50.3%	52.7%	47.3%	50.5%	49.5%

These are all the citations in a crash and the percentages going to either CMV driver or other car driver.

The different views become apparent when the total number of citations given to the drivers change over time. The relative distribution of the citations changed in fatal crashes in the past year with 32.3% going to the CMV driver in fatal crashes and 67.7% going to the non-CMV driver. Thus in 2021, although the total percentage of citations in fatal CMV crashes declined, citations were given less frequently (49.5%) to the non-CMV drivers in 2021 compared to 2020 where 50.5% went to the non-CMV driver (Table 4b).

Figure 5 visualizes the findings expressed above, namely the relative percentage citations going to CMV drivers versus non-CMV drivers in fatal CMV crashes. Overall, the percentages have been relatively stable over the past years for fatal crashes with roughly one third of citations going to the CMV driver and the remaining going to the non-CMV driver.

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Figure 5: CMV and Non-CMV Driver Violations in Fatal Crashes: 2016-2021

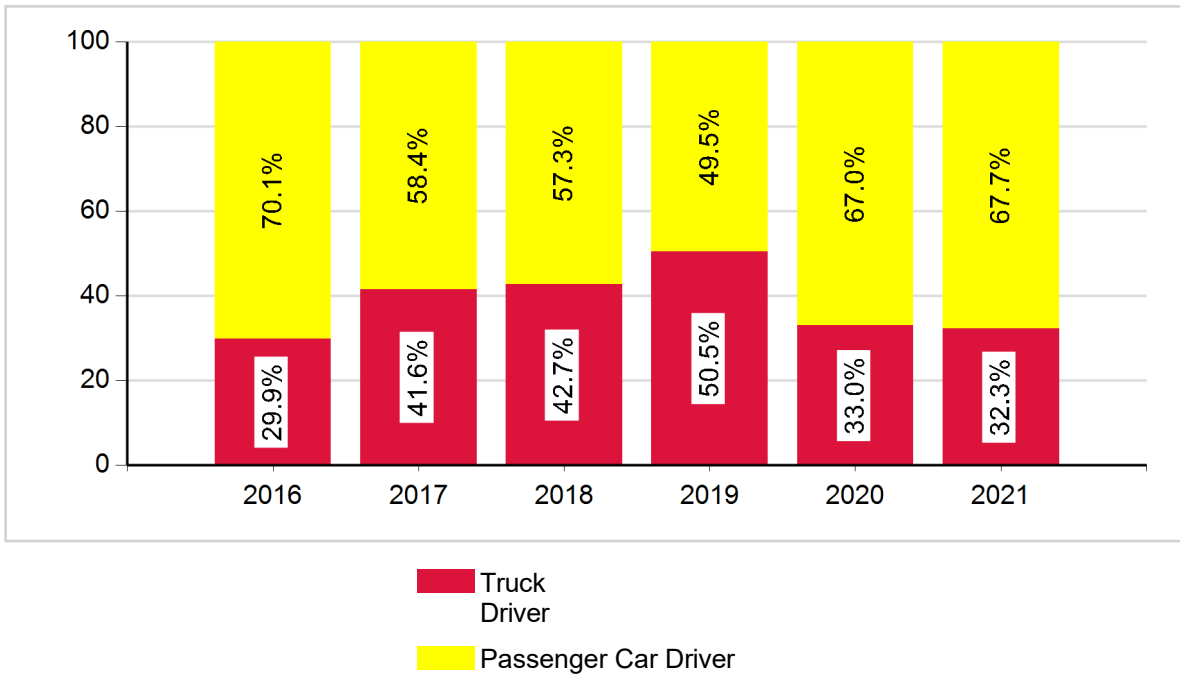


Table 5 shows the types of violations drivers receive. Including unknown violations, CARELESS OPERATION and FAILURE TO YIELD violations accounted for most violations of the CMV driver in fatal crashes for 2021, namely 14 and 5, respectively, which combined accounted for 47.5% of violations. The percentage of CARELESS OPERATION and FAILURE TO YIELD violations for CMV drivers was 47.8% for injury CMV crashes and 47.9% for PDO crashes.

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Table 5: Type of Violation of CMV Driver

VIOLATIONS	FATAL CRASHES		INJURY CRASHES		PDO		TOTAL CRASHES	
CARELESS OPERATION	14	35.0%	358	32.6%	401	38.8%	773	35.6%
CUT CORNER ON LEFT TURN	0	0.0%	1	0.1%	5	0.5%	6	0.3%
CUTTING IN, IMPROPER PASSING	0	0.0%	45	4.1%	44	4.3%	89	4.1%
DISREGARDED TRAFFIC CONTROL	1	2.5%	48	4.4%	27	2.6%	76	3.5%
DRIVER CONDITION	1	2.5%	16	1.5%	17	1.6%	34	1.6%
DRIVING LEFT OF CENTER	2	5.0%	11	1.0%	18	1.7%	31	1.4%
EXCEEDING SAFE SPEED LIMIT	1	2.5%	8	0.7%	23	2.2%	32	1.5%
EXCEEDING STATED SPEED LIMIT	1	2.5%	3	0.3%	2	0.2%	6	0.3%
FAILED TO DIM HEADLIGHTS	0	0.0%	0	0.0%	0	0.0%	0	0.0%
FAILED TO SET OUT FLAGS, FLARES	0	0.0%	2	0.2%	0	0.0%	2	0.1%
FAILURE TO SIGNAL	0	0.0%	2	0.2%	2	0.2%	4	0.2%
FAILURE TO YIELD	5	12.5%	167	15.2%	94	9.1%	266	12.2%
FOLLOWING TOO CLOSELY	1	2.5%	122	11.1%	72	7.0%	195	9.0%
IMPROPER BACKING	1	2.5%	26	2.4%	23	2.2%	50	2.3%
IMPROPER PARKING	1	2.5%	13	1.2%	10	1.0%	24	1.1%
IMPROPER STARTING	0	0.0%	4	0.4%	2	0.2%	6	0.3%
MADE WIDE RIGHT TURN	0	0.0%	14	1.3%	10	1.0%	24	1.1%
OTHER	3	7.5%	72	6.6%	102	9.9%	177	8.1%
OTHER IMPROPER TURNING	0	0.0%	30	2.7%	33	3.2%	63	2.9%
TURNED FROM WRONG LANE	0	0.0%	15	1.4%	16	1.5%	31	1.4%
UNKNOWN	7	17.5%	113	10.3%	98	9.5%	218	10.0%
VEHICLE CONDITION	2	5.0%	29	2.6%	34	3.3%	65	3.0%
NO VIOLATIONS	84		1,194		1,062		2,340	
TOTAL VIOLATIONS	40	100.0%	1,099	100.0%	1,033	100.0%	2,172	100.0%
% Violations from Table 4a	32.3%		47.9%		49.3%		48.1%	
% from Table 4b	32.3%		49.7%		52.7%		50.5%	

**Includes multiple violations for the driver*

Manner of Collision

Table 6 shows the manner of collision. "REAR END," "RIGHT ANGLE," and "HEAD-ON" collisions make up more than 83.3%, $[(40 + 21 + 19) / (114 - 18)]$ of all fatal multi-vehicle CMV crashes. This is a 1.2 percentage point decrease from 84.5% in 2020 for these three types of collisions. Also, the non-collision fatal CMV crashes remained the same at 18 in 2020 and 2021.

Table 6: Manner of Collision

MANNER OF COLLISION	FATAL CRASHES		INJURY CRASHES		PDO		TOTAL CRASHES	
	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
HEAD-ON	19	16.7%	48	2.2%	35	1.8%	102	2.4%
LEFT TURN - ANGLE	2	1.8%	55	2.5%	50	2.5%	107	2.5%
LEFT TURN - OPPOSITE DIRECTION	2	1.8%	104	4.8%	42	2.1%	148	3.5%
LEFT TURN - SAME DIRECTION	0	0.0%	37	1.7%	38	1.9%	75	1.8%
NON-COLLISION WITH MOTOR VEHICLE	18	15.8%	318	14.7%	536	27.2%	872	20.5%
OTHER	4	3.5%	157	7.3%	158	8.0%	319	7.5%
REAR END	40	35.1%	706	32.7%	485	24.6%	1231	29.0%
RIGHT ANGLE	21	18.4%	304	14.1%	155	7.9%	480	11.3%
RIGHT TURN - OPPOSITE DIRECTION	0	0.0%	9	0.4%	12	0.6%	21	0.5%
RIGHT TURN - SAME DIRECTION	0	0.0%	35	1.6%	31	1.6%	66	1.6%
SIDSWIPE - OPPOSITE DIRECTION	2	1.8%	69	3.2%	60	3.0%	131	3.1%
SIDSWIPE - SAME DIRECTION	6	5.3%	315	14.6%	372	18.8%	693	16.3%
Total	114	100.0%	2,157	100.0%	1,974	100.0%	4,245	100.0%

Work-Zone Crashes

Work zones are of specific interest for enforcement activities because they are potential hotspots for crashes. The work zones were derived from a DOTD file containing all scheduled work on interstates. Because this schedule may not accurately reflect the actual construction, the numbers in Table 7a are likely to be higher than the true number of work zone crashes. There are also work-zone indicators on the crash report form (Work Zone Indicator (Yes/No) and a Road Condition field with 14 options, two of which are Construction Repair and Construction No Warning). However, these crash report fields have drawbacks, as they may not be filled out consistently in cases where there is a work zone but no work is performed. Also, since many of the crashes occur before the work zone when traffic slows down or comes to a standstill, these crashes may be missed in the crash report. This analysis will include the 5 miles of the approach to the construction zone. Since we do not have the detailed information about the lane the construction is in or if both lanes are under construction, we include 5 miles on either side of the construction zone indicated in the work schedule by DOTD.

Table 7a shows that the number of fatal CMV crashes on all interstates increased by 122.7% from 22 in 2020 to 49 in 2021 while the number of fatal crashes in construction zones increased by 45.5% from 11 to 16 when only the schedule is used.

The number of fatal crashes within the +/-5 miles of the construction zones increased from 16 in 2020 to 23 in 2021.

Also seen in Table 7a is an increase in all CMV crashes within the +/- 5 miles of the approaches that do not include the construction zones, i.e., from 381 in 2020 to 400 in 2021, an increase of 5.0%, while the number of crashes within construction zones decreased from 515 in 2020 to 407 in 2021, a decrease of 21.0% .

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**Table 7a: Work-Zone CMV Crashes on Interstates (2020-2021)
(Based on DOTD Schedule)**

Within 5 miles of construction zone refers to 2 times 5 miles plus the length of construction

In 5 miles approach to construction zone refers to only the 5 miles on either side of the construction zone excluding the construction zone

	WHERE	2021				2020				Percent Change			
		FATAL	INJ.	PDO	ALL	FATAL	INJ.	PDO	ALL	FATAL	INJ.	PDO	ALL
ALL CMV CRASHES ON INTER-STATES	Count	49	681	817	1547	22	597	743	1362	122.7%	14.1%	10.0%	13.6%
CONSTRUCTION ZONES	Count	16	174	217	407	11	223	281	515	45.5%	-22.0%	-22.8%	-21.0%
WITHIN 5 MILES OF CONSTRUCTION ZONE	Count	23	378	406	807	16	383	497	896	43.8%	-1.3%	-18.3%	-9.9%
IN 5 MILE APPROACH TO CONSTRUCTION ZONES	Count	7	204	189	400	5	160	216	381	40.0%	27.5%	-12.5%	5.0%

Using crashes that are marked both on the crash report as both (Work Zone Indicator "Yes" and a Road Condition field "Construction Repair" or "Construction No Warning"), the number of fatal crashes in the approach to the construction zones was zero (0) in 2020 and 2021, since the crashes in the approaches are not to be counted as work zone crashes according to the crash manual unless the crash falls within the first warning signs. Table 7b therefore does not report crashes before or after construction zones. The number of fatal CMV crashes based on the crash report was 2 in 2020 and 7 in 2021.

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**Table 7b: Work-Zone CMV Crashes on Interstates (2020-2021)
(Based on Crash Report)**

Within 5 miles of construction zone refers to 2 times 5 miles plus the length of construction

In 5 miles approach to construction zone refers to only the 5 miles on either side of the construction zone excluding the construction zone

	WHERE	2021				2020				Percent Change			
		FATAL	INJ.	PDO	ALL	FATAL	INJ.	PDO	ALL	FATAL	INJ.	PDO	ALL
ALL CMV CRASHES	Count	49	681	817	1547	22	597	743	1362	122.7%	14.1%	10.0%	13.6%
ON INTER-STATES													
CONSTRUCTION ZONES	Count	7	57	73	137	2	48	66	116	250.0%	18.8%	10.6%	18.1%

**Same As within construction zones; **Not available based on the crash report.*

Seat Belt Usage

Seat belt usage is one of the most important factors preventing death in a crash. Table 8 shows that in 2021, 40.0% of CMV drivers killed in a crash did not wear a seat belt while 62.5% of all drivers killed in all motor vehicle crashes were not wearing a seat belt. However, since the number of CMV drivers killed is relatively small, these percentages vary more than the percentages for all drivers. The five-year average shows that CMV drivers killed had a higher rate of seat belt usage than drivers of passenger vehicles. The 5-year average of CMV drivers killed not wearing a seat belt was 48.9% compared to 59.4% for passenger vehicles.

Table 8: Seat Belt Usage

This includes only drivers with known seat belt use.

Year	CMV Drivers						All Drivers					
	Drivers Killed w/o Seatbelt	Total Number of Drivers Killed	% of Drivers Killed w/o seatbelt	Drivers Seriously Injured w/o Seatbelt	Total Number of Drivers Seriously Injured	% of Drivers Seriously Injured w/o seatbelt	Drivers Killed w/o Seatbelt	Total No. of Drivers Killed	% of Drivers Killed w/o seatbelt	Drivers Seriously Injured w/o Seatbelt	Total No. of Drivers Seriously Injured	% of Drivers Seriously Injured w/o seatbelt
2017	7	17	41.2%	0	9	0.0%	229	395	58.0%	198	605	32.7%
2018	4	10	40.0%	5	10	50.0%	209	373	56.0%	177	538	32.9%
2019	6	15	40.0%	0	10	0.0%	206	354	58.2%	235	626	37.5%
2020	5	6	83.3%	3	11	27.3%	273	437	62.5%	281	697	40.3%
2021	4	10	40.0%	2	5	40.0%	303	485	62.5%	286	759	37.7%
Year Total	26	58	48.9%	10	45	23.5%	1,220	2,044	59.4%	1,177	3,225	36.2%

Hazardous Material

CMV crashes involving CMVs 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 6 years, from 2016 to 2021, on average, about 14.3% of crashes involving hazardous material resulted in a release of the hazardous material. This percentage was 14.1% in 2021. The actual percentage of release may be higher since many of the CMVs 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 percentages shown in Table 9.

The interstates accounted for 39.7% of all crashes involving hazardous materials in 2021. Specifically, Interstate 10 accounts for 71.0% of all hazardous material crashes on interstates in 2021. US highways account for 19.2% of all hazardous material crashes in 2021, with US 90 and US 190 accounting for 46.7% of hazardous material crashes on US highways. State highways accounted for 29.5% of all hazardous crashes in 2021.

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Table 9: Hazardous Material Crashes
(Includes only known Chemicals Transported)

Year	Transport Crashes	Released Crashes	% Released	Transport Fatal Crashes	Released Fatal Crashes
2016	86	12	14.0%	4	1
2017	123	15	12.2%	5	2
2018	96	14	14.6%	4	1
2019	117	18	15.4%	4	2
2020	84	13	15.5%	3	1
2021	78	11	14.1%	3	1

The types of hazardous material reported in CMV crashes are displayed in Table 10. On average, 12.8% involve corrosive material, 7.7% involve flammable gasses, and 48.7% involve flammable liquids. The remaining percentages are various chemicals. Note that Table 10 does not include unknown chemicals.

Table 10: Type of Hazardous Material in CMV Crashes

Year	2016		2017		2018		2019		2020		2021	
	Transp.	Rel.	Transp.	Rel.	Transp.	Rel.	Transp.	Rel.	Transp.	Rel.	Transp.	Rel.
Material												
CORROSIVE GASES (CANADA)	0	0	0	0	0	0	0	0	0	0	0	0
CORROSIVE MATERIALS	14	2	26	3	16	1	21	3	15	2	10	2
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	1	0	0	0
ENVIRONMENTALLY HAZARDOUS SUBSTANCES (CANADA)	0	0	0	0	0	0	0	0	0	0	0	0
EXPLOSIVES	0	0	1	0	0	0	1	0	1	0	1	0
EXPLOSIVES WITH A MASS EXPLOSION HAZARD	1	0	0	0	0	0	0	0	0	0	0	0
EXPLOSIVES WITH A NO SIGNIFICANT BLAST HAZARD	1	0	2	0	0	0	0	0	0	0	0	0
EXPLOSIVES WITH A PREDOMINANTLY A FIRE HAZARD	0	0	1	0	0	0	1	0	0	0	0	0
EXPLOSIVES WITH A 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
FLAMMABLE GASES	2	0	10	2	16	2	18	3	11	1	6	1
FLAMMABLE LIQUIDS	44	8	55	6	48	9	54	10	33	7	38	5
FLAMMABLE SOLIDS	1	0	2	1	1	0	1	0	3	0	1	0
FLAMMABLE SOLIDS OR SPONTANEOUSLY COMBUSTIBLE MATERIALS OR DANGEROUS WHEN WET MATERIALS	0	0	0	0	0	0	0	0	1	0	1	0
GASES	0	0	4	0	3	0	1	0	1	0	10	1
GASES TOXIC BY INHALATION	3	0	0	0	0	0	0	0	0	0	0	0
INFECTIOUS SUBSTANCES	0	0	0	0	0	0	1	0	0	0	0	0
MISC DANGEROUS GOODS	8	2	12	2	8	0	6	2	7	0	8	1
MISC DANGEROUS GOODS (CANADA)	0	0	0	0	0	0	0	0	0	0	0	0
NON-FLAMMABLE, NON-TOXIC COMPRESSED GASES	2	0	7	1	0	0	6	0	7	1	1	0
ORGANIC PEROXIDES	1	0	0	0	0	0	0	0	0	0	1	0
OXIDIZERS	5	0	1	0	0	0	3	0	0	0	0	0
OXIDIZERS AND ORGANIC PEROXIDES	0	0	0	0	1	1	0	0	0	0	0	0
RADIOACTIVE MATERIALS	0	0	0	0	0	0	0	0	0	0	0	0
SPONTANEOUSLY COMBUSTIBLE MATERIALS	0	0	0	0	0	0	1	0	0	0	0	0
TOXIC MATERIALS	4	0	2	0	2	0	3	0	4	2	1	1
TOXIC MATERIALS AND INFECTIOUS SUBSTANCES	0	0	0	0	1	1	0	0	0	0	0	0
VERY INSENSITIVE EXPLOSIVES; BLASTING AGENTS	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	86	12	123	15	96	14	117	18	84	13	78	11

(Includes only known Chemicals Transported)

Distractions

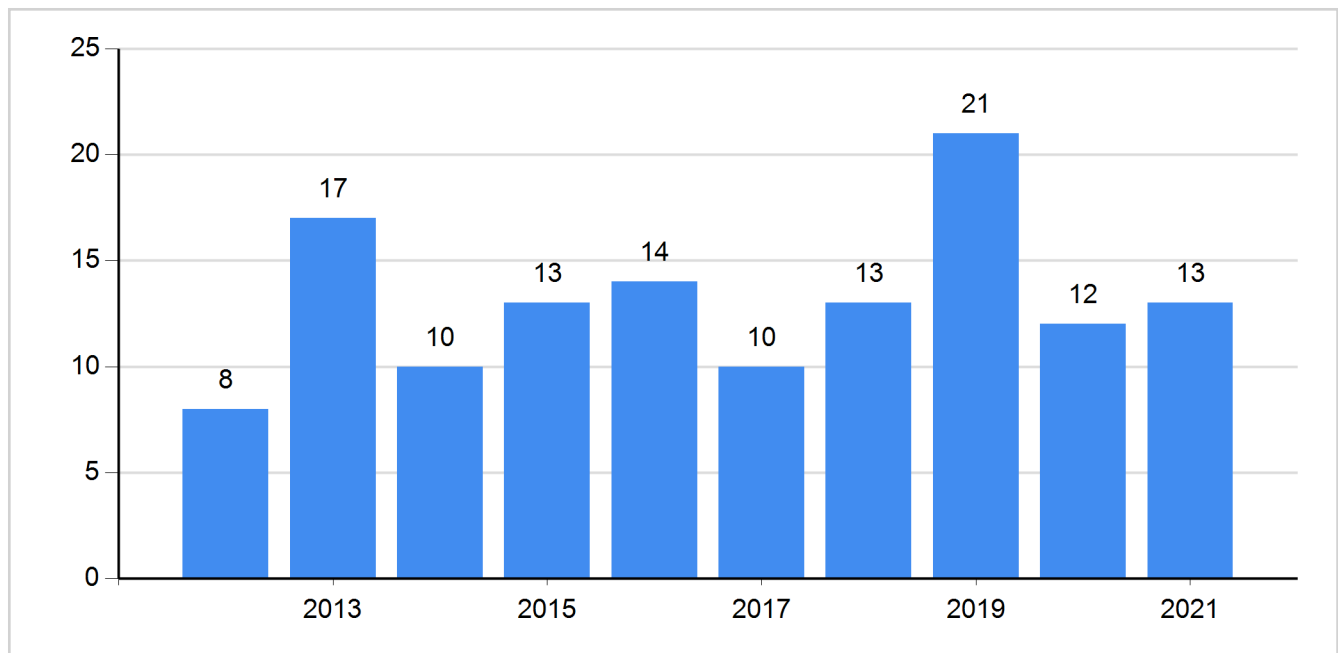
Although distractions play an important role in all crashes, including CMV crashes, 1 fatal CMV crash was reported in 2021 in which cell phone usage was the cause of distraction. Table 11 shows the breakdown of crashes by type of distraction for CMV crashes.

Table 11: Distractions

Driver Distraction Description	Fatal	Injury	PDO	Total
CELL PHONE	1	7	5	13
NOT DISTRACTED	90	1,758	1,638	3,486
OTHER ELECTRONIC DEVICE	0	7	9	16
OTHER INSIDE THE VEHICLE	2	31	28	61
OTHER OUTSIDE THE VEHICLE	2	40	30	72
UNKNOWN	23	413	357	793

The number of CMV crashes with cell phone usage has varied between a low of 8 in 2012 to 13 in 2021, with a spike of 17 in 2013 and 21 in 2019.

Figure 13: Cell Phone Use as a Distraction in CMV Crashes



Changes in Number of Crashes by Parish

The 16 parishes with the highest number of fatal and non-fatal CMV crashes are listed in Table 12. From 2020 to 2021, Louisiana experienced a significant increase in CMV crashes for 13 of the 16 parishes. Eleven (11) of the top 16 parishes (bolded) incorporate either I10 or I12. Three (3) of the top 16 parishes (underlined) incorporate I12. Thus, the I10/I12 corridor and I20 are candidates for increased enforcement to counteract the increasing trend in crashes.

Table 12: CMV Crashes by Parishes

PARISH	FATAL CRASHES		TOTAL CRASHES		TOTAL CRASHES	
	2021	2020	2021	2020	Diff	% Change
East Baton Rouge	11	7	404	334	70	21.0%
Calcasieu	8	3	306	318	-12	-3.8%
St. Tammany	3	7	227	165	62	37.6%
<u>Caddo</u>	3	4	222	172	50	29.1%
Jefferson	2	1	208	163	45	27.6%
Orleans	5	2	201	178	23	12.9%
Lafayette	4	3	177	193	-16	-8.3%
Tangipahoa	5	4	176	138	38	27.5%
<u>Ouachita</u>	3	3	161	116	45	38.8%
Livingston	2	2	133	112	21	18.8%
St. Martin	2	2	121	89	32	36.0%
<u>Bossier</u>	1	2	118	93	25	26.9%
Rapides	2	0	115	98	17	17.3%
Lafourche	4	1	110	69	41	59.4%
Ascension	2	1	104	98	6	6.1%
West Baton Rouge	4	2	92	95	-3	-3.2%
TOTAL	61	44	2,875	2,431	444	18.3%

Rural CMV Crashes

Table 13a 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. While the fatal CMV crashes on US highways increased by 2 or 8.7% from 2020 to 2021, fatal CMV crashes on state highways decreased by 2 (-5.4%), and fatal CMV crashes on interstates increased by 27 or 122.7%.

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Injury crashes during the same period increased of 14.1% on interstates, 8.1% on US Highways, and 18.1% on State Roads.

Table 13a: CMV Rural Crashes by Highway Type 2021

HIGHWAY TYPE	FATAL CRASHES			INJURY CRASHES			PDO			TOTAL		
	2021 CRASH	2020 CRASH	DIFFERENCE	2021 CRASH	2020 CRASH	DIFFERENCE	2021 CRASH	2020 CRASH	DIFFERENCE	2021 CRASH	2020 CRASH	DIFFERENCE
INTERSTATE	32	14	128.6%	353	328	7.6%	512	452	13.3%	897	794	13.0%
US HIGHWAY	17	15	13.3%	192	193	-0.5%	174	135	28.9%	383	343	11.7%
STATE ROAD	31	31	0.0%	493	423	16.5%	390	337	15.7%	914	791	15.5%
PARISH ROAD	3	2	50.0%	127	116	9.5%	132	112	17.9%	262	230	13.9%
CITY/LOCAL ROADS	0	0	0.0%	0	1	-100.0%	0	2	-100.0%	0	3	-100.0%
OTHER	0	0	0.0%	0	0	0.0%	1	0	0.0%	1	0	0.0%
ALL ROADWAYS	83	62	33.9%	1,165	1,061	9.8%	1,209	1,038	16.5%	2,457	2,161	13.7%
% Interstates	38.6%	22.6%	16.0%	30.3%	30.9%	-0.6%	42.3%	43.5%	-1.2%	36.5%	36.7%	-0.2%
% US	37.3%	50.0%	-12.7%	42.3%	39.9%	2.4%	32.3%	32.5%	-0.2%	37.2%	36.6%	0.6%
% State	20.5%	24.2%	-3.7%	16.5%	18.2%	-1.7%	14.4%	13.0%	1.4%	15.6%	15.9%	-0.3%
% State, US, & Interstate	96.4%	96.8%	-0.4%	89.1%	89.0%	0.1%	89.0%	89.0%	0.0%	89.3%	89.2%	0.1%

The crash report does not indicate if a crash was urban or rural besides the city code which is not a reliable indicator. Because of urban sprawl over the years there are many urbanized areas outside the city limits.

Table 13b shows the percentage of crashes by severity and highway type 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 65.3% of the fatal interstate CMV crashes occurred in rural areas and 51.8% of the injury interstate CMV crashes occurred in rural areas. Overall, 72.8% of fatal CMV crashes and 57.9% of all CMV crashes occur in rural areas. Thus, rural interstates, US highways, and state highways should continue to be the focus of enforcement.

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Table 13b: Percentage of CMV Crashes Outside City Limits 2021

HWY Type	Fatal	Injury	PDO	Total
INTERSTATE	65.3%	51.8%	62.7%	58.0%
US HIGHWAY	68.0%	46.2%	57.8%	51.6%
STATE ROAD	88.6%	69.8%	69.8%	70.3%
PARISH ROAD	60.0%	36.4%	45.2%	40.6%
CITY/LOCAL ROADS AND STREETS	0.0%	0.0%	0.0%	0.0%
ALL ROADWAYS	72.8%	54.0%	61.2%	57.9%

Bus Crashes

Small and large busses are of particular interest to law enforcement because of the potential risk of high number of fatalities in a single crash. The number of CMV bus crashes, injuries, and fatalities is depicted in Table 14. In 2021, there were 75 large bus crashes where 116 passengers were injured inside the bus. There were 45 small bus crashes with no people killed but 25 passengers were injured. There were 138 school bus crashes with 202 passengers injured. Overall, in 2021, there were 3 people killed in 258 bus crashes and 343 injured. The number of bus crashes has increased from 185 in 2020 to 258 in 2021, and the number of injuries has increased from 221 in 2020 to 343 in 2021. The number of school bus and small bus crashes have significantly increased by 64.3% and 50.0% respectively. Large bus crashes have also increased, but only by 5.6%.

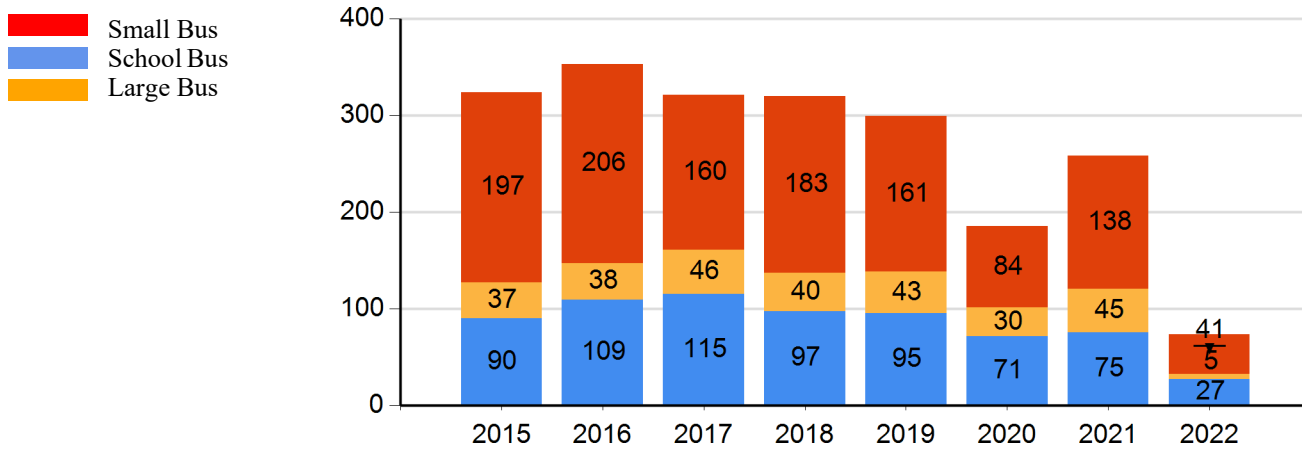
Table 14: CMV Bus Crashes in 2020-4/14/2022

Year		Count	SCHOOL BUS	SMALL BUS	LARGE BUS	TOTAL
2020	Bus Crash	Number of Crashes	84	30	71	185
		Number of Fatal Crashes	3	0	2	5
		Number Total Killed	3	0	2	5
		Number Killed Inside Bus	0	0	1	1
		Number Injured Inside Bus	98	11	112	221
2021	Bus Crash	Number of Crashes	138	45	75	258
		Number of Fatal Crashes	2	0	1	3
		Number Total Killed	2	0	1	3
		Number Killed Inside Bus	0	0	0	0
		Number Injured Inside Bus	202	25	116	343
2022	Bus Crash	Number of Crashes	41	5	27	73
		Number of Fatal Crashes	1	0	1	2
		Number Total Killed	1	0	1	2
		Number Killed Inside Bus	0	0	0	0
		Number Injured Inside Bus	38	0	38	76

Figure 14 shows the trend in bus crashes. The graph shows that the total number of bus crashes have increased from 185 in 2020 to 258 in 2021.

Commercial Vehicle Safety - 2021

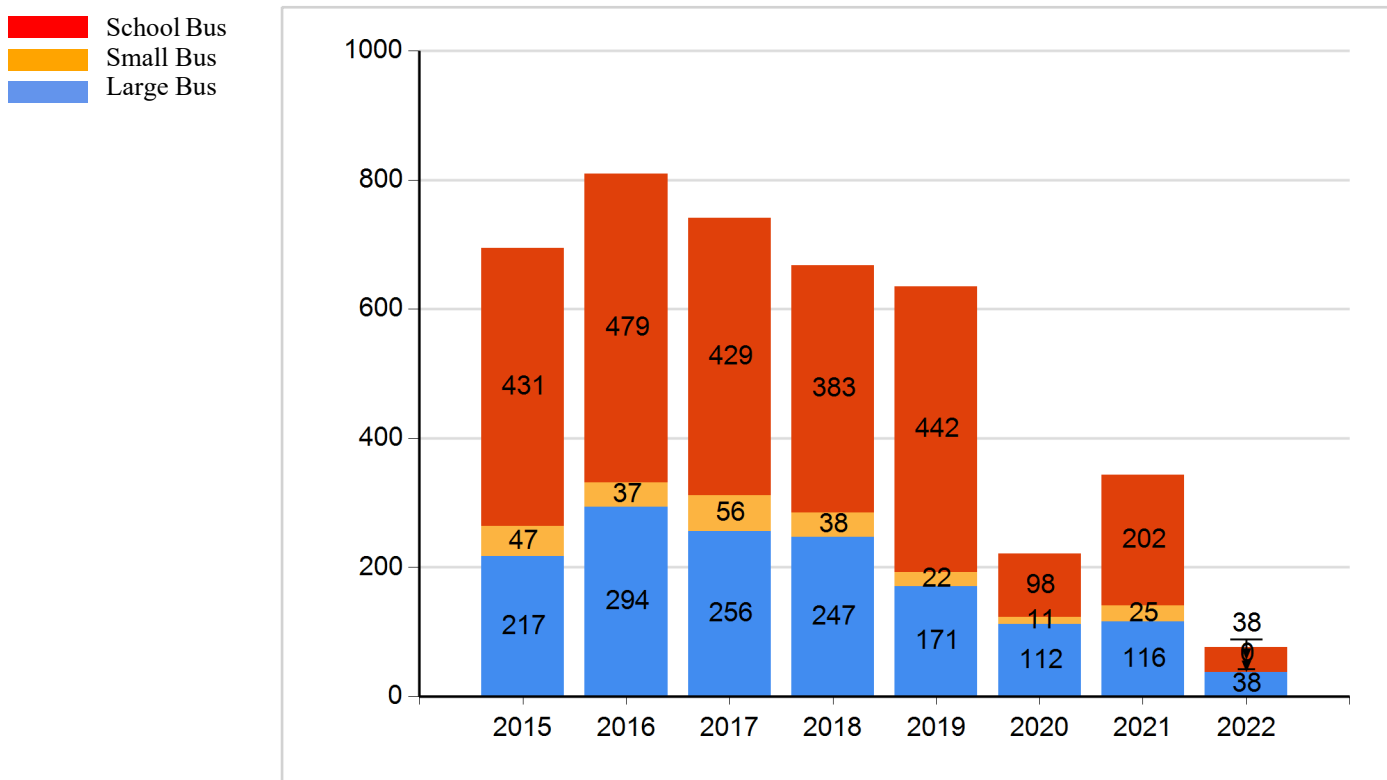
Figure 14: CMV Bus Crashes 2015 to 4/14/2022



Commercial Vehicle Safety - 2021

Figure 15 shows that injuries in bus crashes peaked in 2016 with 810 injuries reported.

Figure 15: Bus-Crash Injuries 2015 to 4/14/2022



Commercial Vehicle Safety - 2021

While the number of bus crashes increased by 28.3% from 2020 to 2021, namely from 185 to 258, the number of injuries has significantly increased by 55.20%, namely from 221 to 343.

2022 YTD Crash Results

The 2022 data is still being collected at this time, but the following Table 15 provides a snapshot of CMV crashes YTD.

Table 15: CMV Crashes YTD 2022

CMV Crashes and Type	2022 YTD*
Total CMV Fatal Crashes	14
Total Fatalities	15
Total Passenger Carrier Crashes	73
Total Passenger Carrier Fatal Crashes	2
Total Passenger Carrier Fatalities (In Crash)	0
Total HazMat Crashes	19
Total HazMat Fatal Crashes	0
Total HazMat Fatalities	0
Total Construction Zone Fatal Crashes (Table 7a)	0
Total in 5 Mile Approach to Construction Zone (Table 7a)	0

***As of Thursday, April 14, 2022, NA: Not available at this time.**

Note: Definition of Reportable CMV Crashes: To qualify for reporting to the SafetyNET, the crash has to involve a private or public motor carrier, a GCWR weight of at least 10,001 pounds or above, a motor vehicle that can transport 9 or more people including the driver seat or a vehicle displaying a hazmat placard and one of the three conditions apply: (1) a tow of one of the vehicles, (2) the transportation of an injured person to medical treatment away from the crash scene, or (3) a fatality.