2019 Pocket Guide to Large Truck and Bus Statistics

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Federal Motor Carrier Safety Administration

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INTRODUCTION

The primary mission of the Federal Motor Carrier Safety Administration (FMCSA) is to reduce crashes, injuries, and fatalities involving large trucks and buses. In carrying out its safety mandate, FMCSA develops and enforces data-driven regulations that balance motor carrier safety with efficiency. For more information about the Agency and its safety-based initiatives, please visit <u>www.fmcsa.dot.gov</u>.

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LOCATIONS OF FATAL LARGE TRUCK AND BUS CRASHES, 2017



Note: In 2017, there were 4,455 fatal crashes involving large trucks and buses. Data Source: National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS).

The Motor Carrier Management Information System

FMCSA created and maintains the Motor Carrier Management Information System (MCMIS). MCMIS contains information on the safety performance of commercial motor carriers (large trucks and buses) and hazardous materials (HM) carriers subject to the Federal Motor Carrier Safety Regulations (FMCSRs) and Hazardous Materials Regulations (HMRs). This system contains crash, census, inspection, and investigation files created to monitor and develop safety standards for commercial motor vehicles (CMVs) operating in interstate commerce. The crash file includes information on all trucks and buses involved in reportable crashes. The census file includes descriptive information on every motor carrier in MCMIS and is updated weekly. FMCSA analyzes motor carrier self-reported MCMIS registration data and applies filters to identify and remove inaccurate entries to avoid over- or under-estimating values. The inspection file contains data from State and Federal inspection actions involving motor carriers operating in the United States. Most of the inspection data included in MCMIS are collected at the roadside by State personnel under the Motor Carrier Safety Assistance Program (MCSAP). The investigation file includes data from warning letters and on-site and off-site investigations and reviews conducted on motor carriers that transport property or passengers in interstate or intrastate commerce. Most of the investigation data is captured onsite during the examination of a motor carrier's operations by a safety investigator.

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1. OVERVIEW: LARGE TRUCKS AND BUSES

In 2017, among the 272,480,899 total registered vehicles in the United States, 9,336,998 were single-unit trucks (straight trucks), 2,892,218 were combination trucks (tractor-trailers), and 983,231 were buses. Also in 2017, there were 3,212.3 billion vehicle miles traveled (VMT) by all motor vehicles. Large trucks traveled 297.6 billion of those miles (9.3 percent of the total), and buses traveled 17.2 billion of those miles (0.5 percent of the total).

FMCSA regulates all registered commercial motor vehicles (CMVs) that operate interstate or that carry hazardous materials (HM). As of December 2018, 560,809 interstate motor carriers and intrastate HM motor carriers had recent activity operating in the United States:

- 311,135 were for-hire carriers
- 193,445 were private carriers
- 53,138 were both for-hire and private carriers
- 3,091 were neither for-hire nor private carriers (e.g., government).

FMCSA regulates all drivers involved in interstate commerce or intrastate transportation of HM, as well as all Commercial Driver's License (CDL) drivers, both interstate and intrastate. Approximately 6.6 million CMV drivers operate in the United States:

- 4.0 million operate interstate
 - 3.2 million operate interstate and hold CDLs
- 2.6 million operate intrastate
 - 1.1 million operate intrastate and hold CDLs.

Notes: The number of carriers and/or drivers in operation at any given time is subject to change, due to enforcement actions, business turnovers, licensing issues, and other factors. Interstate and some intrastate driver counts are based on motor carrier registration data contained in the Motor Carrier Management Information System (MCMIS); intrastate driver counts for States that do not require carriers to register with FMCSA were estimated by extrapolation from States requiring both interstate and intrastate carriers to register in MCMIS. Data Sources: Registration Data - Federal Highway Administration (FHWA), *Highway Statistics 2017*; Carrier and CMV Driver Counts - FMCSA, MCMIS, data snapshot as of December 28, 2018.

1-1 Registered Vehicles in the United States, 2014-2017

Year	All Vehicles	Large Trucks	Buses
2014	260,350,938	10,905,956	872,027
2015	263,610,219	11,203,184	888,907
2016	268,799,083	11,498,561	976,161
2017	272,480,899	12,229,216	983,231

Data Source: Federal Highway Administration (FHWA), *Highway Statistics* 2017, Table VM-1.

1-2 Million Vehicle Miles Traveled (VMT) in the United States, 2014-2017

		Large		
Year	All Vehicles	Single-Unit	Combination	Buses
2014	3,025,656	109,301	169,830	15,999
2015	3,095,373	109,597	170,246	16,230
2016	3,174,408	113,338	174,557	16,350
2017	3,212,347	116,102	181,490	17,227

Data Source: Federal Highway Administration (FHWA), *Highway Statistics 2017*, Table VM-1.

1-3 Motorcoach Passenger Trips in the United States and Canada by Fleet Size, 2017

Motorcoach	Passenger Trips:		Average Passe	nger Trips per:
Fleet Size	Total	Percent	Motorcoach	Carrier
100 or more	398,085,000	69.3%	45,314	19,904,251
50 to 99	31,373,100	5.5%	8,653	475,349
25 to 49	56,269,900	9.8%	18,891	541,057
10 to 24	33,736,400	5.9%	6,031	87,627
1 to 9	55,087,900	9.6%	3,384	21,018
Industry Total	574,552,300	100.0%	15,418	179,772

Note: Percentages may not sum to 100 percent because of rounding. Data Source: Motorcoach Census: A Study of the Size and Activity of the Motorcoach Industry in the United States and Canada in 2017. Prepared for the American Bus Association Foundation by John Dunham & Associates, June 5, 2019. Available at www.buses.org/aba-foundation/research-summary/size-and-scope.

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1-4 Commercial Motor Vehicle (CMV) Drivers Operating in the United States, 2018



Notes: The number of carriers and/or drivers in operation at any given time is subject to change, due to enforcement actions, business turnovers, licensing issues, and other factors. Interstate and some intrastate driver counts are based on motor carrier registration data contained in the Motor Carrier Management Information System (MCMIS); intrastate driver counts for States that do not require intrastate carriers to register with FMCSA are estimated via extrapolation of State data.

Data Source: FMCSA, MCMIS, data snapshot as of December 28, 2018.

1-5 Active Motor Carriers by Type, 2014-2018

Туре	2014	2015	2016	2017	2018
Interstate Freight	503,417	521,248	493,730	511,746	527,403
Interstate Passenger	12,487	13,274	12,603	12,699	12,185
Intrastate Hazardous Materials	16,120	16,628	17,725	18,616	21,221
Total	532,024	551,150	524,058	543,061	560,809

Notes: The count of intrastate Hazardous Materials (HM) carriers includes a few active intrastate non-HM carriers with HM activity that meets the Safety Measurement System (SMS) HM threshold definition. Company counts are estimates based on motor carriers in the Motor Carrier Management Information System (MCMIS) with recent activity, defined as those carriers that have had an inspection, a crash, an investigation, a safety audit, an FMCSA Motor Carrier Identification Report (Form MCS-150) update, a vehicle registration activity, or a Unified Carrier Registration (UCR) system payment activity in the past 3 years, or have current operating authority indicated in the FMCSA Licensing and Insurance (L&I) database. Beginning on November 1, 2013, FMCSA's Unified Registration System (URS) rule requires all regulated entities to update their registration (USDOT) number of any carrier that fails to comply with the biennial update requirement.

Data Source: FMCSA, MCMIS, data snapshots as of December 19, 2014, December 28, 2015, December 30, 2016, December 29, 2017, and December 28, 2018.

1-6 Active Hazardous Materials (HM) Carriers, 2014-2018

Active HM Carriers	2014	2015	2016	2017	2018
Interstate	63,043	68,113	70,681	75,398	74,930
Interstate HM Carriers Meeting SMS Threshold	7,772	7,549	7,420	7,388	7,251
Interstate HM Carriers with a Safety Permit (HMSP)*	1,200	1,182	1,144	1,128	882
Intrastate	16,120	16,628	17,725	18,616	21,221
Intrastate HM Carriers Meeting					
SMS Threshold	3,001	2,974	2,886	2,842	2,750
Intrastate HMSP*	229	212	179	174	159
Total Active HMSP Carriers*	1,429	1,394	1,323	1,302	1,041
Total HM Carriers	79,163	84,741	88,406	94,014	96,151

*HMSP carriers are a subset of the total HM carrier population.

Note: The count of intrastate HM carriers includes a few active intrastate non-HM carriers with HM activity that meets the Safety Measurement System (SMS) threshold definition. Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshots as of December 19, 2014, December 28, 2015, December 30, 2016, December 29, 2017, and December 28, 2018.

1-7 Household Goods Carriers and Brokers Operating in the United States, 2014-2018

Year	Active Household Goods Carriers	Household Goods Brokers Registered	Property Brokers Registered
2014	3,782	456	15,272
2015	4,032	507	16,238
2016	4,205	580	17,184
2017	4,394	671	17,966
2018	4,486	711	19,443

Note: A broker is an individual, partnership, or corporation that receives payment for arranging the transportation of property or household goods belonging to others by using an authorized motor carrier. Data Source: FMCSA, Licensing & Insurance (L&I), data snapshots as of December 19, 2014, December 28, 2015, December 30, 2016, December 29, 2017, and December 28, 2018.

1-8 FMCSA-Regulated Carriers, 2014-2018

Motor Carrier Census Data	2014	2015	2016	2017	2018
Active Carriers with					
a USDOT Number	532,024	551,150	524,058	543,061	560,809
Power Units	4,248,157	4,412,912	4,339,986	4,470,910	4,578,236
CDL Drivers	3,241,961	3,327,197	3,304,388	3,425,446	3,469,096
Total Drivers	4,511,862	4,658,566	4,640,118	4,820,948	4,946,903

Notes: Compared to prior publications, total driver and CDL counts changed due to new filters being applied to exclude erroneous data in the motor carrier registration file. Only interstate carriers and intrastate hazardous materials (HM) carriers with recent activity are included in this table. Beginning on November 1, 2013, FMCSA's Unified Registration System (URS) rule requires all regulated entities to update their registration information every 24 months. The Agency deactivates the USDOT number of any carrier that fails to comply with the biennial update requirement. Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshots as of December 19, 2014, December 28, 2015, December 30, 2016, December 29, 2017, and December 28, 2018.

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1-9 Carriers by Headquarters (Domicile) Location, 2019



Notes: Domicile refers to the headquarters location for a carrier. This map displays only interstate carriers and intrastate hazardous materials (HM) carriers. Intrastate non-HM carriers are not displayed. The number of carriers depicted in this map may not be the same as reported elsewhere by FMCSA. Due to potential differences in reporting dates and quality issues with carrier addresses, this map may not include all current carriers. Additionally, the number of carriers that operate at any given time is subject to change due to enforcement actions, business turnover, and other factors.

Country	Active Carriers with a USDOT Number	Power Units	CDL Drivers	Total Drivers
United States	542,375	4,440,647	3,341,475	4,803,829
Canada	13,097	108,289	105,241	115,831
Mexico	5,132	28,539	22,229	26,741
Certificate Carriers	179	643	563	619
Commercial Zone Carriers	4,902	27,213	21,021	25,423
Enterprise Carriers	955	5,778	5,257	5,731
Long Haul Carriers	47	568	532	585
Other Countries	205	761	151	502
All Domiciles	560,809	4,578,236	3,469,096	4,946,903

1-10 FMCSA-Regulated Carriers by Domicile, 2018

Notes: U.S. domiciled carriers include carriers domiciled in the 50 U.S. States, the District of Columbia, and the U.S. territories. The sum of the Mexican carrier types may not sum to the total as some of the Mexican-owned carriers are domiciled in the United States. Only interstate carriers and intrastate hazardous materials (HM) carriers with recent activity are included in this table. Beginning on November 1, 2013, FMCSA's Unified Registration System (URS) rule requires all regulated entities to update their registration information every 24 months. The Agency deactivates the USDOT number of any carrier that fails to comply with the biennial update requirement. A Mexican certificate carrier is a Mexico-domiciled motor carrier that transports exempt commodities or operates as a private motor carrier. These motor carriers were issued authority to operate trucks to points in the United States beyond the commercial zones. FMCSA stopped issuing these certificates in 2002, A Mexican commercial zone carrier is a Mexico-domiciled carrier that has authority to operate its trucks only within the U.S.-Mexico border commercial zones in the United States. A Mexican enterprise carrier is a Mexican-owned or controlled carrier that is domiciled in the United States and operates in the United States, conducting cross-border transportation of international cargo that originates in or is destined for a foreign country. A Mexican long-haul carrier is a Mexico-domiciled carrier that has authority to engage in long-haul transportation in the United States as a motor carrier of property (except household goods and placardable HM) in interstate commerce in or beyond the border commercial zones. The authority does not allow point-to-point transportation services within the United States for goods other than international cargo. Reports include activity for all U.S. operations from the date the carrier was first allowed to operate up through the date of the current data snapshot.

1-11 FMCSA-Regulated Carriers by Number of Power Units, 2014-2018

Power Units	2014	2015	2016	2017	2018
1 Power Unit	248,088	257,695	242,832	253,035	263,987
2 Power Units	92,665	96,034	90,910	92,937	94,505
3–10 Power Units	137,817	142,080	136,322	139,569	142,224
11–100 Power Units	45,600	47,193	46,636	47,989	49,337
>100 Power Units	4,012	4,192	4,171	4,273	4,370
No Power Units/Unreported	3,842	3,956	3,187	5,258	6,386
Total	532,024	551,150	524,058	543,061	560,809

Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshots as of December 19, 2014, December 28, 2015, December 30, 2016, December 29, 2017, and December 28, 2018.

1-12 Transportation Services Index (TSI) Freight and Passenger Movement Estimates, 2000-2018



Notes: The Transportation Services Index (TSI), created by the U.S. Department of Transportation (USDOT), Bureau of Transportation Statistics (BTS), measures the movement of freight and passengers. The index, which is seasonally adjusted and updated monthly, combines available data on freight traffic, as well as passenger travel, that have been weighted to yield a monthly measure of transportation services output. TSI numbers are BTS estimates. The index numbers for the latest 3 months are considered to be preliminary. BTS releases the preliminary number for the latest month and replaces the number for the oldest preliminary month with a revised number. Seasonal adjustment models for the modal data have been updated for the data from January 2000 to the present.

Data Source: USDOT, BTS, TSI, available at <u>https://www.transtats.bts.gov/OSEA/</u> TSI/ as of May 24, 2019.

1-13 Average Daily Truck Traffic on the National Highway System, 2012



Notes: In this map, both private and for-hire trucks are included. Trucks that are used in movements for multiple modes and mail, or that move in conjunction with domestic air cargo, are excluded. For more information on Freight Analysis Framework (FAF) mode classes, refer to: <u>https://www.bts.gov/archive/subject_areas/</u> freight_transportation/faf/users_guide/.

Data Source: Federal Highway Administration (FHWA), Office of Freight Management and Operations, FAF, Version 4.3 available at <u>http://faf.ornl.gov</u> as of March 2017.

1-14 Weight of Freight Shipped within the United States by Mode (in Millions of Tons), 2013-2017

Mode	2013	2014	2015	2016	2017
Truck	10,269	10,542	10,658	10,806	10,745
Rail	1,516	1,552	1,476	1,378	1,384
Water	524	539	531	521	525
Air*	2	2	2	2	2
Multiple Modes & Mail	317	327	320	318	318
Pipeline	2,637	2,733	2,745	2,696	2,776
Other**	36	37	34	29	30
Total	15,301	15,733	15,767	15,750	15,780

*Includes air and truck-air.

**Includes other, unknown, and no domestic mode.

Note: Includes domestic trade and the domestic portion of imports and exports. Data Sources: Federal Highway Administration (FHWA), Freight Analysis Framework (FAF), Version 4.5 as of May 24, 2019, available at <u>http://faf.ornl.gov</u>.

1-15 Percent of Total Weight of Freight Moved by Mode, 2017



Notes: Includes domestic trade and the domestic portion of imports and exports. Air accounts for 0.03 percent of total domestic freight and is excluded from this chart. Percentages may not sum to 100 percent due to rounding. Data Sources: Federal Highway Administration (FHWA), Freight Analysis Framework (FAF), Version 4.5 as of May 24, 2019, available at <u>http://faf.ornl.gov</u>.

1-16 Driver and Passenger Safety Belt Usage by Commercial Motor Vehicle (CMV) Body Type, 2010, 2013, and 2016

Driver and Other Occupant Group	2010	2013	2016
Buses			
Commercial Bus	47.0%	74.4%	65.4%
School Bus	81.7%	85.9%	91.9%
15-Passenger Van	-	-	96.2%
Mini Bus	87.9%	86.3%	88.8%
Transit Bus	-	-	53.4%
Large Trucks			
Bobtail	70.9%	86.2%	84.8%
Intermodal Container	75.3%	81.5%	92.6%
Dump	64.5%	69.3%	77.7%
Flatbed	74.0%	81.9%	82.2%
Van (Enclosed Box Truck)	80.2%	85.7%	87.4%
Tanker	82.5%	85.3%	87.9%
Other	73.3%	80.9%	84.7%

Notes: Prior to 2016, the body type "15-Passenger Van" was captured in the "Mini Bus" category. "Transit Bus" was included as a category for the first time in 2016. The Seat Belt Use by Commercial Motor Vehicle Drivers (SBUCMVD) Survey is conducted every 3 years. In 2016, a total of 39,319 commercial motor vehicles, 39,319 drivers, and 2,451 other occupants were observed at 1,008 sites. Only driver belt use is observed for buses (for the purpose of this study, 15-passenger vans are counted as buses). "Other occupants" are right-front passengers.

Data Source: FMCSA, SBUCMVD 2016 Survey. For more information, refer to: http://www.fmcsa.dot.gov/safety/safety-belt/safety-belt-studies.

1-17 CMV Driver and Passenger Safety Belt Usage by Occupant Type, 2010, 2013, and 2016

Occupant Type	2010	2013	2016
All Occupants	77.1%	83.0%	84.9%
Drivers	78.1%	83.7%	86.1%
Other Occupants	64.0%	72.9%	69.8%

Notes: The Seat Belt Use by Commercial Motor Vehicle Drivers (SBUCMVD) Survey is conducted every 3 years. In 2016, a total of 39,319 commercial motor vehicles, 39,319 drivers, and 2,451 other occupants were observed at 1,008 sites. Only driver belt use is observed for buses (for the purpose of this study, 15-passenger vans are counted as buses). "Other occupants" are right-front passengers.

Data Source: FMCSA, SBUCMVD 2016 Survey. For more information, refer to: http://www.fmcsa.dot.gov/safety/safety-belt/safety-belt-studies.

1-18 Number of Medical Examiners Certified by State, 2019



Notes: In May 2019, there were 65,535 medical examiners certified on the National Registry of Certified Medical Examiners (National Registry). If a medical examiner has multiple offices in the same State, the examiner is counted once. However, if a medical examiner has a business office in two or more States, the examiner will be counted once in each State.

Data Source: FMCSA, National Registry, May 30, 2019. Available at <u>https://</u>nationalregistry.fmcsa.dot.gov.

2. INSPECTIONS AND VIOLATIONS

What is an Inspection?

An inspection is an examination of an individual commercial motor vehicle (CMV) and/or driver by an authorized safety inspector. State inspectors conduct approximately 95 percent of inspections, with the remainder conducted by Federal inspectors. The inspection determines whether the driver and/ or the CMV is in compliance with the Federal Motor Carrier Safety Regulations (FMCSRs) or the Hazardous Materials Regulations (HMRs), as appropriate. Serious violations result in the issuance of vehicle or driver out-of-service (OOS) orders. These violations must be corrected before the affected driver or vehicle can return to service.

2-1 Inspections Conducted by Federal and State Inspectors, 2014-2018

	2014	2015	2016	2017	2018
Inspections	3,413,399	3,382,980	3,401,103	3,457,102	3,508,719
State	3,282,960	3,252,724	3,280,166	3,334,720	3,385,977
Federal	130,439	130,256	120,937	122,382	122,742

Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of January 25, 2019.

2-2 Safety Inspectors, Federal and State, 2014-2018

Inspector Type	2014	2015	2016	2017	2018
Safety Inspectors	16,145	15,741	14,830	14,182	13,839
State	15,598	15,204	14,321	13,657	13,323
Federal	547	537	509	525	516

Note: Not all personnel indicated are assigned full-time to conducting inspections. Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of January 25, 2019.



Inspections by County, 2018

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Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of January 25, 2019.

2-4 Inspection Out-of-Service (OOS) Rates, 2014-2018

Type of Inspection	2014	2015	2016	2017	2018
Driver Inspections*	3,293,826	3,264,016	3,283,556	3,344,964	3,395,955
With OOS Violation	166,179	158,814	161,111	170,910	161,585
Driver OOS Rate	5.1%	4.9%	4.9%	5.1%	4.8%
Vehicle Inspections**	2,341,484	2,321,376	2,337,164	2,382,194	2,405,751
With OOS Violation	476,886	471,393	466,839	493,613	501,113
Vehicle OOS Rate	20.4%	20.3%	20.0%	20.7%	20.8%
Hazmat Inspections***	196,158	191,730	201,309	200,056	201,721
With OOS Violation	7,794	7,373	7,930	7,932	8,435
Hazmat OOS Rate	4.0%	3.9%	3.9%	4.0%	4.2%

*Driver Inspections were computed based on inspection levels I, II, III, and VI.

Vehicle Inspections were computed based on inspection levels I, II, V, and VI. *Hazmat Inspections were computed based on inspection levels I, II, III, IV, V, and VI when hazardous materials were present.

Notes: Inspection OOS rates depicted in this table include both large trucks and buses. Counts in this table include Federal and State inspections. For more information on inspections and inspection levels, please refer to <u>http://cvsa.org/</u> inspections/inspections/all-inspection-levels/.

2-5 Inspections by Level, 2014-2018

Inspection Level	2014	2015	2016	2017	2018
I. Full	1,063,322	1,060,023	1,013,253	1,039,210	1,101,999
With OOS Violation(s)*	271,459	267,193	252,221	266,508	277,705
II. Walk-Around	1,168,952	1,154,438	1,217,351	1,237,797	1,200,315
With OOS Violation(s)*	261,961	258,829	269,558	285,260	280,166
III. Driver Only	1,061,074	1,049,329	1,052,708	1,067,345	1,092,701
With OOS Violation(s)*	67,795	62,539	64,117	65,324	55,737
IV. Special Study	10,841	12,275	11,231	7,563	10,267
With OOS Violation(s)*	1,989	2,198	2,079	1,596	1,998
V. Terminal	108,732	106,689	106,316	104,575	102,497
With OOS Violation(s)*	6,908	6,318	6,184	5,834	5,704
VI. Radioactive Materials	478	226	244	612	940
With OOS Violation(s)*	5	2	11	13	5
Total	3,413,399	3,382,980	3,401,103	3,457,102	3,508,719

*Out-of-service (OOS) violation numbers are based on inspections. For example, in 2018, there were 1,101,999 Level I inspections. Out of all the Level I inspections completed, 277,705 resulted in <u>at least one</u> OOS violation.

Note: For more information on inspections and inspection levels, please refer to http://cvsa.org/inspections/inspections/all-inspection-levels/.

Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of January 25, 2019.

2-6 Inspections by Level, 2018



Note: For more information on inspections and inspection levels, please refer to http://cvsa.org/inspections/inspections/all-inspection-levels/. Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of January 25, 2019.

2-7 Inspections by Carrier Fleet Size, 2014-2018

Carrier Fleet Size	2014	2015	2016	2017	2018
Very Small (1-6 Power Units)	986,587	1,003,154	1,070,118	1,084,191	1,095,597
Small (7-20 Power Units)	583,247	588,991	598,280	619,172	620,932
Medium (21-100 Power Units)	707,782	706,199	725,612	742,839	750,049
Large (>100 Power Units)	836,521	828,887	853,350	866,515	887,771
Unknown	299,262	255,749	153,743	144,385	154,370
Total	3,413,399	3,382,980	3,401,103	3,457,102	3,508,719

Note: Carriers listed as having zero power units are included in the "Unknown" category. Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of January 25, 2019.

2-8 Inspections by Carrier Operation, 2014-2018

Carrier Operation	2014	2015	2016	2017	2018
Interstate	2,809,555	2,784,667	2,777,374	2,808,416	2,785,514
Intrastate	603,844	598,313	623,729	648,686	723,205
Total	3,413,399	3,382,980	3,401,103	3,457,102	3,508,719

Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of January 25, 2019.

2-9 Inspections by Gross Combination Weight Rating (GCWR), 2014-2018

GCWR	2014	2015	2016	2017	2018
<10,000 pounds	17,344	17,654	16,743	16,613	15,648
10,000 - 26,000 pounds	430,477	452,307	470,646	494,906	546,485
>26,000 pounds	2,505,250	2,617,938	2,735,246	2,816,284	2,823,602
Unknown	460,328	295,081	178,468	129,299	122,984
Total	3,413,399	3,382,980	3,401,103	3,457,102	3,508,719

Note: GCWRs are based on Inspection Reports as reported in MCMIS. Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of January 25, 2019.

2-10 Most Frequent Driver Violations in Inspections, 2018

Violation Code	Category	Violation Description	Number of Violations
395.8	No Log/Log Not Current	Record of Duty Status Violation (General/Form and Manner)	81,046
392.2SLLS2	Traffic Enforcement	State/Local Laws - Speeding 6-10 Miles Per Hour Over the Speed Limit	72,224
392.16	Seat Belt	Failing to Use Seat Belt While Operating a Commercial Motor Vehicle (CMV)	60,433
392.2C	Traffic Enforcement	Failure to Obey Traffic Control Device	53,947
391.41AF	Medical Certificate	Operating a Property-carrying Vehicle Without Possessing a Valid Medical Certificate	52,616
383.23A2	All Other Driver Violations	Operating a CMV Without a Commercial Driver's License (CDL)	38,687
395.22A	All Other Driver Violations	Operating with a Device That Is Not Registered with FMCSA	36,498
392.2LV	Traffic Enforcement	Lane Restriction Violation	35,598
392.2SLLS3	Traffic Enforcement	State/Local Laws - Speeding 11-14 Miles Per Hour Over the Speed Limit	32,871
395.8E	No Log/Log Not Current	False Report of Driver's Record of Duty Status	31,664
391.41A	Medical Certificate	No Medical Certificate in Driver's Possession	27,528
395.8F01	No Log/Log Not Current	Driver's Record of Duty Status Not Current	26,708
395.8A	No Log/Log Not Current	No Driver's Record of Duty Status When One Is Required	23,138
392.82A1	All Other Driver Violations	Using a Handheld Mobile Telephone While Operating a CMV	20,367
395.3A3II	Hours of Service	Driving Beyond 8-hour Limit Since the End of the Last Off-duty or Sleeper Period of At Least 30 Minutes	20,118
395.8AELD	No Log/Log Not Current	Electronic Logging Device (ELD) - No Record of Duty Status (ELD Required)	18,291
392.2SLLS4	Traffic Enforcement	State/Local Laws - Speeding 15 or More Miles Per Hour Over the Speed Limit	17,996
395.3A2PROP	Traffic Enforcement	Driving Beyond 14-hour Duty Period (Property- carrying Vehicle)	16,323
395.22H4	No Log/Log Not Current	Driver Failed to Maintain Supply of Blank Driver's Records of Duty Status Graph-grids	16,205
395.22H2	No Log/Log Not Current	Driver Failing to Maintain ELD Instruction Sheet	15,142

Notes: Total number of driver inspections in 2018: 3,395,955. Total number of driver violations in 2018: 992,681. Total number of driver out-of-service (OOS) violations in 2018: 187,874. Only the top 20 driver violations (based on frequency of occurrence) are listed in this table.

2-11 Most Frequent Vehicle Violations in Inspections, 2018

Violation Code	Category	Violation Description	Number of Violations
393.9	Lighting	Inoperable Required Lamp	492,655
393.47E	Brakes, All Others	Clamp or Roto Type Brake Out of Adjustment	185,593
396.17C	Periodic Inspection	Operating a CMV Without Proof of a Periodic Inspection	176,002
396.3A1	All Other Vehicle Defects	Inspection, Repair, and Maintenance of Parts and Accessories	145,131
393.95A	Emergency Equipment	No/Discharged/Unsecured Fire Extinguisher	141,384
396.5B	All Other Vehicle Defects	Oil and/or Grease Leak	124,291
393.9TS	Lighting	Inoperative Turn Signal	120,207
393.11	Lighting	No or Defective Lighting Devices or Reflective Material As Required	115,707
393.75C	Tires	Tire—Other Tread Depth Less than 2/32 of Inch Measured in a Major Tread Groove	113,406
393.53B	Brakes, All Others	CMV Manufactured After 10/19/94 Has an Automatic Airbrake Adjustment System That Fails to Compensate for Wear	90,763
393.78	Windshield	Windshield Wipers Inoperative/Defective	89,158
393.75A3	Tires	Tire—Flat and/or Audible Air Leak	84,009
393.45B2	Lighting	Brake Hose or Tubing Chafing and/or Kinking	82,826
393.55E	Brakes, All Others	No or Defective ABS Malfunction Indicator Lamp for Trailer Manufactured after 03/01/1998	79,088
369.3A1BOS	Brakes, All Others	Brakes Out of Service: The Number of Defective Brakes Is Equal to or Greater Than 20 Percent of the Service Brakes on the Vehicle or Combination	69,065
393.95F	Emergency Equipment	No/Insufficient Warning Devices	69,016
396.3A1B	Brakes, All Others	Brakes (General)	63,371
393.48A	Brakes, All Others	Inoperative/Defective Brakes	62,519
393.9H	Lighting	Inoperable Head Lamps	62,126
393.60C	Windshield	Damaged or Discolored Windshield	53,050

Notes: Total number of vehicle inspections in 2018: 2,405,751. Total number of vehicle violations in 2018: 3,859,361. Total number of vehicle OOS violations in 2018: 753,845. Only the top 20 vehicle violations (based on frequency of occurrence) are listed in this table.

2-12 Traffic Enforcement Inspections, 2014-2018

Activity Summary	2014	2015	2016	2017	2018
Traffic Enforcement Inspections	386,216	374,880	369,096	377,592	394,937
With Moving Violations With Drug & Alcohol	215,247	210,480	220,810	228,924	243,882
Violations	850	865	903	836	348
With Railroad Crossing Violations	254	283	218	223	212
With Non-specified State Law/ Miscellaneous Violations	181,887	175,008	159,217	159,795	162,870

Notes: One inspection may result in more than one violation; therefore, totals may not equal the sum of all components. The traffic enforcement program involves the enforcement of 26 moving and non-moving driver violations, which are included in the driver violation portion of the inspection procedures. As of January 2017, two new traffic enforcement violations were added: "driving a commercial motor vehicle (CMV) while texting" and "using a hand-held mobile telephone while operating a CMV." These violations are included in the moving violations category.

Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of January 25, 2019.

2-13 Traffic Enforcement Violations, 2014-2018

Activity Summary	2014	2015	2016	2017	2018
Traffic Enforcement Violations	435,971	419,654	409,143	416,973	435,304
Moving Violations	223,739	217,170	226,921	235,222	250,100
Drug & Alcohol Violations	999	1,020	1,016	955	419
Railroad Crossing Violations	254	284	219	224	213
Non-specified State Law/					
Miscellaneous Violations	210,979	201,180	180,987	180,572	184,572

Notes: The traffic enforcement program involves the enforcement of 26 moving and non-moving driver violations, which are included in the driver violation portion of the inspection procedures. Inspections that result in drug- or alcohol-related violations are included as traffic enforcement type inspections if another moving violation is present. As of January 2017, two new traffic enforcement violations were added: "driving a commercial motor vehicle (CMV) while texting" and "using a hand-held mobile telephone while operating a CMV." These violations are included in the moving violations category.

3. INVESTIGATIONS

This chapter provides summarized data for the past 5 years on all types of investigations and reviews conducted on motor carriers that transport property or passengers in interstate or intrastate commerce. Investigations are conducted to investigate identified areas of non-compliance and safety concerns, with a focus on carriers identified as high risk; to investigate complaints; or in response to other safety and compliance concerns. It is intended that through education, heightened safety regulation awareness, and the enforcement effects of investigations, motor carriers will improve the safety of their commercial vehicle operations and, ultimately, reduce their involvement in crashes.

The Compliance, Safety, Accountability (CSA) program is FMCSA's enforcement model to focus the Agency's efforts on large truck and bus safety and to prevent crashes, injuries, and fatalities related to commercial motor vehicles (CMVs). This program has introduced an enforcement and compliance model that allows FMCSA and its State partners to contact more carriers earlier in order to address safety deficiencies before crashes occur. The CSA program provides a nationwide system for making the roads safer for motor carriers and the public alike.

Companies investigated by FMCSA include, but are not limited to: trucking companies, household goods moving companies, bus companies, cargo tank facilities, and hazardous materials shippers.

For more statistics on investigations, please refer to: <u>http://ai.fmcsa.dot.gov/SafetyProgram/Review.aspx</u>.

3-1 Investigations by State, 2018



Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of January 25, 2019.

3-2 Investigations Conducted by Federal and State Investigators, 2014-2018

Investigations	2014	2015	2016	2017	2018
State	7,077	6,254	6,320	6,462	6,038
Federal	7,121	8,353	7,762	8,583	8,167
Total	14,198	14,607	14,082	15,045	14,205

Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of January 25, 2019.

3-3 Interventions by Type, 2014-2018

Intervention Type	2014	2015	2016	2017	2018
Investigations	14,198	14,607	14,082	15,045	14,205
Onsite Comprehensive	5,950	5,645	6,078	6,440	5,878
Onsite Focused	7,206	8,237	6,909	7,676	7,409
Offsite	316	148	118	76	330
Cargo Tank Facility Reviews	56	86	72	120	77
Shipper Reviews	163	131	163	36	11
Non-Rated Reviews	509	360	742	697	500
Warning Letters	20,115	20,659	35,756	28,508	30,150
Terminal Reviews	597	549	532	426	347
Security Contact Reviews	85	87	5,799	15,287	20,322

Notes: Warning letters are based on a Safety Measurement System (SMS) algorithm that was implemented nationally in December of 2010.

Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of January 25, 2019.

3-4 FMCSA-Regulated Carriers by Safety Rating, 2018

	Interstate Freight	Intrastate HM	Interstate Passenger	
Safety Rating	Carriers	Carriers	Carriers	All Carriers
Conditional	17,215	13	371	17,599
Satisfactory	48,295	76	3,789	52,160
Unsatisfactory	1,369	1	51	1,421
No Rating	460,524	21,131	7,974	489,629
Total	527,403	21,221	12,185	560,809

Note: In order to receive a safety rating, a carrier must have received a compliance review or comprehensive onsite investigation.

3-5 Passenger Carrier, Hazardous Materials Carrier, and Household Goods Carrier Investigations, 2014-2018

Carriers by Vehicle Type	2014	2015	2016	2017	2018
Any Passenger Vehicles*	1,340	1,221	1,324	1,552	1,166
Motorcoaches	980	958	984	1,199	915
School Buses	183	155	168	186	176
Vans	332	276	302	348	281
Mini Buses	447	403	417	541	390
Limousines	133	126	140	116	100
Hazardous Materials	770	783	808	643	524
Household Goods	161	184	177	181	172

*The "Any Passenger Vehicles" row might not equal the sum of subcategories for a given row due to carriers applying for multiple passenger authority at the time of the application.

Notes: Passenger carriers were those carriers that registered to transport passengers and owned or leased at least one passenger vehicle (motorcoach, school bus, van, mini-bus, or limousine). Beginning in 2014, reporting criteria for identifying passenger carrier investigations was updated. As a result, data may differ from previous versions. Passenger carrier investigations now reflect investigations performed by Federal and State personnel on motor carriers that were subject to the Safety Measurement System (SMS) passenger carrier threshold at the time of the investigations. Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of January 25, 2019.

3-6 Investigations by Carrier Fleet Size, 2014-2018

Carrier Fleet Size	2014	2015	2016	2017	2018
Very Small (1-6 Power Units)	5,845	6,045	5,692	6,304	5,846
Small (7-20 Power Units)	4,319	4,392	4,387	4,712	4,534
Medium (21-100 Power Units)	2,893	3,037	2,895	2,974	2,889
Large (>100 Power Units)	914	909	873	899	848
No Power Units/Unreported	227	224	235	156	88
Total	14,198	14,607	14,082	15,045	14,205

Note: Carriers listed as having zero power units are included in the "No Power Units/Unreported" category.

3-7 New Entrant Safety Audits, 2014-2018

Year	Safety Audits	Safety Audit Pass Rate
2014	39,519	83.6%
2015	39,235	84.9%
2016	37,548	88.6%
2017	36,210	89.8%
2018	36,254	89.3%

Notes: A new entrant is a motor carrier that applies for a USDOT number in order to initiate operations in interstate commerce or the intrastate transportation of hazardous materials (HM). Carriers remain in the New Entrant Safety Assurance Program until they pass the safety audit and have been in business for 18 months. For more information on the New Entrant Safety Assurance Program, visit <u>http://www.fmcsa.dot.gov/safety/new-entrant-safety-assurance-program</u>. Data Source: FMCSA, Motor Carrier Management Information System (MCMIS), data snapshot as of December 28, 2018.

3-8 Summary of Closed Enforcement Cases, 2014-2018

	2014	2015	2016	2017	2018
Subject Type	Cases	Cases	Cases	Cases	Cases
	(Amount Settled)				
	0	0	0	0	0
Broker	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)
Cargo Tank	28	32	26	35	25
Facility	(\$534,360)	(\$747,300)	(\$658,130)	(\$938,720)	(\$593,650)
Carrier	3,989	4,476	4,308	4,614	4,127
	(\$28,123,128)	(\$31,785,521)	(\$32,475,935)	(\$33,267,045)	(\$29,125,689)
Freight	93	60	77	64	70
Forwarder	(\$1,491,940)	(\$740,800)	(\$897,580)	(\$922,352)	(\$955,874)
HM Carrier	162	163	144	166	139
	(\$2,444,285)	(\$1,954,745)	(\$1,908,390)	(\$2,341,200)	(\$1,673,220)
HM Carrier	1	0	0	0	0
(Not Placarded)	(\$63,960)	(\$0)	(\$0)	(\$0)	(\$0)
HM Carrier/	118	125	147	107	80
Shipper	(\$1,474,658)	(\$1,499,180)	(\$1,561,249)	(\$1,407,510)	(\$963,390)
Other	2	3	3	3	4
	(\$22,000)	(\$16,060)	(\$28,300)	(\$15,360)	(\$16,716)
Passenger	238	210	185	205	89
Carrier	(\$2,424,748)	(\$1,888,238)	(\$1,726,254)	(\$1,777,342)	(\$911,176)
Shipper	4	4	3	5	2
	(\$20,260)	(\$66,280)	(\$30,790)	(\$41,650)	(\$30,110)
Small					
Passenger	0	1	0	0	0
Carrier	(\$0)	(\$2,400)	(\$0)	(\$0)	(\$0)
Total	4,635	5,074	4,893	5,199	4,536
	(\$36,599,339)	(\$38,700,524)	(\$39,286,628)	(\$40,711,179)	(\$34,269,825)

Notes: FMCSA is responsible for ensuring full compliance with all Federal Motor Carrier Safety Regulations (FMCSRs) and Hazardous Materials Regulations (HMRs) required of large truck and bus companies regulated by the U.S. Department of Transportation (USDOT). This table provides data for 5 calendar years of enforcement cases considered "closed" for large truck and bus companies regulated by the USDOT. An enforcement case is deemed "closed" once FMCSA issues a carrier a "Notice of Claim" (NOC) and the carrier has (1) paid the penalty in full, (2) signed a settlement agreement, (3) defaulted on the NOC, upon which a "Final Agency Order" is issued, or (4) found liable for violations charged in the NOC after adjudication.

Data Sources: FMCSA, Motor Carrier Management Information System (MCMIS), Enforcement Management Information System (EMIS), March 29, 2019.

4. CRASHES

In 2017, of the 34,247 fatal crashes on the Nation's roadways, 4,455 (13.0 percent) involved at least one large truck or bus. In addition, there were an estimated 6,419,000 nonfatal crashes, 507,000 (7.9 percent) of which involved at least one large truck or bus. For more information on large truck and bus crashes, please refer to the annual *Large Truck and Bus Crash Facts* publication available at <u>http://www.fmcsa.dot.gov/safety/data-and-statistics/large-truck-and-bus-crash-facts</u>.

Data Sources:

FARS: Maintained by the National Highway Traffic Safety Administration (NHTSA), the Fatality Analysis Reporting System (FARS) is an annual census of fatal crashes involving motor vehicles traveling on public trafficways. For more information on FARS, refer to <u>http://www.nhtsa.gov/FARS</u>.

GES: Also maintained by NHTSA, the General Estimates System (GES) is a probability-based nationally representative sample of police-reported fatal, injury, and property-damage-only crashes. The data from GES yield national estimates, calculated using a weighting procedure, but cannot give State-level estimates. Because GES is a sample of motor vehicle crashes, the results generated are estimates rounded to the nearest one thousand; however, associated percentages and rates are based on the unrounded data. NHTSA retired GES in 2017 and replaced it with the Crash Report Sampling System. For more information on GES, go to https://www.nhtsa.gov/national-automotive-sampling-system-nass/nass-general-estimates-system.

CRSS: NHTSA's newly established CRSS builds on GES, beginning with data for 2016. Although the two systems are both samples of police-reported crashes involving all types of motor vehicles, CRSS includes a more efficient and flexible sample using updated traffic and demographic information. As a result, comparisons of 2016 (and later) CRSS estimates with older GES estimates should be performed with caution. To learn more about CRSS, visit <u>https://www.nhtsa.gov/national-center-statistics-and-analysis-ncsa/crash-report-sampling-system-crss#crash-report-sampling-system-crss-data-files.</u>

MCMIS: Maintained by FMCSA, the Motor Carrier Management Information System (MCMIS) Crash File contains data on commercial trucks and buses in fatal, injury, and towaway crashes (crashes in which at least one vehicle is disabled as a result of the crash and transported away from the crash scene). Crash severity thresholds and vehicle type definitions in MCMIS differ slightly from those in FARS and GES/CRSS, and all tables are noted accordingly. All MCMIS crash data presented are considered preliminary for 22 months. For more information on MCMIS, refer to https://ask.fmcsa.dot.gov/app/mcmiscatalog/mcmishome.

NHTSA Crash Severity Levels:

This Pocket Guide includes data on police-reported crashes collected by NHTSA, which include fatal, injury, and property-damage-only (PDO) crashes.

- Fatal crashes include police-reported crashes involving a motor vehicle in transport on a trafficway in which at least one person dies within 30 days of the crash. The fatality does not have to occur at the scene of the crash and includes any person involved, including non-motorists.
- 2. Injury crashes include police-reported crashes involving a motor vehicle in transport on a trafficway in which no one died but at least one person was reported to have: (1) an incapacitating injury; (2) a visible but not incapacitating injury; (3) a possible, not visible injury; or (4) an injury of unknown severity.
- PDO crashes include police-reported crashes involving a motor vehicle in transport on a trafficway in which no one involved in the crash suffered any injuries.

For more information on crash severity levels, refer to NHTSA's National Center for Statistics and Analysis (NCSA) Data Resource Web site at: <u>https://crashstats.nhtsa.dot.gov/#/</u>.

Vehicles in Crashes:

Large Trucks: FARS and GES/CRSS define a large truck as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. The Motor Carrier Management Information System (MCMIS) defines a large truck as a vehicle designed, used, or maintained primarily for carrying property, with a GVWR or gross combination weight rating (GCWR) of more than 10,000 pounds, or any vehicle carrying hazardous materials that requires placarding, regardless of weight.

Buses: A bus is defined as a vehicle with seats for at least nine people, including the driver.

4-1 Total Crashes by Vehicle Type, 2014-2017

	Number of Crashes Involving:							
Year	Large Trucks	Buses	Large Trucks and Buses	All Vehicle Types				
2014	411,000	68,000	476,000	6,065,000				
2015	415,000	67,000	480,000	6,296,000				
2016*	434,000	67,000	496,000	6,820,000				
2017*	450,000	66,000	511,000	6,453,000				

*Beginning with data for 2016, the National Highway Traffic Safety Administration (NHTSA) replaced the General Estimates System (GES) with the Crash Report Sampling System (CRSS). Comparisons of 2016 (and later) CRSS estimates with older GES estimates should be performed with caution.

Notes: Individual subtotals may not add to the totals due to the potential for double counting (e.g., crashes involving both a truck and a bus). A large truck is defined here as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. A bus is defined as a vehicle with seats for at least nine people, including the driver. The "All Vehicle Types" category includes crashes involving passenger cars, light trucks, large trucks, buses, motorcycles, or any other type of motorized vehicle. These numbers include fatal crash data from the Fatality Analysis Reporting System (FARS) and injury crash and property-damage-only (PDO) crash data from GES and CRSS. GES and CRSS are samples of motor vehicle crashes—the results generated are estimates rounded to the nearest one thousand; however, associated percentages and rates are based on the unrounded data.

Data Sources: NHTSA, FARS, GES, and CRSS.

4-2 Fatal Crashes by Vehicle Type, 2014-2017

	Number of Crashes Involving:							
Year	Large Trucks	Buses	Large Trucks and Buses	All Vehicle Types				
2014	3,429	235	3,656	30,056				
2015	3,622	259	3,864	32,539				
2016	3,896	231	4,116	34,748				
2017	4,237	229	4,455	34,247				

Notes: Individual subtotals may not add to the totals due to the potential for double counting (e.g., crashes involving both a truck and a bus). A large truck is defined here as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. A bus is defined as a vehicle with seats for at least nine people, including the driver. The "All Vehicle Types" category includes crashes involving passenger cars, light trucks, large trucks, buses, motorcycles, or any other type of motorized vehicle.

Data Source: National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS).

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4-3 Injury Crashes by Vehicle Type, 2014-2017

	Number of Crashes Involving:							
Year	Large Trucks	Buses	Large Trucks and Buses	All Vehicle Types				
2014	82,000	11,000	93,000	1,648,000				
2015	83,000	14,000	97,000	1,715,000				
2016*	97,000	16,000	112,000	2,116,000				
2017*	102,000	15,000	116,000	1,889,000				

*Beginning with data for 2016, the National Highway Traffic Safety Administration (NHTSA) replaced the General Estimates System (GES) with the Crash Report Sampling System (CRSS). Comparisons of 2016 (and later) CRSS estimates with older GES estimates should be performed with caution.

Notes: Individual subtotals may not add to the totals due to the potential for double counting (e.g., crashes involving both a truck and a bus). A large truck is defined here as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. A bus is defined as a vehicle with seats for at least nine people, including the driver. The "All Vehicle Types" category includes crashes involving passenger cars, light trucks, large trucks, buses, motorcycles, or any other type of motorized vehicle. These numbers include injury crash data from GES and CRSS. GES and CRSS are samples of motor vehicle crashes—the results generated are estimates rounded to the nearest one thousand; however, associated percentages and rates are based on the unrounded data.

Data Sources: NHTSA, GES and CRSS.

4-4 Property-Damage-Only (PDO) Crashes by Vehicle Type, 2014-2017

	Number of Crashes Involving:							
Year	Large Trucks	Buses	Large Trucks and Buses	All Vehicle Types				
2014	326,000	57,000	379,000	4,387,000				
2015	328,000	53,000	379,000	4,548,000				
2016*	333,000	51,000	380,000	4,670,000				
2017*	344,000	51,000	391,000	4,530,000				

*Beginning with data for 2016, the National Highway Traffic Safety Administration (NHTSA) replaced the General Estimates System (GES) with the Crash Report Sampling System (CRSS). Comparisons of 2016 (and later) CRSS estimates with older GES estimates should be performed with caution.

Notes: Individual subtotals may not add to the totals due to the potential for double counting (e.g., crashes involving both a truck and a bus). A large truck is defined here as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. A bus is defined as a vehicle with seats for at least nine people, including the driver. The 'All Vehicle Types' category includes crashes involving passenger cars, light trucks, large trucks, buses, motorcycles, or any other type of motorized vehicle. These numbers include PDO crash data from GES and CRSS. GES and CRSS are samples of motor vehicle crashes—the results generated are estimates rounded to the nearest one thousand; however, associated percentages and rates are based on the unrounded data.

Data Sources: NHTSA, GES and CRSS.

4-5 Large Truck Fatal Crashes, 1975-2017

				Rates per 100 Million VMT			
Year	Fatal Crashes Involving Large Trucks	Large Truck Occupant Fatalities	Total Fatalities in Large Truck Crashes	Million VMT by Large Trucks	Fatal Crashes Involving Large Trucks	Fatalities in Large Truck Crashes	Large Trucks Registered
1975	3,722	961	4,483	81,330	4.58	5.51	5,362,369
1980	5,042	1262	5,971	108,491	4.65	5.50	5,790,653
1985	4,841	977	5,734	123,504	3.92	4.64	5,996,337
1990	4,518	705	5,272	146,242	3.09	3.60	6,195,876
1995	4,194	648	4,918	178,156	2.35	2.76	6,719,421
2000	4,573	754	5,282	205,520	2.23	2.57	8,022,649
2005	4,551	804	5,240	222,523	2.05	2.35	8,481,999
2010	3,271	530	3,686	286,527	1.14	1.29	10,770,054
2013	3,554	695	3,981	275,017	1.29	1.45	10,597,356
2014	3,429	656	3,908	279,132	1.23	1.40	10,905,956
2015	3,622	665	4,094	279,844	1.29	1.46	11,203,184
2016	3,896	725	4,369	287,895	1.35	1.52	11,498,561
2017	4,237	841	4,761	297,593	1.42	1.60	12,229,216

Notes: A large truck is defined here as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. The Federal Highway Administration (FHWA) implemented an enhanced methodology for estimating registered vehicles and vehicle miles traveled (VMT) by vehicle type beginning with data from 2007. As a result, involvement rates may differ, and in some cases significantly, from earlier years. Data Sources: Vehicle Miles Traveled and Registered Vehicles - FHWA, *Highway Statistics 2017*, Fatal Crashes, Vehicles Involved, and Fatalities - National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS).

4-6 Large Truck Injury Crashes, 2014-2017

					Rates per 100 Million VMT		
Year	Injury Crashes Involving Large Trucks	Large Trucks Involved in Injury Crashes	Persons Injured in Large Truck Crashes	Million VMT by Large Trucks	Injury Crashes Involving Large Trucks	Persons Injured in Large Truck Crashes	Large Trucks Registered
2014	82,000	88,000	111,000	279,132	29.4	39.8	10,905,956
2015	83,000	87,000	116,000	279,844	29.5	41.5	11,203,184
2016*	97,000	102,000	134,000	287,895	33.7	46.7	11,498,561
2017*	102,000	107,000	148,000	297,593	34.4	49.7	12,229,216

"Beginning with data for 2016, the National Highway Traffic Safety Administration (NHTSA) replaced the General Estimates System (GES) with the Crash Report Sampling System (CRSS). Comparisons of 2016 (and later) CRSS estimates with older GES estimates should be performed with caution. Notes: "Persons Injured" includes all nonfatally injured persons in injury and fatal crashes. A large truck is defined here as a truck with a gross vehicle weight rating (GWWR) greater than 10,000 pounds. The rates displayed in this table are based on unrounded GES and CRSS data. GES and CRSS are samples of motor vehicle crashes—the results generated are estimates rounded to the nearest one thousand; however, associated percentages and rates are based on the unrounded data. Data Sources: Vehicle Involved, and Persons Injured: NHTSA, GES and CRSS.

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4-7 Large Truck and Bus Fatality Rates Per 100 Million Total Vehicle Miles Traveled (VMT) by State, 2016 and 2017

		2016			2017	
State	Fatalities	Million VMT	Fatality Rate	Fatalities	Million VMT	Fatality Rate
Alabama	137	69,227	0.20	100	70,677	0.14
Alaska	4	5,259	0.08	5	5,519	0.09
Arizona	88	65,786	0.13	102	65,070	0.16
Arkansas	69	35,755	0.19	84	36,389	0.23
California	341	340,115	0.10	383	343,862	0.11
Colorado	88	52,152	0.17	91	53,382	0.17
Connecticut	33	31,639	0.10	26	31,500	0.08
Delaware	10	10,178	0.10	16	10,467	0.15
D.C.	5	3,622	0.14	1	3,716	0.03
Florida	313	215,551	0.15	310	218,826	0.14
Georgia	199	122,802	0.16	225	124,733	0.18
Hawaii	7	10,635	0.07	10	10,749	0.09
Idaho	34	17,199	0.20	46	17,300	0.27
Illinois	150	107,314	0.14	159	108,011	0.15
Indiana	110	83,183	0.13	145	81,752	0.18
lowa	71	33,337	0.21	71	33,482	0.21
Kansas	74	32,103	0.23	88	32,258	0.27
Kentucky	104	49,313	0.21	91	49,239	0.18
Louisiana	94	49,156	0.19	103	49,221	0.21
Maine	20	14,838	0.13	25	14,738	0.17
Maryland	67	59,137	0.11	55	60,045	0.09
Massachusetts	32	61,825	0.05	30	62,660	0.05
Michigan	112	99,433	0.11	96	101,757	0.09
Minnesota	64	59,029	0.11	63	59,971	0.11
Mississippi	78	40,755	0.19	112	40,877	0.27
Missouri	117	74,019	0.16	117	75,911	0.15
Montana	23	12,599	0.18	25	12,645	0.20
Nebraska	55	20,700	0.27	39	21,002	0.19
Nevada	32	26,788	0.12	42	27,587	0.15
New Hampshire	5	13,513	0.04	13	13,681	0.10
New Jersey	67	77,093	0.09	60	77,509	0.08
New Mexico	38	27,886	0.14	71	29,680	0.24
New York	117	122,930	0.10	137	123,732	0.11
North Carolina	162	116,749	0.14	172	119,176	0.14
North Dakota	13	9,739	0.13	26	9,717	0.27
Ohio	133	118,608	0.11	169	119,598	0.14
Oklahoma	126	49,013	0.26	138	49,402	0.28
Oregon	55	36,719	0.15	56	36,753	0.15
Pennsylvania	184	101,362	0.18	176	101,614	0.17
Rhode Island	3	7,927	0.04	8	8,001	0.10
South Carolina	109	54,553	0.20	98	55,497	0.18
South Dakota	5	9,507	0.05	22	9,643	0.23
Tennessee	129	76,884	0.17	137	82,253	0.17
Texas	584	271,263	0.22	671	272,981	0.25
Utah	21	31,449	0.07	40	31,475	0.13
Vermont	7	7.382	0.09	10	7.424	0.13
Virginia	96	84,463	0.11	103	85,263	0.12
Washington	59	61,018	0.10	80	61,420	0.12
West Virginia	28	19,539	0.14	52	19,072	0.13
Wisconsin	71	64,046	0.11	89	65,324	0.14
Wyoming	21	9,323	0.23	17	9,785	0.14
National Totals	4,564	3,174,408	0.14	5,005	3,212,347	0.16

Notes: D.C. = District of Columbia. Fatality rate is equal to "Fatalities" divided by "Million VMT," multiplied by 100. A large truck is defined here as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. A bus is defined as a vehicle with seats for at least nine people, including the driver. Data Sources: VMT - Federa Highway Administration (FHWA), Highway Statistics 2017; Fatalities - National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS).

4-8 Large Truck and Bus Fatality Rates Per 100 Million Total Vehicle Miles Traveled (VMT) by State, 2017



Data Sources: Vehicle Miles Traveled - FHWA, *Highway Statistics* 2017 (VM-2); Fatalities - National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS).

Occupant of:	2014	2015	2016	2017
Passenger Car	1,443	1,495	1,534	1,687
Light Truck	1,162	1,264	1,307	1,448
Large Truck	656	665	725	841
Motorcycle	221	226	275	275
Bus	15	18	18	17
Other/Unknown	18	12	36	23
Total Vehicle Occupants	3,515	3,657	3,895	4,291

4-9 Vehicle Occupants Killed in Large Truck Crashes by Vehicle Type, 2014-2017

Notes: A passenger car is defined here as a motor vehicle used primarily for carrying passengers, including convertibles, sedans, and station wagons. A light truck is defined as a truck with a gross vehicle weight rating (GVWR) of 10,000 pounds or less, including pickups, vans, truck-based station wagons, and sport utility vehicles. A large truck is defined as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. A bus is defined as a vehicle with seats for at least nine people, including the driver.

Data Sources: National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS).

Nonmotorist Type	2014	2015	2016	2017
Total Nonmotorist Fatalities	393	414	476	471
Pedestrian	308	337	368	372
Pedalcyclist	61	55	89	76
Other/Unknown Nonmotorist	24	22	19	23
Total Fatalities	3,903	4,094	4,369	4,761
Percent Nonmotorist Fatalities	10.1%	10.1%	10.9%	9.9%

4-10 Nonmotorists Killed in Large Truck Crashes, 2014-2017

Notes: A large truck is defined here as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. A nonmotorist is defined as any person who is not an occupant of a motor vehicle, including, but not limited to, the following: pedestrians, pedalcyclists, or others such as skateboard riders, people riding on animals, and persons riding in other nonmotorized conveyances.

Data Source: National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS).

4-11 Nonmotorists Killed in Bus Crashes, 2014-2017

Nonmotorist Type	2014	2015	2016	2017
Total Nonmotorist Fatalities	92	90	68	53
Pedestrian	78	80	53	41
Pedalcyclist	14	9	12	11
Other/Unknown Nonmotorist	0	1	3	1
Total Fatalities	283	297	290	274
Percent Nonmotorist Fatalities	32.5%	30.3%	23.4%	19.3%

Notes: A bus is defined here as a vehicle with seats for at least nine people, including the driver. A nonmotorist is defined as any person who is not an occupant of a motor vehicle, including, but not limited to, the following: pedestrians, pedalcyclists, skateboard riders, people riding on animals, and persons riding in other nonmotorized conveyances.

Data Source: National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS).

4-12 Fatal Crashes by Work Zone, 2014-2017

	2014		2015		2016		2017	
Crash Type:	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Large Truck Fatal Crashes	3,429	100.0%	3,622	100.0%	3,896	100.0%	4,237	100.0%
Work Zone	183	5.3%	175	4.8%	187	4.8%	216	5.1%
Not a Work Zone	3,246	94.7%	3,447	95.2%	3,709	95.2%	4,021	94.9%
All Fatal Crashes	30,056	100.0%	32,539	100.0%	34,748	100.0%	34,247	100.0%
Work Zone	607	2.0%	653	2.0%	687	2.0%	710	2.1%
Not a Work Zone	29,449	98.0%	31,886	98.0%	34,061	98.0%	33,537	97.9%
Percent of Work-Zone Fatal Crashes that Involved at Least One Large Truck	30.1%		26.8%		27.0%		30.4%	
Percent of All Fatal Crashes that Involved at Least One Large Truck	11.4%		11.1%		11.2%		12.4%	

Notes: "Not a Work Zone" counts include crashes where the location was unknown. A large truck is defined here as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. A work zone is defined as an area of a trafficway where construction, maintenance, or utility work activities are identified by warning signs/signals/indicators.

Data Source: National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS).

4-13	Truck Weight Rating for Large Trucks in Fatal Crashes,	,
	2014-2017	

Truck Weight Rating	2014	2015	2016	2017
Class 3: 10,001 - 14,000 lb	155	144	238	468
Class 4: 14,001 - 16,000 lb	70	70	101	97
Class 5: 16,001 - 19,500 lb	79	85	105	142
Class 6: 19,501 - 26,000 lb	221	221	258	243
Class 7: 26,001 - 33,000 lb	235	257	234	271
Class 8: > 33,000 lb	2,902	3,191	3,210	3,309
Unknown/Other	87	106	105	127
Total	3,749	4,074	4,251	4,657

Notes: A large truck is defined here as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds.

Data Source: National Highway Traffic Safety Administration (NHTSA), FARS.

4-14 Percentage of Large Truck Drivers in Fatal Crashes Not Wearing Any Type of Safety Belt, 2007-2017



Note: A large truck is defined here as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds.

Data Source: National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS).

4-15 Hazardous Materials (HM) Cargo Release in Crashes Involving Large Trucks with HM Placards, 2014-2018

	Number of Large Trucks						
Cargo Release	2014	2015	2016	2017	2018*		
Cargo Release: No	2,458	2,650	2,486	2,785	2,077		
Cargo Release: Yes	434	483	551	606	470		
Corrosives	36	43	41	42	33		
Explosives	13	12	18	11	7		
Flammable Liquid	252	264	295	284	240		
Flammable Solids	2	6	6	7	6		
Gases	41	64	65	66	40		
Miscellaneous Dangerous Goods	28	27	37	52	39		
Oxidizing Substances	6	8	5	2	11		
Poison & Infectious Substances	6	4	4	8	5		
Radioactive Material	1	1	0	3	0		
Unknown	49	54	80	131	89		
Cargo Release: Unknown	727	579	520	490	361		
Total	3,619	3,712	3,557	3,881	2,908		

*Crash records reported to the Motor Carrier Management Information System (MCMIS) through December 31, 2018, are included in this table. States are expected to report crash data to FMCSA within 90 days of the crash. Data are considered preliminary for 22 months to allow for changes.

Notes: Large trucks are defined here as vehicles designed, used, or maintained primarily for carrying property, with a gross vehicle weight rating (GVWR) or gross combination weight rating (GCWR) of more than 10,000 pounds or any vehicle carrying HM that requires placarding, regardless of weight.

Data Source: FMCSA, MCMIS, data snapshot as of January 25, 2019.

	Number of Vehicles Involved							
License Class	2014	2015	2016	2017	2018*			
Class A	107,109	111,601	114,977	117,673	91,125			
Class B	21,367	22,291	22,685	21,957	16,717			
Class C	10,836	11,364	11,276	12,804	10,600			
Class D	14,977	18,702	21,060	20,854	16,247			
Class M	1,344	160	185	176	82			
Unknown	7,495	7,704	7,888	8,273	6,374			
Total	163,128	171,822	178,071	181,737	141,145			

4-16 Large Truck and Bus Drivers in Crashes, by Driver's License Class, 2014-2018

*Crash records reported to the Motor Carrier Management Information System (MCMIS) through December 31, 2018, are included in this table. States are expected to report crash data to FMCSA within 90 days of the crash. Data are considered preliminary for 22 months to allow for changes.

Notes: Large trucks are defined here as vehicles designed, used, or maintained primarily for carrying property, with a gross vehicle weight rating (GVWR) or gross combination weight rating (GCWR) of more than 10,000 pounds, or any vehicle carrying hazardous materials (HM) that requires placarding, regardless of weight. A bus is defined as a vehicle with seats for at least nine people, including the driver. Descriptions for driver's license classes are as follows: Class A pertains to any combination of vehicles which has a GCWR or gross combination weight of 26,001 pounds or more, whichever is greater, inclusive of a towed unit(s) with a GVWR or gross vehicle weight of more than 10,000 pounds, whichever is greater. Class B pertains to any single vehicle which has a GVWR or gross vehicle weight of 26,001 pounds or more, or any such vehicle towing a vehicle with a GVWR or gross vehicle weight that does not exceed 10,000 pounds. Class C pertains to any single vehicle, or combination of vehicles, that does not meet the definition of Class A or Class B, but is either designed to transport 16 or more passengers, including the driver, or is transporting material that has been designated as hazardous and is required to be placarded or is transporting any quantity of a material listed as a select agent or toxin. Class D pertains to any vehicle, or any combination of vehicles, with a GVWR of 26,000 pounds or less that is not used 1) for the purpose of transporting HM which are required by law to be placarded, 2) to transport more than 15 passengers including the driver, and 3) is not a school bus used to transport children to and from school for compensation. Class M pertains to motorcycles and motor-driven cycles.

Data Source: FMCSA, MCMIS, data snapshot as of January 25, 2019.

4-17 Large Trucks in Crashes by Operation Classification, 2014-2018

Classification	2014	2015	2016	2017	2018*
For-Hire	78,102	84,856	88,716	94,163	96,559
Private	25,326	26,393	27,441	27,375	27,974
Both For-Hire and Private	12,224	12,429	13,114	14,185	14,673
Neither For-Hire Nor Private	1,647	1,560	1,694	1,615	1,425
No USDOT Number	28,441	28,658	28,899	26,042	26,629
Total	145,740	153,896	159,864	163,380	167,260

*Crash records reported to the Motor Carrier Management Information System (MCMIS) through December 31, 2018, are included in this table. States are expected to report crash data to FMCSA within 90 days of the crash. Data are considered preliminary for 22 months to allow for changes.

Note: Large trucks are defined here as vehicles designed, used, or maintained primarily for carrying property, with a gross vehicle weight rating (GVWR) or gross combination weight rating (GCWR) of more than 10,000 pounds, or any vehicle carrying hazardous materials (HM) that requires placarding, regardless of weight.

Data Sources: Crash data for all years: FMČSA, MCMIS, data snapshot as of January 25, 2019. Operation classification information: FMCSA, MCMIS, data snapshots as of December 19, 2014, December 28, 2015, December 30, 2016, December 29, 2017, and December 28, 2018.

4-18 Large Trucks in Crashes by Carrier Operation, 2014-2018

Carrier Operation	2014	2015	2016	2017	2018*
Interstate	102,987	107,576	111,478	115,725	118,072
Intrastate Hazardous Materials (HM)	1,367	1,446	1,499	1,731	1,764
Intrastate Non-HM**	12,945	16,216	17,977	19,865	20,556
Unknown Carrier Operation**	0	0	11	17	239
No USDOT Number	28,441	28,658	28,899	26,042	26,629
Total	145,740	153,896	159,864	163,380	167,260

*Crash records reported to the Motor Carrier Management Information System (MCMIS) through December 31, 2018, are included in this table. States are expected to report crash data to FMCSA within 90 days of the crash. Data are considered preliminary for 22 months to allow for changes.

**Some States do not require intrastate non-HM carriers to obtain USDOT numbers. Note: Large trucks are defined here as vehicles designed, used, or maintained primarily for carrying property, with a gross vehicle weight rating (GVWR) or gross combination weight rating (GCWR) of more than 10,000 pounds, or any vehicle carrying HM that requires placarding, regardless of weight.

Data Sources: Crash data for all years: FMCSA, MCMIS, data snapshot as of January 25, 2019. Carrier operation information: FMCSA, MCMIS, data snapshots as of December 19, 2014, December 28, 2015, December 30, 2016, December 29, 2017, and December 28, 2018.

4-19 Bus Fatal Crashes, 1975-2017

					Rates per 100 Million VMT		
Year	Fatal Crashes Involving Buses	Bus Occupant Fatalities	Total Fatalities in Bus Crashes	Million VMT by Buses	Fatal Crashes Involving Buses	Fatalities in Bus Crashes	Buses Registered
1975	323	53	348	6,055	5.33	5.75	462,156
1980	329	46	390	6,059	5.43	6.44	528,789
1985	337	57	398	4,478	7.53	8.89	593,485
1990	286	32	340	5,726	4.99	5.94	626,987
1995	271	33	311	6,420	4.22	4.84	685,503
2000	323	22	357	7,590	4.26	4.7	746,125
2005	278	58	340	6,980	3.98	4.87	807,053
2010	247	44	278	13,770	1.79	2.02	846,051
2013	282	54	320	15,167	1.86	2.11	864,549
2014	235	44	283	15,999	1.47	1.77	872,027
2015	259	49	297	16,230	1.60	1.83	888,907
2016	231	64	290	16,350	1.41	1.77	976,161
2017	229	44	274	17,227	1.33	1.59	983,231

Note: A bus is defined as a vehicle with seats for at least nine people, including the driver. Data Sources: Vehicle Miles Traveled and Registered Vehicles - FHWA, *Highway Statistics* 2017; Fatal Crashes, Vehicles Involved, and Fatalities - National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS).

4-20 Bus Injury Crashes, 2014-2017

					Rates per 100 Million VMT		
Year	Injury Crashes Involving Buses	Buses Involved in Injury Crashes	Persons Injured in Bus Crashes	Million VMT by Buses	Injury Crashes Involving Buses	Persons Injured in Bus Crashes	Buses Registered
2014	11,000	11,000	22,000	15,999	68.7	139.0	872,027
2015	14,000	15,000	24,000	16,230	89.2	146.8	888,907
2016*	16,000	17,000	35,000	16,350	96.8	213.5	976,161
2017*	15,000	15,000	25,000	17,227	84.6	142.5	983,231

*Beginning with data for 2016, the National Highway Traffic Safety Administration (NHTSA) replaced the General Estimates System (GES) with the Crash Report Sampling System (CRSS). Comparisons of 2016 (and later) CRSS estimates with older GES estimates should be performed with caution.

Notes: "Persons Injured" includes all nonfatally injured persons in injury and fatal crashes. A bus is defined here as a vehicle with seats for at least nine people, including the driver. The rates displayed in this table are based on unrounded GES and CRSS data. GES and CRSS are samples of motor vehicle crashes—the results generated are estimates rounded to the nearest one thousand; however, associated percentages and rates are based on the unrounded data. Data Sources: Vehicle Miles Traveled and Registered Vehicles: FHWA, *Highway Statistics 2017*. Injury Crashes, Vehicles Involved, and Persons Injured: NHTSA, GES and CRSS.

4-21 Fatal Crashes Involving Buses, by Type of Bus, 1975-2017

Year	School Bus	Cross-Country Intercity Bus (Motorcoach)	Transit Bus	Van- Based Bus*	Other Bus Type	Bus Type Unknown	Total
1975	129	29	128	_	18	19	323
1980	117	38	149	_	14	11	329
1985	126	29	116	_	33	33	337
1990	111	26	113	_	19	17	286
1995	109	23	101	_	23	15	271
2000	119	40	127	_	20	17	323
2005	110	37	83	_	34	14	278
2010	113	35	84	_	11	4	247
2013	114	44	82	28	10	4	282
2014	90	32	79	9	21	4	235
2015	99	34	92	14	18	5	259
2016	87	17	97	6	19	6	231
2017	72	13	95	32	15	4	229

* "Van-based bus" was listed as a bus type for the first time in 2011.

Note: A bus is defined here as a vehicle with seats for at least nine people, including the driver. Data Source: National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS).

4-22 Estimated Costs of Large Truck and Bus Crashes, 2014-2017

Year	Fatal Crashes	Injury Crashes	Property-Damage-Only (PDO) Crashes	All Large Truck and Bus Crashes
2014	\$42 Billion	\$44 Billion	\$28 Billion	\$114 Billion
2014	\$44 Billion	\$46 Billion	\$28 Billion	\$118 Billion
2015	\$47 Billion	\$40 Billion \$53 Billion	\$29 Billion	\$129 Billion
			,	,
2017*	\$51 Billion	\$55 Billion	\$29 Billion	\$135 Billion

*Beginning with data for 2016, the National Highway Traffic Safety Administration (NHTSA) replaced the General Estimates System (CES) with the Crash Report Sampling System (CRSS). Since the 2016 estimates of injury and PDO crash costs are based on CRSS data and pre-2016 estimates are based on GES data, comparisons of 2016 (and later) crash cost estimates with earlier estimates should be performed with caution.

Notes: A large truck is defined here as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. A bus is defined as a vehicle with seats for at least nine people, including the driver. The total costs may not add up exactly due to rounding. Changes to past years are the result of updating for inflation and changes in guidance from the Office of the Secretary of Transportation on how to value fatalities and injuries. Estimates are based on fatal crash data from the Fatality Analysis Reporting System (FARS) and injury crash and PDO crash data from GES and CRSS.

Data Sources: T. Miller, E. Zaloshnja, and R. Spicer, Revised Cost of Large Truck and Bus Involved Crashes (2002), adjusted to 2015 dollars, and a year 2015 value of a statistical life (VSL) (as published on August 8, 2016, by the Office of the Secretary of Transportation); NHTSA, FARS, GES, and CRSS. 4-23 Fatality Analysis Reporting System (FARS) and Motor Carrier Management Information System (MCMIS) Matching for Large Trucks and Buses in Fatal Crashes, 2017

Number	Category	Percentage
4,564	Large trucks and buses matched in FARS and MCMIS	82.8%
68	Large trucks and buses that were partially matched in FARS and MCMIS	1.2%
377	Large trucks and buses in FARS and not in MCMIS	6.8%
178	Large trucks and buses in FARS matched to large trucks and buses in non-fatal crashes in MCMIS	3.2%
202	Large trucks and buses in MCMIS and not in FARS	3.7%
125	Large trucks and buses in MCMIS matched to vehicles in FARS that were not large trucks or buses	2.3%
5,514	Total large trucks and buses in fatal crashes in FARS, MCMIS, or both	100.0%



Notes: A large truck is defined in FARS as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. A large truck is defined in MCMIS as a vehicle designed, used, or maintained primarily for carrying property, with a GVWR or gross combination weight rating (GCWR) of more than 10,000 pounds, or any vehicle carrying hazardous materials that requires placarding, regardless of weight. A bus is defined as a vehicle with seats for at least nine people, including the driver.

Data Sources: National Highway Traffic Safety Administration (NHTSA), FARS; FMCSA, MCMIS, data snapshot as of January 25, 2019.

5. DATA QUALITY

State Safety Data Quality (SSDQ) Methodology

FMCSA implemented the State Safety Data Quality (SSDQ) Methodology to evaluate the completeness, timeliness, accuracy, and consistency of State-reported data. The SSDQ evaluation uses a 12-month timeframe that ends 3 months prior to the Motor Carrier Management Information System (MCMIS) snapshot for each measure, unless otherwise stated in the rating description. The methodology consists of nine performance measures (five crash and four inspection measures) and one overriding performance indicator (see 5-1). The SSDQ methodology has changed over the years to represent higher thresholds of data quality. Since 2004, additional performance measures have been added related to the completeness of driver and vehicle information contained in crash and inspection reports.

The SSDQ evaluation is updated monthly to reflect improvements in crash and inspection reporting. States receive an overall rating of "Good," "Fair," or "Poor" for each SSDQ measure and rating. FMCSA developed the colorcoded SSDQ map (see 5-2) as a visual tool for States to use in improving crash and inspection data reported to FMCSA. The overall data quality rating for each State is based on the following criteria:

- Good (green) for States with at least one good crash measure, one good inspection measure, and no poor measures.
- Fair (yellow) for States with no more than one poor measure.
- Poor (red) for States with two or more poor measures. States flagged red in Consistency (the overriding performance indictor shown in 5-1) are rated poor overall.

5-1 State Safety Data Quality (SSDQ) Performance Measures



Data Source: FMCSA, Analysis & Information (A&I) Online, http://ai.fmcsa.dot.gov/DataQuality.

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5-2 Overall State Safety Data Quality (SSDQ) Ratings, June 2004 and December 2018



Overall SSDQ Ratings, June 2004

Overall SSDQ Ratings, December 2018



Note: Ratings depicted on this map are overall State ratings. Washington, D.C. is rated poor (red) in June, 2004 and good (green) in December, 2018. Data Sources: June 2004 Ratings: FMCSA, Analysis & Information (A&I) Online, State Safety Data Quality (SSDQ) as of June, 2004; December 2018 Ratings: FMCSA, A&I Online, SSDQ as of December, 2018. For most recent State ratings, refer to: <u>https://</u>ai.fmcsa.dot.gov/DataQuality/National.aspx.

5-3 Annual Requests for Data Review (RDRs) in DataQs, 2014-2018



Data Source: FMCSA, DataQs, May 22, 2018 (based on submissions received in 2018).

DataQs is an online system that provides affected commercial motor carriers, commercial drivers, and others an opportunity to seek and obtain correction of information maintained and disseminated by FMCSA. Through the system, users can request and track a review of data issued by FMCSA; the system automatically forwards a Request for Data Review (RDR) to the appropriate office for resolution and collects updates and responses for current RDRs.

For more information on DataQs, please refer to: <u>https://dataqs.fmcsa.dot.gov</u>.

6. GRANT PROGRAMS

FMCSA achieves its goal of preventing commercial motor vehicle (CMV)-related fatalities and injuries by working closely with a host of important safety partners through its grant programs. Safety partners include State and local government agencies, non-profit organizations, universities and other organizations who support FMCSA's national safety priorities. Activities conducted through FMCSA's grant programs include conducting high-visibility traffic enforcement in CMV crash corridors, targeting high-risk motor carriers and CMV drivers for compliance investigations, implementing innovative safety information systems and CMV technologies at the roadside, strengthening CMV equipment and operating standards, implementing and updating CMV safety training, and increasing public awareness of CMV safety challenges.

In December 2015, the Fixing America's Surface Transportation Act, or FAST Act, Public Law 114-94, directed the consolidation of multiple FMCSA grant programs into the Motor Carrier Safetv Assistance Program (MCSAP) and High Priority (HP) grant programs. Beginning October 1, 2016 (or with Fiscal Year 2017), MCSAP and HP now include components of the previously separate New Entrant, Border Enforcement, State Safety Data Quality (SSDQ) (formerly known as the Safety Data Improvement Program, or SaDIP), Performance and Registration Information Systems Management (PRISM), and the Innovative Technology Deployment (ITD) (formerly known as Commercial Vehicle Information Systems and Networks, or CVISN) grant programs. The FAST Act also increased focus on accountability, performance standards, efficiency, and effectiveness while reducing administrative burdens on FMCSA grantees. More information on FMCSA's grant programs can be found at http://www.fmcsa.dot.gov/mission/grants.

6-1 FMCSA Grant Awards, Fiscal Year 2018

Grant Program	Total Awards
MCSAP	\$294,416,500
High Priority	\$42,453,500
CDL Program Implementation	\$31,323,000
CMVOST	\$1,000,000
Total Grant Awards	\$369,193,000

Motor Carrier Safety Assistance Program (MCSAP)

Governed by 49 U.S.C. Sections 31102–31104 and by 49 CFR Part 350, the MCSAP grant is a formula grant program that provides financial assistance to the States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, American Samoa, Guam, and the U.S. Virgin Islands to reduce the number and severity of crashes and hazardous material incidents involving CMVs. Specifically, only the State lead agency (as designated by the Governor) is eligible to apply for MCSAP grant funding. There are five national program elements for the MCSAP, outlined in 49 CFR 350.109. These include driver/ vehicle inspections, traffic enforcement, compliance reviews (Compliance, Safety, Accountability investigations), public education and awareness, and data collection. FMCSA establishes annual national priorities based on emerging or continuing issues.

Per the FAST Act grant consolidation, MCSAP-eligible program activities now include Border Enforcement, New Entrant Safety Audits, SSDQ, PRISM, and ITD operations and maintenance. The Border Enforcement component provides financial assistance to States and entities that share a land border with another country. Border Enforcement activities focus on the compliance of CMVs entering the United States with the Federal Motor Carrier Safety Regulations and Hazardous Materials Regulations, as well as U.S. financial responsibility and registration requirements. All drivers of those vehicles must be properly licensed and qualified to operate a CMV in the United States.

High Priority (HP) Grant

HP grant funding is available for activities and projects that are national in scope, increase public awareness and education, demonstrate new technologies, and augment efforts to reduce the number and rate of CMV crashes. Eligible recipients are States, local governments, Federallyrecognized Indian tribes, and other political jurisdictions as necessary. FMCSA may reserve HP funding for innovative traffic enforcement projects, with particular emphasis on work zone enforcement and rural road safety.

State Safety Data Quality (SSDQ)

SSDQ activities included within the HP grant program focus on providing financial and technical assistance to the States to facilitate the collection of accurate, complete, and timely data on all large commercial truck and bus crashes that involve a fatality, injury, or a vehicle towed from the crash scene. Reports from the Government Accountability Office and the USDOT Inspector General have previously recommended that improvements be made in FMCSA crash and enforcement data. Congress has responded by providing funding annually under HP for States to improve their reporting of large commercial truck and bus crash data.

Performance and Registration Information Systems Management (PRISM) PRISM activities included within the HP grant program are focused on a cooperative Federal-State safety program developed to reduce commercial vehicle crashes. The performance of unsafe carriers is improved through a comprehensive system of identification, education, data gathering, safety monitoring, and enforcement. The PRISM program incorporates registration and enforcement processes to identify motor carriers and hold them responsible for the safety of their operations. To be eligible, State agencies located in one of the 50 States or in one of the U.S. territories must work on highway traffic safety activities and demonstrate a capacity to work with highway traffic safety stakeholders.

Innovative Technology Deployment (ITD)

The ITD activities included within HP are a key component of FMCSA's drive to improve CMV safety through technology and information connectivity. The ITD grant program has different eligibility requirements from traditional HP grants, providing discretionary funding to the States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, American Samoa, Guam, and the U.S. Virgin Islands to deploy, operate, and maintain elements of their ITD programs. FMCSA may award ITD funds to agencies of States, the District of Columbia, or U.S. territories that have an approved plan, as outlined in the FAST Act.

The goals of the ITD Program are to:

- Improve the safety and productivity of motor carriers, commercial vehicles, and CMV drivers.
- Simplify enforcement operations.
- Improve the efficiency and effectiveness of commercial vehicle safety programs through targeted enforcement.
- Improve data security and commercial vehicle data sharing within the States and between the States and FMCSA.
- · Reduce Federal/State and industry regulatory and administrative costs.
- Achieve nationwide deployment of the program, with all jurisdictions participating.

Commercial Driver's License Program Implementation (CDLPI) Grant

The CDLPI grant provides financial assistance to the States, to help them achieve compliance with the requirements of 49 CFR Parts 383 and 384. The grant also provides funding to other entities capable of executing national projects that aid States in their compliance efforts and that will improve the national Commercial Driver's License (CDL) program. The goal of the program is to reduce the number and severity of CMV crashes in the United States by ensuring that only gualified drivers receive and retain a CDL. This is achieved by focusing on the concept that for every driver, there is only one driving record and only one licensing document, commonly referred to as "One Driver-One License-One Record." States are required to conduct knowledge and skills testing before issuing a CDL, to maintain a complete and accurate driver history record for anyone who obtains a CDL, and to impose appropriate disgualifications against any driver who commits certain offenses. The Federal share of CDLPI grants in FY 2018 was 95 percent of the expenditures approved in the State or entity's application.

Commercial Motor Vehicle Operator Safety Training (CMVOST) Grant

The CMVOST Grant Program is a discretionary program that provides financial assistance to public or private organizations that train operators of CMVs, as defined by 49 U.S.C. 31103 and 31104 (i.e., accredited post-secondary educational institutions such as colleges, universities, vocational-technical schools, associations, and truck driver training schools). The goals of the CMVOST grant program are to expand the number of CDL holders who possess enhanced operator safety training to help reduce the severity and number of crashes involving CMVs on U.S. roads, and to assist current or former members of the U.S. Armed Forces (including National Guard members and Reservists) and their spouses who are transitioning to the CMV operation industry by offering training.

7. AGENCY RESOURCES

FMCSA Web site http://www.fmcsa.dot.gov

Analysis & Information (A&I) Online http://ai.fmcsa.dot.gov

Compliance, Safety, Accountability (CSA) https://csa.fmcsa.dot.gov

DataQs http://dataqs.fmcsa.dot.gov

FMCSA Grants and Financial Assistance https://www.fmcsa.dot.gov/mission/grants

FMCSA New Entrant Safety Assurance Program https://www.fmcsa.dot.gov/safety/new-entrant-safety-assurance-program

FMCSA Portal https://portal.fmcsa.dot.gov

Freight Analysis Framework (FAF) http://ops.fhwa.dot.gov/FREIGHT/freight_analysis/faf/index.htm

Innovative Technology Deployment (ITD) Program <u>https://www.fmcsa.dot.gov/information-systems/itd/innovative-technology-</u> <u>deployment-itd</u>

Motor Carrier Management Information System (MCMIS) https://ask.fmcsa.dot.gov/app/mcmiscatalog/mcmishome

Fatality Analysis Reporting System (FARS) http://www.nhtsa.gov/FARS

Federal Highway Administration (FHWA) Highway Statistics Series https://www.fhwa.dot.gov/policyinformation/statistics.cfm

General Estimates System (GES) https://www.nhtsa.gov/national-automotive-sampling-system-nass/nassgeneral-estimates-system

Crash Report Sampling System (CRSS) https://www.nhtsa.gov/national-center-statistics-and-analysis-ncsa/crashreport-sampling-system-crss#crash-report-sampling-system-crss-data-files

Licensing & Insurance (L&I) http://li-public.fmcsa.dot.gov

GLOSSARY AND LIST OF ACRONYMS

A&I	Analysis & Information
ABS	Antilock Braking System
BTS	Bureau of Transportation Statistics
CDL	Commercial Driver's License
CDLPI	Commercial Driver's License Program Improvement
CMV	Commercial Motor Vehicle (includes both large trucks and buses)
CMVOST	Commercial Motor Vehicle Operator Safety Training
CRSS	Crash Report Sampling System
CSA	Compliance, Safety, Accountability (CSA) is a major FMCSA safety measurement and reporting initiative. Designed to replace the SafeStat program, CSA was previously known as "Comprehensive Safety Analysis," or more commonly "CSA 2010."
CVISN	Commercial Vehicle Information Systems and Networks
DataQs	DataQs is an FMCSA system that allows users to request and track reviews of Federal and State data issued by FMCSA. The system automatically forwards a user's Request for Data Review to the appropriate office for resolution and collects updates and responses for current requests.
Domicile	Refers to the headquarters location of a carrier.
EMIS	Enforcement Management Information System
FAF	Freight Analysis Framework
FARS	Fatality Analysis Reporting System
FAST Act	Fixing America's Surface Transportation Act, 2015
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FMCSRs	Federal Motor Carrier Safety Regulations
Form MCS-150	Motor Carrier Identification Report (Application for USDOT Number)
GES	General Estimates System
GCWR	Gross Combination Weight Rating
GVWR	Gross Vehicle Weight Rating
HM	Hazardous Materials
HMRs	Hazardous Materials Regulations

HMSP	Hazardous Materials Carrier with a Safety Permit
HOS	Hours of Service
ITD	Innovative Technology Deployment (formerly CVISN)
L&I	Licensing & Insurance
MCMIS	The Motor Carrier Management Information System (MCMIS) is an FMCSA system that contains crash, census, and inspection files created to monitor and develop safety standards for commercial motor vehicles operating in interstate commerce.
MCSAP	Motor Carrier Safety Assistance Program
MMUCC	Model Minimum Uniform Crash Criteria
NHTSA	National Highway Traffic Safety Administration
OOS	Out of Service
PDO	Property Damage Only
PRISM	Performance and Registration Information Systems Management
RDR	Request for Data Review
SaDIP	State Safety Data Improvement Program
SBUCMVD	Seat Belt Usage by Commercial Motor Vehicle Drivers
SMS	Safety Measurement System
SSDQ	State Safety Data Quality
TSI	Transportation Services Index
UCR	Unified Carrier Registration
URS	Unified Registration System
USDOT	U.S. Department of Transportation
VIN	Vehicle Identification Number
VMT	Vehicle Miles Traveled
VSL	Value of a Statistical Life

Visor Cards for Law Enforcement

The FMCSA State Safety Data Quality (SSDQ) Program created five quick-reference visor identification cards for use by law enforcement officers. The cards are laminated and may be placed in the law enforcement vehicle sun visor.



These cards are intended to assist officers in the process of determining FMCSA's selection criteria for completing the commercial motor vehicle (CMV) section of their State's crash report form. The pictured visor card aids officers in identifying the responsible motor carrier and USDOT number. All five visor cards are available for download at: https://www.fmcsa.dot.gov/regulations/enforcement/visor-cards-law-enforcement.



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