# **Traffic Safety Facts**

2015 Data

February 2017

DOT HS 812 373



## **Key Findings**

- In 2015 there were 4,067 people killed in crashes involving large trucks, a 4-percent increase from 2014.
- An estimated 116,000 people were injured in crashes involving large trucks in 2015—an increase of 4 percent from an estimated 111,000 in 2014.
- In 2015 seventy-four percent of people killed in large-truck crashes were occupants of the other vehicles
- Seventy-eight percent of the fatal crashes involving large trucks in 2015 occurred on weekdays.
- Two percent of the large-truck drivers involved in fatal crashes in 2015 had blood alcohol concentrations (BACs) of .08 g/ dL or higher, much lower than drivers of other vehicle types (21% for passenger cars, 20% for light trucks, and 27% for motorcycles).
- In 2015 drivers of large trucks in fatal crashes were less likely to have previous license suspensions or revocations than were passenger car drivers.
- Large-truck drivers involved in fatal crashes in 2015 had the highest percentage (20.1%) of previously recorded crashes compared to drivers of other vehicle types (motorcycles, 18.9%; passenger cars, 18.3%; and light trucks, 16.7%).



U.S. Department of Transportation

National Highway Traffic Safety

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# **Large Trucks**

A large truck as defined in this fact sheet is any medium or heavy truck, excluding buses and motor homes, with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. In 2015, 86 percent of the large trucks involved in fatal traffic crashes were heavy large trucks (GVWR > 26,000 lbs.).

In this fact sheet for 2015, large-truck information is presented as follows:

- Overview
- Crash Characteristics

- Large-Truck Drivers
- States

This fact sheet contains information on fatal motor vehicle crashes and fatalities based on data from the Fatality Analysis Reporting System (FARS). FARS is a census of fatal crashes in the 50 States, the District of Columbia, and Puerto Rico (Puerto Rico is not included in U.S. totals). Crash and injury statistics are based on data from the National Automotive Sampling System (NASS) General Estimates System (GES). The NASS GES is a probability-based sample of police-reported crashes from 60 locations across the country, from which estimates of national totals for injury and property-damage-only crashes are derived.

#### Overview

In 2015 there were 4,067 people killed and an estimated 116,000 people injured in crashes involving large trucks. In the United States, an estimated 433,000 large trucks were involved in police-reported traffic crashes during 2015.

Table 1 provides an overview of people killed or injured in crashes involving large trucks from 2006 to 2015.

Fatalities in crashes involving large trucks increased by 4 percent from 3,908 in 2014 to 4,067 in 2015. Over a 10-year period there was a 19-percent decrease in the total number of people killed in large-truck crashes, from 5,027 fatalities in 2006 to 4,067 fatalities in 2015. Of the fatalities in 2015:

- 74 percent (2,990) were occupants of other vehicles,
- 16 percent (667) were occupants of large trucks, and
- 10 percent (410) were nonoccupants (pedestrians, pedalcyclist, etc.).

From 2014 to 2015 there was a 5-percent increase in the number of occupants of other vehicles killed, and a 4-percent increase in the number of nonoccupants killed. This is the highest number of other occupants killed since 3,151 people died in 2008.

In 2015 there were an estimated 116,000 people injured in crashes involving large trucks—an increase of 4 percent from an estimated 111,000 in 2014. Over a 10-year period there has been a 10-percent

increase in the total number of people injured in large-truck crashes, from 106,000 injured in 2006 to 116,000 injured in 2015. Of the people injured in 2015:

- 73 percent (84,000) were occupants of other vehicles,
- 24 percent (30,000) were occupants of large trucks, and
- 4 percent (3,000) were nonoccupants.

From 2014 to 2015 there was an 11-percent increase in the number of injured large-truck occupants in large-truck traffic crashes, from 27,000 injured large-truck occupants in 2014 to 30,000 injured large-truck occupants in 2015.

Table 1 People Killed or Injured in Crashes Involving Large Trucks, by Person Type and Crash Type, 2006–2015

	Truck Occupants by Crash Type				Other People								
	Single Vehicle Multiple Vehicle		Total		Occupant of Other Vehicle		Nonoccupant		Total				
Year	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Total
Killed													
2006	500	10%	305	6%	805	16%	3,797	76%	425	8%	4,222	84%	5,027
2007	502	10%	303	6%	805	17%	3,608	75%	409	8%	4,017	83%	4,822
2008	430	10%	252	6%	682	16%	3,151	74%	412	10%	3,563	84%	4,245
2009	333	10%	166	5%	499	15%	2,558	76%	323	10%	2,881	85%	3,380
2010	339	9%	191	5%	530	14%	2,797	76%	359	10%	3,156	86%	3,686
2011	408	11%	232	6%	640	17%	2,713	72%	428	11%	3,141	83%	3,781
2012	423	11%	274	7%	697	18%	2,857	72%	390	10%	3,247	82%	3,944
2013	431	11%	264	7%	695	17%	2,845	71%	441	11%	3,286	83%	3,981
2014	405	10%	251	6%	656	17%	2,859	73%	393	10%	3,252	83%	3,908
2015	398	10%	269	7%	667	16%	2,990	74%	410	10%	3,400	84%	4,067
							Injured						
2006	11,000	7%	12,000	13%	23,000	20%	81,000	78%	2,000	2%	83,000	80%	106,000
2007	10,000	7%	13,000	12%	23,000	18%	75,000	79%	2,000	2%	78,000	82%	101,000
2008	10,000	8%	13,000	12%	23,000	20%	64,000	78%	3,000	3%	67,000	80%	90,000
2009	7,000	7%	9,000	12%	17,000	19%	56,000	79%	1,000	2%	57,000	81%	74,000
2010	9,000	6%	11,000	12%	20,000	19%	58,000	78%	2,000	3%	60,000	81%	80,000
2011	7,000	6%	15,000	13%	23,000	19%	64,000	79%	2,000	2%	65,000	81%	88,000
2012	9,000	6%	17,000	13%	25,000	19%	76,000	78%	3,000	3%	79,000	81%	104,000
2013	9,000	8%	15,000	16%	24,000	25%	69,000	72%	2,000	3%	71,000	75%	95,000
2014	10,000	9%	17,000	14%	27,000	23%	82,000	74%	2,000	3%	84,000	77%	111,000
2015	10,000	8%	19,000	15%	30,000	24%	84,000	73%	3,000	4%	86,000	76%	116,000

Note: Injury totals may not equal the sum of components due to independent rounding.

Sources: 2006–2014 Fatality Analysis Reporting System (FARS) Final File, 2015 FARS Annual Report File (ARF) 2006–2015 National Automotive Sampling System (NASS) General Estimates System (GES)

In 2015 large trucks accounted for 8 percent of all vehicles involved in fatal crashes and 4 percent of all vehicles involved in injury and property-damage-only crashes. Large trucks also accounted for 4 percent of all registered vehicles and 9 percent of the total vehicle miles traveled. For comparison, passenger vehicles (passenger cars, SUVs, pickup trucks, and vans) accounted for 93 percent of all registered vehicles and 90 percent of the total vehicle miles traveled in 2015.

Table 2 summarizes the number of large trucks involved in fatal and injury crashes, the number of registered large trucks, involvement rates for every 100,000 registered large trucks, large-truck miles traveled, and the involvement rates for every 100 million large-truck miles traveled from 2006 to 2015.

Table 2

Large-Truck Involvement in Fatal and Injury Crashes and Involvement Rates, 2006–2015

Large-fruck involvement in Fatal and injury Crasnes and involvement hates, 2000–2015										
Year	Number of Large Trucks Involved in Fatal Crashes	Number of Large Trucks Registered	Involvement Rate per 100,000 Registered Large Trucks	Large-Truck Miles Traveled (millions)	Involvement Rate per 100 million Large-Truck Miles Traveled					
2006	4,766	8,819,007	54.04	222,513	2.14					
2007	4,633	10,752,019	43.09	304,178	1.52					
2008	4,089	10,873,275	37.61	310,680	1.32					
2009	3,211	10,973,214	29.26	288,306	1.11					
2010	3,494	10,770,054	32.44	286,527	1.22					
2011	3,633	10,270,693	35.37	267,594	1.36					
2012	3,825	10,659,380	35.88	269,207	1.42					
2013	3,921	10,597,356	37.00	275,017	1.43					
2014	3,749	10,905,956	34.38	279,132	1.34					
2015	4,050	11,203,184	36.15	279,844	1.45					
	Number of Large Trucks	Number of Large	Involvement Rate per 100,000	Large-Truck Miles	Involvement Rate per 100 million					
Year	Involved in Injury Crashes	Trucks Registered	Registered Large Trucks	Traveled (millions)	Large-Truck Miles Traveled					
2006	80,000	8,819,007	911	222,513	36					
2007	76,000	10,752,019	705	304,178	25					
2008	66,000	10,873,275	608	310,680	21					
2009	53,000	10,973,214	487	288,306	19					
2010	58,000	10,770,054	541	286,527	20					
2011	63,000	10,270,693	609	267,594	23					
2012	77,000	10,659,380	719	269,207	28					
	70.000	10,597,356	690	275,017	27					
2013	73,000	10,397,330	000	=: 0;0::	=:					
2013	88,000	10,905,956	811	279,132	32					

Note: In 2011, the Federal Highway Administration implemented an enhanced methodology for estimating registered vehicles and vehicle miles traveled by vehicle type. These revisions were applied to data after 2006. In some cases the changes were significant and should be taken into account when comparing registered vehicle counts and/or vehicle miles traveled for 2006 and earlier years with the numbers for 2007 and later years.

Sources: 2006-2014 FARS Final File, 2015 FARS ARF, 2006-2015 NASS GES, Vehicle miles traveled and registered vehicles - Federal Highway Administration.

#### Crash Characteristics

In 2015 large trucks were more likely to be involved in fatal multiple-vehicle crashes as opposed to fatal single-vehicle crashes than were passenger vehicles (82% of fatal crashes involving large trucks are multiple-vehicle crashes, compared with 61% for fatal crashes involving passenger vehicles).

In 45 percent of the two-vehicle fatal crashes, both the large truck and the other vehicle were proceeding straight at the time of the crash (head-on collision). In 8 percent of these crashes, the other vehicle was turning left or right. In 10 percent the truck and the other

vehicle were negotiating curves. In 8 percent of the two-vehicle fatal crashes, either the truck or the other vehicle was stopped in a traffic lane (6% and 2%, respectively).

Table 3 presents percentages of two-vehicle fatal crashes involving large trucks by initial impact point of the large truck and the other vehicle in 2015. Both vehicles were struck in the front 30 percent of the time. The trucks were struck in the rear almost 4 times as often as the other vehicles (22% and 6%, respectively).

Table 3
Percentage of Two-Vehicle Fatal Crashes Involving Large
Trucks, by Initial Impact Point of the Large Trucks and
Other Vehicles, 2015

Impact Point on	Impact Point on Other Vehicle							
Large Truck	Front	Left Side	Right Side	Rear	Total			
Front	30% 14%		10%	6%	60%			
Left Side	10%	1%	1%	0%	12%			
Right Side	4%	1%	0%	0%	5%			
Rear	21%	0%	0%	0%	22%			
Total	65%	17%	11%	6%	100%			

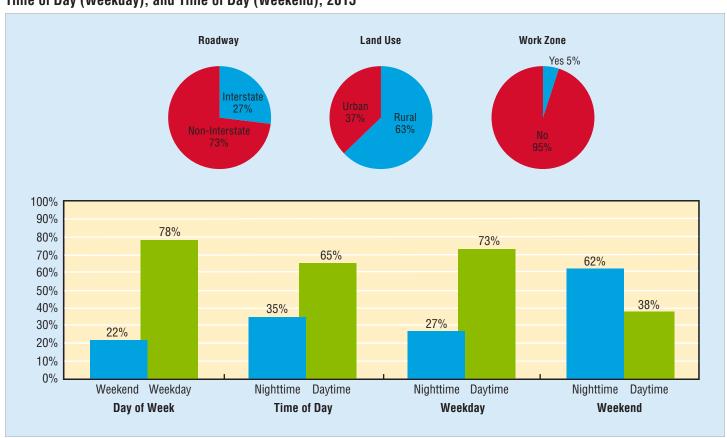
Note: Totals may not equal the sum of components due to independent rounding. Source: 2015 FARS ARF

Figure 1 shows the percentages of fatal crashes involving large trucks by roadway, land use (urban/rural), work zone, day of the week (weekday/weekend), and time of day (nighttime/daytime) in 2015.

- One out of every 4 fatal large-truck crashes (27%) occurred on an interstate.
- Sixty-three percent of the fatal crashes involving large trucks occurred in rural areas.
- A very small portion (5%) of fatal crashes involving large trucks occurred in a work zone.
- Seventy-eight percent of the fatal crashes involving large trucks occurred on weekdays.
- Of those weekday large-truck fatal crashes, 73 percent occurred during the daytime hours of 6 a.m. to 5:59 p.m.

Figure 1

Percentage of Fatal Crashes Involving Large Trucks, by Roadway, Land Use, Work Zone, Day of Week, Time of Day, Time of Day (Weekend), 2015



Note: Unknowns were removed before calculating percentages.

Weekday: 6 a.m. Monday to 5:59 p.m. Friday Weekend: 6 p.m. Friday to 5:59 a.m. Monday

Daytime: 6 a.m. to 5:59 p.m. Nighttime: 6 p.m. to 5:59 a.m.

Source: 2015 FARS ARF

# **Large-Truck Drivers**

The percentage of large-truck drivers involved in fatal crashes who had BACs of .08 g/dL or higher was 2 percent in 2015. For drivers of other types of vehicles involved in fatal crashes in 2015, the percentages of drivers with BACs of .08 g/dL or higher were 21 percent for passenger cars, 20 percent for light trucks, and 27 percent for motorcycles.

Figure 2 displays the 10-year proportions of drivers in fatal crashes with BACs of .08 g/dL or higher by vehicle types (large trucks, passenger cars, light trucks, and motorcycles).

Figure 2
Estimated Proportions of Drivers in Fatal Crashes With BACs of .08 g/dL or Higher, 2006–2015



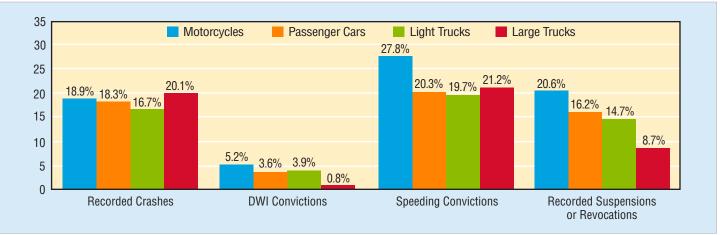
Source: 2006-2014 FARS Final File, 2015 FARS ARF

Figure 3 presents the percentages of drivers involved in fatal crashes with previous driving records (recorded crashes, driving while intoxicated (DWI) convictions, speeding convictions, and recorded suspensions or revocations) by vehicle types (motorcycles, passenger cars, light trucks, and large trucks) in 2015.

- Large-truck drivers have the highest percentage (20.1%) of previously recorded crashes compared to drivers of other vehicle types (motorcycles, 18.9%; passenger cars, 18.3%; and light trucks, 16.7%).
- Over 21 percent of all large-truck drivers involved in fatal crashes had at least one prior speeding conviction, almost the same as passenger car drivers involved in fatal crashes.
- Drivers of large trucks in fatal crashes were less likely to have previous license suspensions or revocations than were passenger car drivers (8.7% and 16.2%, respectively).

Figure 3

Previous Driving Records of Drivers Involved in Fatal Traffic Crashes, by Vehicle Type, 2015



Note: Excludes all drivers with previous records that were unknown. Starting in 2015 the time period for qualifying events was expanded from the previous 3 years of driving records to the previous 5 years.

Source: 2015 FARS ARF

#### **States**

For each of the 50 States, District of Columbia, and Puerto Rico in 2015, Table 4 presents the large-truck involvement in fatal crashes. Puerto Rico is not included in the overall U.S. total.

- On average in the country large trucks made up 8 percent of all vehicles involved in fatal crashes.
- The percentage of large trucks involved in fatal crashes ranged from 1.1 percent in Alaska to 25 percent in North Dakota.
- In 11 States, large-truck involvement was higher than 10 percent.
- Texas had the highest number of large trucks involved in fatal crashes at 531, and also the largest number of all vehicles involved in fatal crashes.

Table 5 presents an overview of the people killed in large-truck crashes by each of the 50 States, District of Columbia, Puerto Rico, and by the person type in 2015. Puerto Rico is not included in the overall U.S. total.

- The number of occupants of other vehicles killed range from none in the District of Columbia and Rhode Island to 418 in Texas. Six States each had more than 100 occupants of other vehicles killed in large-truck crashes.
- The highest number of large-truck occupants killed was 100 in Texas. The second highest was 31 each in California and Florida.

Additional State/county-level data is available at NHTSA's State Traffic Safety Information websiteat https://cdan.nhtsa.gov/stsi.htm.

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### For more information

Information on traffic fatalities is available from the National Center for Statistics and Analysis (NCSA), NSA-230, 1200 New Jersey Avenue SE., Washington, DC 20590. NCSA can be contacted at 800-934-8517 or by e-mail at ncsaweb@dot.gov. General information on highway traffic safety can found at www.nhtsa.gov/NCSA. To report a safety-related problem or to inquire about motor vehicle safety information, contact the Vehicle Safety Hotline at 888-327-4236.

Other fact sheets available from the National Center for Statistics and Analysis are Alcohol-Impaired Driving, Bicyclists and Other Cyclists, Children, Motorcycles, Occupant Protection, Older Population, Passenger Vehicles, Pedestrians, Rural/Urban Comparisons, School Transportation-Related Crashes, Speeding, State Alcohol Estimates, State Traffic Data, Summary of Motor Vehicle Crashes, and Young Drivers. Detailed data on motor vehicle traffic crashes are published annually in Traffic Safety Facts: A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System. The fact sheets and annual Traffic Safety Facts reports can found at https://crashstats.nhtsa.dot.gov/.



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Table 4 Large-Truck Involvement in Fatal Crashes, by State, 2015

	Total Vehicles Involved in	Large Trucks Involved in Fatal Crashes					
State	Fatal Crashes	Number	Percentage of Total Vehicles	Percentage of U.S. Total for Large Truck			
Alabama	1,183	103	8.7%	2.5%			
Alaska	88	1	1.1%	0.0%			
Arizona	1,241	88	7.1%	2.2%			
Arkansas	733	65	8.9%	1.6%			
California	4,417	291	6.6%	7.2%			
Colorado	789	66	8.4%	1.6%			
Connecticut	374	33	8.8%	0.8%			
Delaware	191	12	6.3%	0.3%			
District of Columbia	30	2	6.7%	0.0%			
·lorida	4,165	215	5.2%	5.3%			
Georgia	2,047	178	8.7%	4.4%			
lawaii	126	6	4.8%	0.1%			
daho	280	25	8.9%	0.6%			
llinois	1,361	105	7.7%	2.6%			
ndiana	1,166	133	11.4%	3.3%			
owa	421	50	11.9%	1.2%			
Kansas	467	64	13.7%	1.6%			
(entucky	1,080	92	8.5%	2.3%			
ouisiana.	1,005	71	7.1%	1.8%			
/laine	190	10	5.3%	0.2%			
Naryland	723	51	7.1%	1.3%			
/lassachusetts	412	27	6.6%	0.7%			
/lichigan	1,439	105	7.3%	2.6%			
/linnesota	594	61	10.3%	1.5%			
/lississippi	873	71	8.1%	1.8%			
/lissouri	1,233	108	8.8%	2.7%			
Montana	269	18	6.7%	0.4%			
lebraska	332	37	11.1%	0.9%			
Vevada	454	26	5.7%	0.6%			
New Hampshire	143	6	4.2%	0.1%			
lew Jersey	761	58	7.6%	1.4%			
lew Mexico	383	53	13.8%	1.3%			
lew York	1,505	117	7.8%	2.9%			
North Carolina	1,949	120	6.2%	3.0%			
North Dakota	168	42	25.0%	1.0%			
Ohio	1,639	186	11.3%	4.6%			
Oklahoma	890	109	12.2%	2.7%			
)regon	597	50	8.4%	1.2%			
Pennsylvania	1,679	167	9.9%	4.1%			
Rhode Island	58	2	3.4%	0.0%			
South Carolina	1,406	102	7.3%	2.5%			
South Dakota	169	13	7.7%	0.3%			
ennessee	1,358	113	8.3%	2.8%			
exas	4,891	531	10.9%	13.1%			
Itah	420	36	8.6%	0.9%			
ermont	70	5	7.1%	0.1%			
/irginia	1,016	75	7.4%	1.9%			
Vashington	789	34	4.3%	0.8%			
Vest Virginia	355	22	6.2%	0.5%			
Visconsin	802	57	7.1%	1.4%			
Vyoming	192	38	19.8%	0.9%			
J.S. Total	48,923	4,050	8.3%	100.0%			
Puerto Rico	395	15	3.8%	100.0%			

Note: Percentage of U.S. total for large trucks may not equal the sum of components due to independent rounding. Source: 2015 FARS ARF

Table 5
Fatalities in Motor Vehicle Traffic Crashes Involving Large Trucks, by State and Person Type, 2015

	Truck Occupants by Crash Type Other People						
State	Single Vehicle	Multiple Vehicle	Total	Occupant of Other Vehicle	Nonoccupant Total		Total
Alabama	10	6	16	76	9	85	101
Alaska	0	0	0	1	0	1	1
Arizona	10	7	17	65	9	74	91
Arkansas	13	5	18	49	3	52	70
California	21	10	31	219	46	265	296
Colorado	8	5	13	46	5	51	64
Connecticut	7	1	8	22	7	29	37
Delaware	2	0	2	8	2	10	12
District of Columbia	0	0	0	0	2	2	2
Florida	16	15	31	166	28	194	225
Georgia	17	9	26	142	14	156	182
Hawaii	0	0	0	5	1	6	6
Idaho	3	2	5	20	1	21	26
Illinois	5	7	12	78	13	91	103
Indiana	7	9	16	86	15	101	117
Iowa	4	2	6	52	3	55	61
Kansas	9	7	16	49	0	49	65
Kentucky	5	4	9	66	6	72	81
Louisiana	2	5	7	64	2	66	73
Maine	0	0	0	10	1	11	11
Maryland	4	6	10	39	8	47	57
Massachusetts	2	1	3	15	7	22	25
Michigan	8	3	11	59	5	64	75
Minnesota	4	1	5	54	3	57	62
Mississippi	11	7	18	50	4	54	72
Missouri	12	8	20	72	14	86	106
Montana	1	1	2	18	0	18	20
Nebraska	2	3	5	31	4	35	40
Nevada	3	2	5	21	1	22	27
New Hampshire	0	0	0	4	2	6	6
New Jersey	8	2	10	25	16	41	51
New Mexico	7	5	12	28	6	34	46
New York	9	6	15	79	32	111	126
North Carolina	11	9	20	99	11	110	130
North Dakota	8	0	8	37	2	39	47
Ohio	15	13	28	130	9	139	167
Oklahoma	15	12	27	72	7	79	106
Oregon	6	2	8	39	5	44	52
Pennsylvania	19	11	30	109	21	130	160
Rhode Island	0	1	1	0	0	0	1
South Carolina	14	10	24	86	4	90	114
South Dakota	1	0	1	11	1	12	13
Tennessee	12	9	21	83	12	95	116
Texas	50	50	100	418	43	461	561
Utah	6	0	6	28	3	31	37
Vermont	1	0	1	6	1	7	8
Virginia	14	5	19	41	10	51	70
Washington	5	0	5	32	5	37	42
West Virginia	4	0	4	17	1	18	22
Wisconsin	4	4	8	44	4	48	56
Wyoming	3	4	7	19	2	21	28
U.S. Total	398	269	667	2,990	410	3,400	4,067
Puerto Rico	1	0	1	12	3	15	16

Source: 2015 FARS ARF