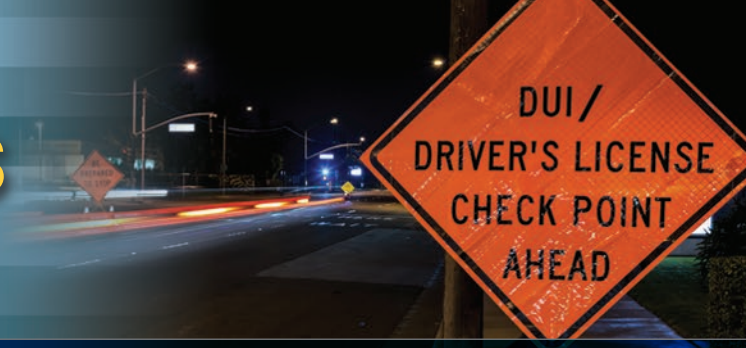
Traffic Safety Facts

2018 Data



December 2019

DOT HS 812 864

NHTSA

In this fact sheet for 2018 the information is presented as follows.

Alcohol-Impaired Driving

Drivers are considered to be alcohol-impaired when their blood alcohol concentrations (BACs) are .08 grams per deciliter (g/dL) or higher. Thus, any fatal crash involving a driver with a BAC of .08 g/dL or higher is considered to be an alcohol-impaired-driving crash, and fatalities occurring in those crashes are considered to be alcohol-impaired-driving fatalities. The term "drunk driving" is used instead of alcohol-impaired driving in some other NHTSA communication and material. The term "driver" refers to the operator of any motor vehicle, including a motorcycle.

Estimates of alcohol-impaired driving are generated using BAC values reported to the Fatality Analysis Reporting System (FARS) and BAC values imputed when they are not reported. In this fact sheet NHTSA uses the term "alcohol-impaired" in evaluating the FARS statistics. **In all cases throughout this fact sheet, use of the term does not indicate that a crash or a fatality was caused by alcohol impairment, only that an alcohol-impaired driver was involved in the crash.** This report also includes BACs of .00 g/dL (no alcohol), .01+ g/dL, and .15+ g/dL solely for comparison purposes.

Key Findings

- In 2018 there were 10,511 fatalities in motor vehicle traffic crashes in which at least one driver had a BAC of .08 g/dL or higher. This totaled 29 percent of all traffic fatalities for the year. (Note: It is illegal in every State to drive with a BAC of .08 g/dL or higher.)
- An average of 1 alcohol-impaired-driving fatality occurred every 50 minutes in 2018.
- The estimated economic cost of all alcohol-impaired crashes (involving alcohol-impaired drivers or alcohol-impaired nonoccupants) in the United States in 2010 (the most recent year for which cost data is available) was $44 billion.
- Of the 2018 traffic fatalities among children 14 and younger, 22 percent occurred in alcohol-impaired-driving crashes.
- The 21- to 24-year-old age group had the highest percentage (27%) of drivers with BACs of .08 g/dL or higher in fatal crashes compared to other age groups in 2018.
- The percentage of drivers with BACs of .08 g/dL or higher in fatal crashes in 2018 was highest for motorcycle riders (25%), compared to drivers of passenger cars (21%), light trucks (19%), and large trucks (3%).
- The rate of alcohol impairment among drivers involved in fatal crashes in 2018 was 3.4 times higher at night than during the day.
- In 2018 among the 10,511 alcohol-impaired-driving fatalities, 67 percent (7,051) were in crashes in which at least one driver had a BAC of .15 g/dL or higher.

This fact sheet contains information on fatal motor vehicle crashes and fatalities based on data from the Fatality Analysis Reporting System. Refer to the end of this publication for more information on FARS.

U.S. Department of Transportation
National Highway Traffic Safety Administration

1200 New Jersey Avenue SE
Washington, DC 20590

Overview

All 50 States, the District of Columbia, and Puerto Rico have set a threshold making it illegal to drive with a BAC of .08 g/dL or higher. Note: Utah set a lower threshold of .05 g/dL or higher that went into effect on December 30, 2018. Operating a commercial vehicle at a BAC of .04 g/dL or above is a violation of Federal regulations and may result in criminal charges.

In 2018 there were 10,511 people killed in alcohol-impaired-driving crashes, an average of 1 alcohol-impaired-driving fatality every 50 minutes. These alcohol-impaired-driving fatalities accounted for 29 percent of all motor vehicle traffic fatalities in the United States in 2018.

Of the 10,511 people who died in alcohol-impaired-driving crashes in 2018, there were 6,364 drivers (61%) who had BACs of .08 g/dL or higher. The remaining fatalities consisted of 2,969 motor vehicle occupants (28%) and 1,178 nonoccupants (11%). The distribution of fatalities in these crashes by role is shown in Table 1.

Table 1

Fatalities, by Role, in Crashes Involving at Least One Alcohol-Impaired Driver, 2018

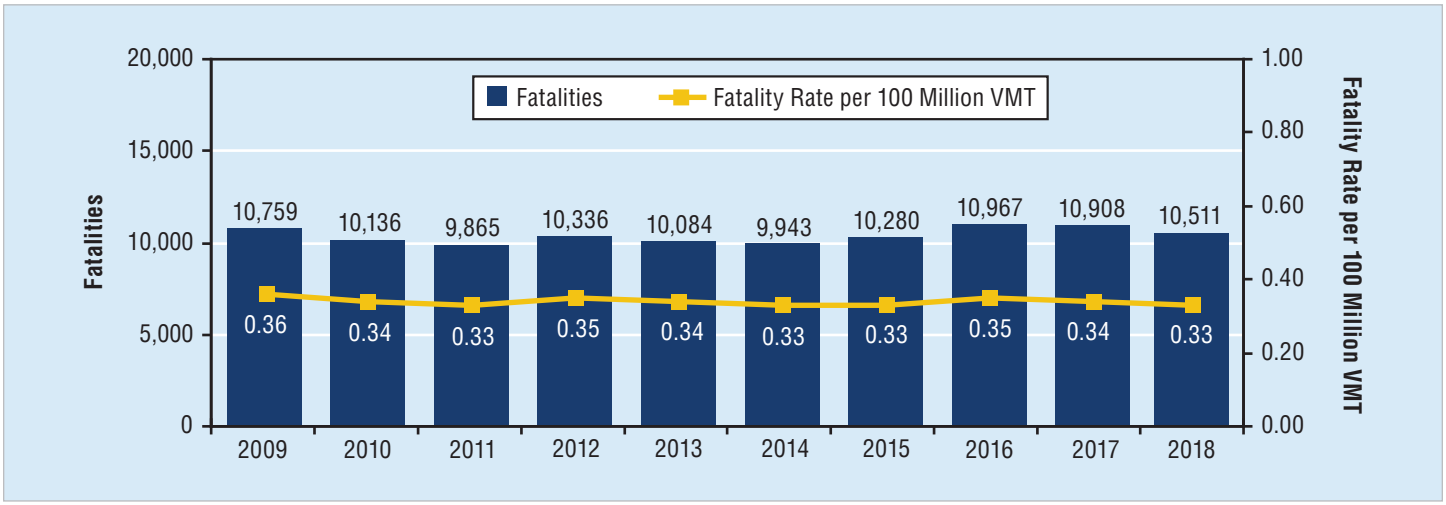
Role	Number	Percent
Alcohol-Impaired Drivers	6,364	61%
Passengers Riding With Alcohol-Impaired Drivers	1,389	13%
Subtotal	**7,753**	**74%**
Occupants of Other Vehicles	1,580	15%
Nonoccupants (pedestrians/pedalcyclists/other)	1,178	11%
Total Alcohol-Impaired-Driving Fatalities	**10,511**	**100%**

Source: FARS 2018 Annual Report File (ARF)

Fatalities in alcohol-impaired-driving crashes decreased by 3.6 percent (10,908 to 10,511 fatalities) from 2017 to 2018. Alcohol-impaired-driving fatalities in the past 10 years have declined by 2 percent from 10,759 in 2009 to 10,511 in 2018. The national rate of alcohol-impaired-driving fatalities in motor vehicle crashes in 2018 was 0.33 per 100 million vehicle miles traveled (VMT), down from 0.34 in 2017. The 2018 rate is based on the VMT estimate from the Federal Highway Administration's (FHWA) August 2019 Traffic Volume Trends (TVT). The alcohol-impaired-driving fatality rate in the past 10 years has declined by 8 percent, from 0.36 in 2009 to 0.33 in 2018. Figure 1 presents the fatality numbers and rates for the past decade.

Figure 1

Fatalities and Fatality Rate per 100 Million VMT in Alcohol-Impaired-Driving Crashes, 2009–2018



Sources: Fatalities – FARS 2009-2017 Final File, 2018 ARF; 2009-2017 VMT – FHWA Annual Highway Statistics; 2018 VMT – FHWA August 2019 TVT
Note: Due to the amended 2016 FARS Final file, the number of alcohol-impaired-driving fatalities for 2016 changed from 10,996 to 10,967.

Economic Cost for All Traffic Crashes

The estimated economic cost of all motor vehicle traffic crashes in the United States in 2010 (the most recent year for which cost data is available) was $242 billion, of which $44 billion resulted from alcohol-impaired crashes (involving alcohol-impaired drivers or alcohol-impaired nonoccupants). Included in the economic costs are:

- Lost productivity,
- Workplace losses,
- Legal and court expenses,
- Medical costs,
- Emergency medical services,
- Insurance administration,
- Congestion, and
- Property damage.

These costs represent the tangible losses that result from motor vehicle traffic crashes. However, in cases of serious injury or death, such costs fail to capture the relatively intangible value of lost quality-of-life that results from these injuries. When quality-of-life valuations are considered, the total value of societal harm from motor vehicle traffic crashes in the United States in 2010 was an estimated $836 billion, of which $201.1 billion resulted from alcohol-impaired crashes. For further information on cost estimates, see *The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised).*[1]

Children

A total of 1,038 children 14 and younger were killed in motor vehicle traffic crashes in 2018. Of these 1,038 fatalities, 231 children (22%) died in alcohol-impaired-driving crashes. Of these 231 child deaths:

- 128 (55%) were occupants of vehicles with drivers who had BACs of .08 g/dL or higher;
- 71 (31%) were occupants of other vehicles;
- 31 (13%) were nonoccupants (pedestrians, pedalcyclists, or other nonoccupants); and
- 1 (<0.5%) was a driver.

[1] Blincoe, L. J., Miller, T. R., Zaloshnja, E., & Lawrence, B. A. (2014). *The economic and societal impact of motor vehicle crashes, 2010 (Revised)* (Report No. DOT HS 812 013). Washington, DC: National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812013

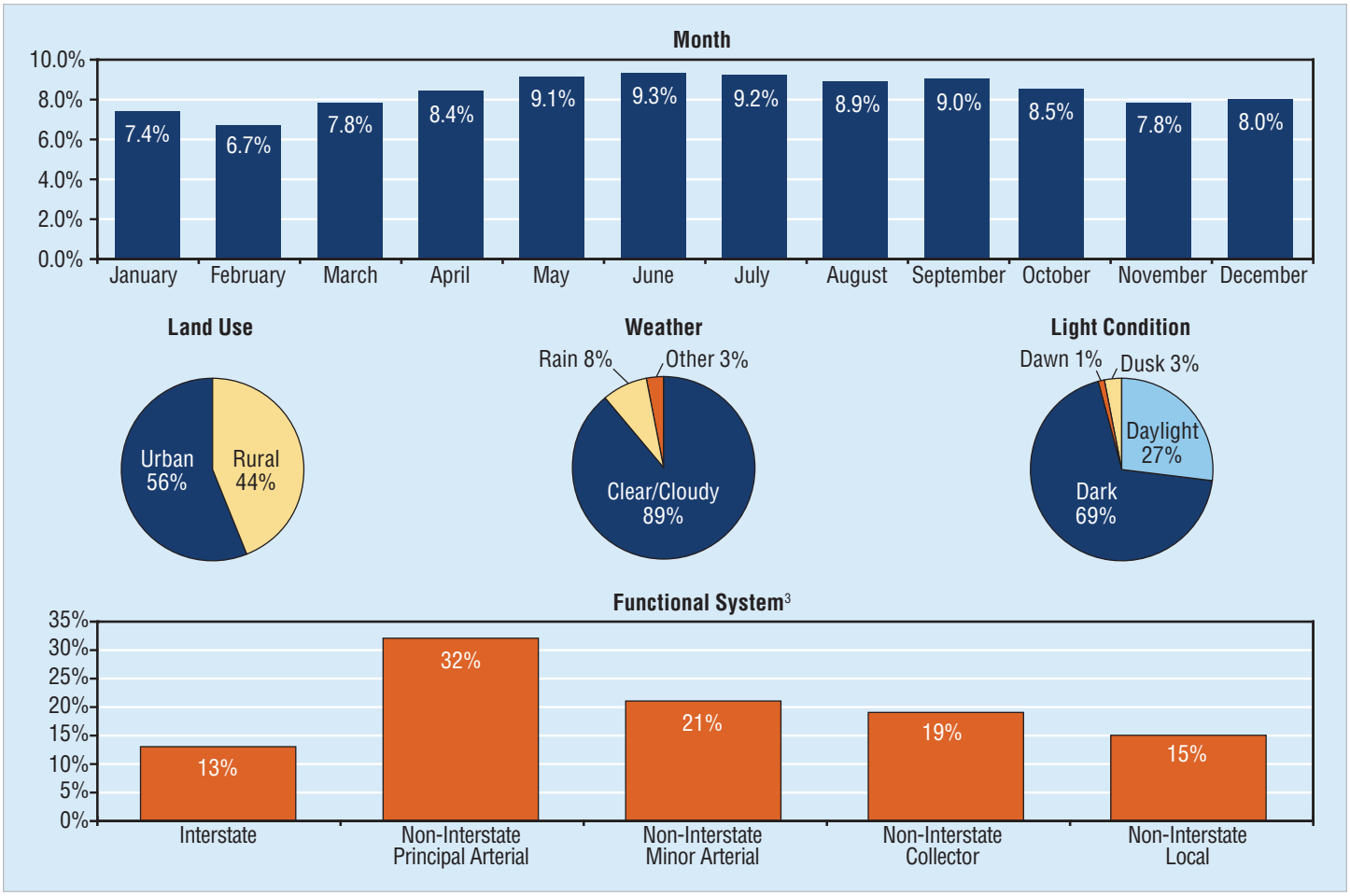
Environmental Characteristics

Figure 2 displays information about the setting surrounding alcohol-impaired drivers involved (killed or survived) in fatal crashes in 2018 including month, land use, weather, light condition, and functional system.[2] In 2018 based on known values of alcohol-impaired drivers involved in fatal crashes:

- More occurred in June (9.3%), July (9.2%), and May (9.1%) than the other months;
- 56 percent occurred in urban areas, and 44 percent occurred in rural areas;
- 89 percent occurred in clear/cloudy conditions compared to 8 percent in rainy conditions and 3 percent in other conditions;
- 69 percent occurred in the dark compared to 27 percent in daylight, 3 percent at dusk, and 1 percent at dawn; and
- 87 percent occurred on non-interstate roads compared to 13 percent on interstate roads.

Figure 2

Percentage of Alcohol-Impaired Drivers Involved in Fatal Crashes in 2018, by Month, Land Use, Weather, Light Condition, and Functional System[2]



Source: FARS 2018 ARF
Note: Unknowns were removed before calculating percentages. Percentages may not add up to 100 percent due to individual rounding.

[2] Definitions for different functional system can be found at www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/fcauab.pdf

Time of Day and Day of Week

Table 2 presents information on drivers involved (killed or survived) in fatal crashes in 2009 and 2018 by time of day and day of week, as well as single-vehicle and multiple-vehicle crash data. In 2018:

- The rate of alcohol impairment among drivers involved in fatal crashes was 3.4 times higher at night than during the day (31% versus 9%);
- 31 percent of all drivers involved in single-vehicle fatal crashes were alcohol-impaired, compared to 13 percent in multiple-vehicle fatal crashes; and
- 14 percent of all drivers involved in fatal crashes during the week were alcohol-impaired, compared to 28 percent on weekends.

The biggest drop was alcohol-impaired drivers involved in single-vehicle nighttime crashes from 49 percent in 2009 to 40 percent in 2018 (9% difference).

Table 2

Alcohol-Impaired Drivers Involved in Fatal Crashes, by Crash Type, Time of Day, and Day of Week, 2009 and 2018

Drivers Involved In Fatal Crashes	2009			2018			Change in Percentage With BAC=.08+ g/dL 2009 and 2018
	Total Drivers	BAC=.08+ g/dL		Total Drivers	BAC=.08+ g/dL		
		Number	Percent of Total		Number	Percent of Total	
Total*	**45,337**	**10,029**	**22%**	**51,490**	**10,011**	**19%**	**-3%**
Crash Type and Time of Day							
Single-Vehicle*	18,697	6,885	37%	19,031	5,861	31%	-6%
Daytime	7,298	1,286	18%	7,500	1,271	17%	-1%
Nighttime	11,179	5,479	49%	11,310	4,490	40%	-9%
Multiple-Vehicle*	26,640	3,144	12%	32,459	4,150	13%	+1%
Daytime	16,375	802	5%	19,354	1,189	6%	+1%
Nighttime	10,200	2,338	23%	13,061	2,957	23%	0%
Time of Day							
Daytime	23,673	2,088	9%	26,854	2,460	9%	0%
Nighttime	21,379	7,817	37%	24,371	7,447	31%	-6%
Day of Week and Time of Day							
Weekday*	26,933	4,309	16%	31,749	4,567	14%	-2%
Daytime	17,037	1,187	7%	19,971	1,563	8%	+1%
Nighttime	9,788	3,077	31%	11,697	2,978	25%	-6%
Weekend*	18,314	5,688	31%	19,656	5,419	28%	-3%
Daytime	6,636	901	14%	6,883	897	13%	-1%
Nighttime	11,591	4,740	41%	12,674	4,470	35%	-6%

Source: FARS 2009 Final File, 2018 ARF
*Includes drivers involved in fatal crashes when time of day was unknown.
Daytime – 6 a.m. to 5:59 p.m.
Nighttime – 6 p.m. to 5:59 a.m.
Weekday – Monday 6 a.m. to Friday 5:59 p.m.
Weekend – Friday 6 p.m. to Monday 5:59 a.m.

Drivers

Table 3 provides information on alcohol-impaired drivers involved (killed or survived) in fatal crashes by the age of the driver as well as sex and vehicle type. In fatal crashes in 2018 the highest percentage of alcohol-impaired drivers was for 21- to 24-year-old drivers (27%), followed by 25- to 34-year-old drivers (25%). The 10-year comparison of alcohol-impaired drivers involved increased for older drivers when compared to younger drivers.

The percentages of alcohol-impaired drivers involved in fatal crashes in 2018 were 21 percent among males and 14 percent among females. In 2018 there were 4 male alcohol-impaired drivers involved for every female alcohol-impaired driver involved (7,698 versus 1,918).

The percentages of alcohol-impaired drivers involved in fatal crashes in 2018 by vehicle type were 25 percent for motorcycles, 21 percent for passenger cars, and 19 percent for the light-truck category (21% for pickup trucks, 19% for SUVs, and 12% for vans). The percentage of alcohol-impaired drivers in fatal crashes was the lowest for drivers of large trucks (3%).

Table 3

Alcohol-Impaired Drivers Involved in Fatal Crashes, by Age Group, Sex, and Vehicle Type, 2009 and 2018

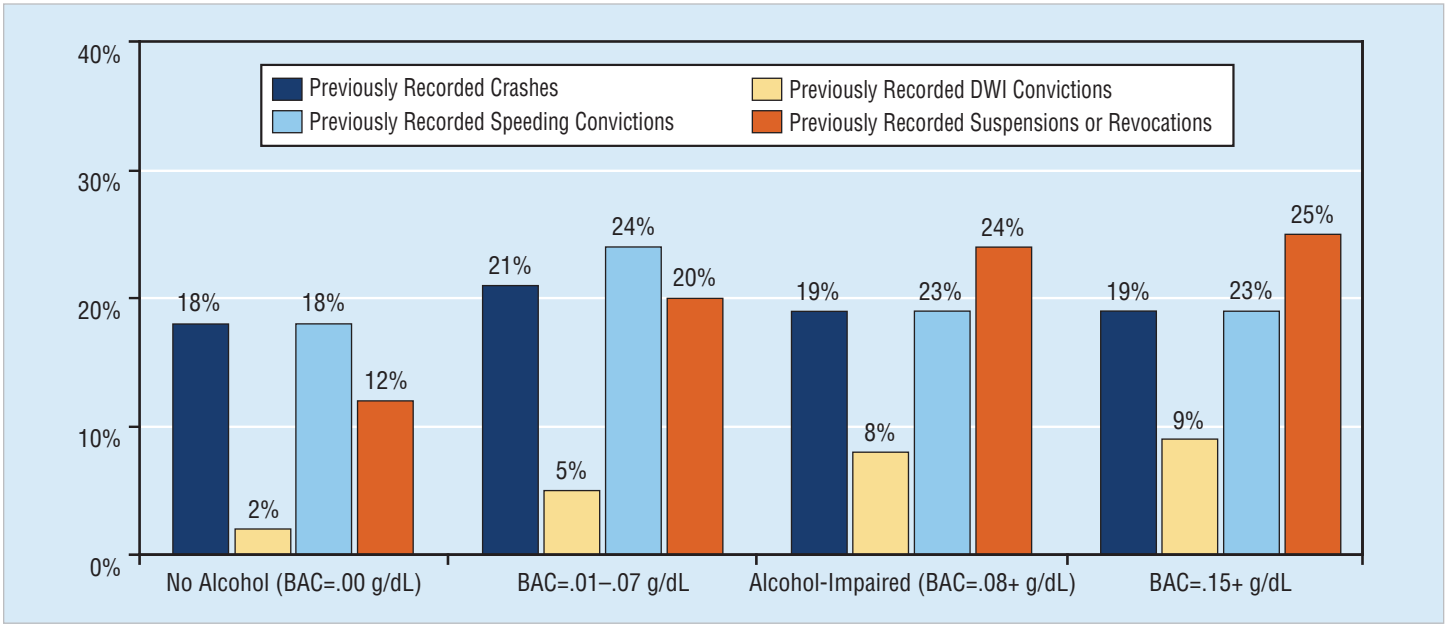
Drivers Involved In Fatal Crashes	2009			2018			Change in Percentage With BAC=.08+ g/dL 2009 and 2018
	Total Drivers	BAC=.08+ g/dL		Total Drivers	BAC=.08+ g/dL		
		Number	Percent of Total		Number	Percent of Total	
Total*	**45,337**	**10,028**	**22%**	**51,490**	**10,011**	**19%**	**-3%**
Age Group							
16–20	5,073	948	19%	4,061	622	15%	-4%
21–24	4,612	1,582	34%	4,777	1,305	27%	-7%
25–34	8,630	2,692	31%	10,738	2,731	25%	-6%
35–44	7,779	2,003	26%	8,110	1,716	21%	-5%
45–54	7,686	1,684	22%	7,863	1,458	19%	-3%
55–64	5,276	675	13%	7,261	1,102	15%	+2%
65–74	2,876	201	7%	4,218	435	10%	+3%
75+	2,560	78	3%	3,098	216	7%	+4%
Sex							
Male	32,882	8,301	25%	37,062	7,698	21%	-4%
Female	11,864	1,586	13%	13,269	1,918	14%	+1%
Vehicle Type							
Passenger Car	18,344	4,186	23%	20,175	4,217	21%	-2%
Light Truck**	17,878	4,136	23%	19,663	3,782	19%	-4%
–Pickup Truck	*8,442*	*2,258*	*27%*	*8,595*	*1,822*	*21%*	*-6%*
–SUV	*6,913*	*1,583*	*23%*	*8,883*	*1,679*	*19%*	*-4%*
–Van	*2,490*	*291*	*12%*	*2,070*	*256*	*12%*	*0%*
Large Truck	3,182	54	2%	4,786	146	3%	+1%
Motorcycle	4,601	1,325	29%	5,108	1,295	25%	-4%

Source: FARS 2009 Final File, 2018 ARF
*Includes unknown age, unknown sex, and other/unknown vehicle type.
**Includes other/unknown light-truck vehicle types.

In 2018 there were 4,916 passenger vehicle drivers killed with BACs of .08 g/dL or higher (passenger vehicles include passenger cars as well as light trucks such as vans, SUVs, and pickup trucks). Of these driver fatalities for whom restraint use was known, 64 percent were unrestrained. Based on known restraint use, 55 percent of passenger vehicle drivers killed who had BACs of .01 to .07 g/dL were unrestrained, and 39 percent of passenger vehicle drivers killed who had no alcohol (.00 g/dL) were unrestrained.

Figure 3 shows information on the driving record of drivers in fatal crashes in 2018 at different BAC levels. There was little difference by BAC level in the percentage of drivers with previously recorded crashes. Drivers with BACs of .08 g/dL or higher involved in fatal crashes were 4 times more likely to have prior convictions for driving while impaired (DWI) than were drivers with no alcohol (8% and 2%, respectively).

Figure 3
Previous 5-Year Driving Records of Drivers Involved in Fatal Crashes, by BAC, 2018

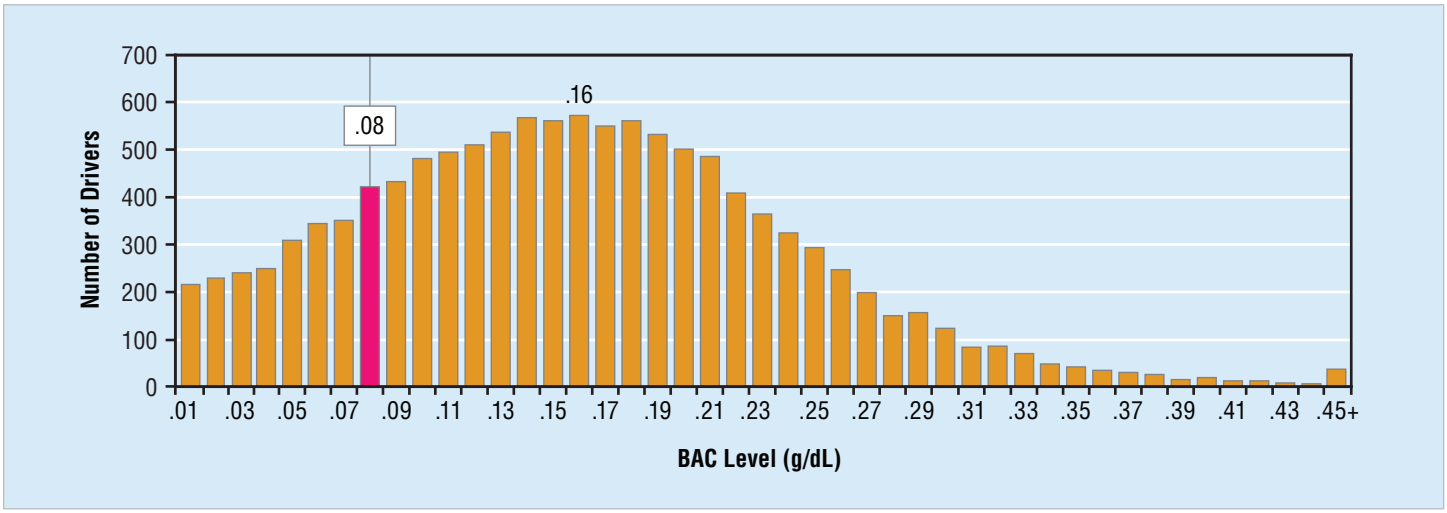


Source: FARS 2018 ARF
Note: Excludes all drivers with previous records that were unknown.

While a BAC of .08 g/dL is considered to be impaired in all States, the large majority of drivers in fatal crashes with any measurable alcohol had levels far higher. Eighty-four percent (10,011) of the 11,950 drivers with BACs of .01 g/dL or higher who were involved in fatal crashes in 2018 also had BAC levels at or above .08 g/dL, and 55 percent (6,565) also had BAC levels at or above .15 g/dL.

In 2018 among the 10,511 alcohol-impaired-driving fatalities, 67 percent (7,051) were in crashes in which at least one driver in the crash had a BAC of .15 g/dL or higher. Figure 4 presents the distribution of BACs for those drivers with any alcohol in their systems. The most frequently recorded BACs among drinking drivers in fatal crashes was at .16 g/dL.

Figure 4
Distribution of BACs for Drivers With BACs of .01 g/dL or Higher Involved in Fatal Crashes, 2018



Source: FARS 2018 ARF

Fatalities by State

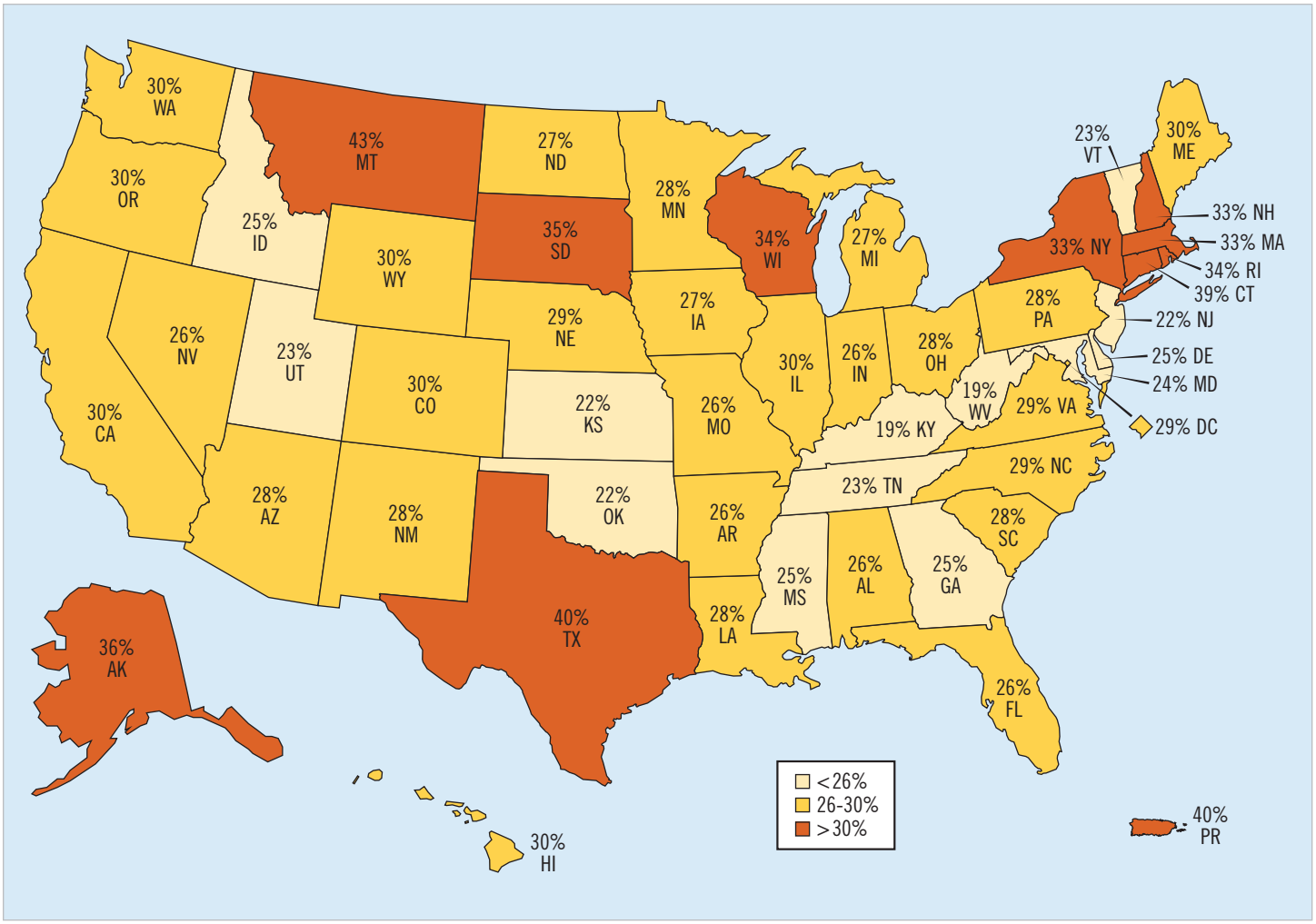
Table 4 shows motor vehicle traffic fatalities by State and the highest driver BAC in the crashes in 2018. Figure 5 contains a color-coded map of the percentage of alcohol-impaired-driving fatalities by State in 2018.

- Among all States, the number of fatalities in motor vehicle traffic crashes ranged from 31 (District of Columbia) to 3,642 (Texas), depending on the size and population of the State.
- Alcohol-impaired-driving fatalities were highest in Texas (1,439), followed by California (1,069) and Florida (814), and lowest in the District of Columbia (9).
- The percentage of alcohol-impaired-driving fatalities among total traffic fatalities in States ranged from a high of 43 percent (Montana) to a low of 19 percent (Kentucky and West Virginia), compared to the national average of 29 percent as shown in Figure 5.
- The percentage of fatalities in crashes involving a driver with a BAC of .15 g/dL or higher ranged from a high of 31 percent (Montana) to a low of 12 percent (Kentucky and West Viriginia), compared to the national average of 19 percent.

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

Figure 5

Percentage of Alcohol-Impaired-Driving Fatalities, by State, 2018



Source: FARS 2018 ARF

Fatality Analysis Reporting System

The FARS contains data on every fatal motor vehicle traffic crash within the 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a public trafficway and must result in the death of a vehicle occupant or a nonoccupant within 30 days of the crash. The Annual Report File (ARF) is the FARS data file associated with the most recent available year, which is subject to change when it is finalized about a year later. The final version of the file is aptly known as the "Final" file. The additional time between the ARF and the Final file provides the opportunity for submission of important variable data requiring outside sources, which may lead to changes in the final counts.

The updated final counts for a given previous calendar year will be reflected with the release of the recent year's ARF. For example, along with the release of the 2018 ARF, the 2017 Final file was also released to replace the previous year's 2017 ARF. The final fatality count in motor vehicle crashes for 2017 was 37,473, which was updated from 37,133 from the 2017 ARF. The number of alcohol-impaired-driving fatalities from the 2017 Final File was 10,908, which was updated from 10,874 from the 2017 ARF.

2016 FARS Final File Revision

Due to amendments made to the 2016 FARS Final file, the number of alcohol-impaired-driving fatalities for 2016 changed from 10,996 to 10,967.

The suggested APA format citation for this document is:

National Center for Statistics and Analysis. (2019, December). *Alcohol-impaired driving: 2018 data* (Traffic Safety Facts. Report No. DOT HS 812 864). Washington, DC: National Highway Traffic Safety Administration.

For more information:

Information on traffic fatalities is available from the National Center for Statistics and Analysis, NSA-230, 1200 New Jersey Avenue SE, Washington, DC 20590. NCSA can be contacted at 800-934-8517 or by e-mail at NCSARequests@dot.gov. General information on highway traffic safety can be found at www.nhtsa.gov/research-data. 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 *Bicyclists and Other Cyclists, Children, Large Trucks, Motorcycles, Occupant Protection in Passenger Vehicles, Older Population, Passenger Vehicles, Pedestrians, Rural/Urban Comparison of Traffic Fatalities, School-Transportation-Related Crashes, Speeding, State Alcohol-Impaired-Driving 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.* The fact sheets and annual Traffic Safety Facts report can be found at https://crashstats.nhtsa.dot.gov/.

U.S. Department of Transportation

National Highway Traffic Safety Administration

Table 4

Motor Vehicle Traffic Fatalities, by State and Highest Driver BAC in the Crash, 2018

State	Total Fatalities*	No Alcohol (BAC=.00 g/dL)		BAC=.01+ g/dL		Alcohol-Impaired (BAC=.08+ g/dL)		BAC=.15+ g/dL	
	Number	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Alabama	953	654	69%	295	31%	246	26%	168	18%
Alaska	80	44	55%	36	45%	29	36%	20	25%
Arizona	1,010	655	65%	334	33%	285	28%	197	20%
Arkansas	516	343	66%	172	33%	134	26%	89	17%
California	3,563	2,322	65%	1,235	35%	1,069	30%	716	20%
Colorado	632	411	65%	219	35%	188	30%	138	22%
Connecticut	294	162	55%	132	45%	115	39%	69	23%
Delaware	111	76	68%	35	32%	28	25%	20	18%
District of Columbia	31	21	66%	11	34%	9	29%	6	18%
Florida	3,133	2,175	69%	950	30%	814	26%	519	17%
Georgia	1,504	1,054	70%	447	30%	375	25%	257	17%
Hawaii	117	71	61%	45	38%	35	30%	27	23%
Idaho	231	165	72%	66	28%	58	25%	45	20%
Illinois	1,031	653	63%	375	36%	309	30%	211	21%
Indiana	858	587	68%	266	31%	227	26%	157	18%
Iowa	318	218	68%	98	31%	85	27%	56	18%
Kansas	404	306	76%	96	24%	88	22%	56	14%
Kentucky	724	552	76%	169	23%	137	19%	88	12%
Louisiana	768	516	67%	251	33%	216	28%	141	18%
Maine	137	88	64%	49	36%	42	30%	26	19%
Maryland	501	346	69%	154	31%	122	24%	75	15%
Massachusetts	360	214	59%	145	40%	120	33%	78	22%
Michigan	974	649	67%	323	33%	267	27%	171	18%
Minnesota	381	251	66%	126	33%	105	28%	68	18%
Mississippi	664	466	70%	198	30%	163	25%	106	16%
Missouri	921	639	69%	279	30%	240	26%	160	17%
Montana	182	95	52%	87	48%	79	43%	56	31%
Nebraska	230	152	66%	78	34%	66	29%	45	19%
Nevada	330	220	67%	110	33%	87	26%	55	17%
New Hampshire	147	92	63%	55	37%	48	33%	30	21%
New Jersey	564	404	72%	159	28%	125	22%	76	13%
New Mexico	391	251	64%	138	35%	108	28%	67	17%
New York	943	580	61%	361	38%	307	33%	195	21%
North Carolina	1,437	952	66%	482	34%	421	29%	290	20%
North Dakota	105	72	68%	33	32%	29	27%	23	22%
Ohio	1,068	724	68%	340	32%	294	28%	201	19%
Oklahoma	655	477	73%	179	27%	145	22%	111	17%
Oregon	506	321	63%	184	36%	153	30%	107	21%
Pennsylvania	1,190	801	67%	387	33%	334	28%	223	19%
Rhode Island	59	34	57%	25	43%	20	34%	12	19%
South Carolina	1,037	702	68%	335	32%	291	28%	202	19%
South Dakota	130	80	62%	50	38%	45	35%	33	26%
Tennessee	1,041	752	72%	289	28%	243	23%	163	16%
Texas	3,642	1,965	54%	1,673	46%	1,439	40%	974	27%
Utah	260	190	73%	70	27%	61	23%	44	17%
Vermont	68	45	66%	23	34%	15	23%	11	16%
Virginia	820	534	65%	285	35%	240	29%	165	20%
Washington	546	351	64%	195	36%	166	30%	108	20%
West Virginia	294	223	76%	71	24%	57	19%	35	12%
Wisconsin	588	353	60%	235	40%	199	34%	137	23%
Wyoming	111	72	64%	40	36%	34	30%	27	24%
U.S. Total	**36,560**	**24,075**	**66%**	**12,389**	**34%**	**10,511**	**29%**	**7,051**	**19%**
Puerto Rico	308	160	52%	147	48%	123	40%	77	25%

Source: FARS 2018 ARF

*Includes fatalities in crashes in which there was no driver (includes motorcycle riders) present.

Note: Percentages are computed based on unrounded estimates.