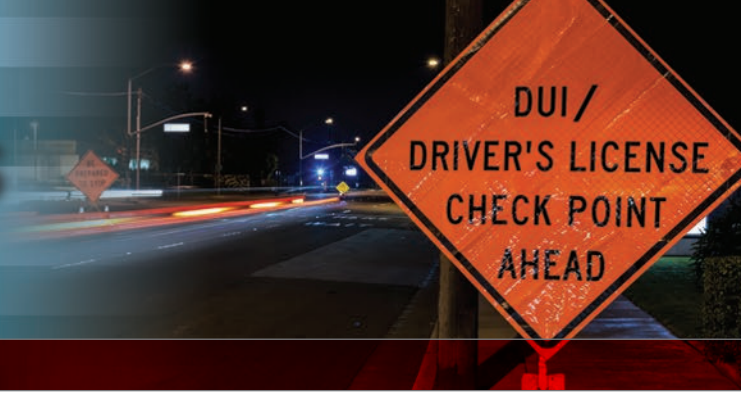
Traffic Safety Facts
2017 Data

November 2018 DOT HS 812 630



NHTSA

Alcohol-Impaired Driving

Key Findings

- In 2017 there were 10,874 fatalities in motor vehicle traffic crashes involving drivers with BACs 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 48 minutes in 2017.
- 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 traffic fatalities in 2017 among children 14 and younger, 19 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 2017.
- The percentage of drivers with BACs of .08 g/dL or higher in fatal crashes in 2017 was highest for motorcycle riders (27%), compared to drivers of passenger cars (21%), light trucks (20%), and large trucks (3%).
- The rate of alcohol impairment among drivers involved in fatal crashes in 2017 was 3.6 times higher at night than during the day.
- In 2017 among the 10,874 alcohol-impaired-driving fatalities, 68 percent (7,368) were in crashes in which at least one driver had a BAC of .15 g/dL or higher.

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

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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 document also includes BACs of .00 g/dL (no alcohol), .01+ g/dL, and .15+ g/dL solely for comparison purposes.

In this fact sheet for 2017 the alcohol-impaired-driving information is presented as follows:

This fact sheet contains information on fatal motor vehicle crashes and fatalities based on data from the FARS. FARS is a database containing information on every fatal crashes in the 50 States, the District of Columbia, and Puerto Rico (Puerto Rico is not included in U.S. totals).

Overview

All 50 States, the District of Columbia, and Puerto Rico have by law set a threshold making it illegal to drive with a BAC of .08 g/dL or higher. In 2017 there were 10,874 people killed in alcohol-impaired-driving crashes, an average of 1 alcohol-impaired-driving fatality every 48 minutes. These alcohol-impaired-driving fatalities accounted for 29 percent of all motor vehicle traffic fatalities in the United States in 2017.

Of the 10,874 people who died in alcohol-impaired-driving crashes in 2017, there were 6,618 drivers (61%) who had BACs of .08 g/dL or higher. The remaining fatalities consisted of 3,075 motor vehicle occupants (28%) and 1,181 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 Driver With a BAC of .08 g/dL or Higher, 2017

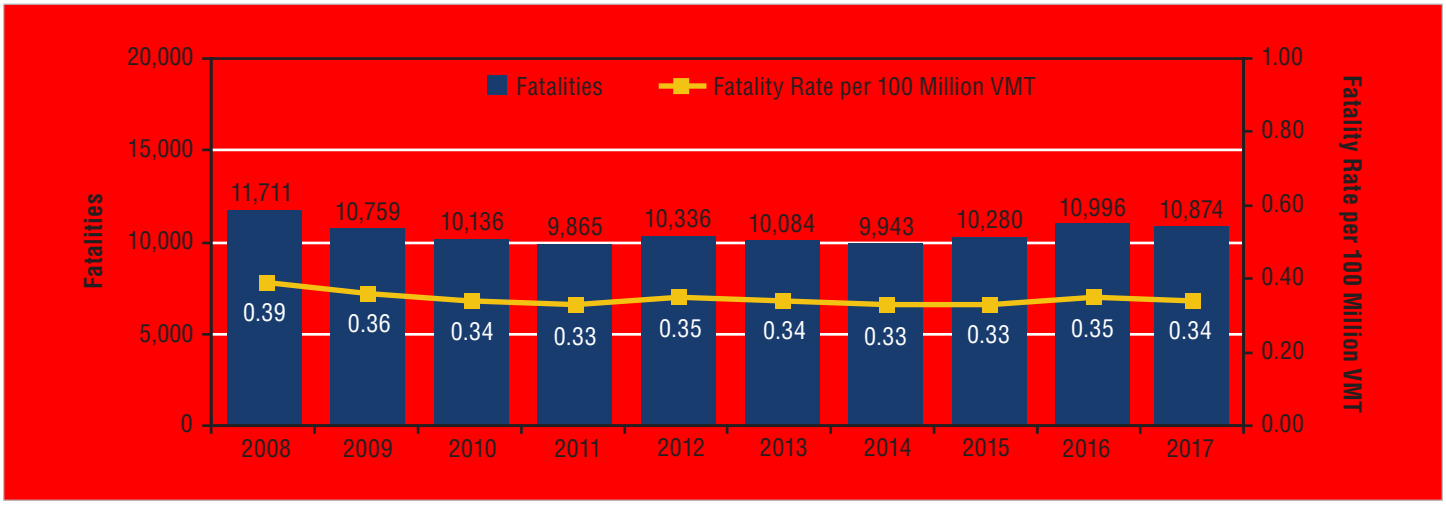
Role	Number	Percent of Total Fatalities
Drivers With BAC=.08+ g/dL	6,618	61%
Passengers Riding With Driver With BAC=.08+ g/dL	1,492	14%
Subtotal	**8,110**	**75%**
Occupants of Other Vehicles	1,583	15%
Nonoccupants (pedestrians/ pedalcyclists/other)	1,181	11%
Total Alcohol-Impaired-Driving Fatalities	**10,874**	**100%**

Source: FARS 2017 Annual Report File (ARF).
Note: Percentages may not equal sum of components due to independent rounding.

Fatalities in alcohol-impaired-driving crashes decreased by 1.1 percent (10,996 to 10,874 fatalities) from 2016 to 2017. Alcohol-impaired-driving fatalities in the past 10 years have declined by 7 percent from 11,711 in 2008 to 10,874 in 2017. The national rate of alcohol-impaired-driving fatalities in motor vehicle crashes in 2017 was 0.34 per 100 million vehicle miles traveled (VMT), down from 0.35 in 2016. The alcohol-impaired-driving fatality rate in the past 10 years has declined by 13 percent, from 0.39 in 2008 to 0.34 in 2017. 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, 2008–2017



Sources: Fatalities – FARS 2008–2016 Final File, 2017 ARF; 2008–2016 VMT – Federal Highway Administration's (FHWA) Annual Highway Statistics; 2017 VMT – FHWA's Traffic Volume Trends (May 2018)

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]

[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

Children

A total of 1,147 children 14 and younger were killed in motor vehicle traffic crashes in 2017. Of these 1,147 fatalities, 220 children (19%) died in alcohol-impaired-driving crashes. Of these 220 child deaths:

- 118 (54%) were occupants of vehicles with drivers who had BACs of .08 g/dL or higher;
- 71 (32%) were occupants of other vehicles;
- 29 (13%) were nonoccupants (pedestrians, pedalcyclists, or other nonoccupants); and
- 2 (1%) were drivers.

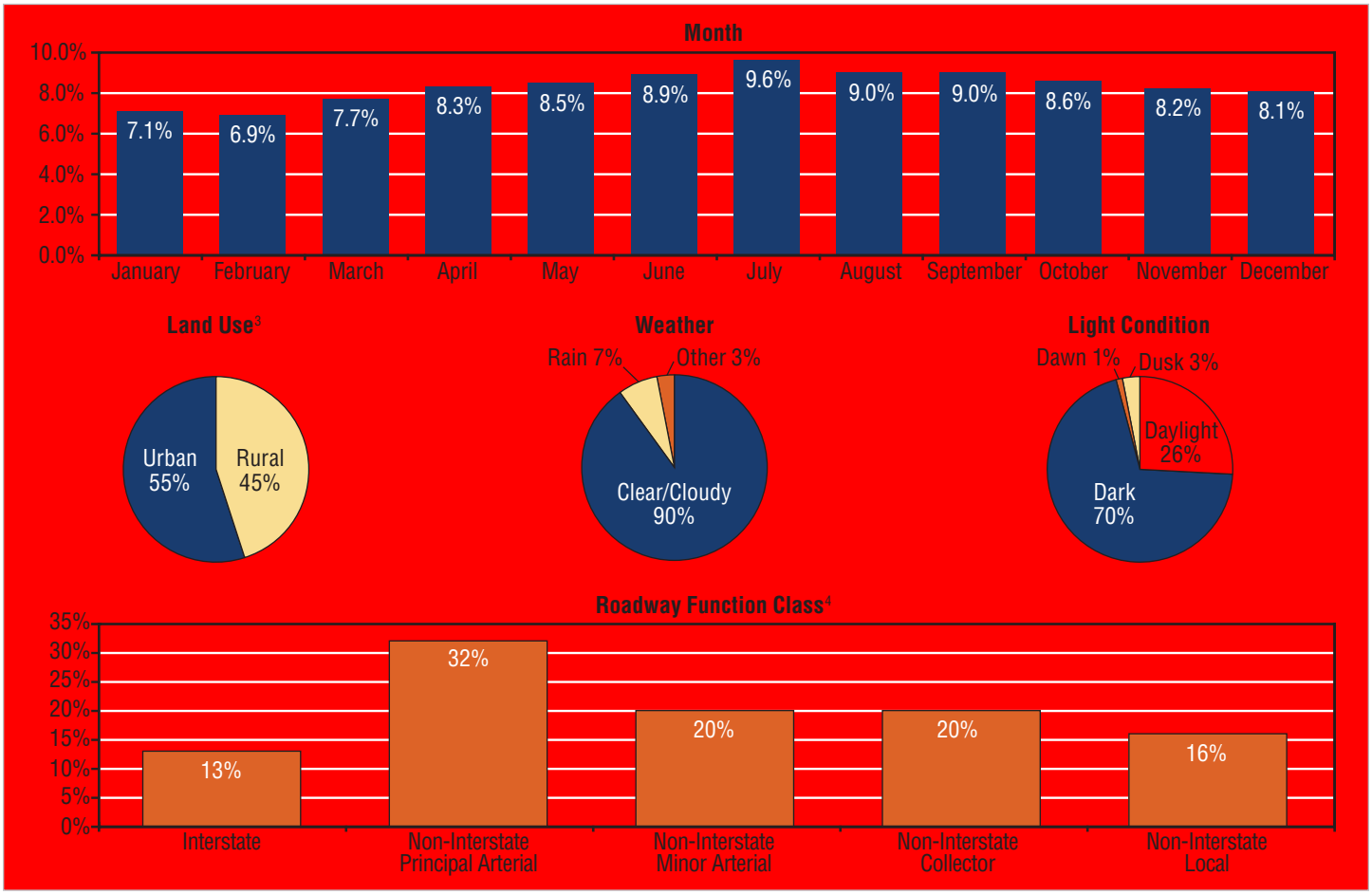
Environmental Characteristics

Figure 2 displays information about the setting surrounding alcohol-impaired drivers involved (killed or survived) in fatal crashes in 2017 including month, land use,[3] weather, light condition, and roadway function class.[4] In 2017 based on known values[2] of alcohol-impaired drivers involved in fatal crashes:

- More occurred in July (9.6%), August (9.0%), and September (9.0%) than the other months;
- 55 percent occurred in urban areas, and 45 percent occurred in rural areas;
- 90 percent occurred in clear/cloudy conditions compared to 7 percent in rainy conditions and 3 percent in other conditions;
- 70 percent occurred in the dark compared to 26 percent in daylight, 3 percent in dusk, and 1 percent in 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 2017, by Month, Land Use,[3] Weather, Light Condition, and Roadway Function Class[4]



Source: 2017 FARS ARF
Note: Unknowns were removed before calculating percentages. Percentages may not add up to 100 percent due to individual rounding.

[2] Unknowns were removed before calculating percentages.

[3] See the U.S. Census Bureau link to define urban and rural areas: www.census.gov/geo/reference/ua/urban-rural-2010.html

[4] Definitions for the different roadway function class 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 2008 and 2017 by time of day and day of week, as well as single-vehicle and multiple-vehicle crash data. In 2017:

- The rate of alcohol impairment among drivers involved in fatal crashes was 3.6 times higher at night than during the day (32% versus 9%);
- 32 percent of all drivers involved in single-vehicle fatal crashes were alcohol-impaired, compared to 12 percent in multiple-vehicle fatal crashes; and
- 15 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 2008 to 42 percent in 2017 (7% difference).

Table 2

Drivers Involved in Fatal Crashes With BACs of .08 g/dL or Higher, by Crash Type, Time of Day and Day of Week, 2008 and 2017

Drivers Involved in Fatal Crashes	2008			2017			Change in Percentage With BAC=.08+ g/dL 2008–2017
	Total Number of Drivers	BAC=.08+ g/dL		Total Number of Drivers	BAC=.08+ g/dL		
		Number	Percent of Total		Number	Percent of Total	
Total	50,416	10,898	22%	52,274	10,344	20%	-2
Drivers by Crash Type and Time of Day							
Single-Vehicle Crash							
Total*	20,563	7,559	37%	19,441	6,274	32%	-5
Daytime	7,997	1,426	18%	7,773	1,338	17%	-1
Nighttime	12,338	6,014	49%	11,431	4,823	42%	-7
Multiple-Vehicle Crash							
Total*	29,853	3,339	11%	32,833	4,070	12%	+1
Daytime	18,380	844	5%	19,725	1,160	6%	+1
Nighttime	11,422	2,489	22%	13,060	2,905	22%	0
Drivers by Time of Day							
Daytime	26,377	2,270	9%	27,498	2,497	9%	0
Nighttime	23,760	8,503	36%	24,491	7,728	32%	-4
Drivers by Day of Week and Time of Day							
Weekday*	30,294	4,533	15%	32,049	4,752	15%	0
Daytime	19,217	1,265	7%	20,291	1,545	8%	+1
Nighttime	10,972	3,231	29%	11,645	3,162	27%	-2
Weekend*	20,046	6,335	32%	20,152	5,566	28%	-4
Daytime	7,160	1,005	14%	7,207	952	13%	-1
Nighttime	12,788	5,272	41%	12,846	4,566	36%	-5

Source: FARS 2008 Final File, 2017 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 gender and vehicle type. In fatal crashes in 2017 the highest percentage of drivers with BACs of .08 g/dL or higher was for 21- to 24-year-old drivers (27%), followed by 25- to 34-year-old drivers (26%). The 10-year trend of alcohol-impaired drivers involved increased for older drivers when compared to younger drivers.

The percentages of drivers with BACs of .08 g/dL or higher involved in fatal crashes in 2017 were 21 percent among males and 14 percent among females. In 2017 there were 4 male alcohol-impaired drivers involved for every female alcohol-impaired driver involved (8,022 versus 1,944).

The percentages of drivers involved in fatal crashes with BACs of .08 g/dL or higher in 2017 by vehicle type were 27 percent for motorcycles, 21 percent for passenger cars, and 20 percent for the "light trucks" category (22% for pickup trucks, 19% for SUVs, and 13% for vans). The percentage of drivers with BACs of .08 g/dL or higher in fatal crashes was the lowest for drivers of large trucks (3%).

Table 3

Drivers With BACs of .08 g/dL or Higher Involved in Fatal Crashes, by Age Group, Gender, and Vehicle Type, 2008 and 2017

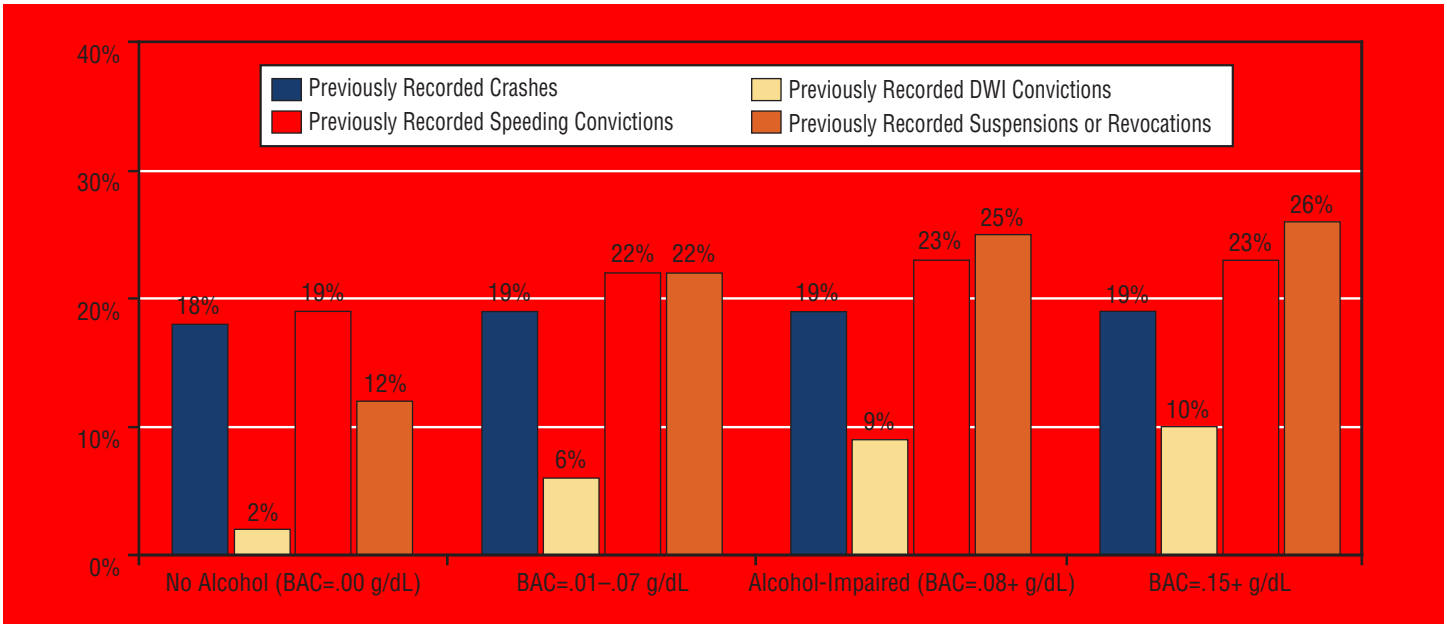
Drivers Involved in Fatal Crashes	2008			2017			Change in Percentage With BAC=.08+ g/dL 2008 and 2017
	Total Number of Drivers	BAC=.08+ g/dL		Total Number of Drivers	BAC=.08+ g/dL		
		Number	Percent of Total		Number	Percent of Total	
Total	50,416	10,898	22%	52,274	10,344	20%	-2
Drivers by Age Group (Years)							
16–20	5,750	995	17%	4,278	648	15%	-2
21–24	5,342	1,830	34%	5,007	1,347	27%	-7
25–34	9,800	2,989	31%	10,876	2,843	26%	-5
35–44	8,806	2,234	25%	8,217	1,862	23%	-2
45–54	8,355	1,712	20%	8,118	1,539	19%	-1
55–64	5,717	704	12%	7,271	1,114	15%	+3
65–74	2,927	187	6%	4,107	387	9%	+3
75+	2,672	99	4%	3,120	191	6%	+2
Drivers by Gender							
Male	37,061	9,169	25%	37,654	8,022	21%	-4
Female	12,627	1,623	13%	13,555	1,944	14%	+1
Drivers by Vehicle Type							
Passenger Cars	20,379	4,679	23%	20,895	4,297	21%	-2
Light Trucks*	19,095	4,311	23%	19,847	3,962	20%	-3
–Pickup Trucks	*9,040*	*2,316*	*26%*	*8,709*	*1,932*	*22%*	*-4*
–SUVs	*7,278*	*1,651*	*23%*	*8,833*	*1,721*	*19%*	*-4*
–Vans	*2,745*	*337*	*12%*	*2,179*	*284*	*13%*	*+1*
Large Trucks	4,040	63	2%	4,600	116	3%	+1
Motorcycles	5,405	1,561	29%	5,316	1,454	27%	-2

Source: FARS 2008 Final File, 2017 ARF.
Note: Numbers shown for groups of drivers do not add to the total number of drivers due to unknown/not reported or other data not included.
*Includes other/unknown light-truck vehicle types.

In 2017 there were 5,054 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 which restraint use was known, 64 percent were unrestrained. Based on known restraint use, 51 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 2017 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 4.5 times more likely to have prior convictions for driving while impaired (DWI) than were drivers with no alcohol (9% and 2%, respectively).

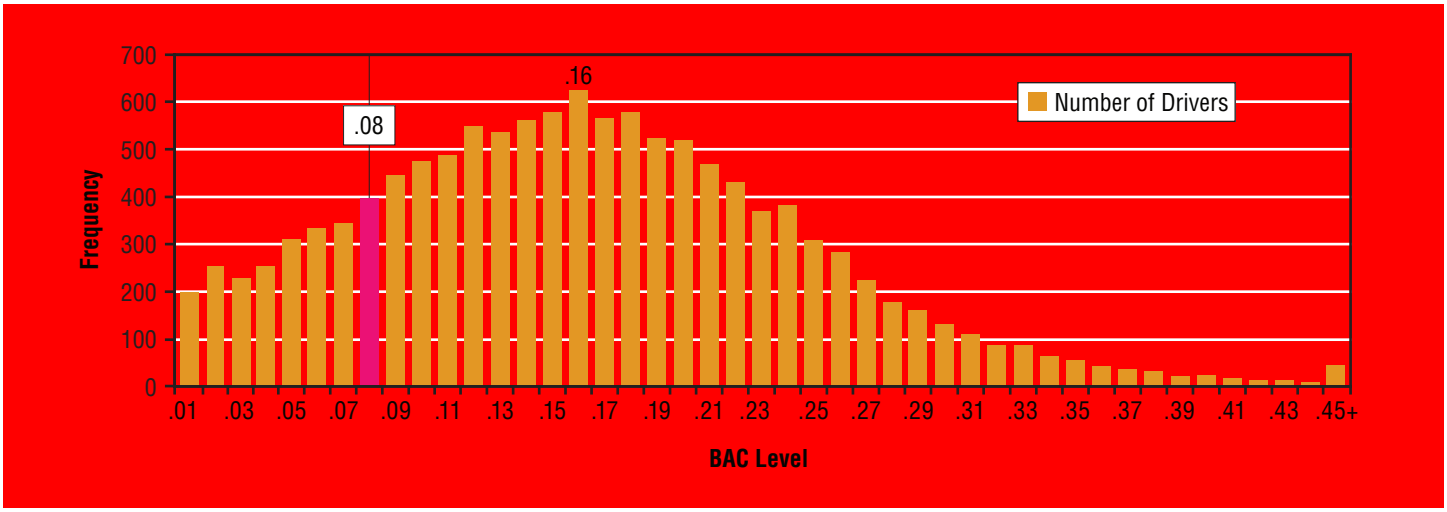
Figure 3
Previous 5-Year Driving Records of Drivers Involved in Fatal Crashes, by BAC, 2017



Source: FARS 2017 ARF

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 (10,344) of the 12,253 drivers with BACs of .01 g/dL or higher who were involved in fatal crashes in 2017 also had BAC levels at or above .08 g/dL, and 56 percent (6,904) also had BAC levels at or above .15 g/dL. Among the 10,874 alcohol-impaired-driving fatalities in 2017, sixty-eight percent (7,368) 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, 2017



Source: FARS 2017 ARF

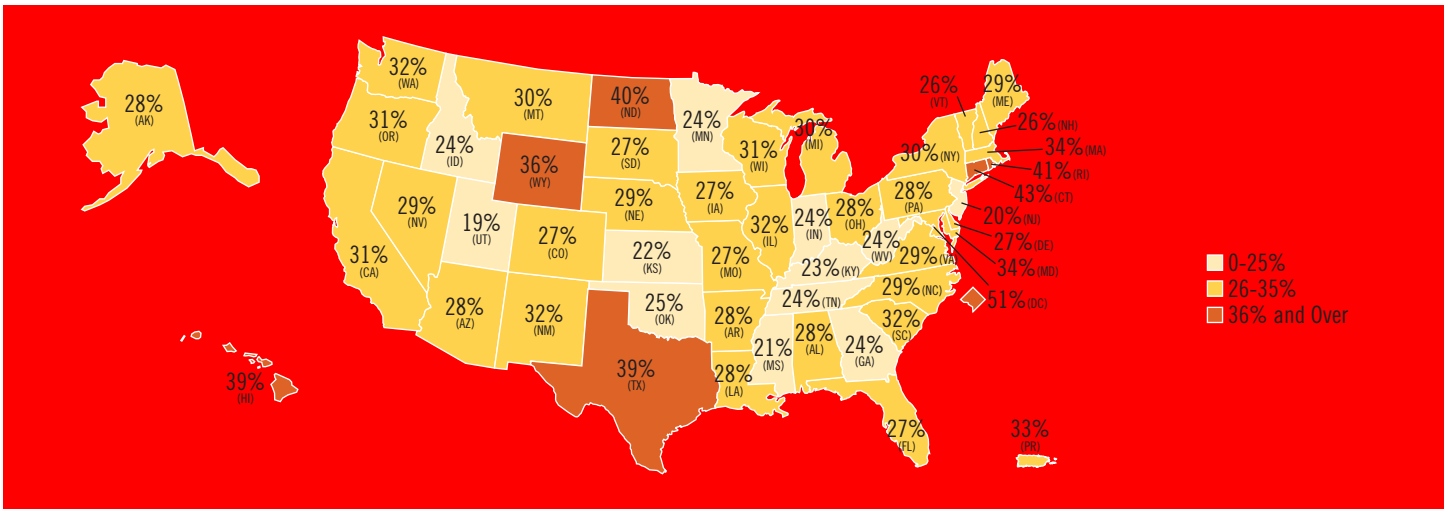
Fatalities by State

Table 4 shows motor vehicle traffic fatalities by State and the highest driver BAC in the crashes in 2017. Figure 5 contains a color-coded map of the percentage of alcohol-impaired-driving fatalities by State in 2017.

- Among all States, the number of fatalities in motor vehicle traffic crashes ranged from 31 (District of Columbia) to 3,722 (Texas), depending on the size and population of the State.
- Alcohol-impaired-driving fatalities were highest in Texas (1,468), followed by California (1,120) and Florida (839), and lowest in the District of Columbia (16).
- The percentage of alcohol-impaired-driving fatalities among total traffic fatalities in States ranged from a high of 51 percent (the District of Columbia) to a low of 19 percent (Utah), 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 43 percent (the District of Columbia) to a low of 12 percent (Utah), compared to the national average of 20 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, 2017



Source: FARS 2017 ARF

The suggested APA format citation for this document is:

National Center for Statistics and Analysis. (2018, November). *Alcohol-impaired driving: 2017 data* (Traffic Safety Facts. Report No. DOT HS 812 630). 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 from the Fatality Analysis Reporting System and the General Estimates System.* The fact sheets and annual Traffic Safety Facts report can be found at .

Table 4

Motor Vehicle Traffic Fatalities, by State and Highest Driver BAC in the Crash, 2017

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	948	629	66%	317	33%	268	28%	188	20%
Alaska	79	55	70%	24	30%	22	28%	17	22%
Arizona	1,000	641	64%	337	34%	278	28%	195	20%
Arkansas	493	336	68%	157	32%	140	28%	93	19%
California	3,602	2,275	63%	1,316	37%	1,120	31%	721	20%
Colorado	648	439	68%	208	32%	177	27%	117	18%
Connecticut	278	142	51%	134	48%	120	43%	88	32%
Delaware	119	82	69%	37	31%	32	27%	23	20%
District of Columbia	31	15	47%	16	53%	16	51%	13	43%
Florida	3,112	2,126	68%	974	31%	839	27%	560	18%
Georgia	1,540	1,102	72%	435	28%	366	24%	248	16%
Hawaii	107	58	54%	50	46%	42	39%	27	25%
Idaho	244	168	69%	74	30%	60	24%	50	20%
Illinois	1,097	677	62%	418	38%	349	32%	240	22%
Indiana	914	658	72%	256	28%	220	24%	142	15%
Iowa	330	226	68%	103	31%	88	27%	47	14%
Kansas	461	349	76%	112	24%	102	22%	67	14%
Kentucky	782	563	72%	213	27%	181	23%	122	16%
Louisiana	760	490	65%	264	35%	212	28%	157	21%
Maine	172	113	65%	60	35%	50	29%	33	19%
Maryland	550	343	62%	206	37%	186	34%	123	22%
Massachusetts	350	213	61%	136	39%	120	34%	88	25%
Michigan	1,030	656	64%	371	36%	311	30%	223	22%
Minnesota	357	253	71%	104	29%	85	24%	60	17%
Mississippi	690	517	75%	173	25%	148	21%	100	14%
Missouri	930	622	67%	304	33%	254	27%	174	19%
Montana	186	121	65%	63	34%	56	30%	36	19%
Nebraska	228	153	67%	73	32%	67	29%	38	17%
Nevada	309	207	67%	101	33%	89	29%	65	21%
New Hampshire	102	70	69%	32	31%	27	26%	15	15%
New Jersey	624	460	74%	165	26%	125	20%	87	14%
New Mexico	379	234	62%	145	38%	120	32%	85	22%
New York	999	657	66%	342	34%	295	30%	197	20%
North Carolina	1,412	933	66%	477	34%	413	29%	286	20%
North Dakota	115	61	53%	50	44%	46	40%	33	29%
Ohio	1,179	794	67%	381	32%	333	28%	235	20%
Oklahoma	655	462	71%	193	29%	165	25%	116	18%
Oregon	437	278	64%	160	36%	137	31%	95	22%
Pennsylvania	1,137	777	68%	357	31%	314	28%	210	18%
Rhode Island	83	46	55%	35	42%	34	41%	20	24%
South Carolina	988	615	62%	374	38%	313	32%	202	20%
South Dakota	129	82	64%	47	36%	35	27%	24	18%
Tennessee	1,040	730	70%	310	30%	251	24%	164	16%
Texas	3,722	2,003	54%	1,715	46%	1,468	39%	990	27%
Utah	273	213	78%	61	22%	53	19%	32	12%
Vermont	69	48	69%	21	31%	18	26%	13	19%
Virginia	839	560	67%	279	33%	246	29%	169	20%
Washington	565	355	63%	211	37%	178	32%	125	22%
West Virginia	303	218	72%	85	28%	72	24%	43	14%
Wisconsin	613	380	62%	232	38%	190	31%	139	23%
Wyoming	123	78	63%	45	37%	44	36%	36	29%
U.S. Total	**37,133**	**24,280**	**65%**	**12,747**	**34%**	**10,874**	**29%**	**7,368**	**20%**
Puerto Rico	290	169	58%	119	41%	96	33%	71	24%

*Total includes fatalities in crashes in which there was no driver (includes motorcycle riders) present. Source: 2017 FARS ARF