

## TRAFFIC SAFETY FACTS

# Alcohol-Impaired Driving

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## INTRODUCTION

While alcohol-impaired driving fatalities have fallen significantly in the last three decades, NHTSA reports that alcohol-impaired driving still comprises a large percentage of traffic injuries and fatalities. On average in 2019, one person died from an alcohol-impaired driving crash every 52 minutes. There was a decrease in the number of alcohol-impaired driving fatalities and rate per 100 million Vehicle Miles Traveled (VMT) in the United States between 2018 and 2019.

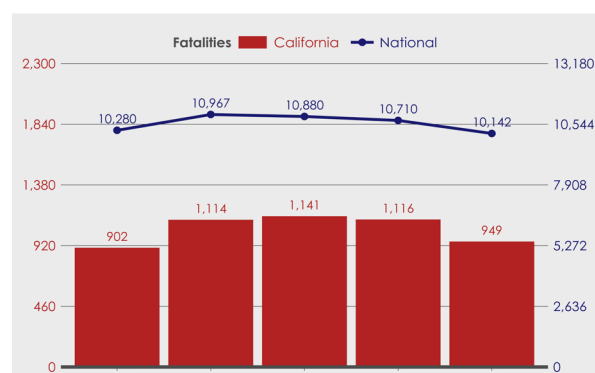
Historically, road safety efforts focused on changing human behaviors to prevent crashes. The Safe System approach reframes efforts to save lives by expecting crashes to happen and focusing attention on reducing the severity of injuries when a crash occurs. By understanding the nuances of alcohol-impaired crashes, transportation professionals can better address every aspect of crash risks and implement multiple layers of protection to ensure that everyone traveling on California roadways will go safely. Analyses from FARS crashes with a driver, pedestrian, or bicyclist with a blood alcohol concentration (BAC) of .08 or greater. Analyses from SWITRS refer to alcohol involvement and include fatalities and serious injuries where law enforcement reported a driver, pedestrian, or bicyclist to have been drinking.

## KEY FINDINGS

### NATIONAL DATA

- In the United States, there were 10,142 people killed in alcohol-impaired crashes in 2019, a 5.3 percent decrease from 10,710 in 2018, and a 1.3 percent decrease from 10,280 in 2015 (see Figure 1).
- All 50 states, with the exception of Utah (.05 BAC), have laws that make it illegal to drive with a BAC of .08 grams per deciliter (g/dL) or higher. However, testing standards for when to administer a BAC test vary considerably between states and local jurisdictions which affect the accuracy and reliability of BAC estimates.
- Drivers of all vehicle types, except motorcyclists, experienced declines in the number of alcohol-impaired drivers involved in fatal crashes from 2018 to 2019.
- Of the 50,930 drivers involved in fatal crashes nationally in 2019, only 22,103 drivers, or 43.4 percent, had known BAC test results. Across all states, the percentage of drivers with known BAC test results ranged from 18.7 to 82.6 percent.

**Figure 1: Alcohol-Impaired Fatality Trends, Nationwide and California, 2015-2019**



Source: FARS 2015-2018, FARS ARF 2019

- In the United States in 2019, of the 36,096 motor vehicle fatalities, 28.1 percent involved a driver with a BAC of .08 or higher. This is the lowest percentage of overall fatalities since 1982, when NHTSA started reporting alcohol data.

## CALIFORNIA DATA

### State-level Analysis

The following figures refer to drivers, passengers, bicyclists, and pedestrians fatally injured in an alcohol-impaired crash or seriously injured in an alcohol-involved crash in California in 2019. When reported collectively, these crashes will be referred to as alcohol-involved. These numbers are the products of UCB SafeTREC analysis.

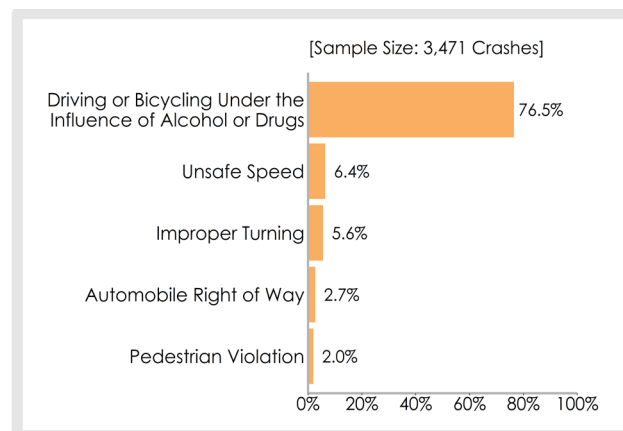
## KEY FINDINGS

- In California, there were 949 people killed in alcohol-impaired crashes in 2019, a 15.0 percent decrease from 1,116 in 2018, and an 8.3 percent increase from 876 in 2015.
- In California, of the 3,606 motor vehicle fatalities in 2019, 26.3 percent involved a driver with a BAC of .08 or higher. This is lower than the national average of 28.1 percent.
- California only reported BAC results for 39.5 percent of drivers involved in a fatal crash in 2019, which is lower than the national average of 43.4 percent. Testing rates were higher for drivers who died than drivers who survived, but testing rates in California for both groups were lower than the national average. Of drivers who died, 70.9 percent had known BAC test results compared to only 21.1 percent of drivers that survived. The comparable national figures were 66.2 percent and 25.2 percent, respectively.
- In 2020, Californians were asked about their top traffic safety concerns in the Traffic Safety Study sponsored by the Office of Traffic Safety. The third-most frequently cited safety problem was "Drunk Driving," which increased to 17.9 percent of concerns from 9.2 percent of concerns expressed in 2019 and 6.5 percent of concerns expressed in 2018.

### Fatal and Serious Injury Alcohol-Involved Crashes by County

- Los Angeles, Riverside, San Bernardino, San Diego, Orange, Sacramento, Santa Clara, and Kern counties had the highest number of alcohol-involved fatal and serious injuries.
- Alpine, Sierra, Trinity, Mono, Inyo, Tuolumne, Mendocino, and Plumas counties had the highest rate of alcohol-involved fatal and serious injuries per 100k population.

**Figure 2: Top Five Primary Crash Factors for Alcohol-Involved Driving Fatal and Serious Injury Crashes, 2019**



Source: Provisional SWITRS 2019

### Primary Crash Factors of Alcohol-Involved Fatal and Serious Injury Crashes

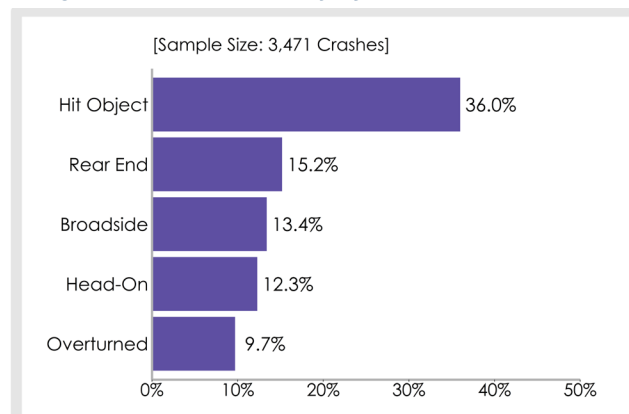
- Expectedly, the vast majority, 76.5 percent, of the primary crash factors (PCF) for alcohol-involved crashes were classified as driving or bicycling under the influence of alcohol or drugs. Following that PCF, unsafe speed (6.4 percent) and improper turning (5.6 percent) were the most frequent PCFs recorded (see Figure 2).

### Alcohol-Involved Fatal and Serious Injury Victim Demographics

- Alcohol-involved fatal and serious injury victims were predominantly male; male victims age 15 to 34 comprised 38.6 percent of all victims.
- Race was not reported for 31.8 percent of the alcohol-impaired driving fatalities. Of the 647 fatalities with a known race, 82.1 percent (or 531) were white.

## CALIFORNIA DATA *(continued)*

**Figure 3: Top Five Crash Types of Alcohol-Involved Driving Fatal and Serious Injury Crashes, California, 2019**



Source: Provisional SWITRS 2019

**Figure 4: Time of Day and Day of Week for Alcohol-Involved Driving Fatal and Serious Injury Victims, California, 2019**

	MON	TUE	WED	THU	FRI	SAT	SUN	TOTAL
Midnight-3AM	120	75	99	125	95	248	267	1,029 [23.2%]
3-6AM	48	25	53	56	57	108	135	482 [10.8%]
6-9AM	15	8	26	13	20	25	35	142 [3.2%]
9AM-Noon	11	4	13	14	15	26	19	102 [2.3%]
Noon-3PM	34	32	35	29	41	52	37	260 [5.9%]
3-6PM	63	68	47	58	67	129	118	550 [12.4%]
6-9PM	96	81	106	101	148	144	133	809 [18.2%]
9PM-Midnight	119	100	127	127	182	217	152	1,024 [23.0%]
Unknown	6	6	8	6	8	4	7	45 [1.0%]
TOTAL	512 [11.5%]	399 [9.0%]	514 [11.6%]	529 [11.9%]	633 [14.2%]	953 [21.4%]	903 [20.3%]	4,443 [100.0%]

FSI Num+% 4 - 14 15 - 35 36 - 69 70 - 123 124 - 267

Source: FARS ARF 2019, Provisional SWITRS 2019

### Crash Types for Alcohol-Involved Fatal and Serious Injury Crashes

- Hit object was the most prevalent type of alcohol-involved crash at 36.0 percent. This was followed by rear end crashes at 15.2 percent, broadside at 13.4 percent, and head-on at 12.3 percent (see Figure 3).

### Crash Location for Fatal Alcohol-Impaired Victims

- About two-thirds (65.4 percent) of alcohol-impaired fatalities occurred in urban areas compared to 33.9 percent on rural roads. However only about 17.1 percent of travel took place on rural roads in 2019.
- The type of roadway with the greatest share of alcohol-impaired fatalities (40.5 percent) was non-interstate principal arterials, followed by non-interstate minor arterials at 20.7 percent and non-interstate collector at 17.4 percent.

### Time and Day of Alcohol-Involved Fatal and Serious Injuries

- The rate of alcohol-involved fatal and serious injuries was much higher at night, especially on weekends, than during the day. Alcohol-involved fatal and serious injuries were also more likely to occur on weekends than weekdays, with Saturday and Sunday accounting for 41.8 percent of injuries (see Figure 4).
- Almost half (46.2 percent) of alcohol-involved fatal and serious injuries occurred between 9PM and 3AM. Alcohol-involved fatal and serious injuries were least recorded between 6AM and noon, with only 5.5 percent of injuries.
- About half (49.2 percent) of all alcohol-involved driving fatal and serious injuries occurred over the weekend between 6PM on Friday and midnight on Sunday.

### Vehicle Type for Fatally Injured Victims of Alcohol-Impaired Crashes

- In 2019, passenger cars were involved in 42.2 percent of alcohol-impaired fatalities followed by motorcycles at 15.6 percent, non-motor vehicle occupants at 14.6 percent, and pickups at 13.1 percent.

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**COUNTY TABLE: ALCOHOL-IMPAIRED****Figure 5: Alcohol-Impaired Fatalities and Serious Injuries, by Number and Rate, 2019**

County	Population	Fatalities	Serious Injuries	Fatal & Serious Injuries (FSI)	FSI per 100K Population
Alameda	1,668,965	15	109	124	7.43
Alpine	1,123	0	2	2	178.09
Amador	37,724	4	9	13	34.46
Butte	214,532	10	46	56	26.10
Calaveras	44,403	5	16	21	47.29
Colusa	22,045	1	6	7	31.75
Contra Costa	1,147,269	21	105	126	10.98
Del Norte	27,207	0	9	9	33.08
El Dorado	188,818	7	24	31	16.42
Fresno	1,018,437	31	86	117	11.49
Glenn	29,072	1	7	8	27.52
Humboldt	133,820	10	31	41	30.64
Imperial	188,962	5	23	28	14.82
Inyo	18,463	3	8	11	59.58
Kern	909,697	39	93	132	14.51
Kings	153,522	5	18	23	14.98
Lake	64,080	5	23	28	43.70
Lassen	28,972	0	5	5	17.26
Los Angeles	10,210,966	154	591	745	7.30
Madera	157,686	8	27	35	22.20
Marin	260,969	9	15	24	9.20
Mariposa	17,842	2	6	8	44.84
Mendocino	88,125	9	34	43	48.79
Merced	281,592	14	68	82	29.12
Modoc	9,458	0	2	2	21.15
Mono	13,585	1	13	14	103.06
Monterey	443,397	12	69	81	18.27
Napa	139,874	2	20	22	15.73
Nevada	97,808	4	20	24	24.54
Orange	3,195,197	50	167	217	6.79
Placer	394,626	7	46	53	13.43
Plumas	18,450	1	8	9	48.78
Riverside	2,428,464	84	277	361	14.87
Sacramento	1,548,760	46	140	186	12.01
San Benito	62,051	2	9	11	17.73
San Bernardino	2,176,150	85	232	317	14.57
San Diego	3,346,937	68	236	304	9.08
San Francisco	897,114	11	32	43	4.79
San Joaquin	767,935	26	101	127	16.54
San Luis Obispo	277,276	10	40	50	18.03
San Mateo	776,002	5	50	55	7.09
Santa Barbara	452,066	9	51	60	13.27
Santa Clara	1,960,932	34	121	155	7.90
Santa Cruz	272,185	6	41	47	17.27
Shasta	177,620	13	31	44	24.77
Sierra	3,127	0	5	5	159.90
Siskiyou	44,000	1	5	6	13.64
Solano	439,990	9	35	44	10.00
Sonoma	495,058	12	63	75	15.15
Stanislaus	554,212	22	74	96	17.32
Sutter	102,808	10	21	31	30.15
Tehama	65,163	8	20	28	42.97
Trinity	13,374	3	11	14	104.68
Tulare	477,731	25	54	79	16.54
Tuolumne	52,557	5	23	28	53.27
Ventura	844,213	12	77	89	10.54
Yolo	220,723	3	25	28	12.69
Yuba	78,061	5	10	15	19.22
<b>Total</b>	<b>39,761,195</b>	<b>949</b>	<b>3,490</b>	<b>4,439</b>	<b>11.16</b>

Source: FARS ARF 2019, Provisional SWITRS 2019, California Department of Finance 2020