

UC Berkeley

Fact Sheet

Title

2020 SafeTREC Traffic Safety Facts: Drug-Involved Driving

Permalink

<https://escholarship.org/uc/item/8gj1h56s>

Authors

Chen, Katherine L.

Tsai, Bor-Wen

Fortin, Garrett

et al.

Publication Date

2020-07-01

TRAFFIC SAFETY FACTS

Drug-Involved Driving

—Katherine L. Chen, Bor-Wen Tsai, Garrett Fortin, and Jill F. Cooper—

INTRODUCTION

Driving can be impaired by a variety of legal and illegal drugs, substances, and medications. These various substances can impair cognition, attention, coordination, and other brain functions critical to driving safety. Unlike alcohol, the mechanism for absorption, distribution, and elimination of drugs from the body, as well as cognitive and behavioral effects differ greatly.

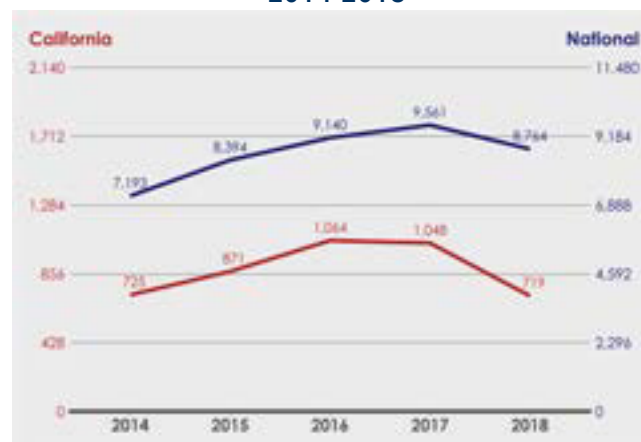
Analyses from SWITRS presented in this program area refer to drug-involvement and include fatal and serious injuries where law enforcement reported the driver to be under the influence of drugs. Crashes in the program area are defined as where one or more drivers tested positive for a drug that could cause impairment or was reported as driving under the influence of drugs, depending on which data set is used.

CALIFORNIA FACTS

NATIONAL DATA

- In the United States, 8,764 people were killed in drug-involved crashes in 2018, an 8.3 percent decrease from 9,561 in 2017, and a 21.8 percent increase from 7,193 in 2014.
- In the United States, of fatally injured drivers with known drug tests in 2018, 46.1 percent were positive for drugs - legal and illegal.
- The Substance Abuse and Mental Health Services Administration's (SAMHSA) 2018 National Survey of Drug Use and Health estimated a decrease of 1.4 percent to 12.6 million people who drove under the influence of selected illicit drugs in 2018, including marijuana, cocaine, heroin, hallucinogen, inhalant, and methamphetamine. While data on self-reported drug use has usefulness, it may be under-reported.
- Alcohol use in combination with drug use increases impairment. In 2018, the National Survey of Drug Use and Health found that 39.9 percent of those reporting that they drove under the influence of drugs within the past year also reported that they drove under the influence of alcohol in the same time period. While generally understood as unsafe, research is emerging on the specific dangers of driving under the influence of drugs and in combination with alcohol.
- NHTSA's 2015 Drug and Alcohol Crash Risk: A Case-Control Study found that delta-9-tetrahydrocannabinol (THC) was the illicit drug found to be most commonly used by drivers but was not associated with an increase in crash risk.
- NHTSA's 2013-14 National Roadside Survey of Alcohol and Drug Use by Drivers found nearly one in four drivers (22.3 percent of Friday daytime drivers and 22.5 percent of Friday and Saturday nighttime drivers) in the United States tested positive for at least one potentially impairing drug, either illegal or medication. Of weekend nighttime drivers tested, 8.3 percent were alcohol positive while 15.2 percent tested positive for cannabis or any illegal drug and 7.3 percent tested positive for only medications.

Drug-Involved Driving Fatality Trends, Nationwide 2014-2018



Source: FARS 2014-2017, FARS ARF 2018

CALIFORNIA DATA

- In California, there were 719 fatalities in drug-involved crashes in 2018, a 31.4 percent decrease from 1,048 in 2017 and a 0.8 percent decrease from 725 in 2014.
- In 2016, California voters passed a ballot initiative that legalized the sale and use of recreational cannabis. In 2018, the legal sale of cannabis began in some jurisdictions. Based on patterns following similar laws in Colorado and Washington, the number of drug-involved drivers is expected to increase.
- In California, of fatally injured drivers with known drug tests in 2018, 42.1 percent were positive for drugs - legal and illegal.
- According to the 2019 California Traffic Safety Survey, almost half (49.6 percent) of respondents said they thought driving under the influence of drugs including marijuana, prescription and illegal drugs was "a very big" problem,

CALIFORNIA DATA

(continued)

while 28.4 percent thought it was somewhat of a problem.

Fatal and Serious Injury Drug-Involved Driving Crashes by County

- The highest numbers of drug-involved road user fatalities and serious injuries were in the counties of Los Angeles, Riverside, and San Diego, followed by San Bernardino, Orange, Kern, San Joaquin, Fresno, Sacramento, and Santa Clara counties.
- Conversely, the rates of drug-involved fatalities and serious injuries per 100,000 population were highest in the more rural northern and central counties of Alpine, Mono, and Plumas counties.

Primary Crash Factors of Drug-Involved Driving Fatal and Serious Crashes

- The top primary crash factor was driving or bicycling under the influence of alcohol or drugs (88.8 percent).

Crash Types of Drug-Involved Driving Fatal and Serious Injury Crashes

- The most common crash type was hit object at 34.6 percent, following by head-on at 17.1 percent, and broadside at 14.7 percent.

Time and Day of Drug-Involved Driving Fatal and Serious Injury Crashes

- Of fatal and serious injuries due to drug-involved driving, most (51.4 percent) occurred on Friday, Saturday, or Sunday. The most common hours for fatal and serious injuries due to drug-involved driving were between 6pm and 3am (45.4 percent).

Drug-Involved Driving Fatal and Serious Injury Victim Demographics

- Of fatal and serious injuries due to drug-involved driving, 69.4 percent occurred among men and 30.6 percent occurred among women.
- Of the drug-involved driving fatalities and serious injuries in California in 2018, a majority (51.6 percent) occurred in the age range 15-34.
- Of the fatally-injured drug-involved victims with a known race, most were white (83.0 percent). Race was unknown for 57.6 percent of the victims.

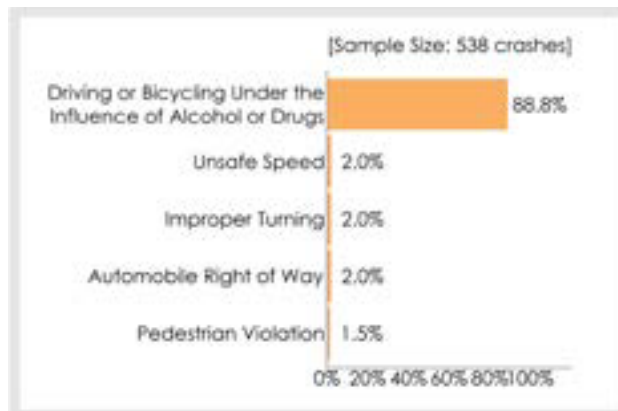
Crash Location for Fatal Drug-Involved Driving Crash Victims

- Nearly two-thirds (62.6 percent) of the drug-involved fatal injuries occurred on urban roads, with the other 37.4 percent occurring on rural roads.
- Most of the fatalities occurred on non-interstate principal arterials (41.9 percent), followed by non-interstate minor arterials (20.6 percent).

Vehicle Type in Fatal Drug-Involved Driving Crashes

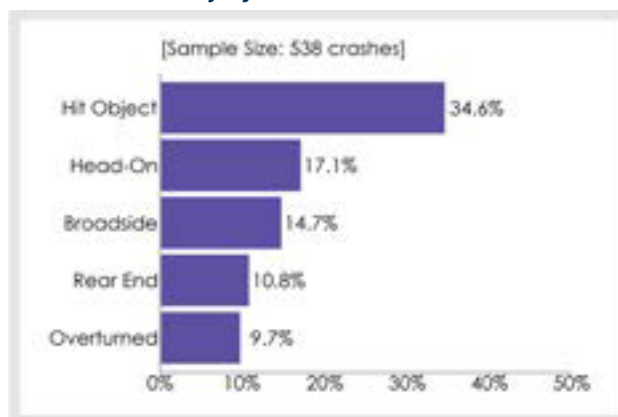
- Passenger cars were involved in 49.5 percent of drug-involved driving fatalities.
- Passenger vehicles, including motor vehicles weighing 10,000 pounds or less and including passenger cars and light trucks (SUVs, pickup trucks, vans, and other light trucks) were involved in 72.7 percent of drug-involved driving fatalities.

Top Five Primary Crash Factors for Drug-Involved Driving Fatal and Serious Injury Crashes, California, 2018



Source: Provisional SWITRS 2018

Top Five Crash Types of Drug-Involved Driving Fatal and Serious Injury Crashes, California, 2018



Source: Provisional SWITRS 2018

Time of Day and Day of Week for Drug-Involved Driving Fatal and Serious Injury Victims, California, 2018

	MON	TUE	WED	THU	FRI	SAT	SUN	TOTAL
Midnight-3AM	24	17	14	17	21	32	41	166 (11.7%)
3AM-6AM	22	13	4	14	17	19	24	116 (8.7%)
6AM-9AM	14	11	10	22	8	21	11	100 (7.5%)
9AM-NOON	11	13	8	14	22	31	14	134 (10.0%)
NOON-3PM	20	18	21	31	20	14	24	158 (11.8%)
3-6PM	24	19	17	21	27	24	26	168 (12.6%)
6-9PM	20	27	18	15	23	29	30	162 (12.1%)
9PM-Midnight	20	32	22	21	26	40	19	190 (14.2%)
UNKNOWN	4	0	1	4	0	4	0	20 (1.5%)
TOTAL	148 (11.1%)	151 (11.2%)	119 (8.9%)	145 (10.9%)	195 (14.5%)	204 (15.2%)	214 (16.0%)	1,387 (102.0%)

■ 0-5 ■ 6-11 ■ 12-17 ■ 18-23 ■ 24-29 ■ 30-31

Source: FARS ARF 2018, Provisional SWITRS 2018

REFERENCES

- Center for Behavioral Health Statistics and Quality. (2019). 2018 NSDUH Detailed Tables. Substance Abuse and Mental Health Services Administration, Rockville, MD. <https://www.samhsa.gov/data/report/2018-nsduh-detailed-tables>.
- Substance Abuse and Mental Health Services Administration (SAMHSA). National Survey on Drug Use and Health, 2018. Public online Data Analysis System (PDAS). Accessed March 23, 2020. Available here: <https://pdas.samhsa.gov/#/survey/NSDUH-2018-DS0001>
- Ewald & Wasserman Research Consultants, LLC. (2019, September). California Traffic Safety Survey 2019. Elk Grove, CA: California Office of Traffic Safety.