

TRAFFIC SAFETY FACTS

Aging Road Users

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INTRODUCTION

The older adult population in the United States aged 65 and older is expected to almost double between 2016 and 2060, from 49 million to 95 million. In 2018, there were 6,907 people aged 65 or older killed in a traffic crash in the United States; this accounted for 18.9 percent of all traffic fatalities. To provide context, the overall population aged 65 or older accounted for 14.9 percent of people in the United States and 19.4 percent of all licensed drivers in 2017. California has the largest number of licensed drivers aged 65 or older in the nation with 4,251,349, or 15.9 percent of all licensed drivers in the state. However, as drivers age, physical and mental changes including reduced visual acuity, increased fragility, restricted movement, and cognitive impairment can directly and indirectly result in age-related driving impairments.

Analyses presented in this section include fatal and serious injuries to drivers, passengers, bicyclists, pedestrians, and other non-motor vehicle occupants aged 65 or older.

CALIFORNIA FACTS

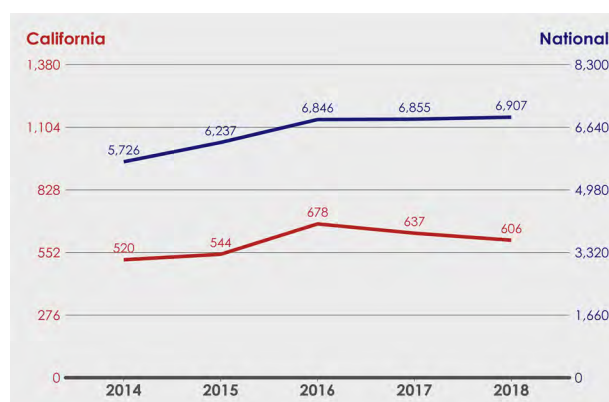
NATIONAL DATA

- National data shows that in 2018, 6,907 adults age 65 and older were killed in motor vehicle crashes.
- In 2018, drivers aged 65 and older had a lower involvement rate in fatal crashes (12.0 per 100,000 licensed drivers) than drivers aged 16-64 (18.2 per 100,000 licensed drivers).
- In 2018, fewer drivers 65 and older involved in fatal crashes had blood alcohol concentrations (BAC) of .08 or more, relative to drivers under 65. Of drivers 65 and older who were involved in fatal crashes in 2018, 8.9 percent were alcohol-impaired.
- In 2018, 56.4 percent of the traffic fatalities involving passenger vehicle drivers aged 65 and older were the older drivers themselves. In 2018, drivers age 65 and older had a lower involvement rate in fatal crashes (16.2 per 100,000 licensed drivers) than drivers age 16-64 (23.2 per 100,000 licensed drivers).

CALIFORNIA DATA

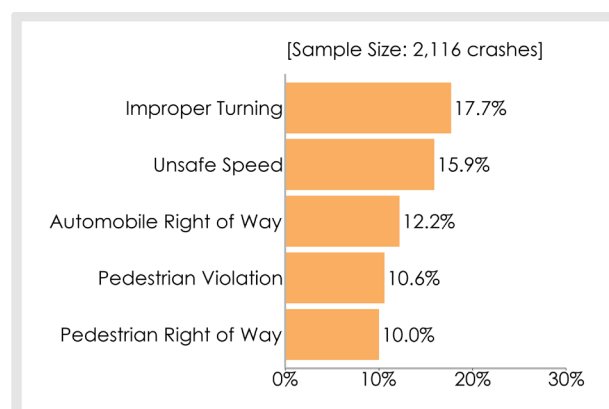
- In 2018, there were 606 people aged 65 and older killed in traffic crashes in California, which is a 4.9 percent decrease from 637 in 2017.
- Pedestrian fatalities aged 65 and older decreased 11.2 percent, from 224 in 2017 to 199 in 2018.
- Pedestrian fatalities aged 65 and older decreased by 18.8 percent, from 239 in 2016 to 194 in 2017.

Aging Road User Fatality Trends, Nationwide and California, 2014-2018



Source: FARS 2014-2017, FARS ARF 2018

Top Five Primary Crash Factors for Aging Road User Fatal and Serious Injury Crashes, California, 2018



Source: Provisional SWITRS 2018

CALIFORNIA DATA (continued)

- In 2017, drivers aged 65 and older had a lower involvement rate in fatal crashes (11.9 per 100,000 licensed drivers) than drivers aged 16-64 (19.4 per 100,000 licensed drivers).

Primary Crash Factors of Aging Road Users Fatal and Serious Injury Crashes

- The two top Primary crash factors (PCF) were improper turning at 17.7 percent, and unsafe speed at 15.9 percent. Automobile right of way, pedestrian violation and pedestrian right of way were the next three most common PCFs between 12.2 and 10.0 percent.

Crash Types for Aging Road Users Fatal and Serious Injury

- One-fourth (25.7 percent) of aging fatal and serious injury crashes were vehicle-pedestrian involvement followed by broadside crashes (20.1 percent).

Time and Day for Aging Road Users Fatal and Serious Injuries

- The time of day when the highest number of aging road users fatal and serious injury crashes occurred was between noon and 6pm on weekdays (30.6 percent).

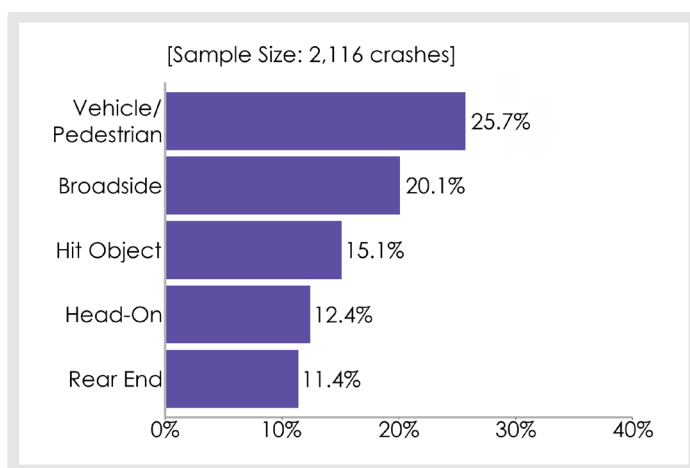
Time of Day and Day of Week for Aging Road User Fatal and Serious Injury Victims, California, 2018

	MON	TUE	WED	THU	FRI	SAT	SUN	TOTAL
Midnight-3AM	14	1	5	4	8	8	15	55 [2.5%]
3-6AM	13	9	12	9	15	15	4	77 [3.5%]
6-9AM	39	33	47	40	39	28	20	246 [11.2%]
9AM-Noon	69	46	45	57	57	52	38	364 [16.6%]
Noon-3PM	66	69	76	46	69	69	63	458 [20.9%]
3-6PM	67	66	63	67	81	62	51	457 [20.8%]
6-9PM	45	62	55	44	58	58	42	364 [16.6%]
9PM-Midnight	26	19	18	19	30	30	19	161 [7.3%]
Unknown	2	1	1	1	2	3	1	11 [0.5%]
TOTAL	341 [15.5%]	306 [14.0%]	322 [14.7%]	287 [13.1%]	359 [16.4%]	325 [14.8%]	253 [11.5%]	2,193 [100.0%]

FSI Num+% 1-8 9-21 22-45 46-62 63-81

Source: FARS ARF 2018; Provisional SWITRS 2018

Top Five Crash Types for Aging Road User Fatal and Serious Injury Crashes, California, 2018



Source: Provisional SWITRS 2018

REFERENCES

- Choi, J., Tay, R., Kim, S., and Jeong, S. Turning movements, vehicle offsets and ageing drivers driving behaviour at channelized and unchannelized intersections. Accident Analysis & Prevention, Volume 108, November 2017, Pages 227-233. <https://www.sciencedirect.com/science/article/pii/S0001457517303093>
- Lombardi, D.A., Horrey, W.J., and Courtney, T.K. Age-related differences in fatal intersection crashes in the United States. Accident Analysis and Prevention 99 (2017) 20-29. https://ac.els-cdn.com/S0001457516303918/1-s2.0-S0001457516303918-main.pdf?_tid=ac7e3875-011-408e-98ed-56fa33cc2263&acdnat=1521570170_d2226d29e3bed327d4094cf1f0d85a6a
- Vespa, J., Medina, L., and Armstrong, D. (2020, Feb - Revised). Demographic Turning Points for the United States: Population Projections for 2020 to 2060. United States Census Bureau. <https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1144.pdf> Accessed March 2020.
- U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates. Accessed March 2020. https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_5YR_S0101&prodType=table
- Federal Highway Administration. Highway Statistics 2017. Accessed March 2019. <https://www.fhwa.dot.gov/policyinformation/statistics/2017>
- National Center for Statistics and Analysis. (2019, March). Pedestrians: 2017 data. (Traffic Safety Facts. Report No. DOT HS 812 681). Washington, DC: National Highway Traffic Safety Administration.
- 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.
- Insurance Institute for Highway Safety. (2017, December). Older Drivers. Accessed April 2018. <http://www.iihs.org/iihs/topics/t/older-drivers/fatalityfacts/older-people/2016>
- Insurance Institute for Highway Safety. (2018). Older Drivers. Accessed March 2020. <http://www.iihs.org/iihs/topics/t/older-drivers>
- National Center for Statistics and Analysis. (2019, October). 2018 fatal motor vehicle crashes: Overview. (Traffic Safety Facts Research Note. Report No. DOT HS 812 826). Washington, DC: National Highway Traffic Safety Administration.
- National Center for Statistics and Analysis. (2019, March). 2017 older population fact sheet. (Traffic Safety Facts. Report No. DOT HS 812 684). Washington, DC: National Highway Traffic Safety Administration