

TRAFFIC SAFETY FACTS

Pedestrian Safety

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

INTRODUCTION

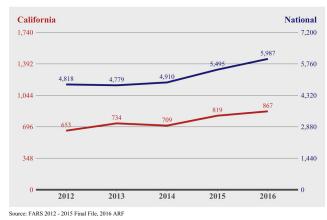
Everyone is a pedestrian, whether or not walking is one's primary mode of travel, and as a commute mode, walking is gaining in numbers. Nearly 16 pedestrians died every day, averaging a pedestrian every 1.5 hours, in traffic collisions in 2016. Pedestrian fatalities increased 27.4 percent from 2007 to 2016 while other traffic deaths decreased 13.9 percent. In 2016, the number of pedestrian fatalities was at its highest one-year level since 1990. California was one of five states (along with Florida, Texas, New York, and Arizona) which reported more than 100 pedestrian deaths and collectively accounted for 43 percent of all pedestrian deaths in the U.S. in the first half of 2017.

CALIFORNIA FACTS

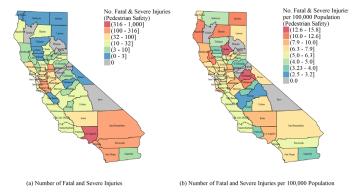
CALIFORNIA DATA

- Pedestrian fatalities rose 32.8% from 653 in 2012 to 867 in 2016. The one-year increase from 2015 was 5.9% from 819 pedestrian fatalities.
- The highest numbers of pedestrian fatal and severe injuries occurred in densely populated areas in Los Angeles, Orange, San Diego, Riverside, San Bernardino, San Francisco, Santa Clara, Alameda, and Sacramento counties. Conversely, seven counties, including Trinity, Plumas, Sierra, Amador, Calaveras, Alpine, and Inyo, reported zero pedestrian fatal and severe injuries in 2016.
- Respondents in the annual statewide Traffic Safety Survey identified the following pedestrian safety problems: "Cars not stopping" (28.9% of respondents), "distracted drivers (cell phones)" (21.1%), and "cars going too fast" (17.0%).
- Elevated rates of pedestrian fatal and severe injuries by population occurred in both urban and rural counties. The three counties with the highest rates were Butte, Tuolumne, and San Francisco, followed by Modoc, Shasta, Humboldt, Lake, and Mariposa.

Pedestrian Fatality Trends, Nationwide and California, 2012-2016



Pedestrian Fatal & Severe Injury and Fatal & Severe Injury per 100K Population by County, 2016



Source: FARS ARF 2016; Provisional SWITRS 2016; California Department of Finance 2016

CALIFORNIA DATA

(continued)

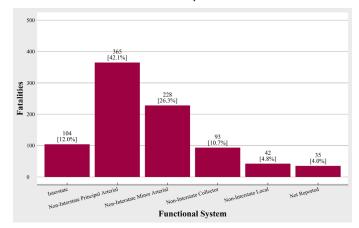
- Speed affects mortality. On average, a pedestrian has a 10% chance of being killed when struck by a vehicle traveling at 24.1 miles per hour (mph). This risk increases to 50% when a vehicle is traveling at 40.6 mph, 75% at 48.0 mph, and 90% at 54.6 mph. Risk increases with age-pedestrians over age 70 face higher risk at lower speeds than younger pedestrians.
- 40% of pedestrian fatal and severe injuries occur during dusk and darkness: between 6pm and 9pm every day; between 9pm and midnight on Wednesday through Saturday; and on early Saturday and Sunday morning between midnight and 3am.
- More male than female pedestrians in every age group sustained fatal and severe injuries in 2016. Injury collisions were fairly evenly distributed among the following age groups: 55 to 64 (16.4%), 25 to 34 (16%) and 15 to 24 (15.6%).
- Over three-quarters (84.2%) of pedestrian fatalities occurred in urban areas compared with 15.8% on rural roads.
- Over two-thirds (68.4%) of all pedestrian fatalities occurred on non-interstate principal or minor arterial roadways.

Time and Day of Week for Pedestrian Fatal & Severe Injury, California, 2016

	MON	TUE	WED	THU	FRI	SAT	SUN	TOTAL
Midnight-3AM	32	27	28	24	35	78	85	309 [10.6%]
3-6AM	29	27	37	32	37	31	28	221 [7.5%]
6-9AM	42	54	53	50	43	25	16	283 [9.7%]
9AM-Noon	21	26	23	22	24	18	20	154 [5.3%]
Noon-3PM	19	29	18	30	35	27	22	180 [6.1%]
3-6PM	58	62	75	74	69	67	47	452 [15.4%]
6-9PM	122	100	92	100	132	120	101	767 [26.2%]
9PM-Midnight	56	65	82	82	82	110	71	548 [18.7%]
Unknown	3	2	1	0	4	2	2	14 [0.5%]
TOTAL	382 [13.0%]	392 [13.4%]	409 [14.0%]	414 [14.1%]	461 [15.7%]	478 [16.3%]	392 [13.4%]	2,928 [100.0%]
FSI Num+% 0 1 - 21 22 - 29 30 - 48 49 - 77 78 - 132								

Source: FARS ARF 2016; Provisional SWITRS 2016

Roadway Type for Pedestrian Fatality, California, 2016



REFERENCES

- Governors Highway Safety Association (GHSA). (2018, February). Spotlight on Safety: Pedestrian Traffic Fatalities by State, 2017 Preliminary Data. https://www.ghsa.org/sites/default/files/2018-03/pedestrians_18.pdf
- Tefft, B.C., Impact speed and a pedestrian's risk of severe injury or death. Accid Anal Prev. 2013. 50:871-8. doi: 10.1016/j.aap.2012.07.022. https://www.ncbi.nlm.nih.gov/pubmed/22935347 Accessed April 2018.
- National Center for Statistics and Analysis. (2018, February). Pedestrians: 2016 data. (Traffic Safety Facts. Report No. DOT HS 812 493). Washington, DC: National Highway Traffic Safety Administration.
- Statewide Integrated Traffic Records System (Provisional 2016).
- OTS Traffic Safety Survey, 2017. https://ots.ca.gov/Media_and_Research/ Publications_and_Reports/doc/2017_California%20_Traffic_Safety_Study. pdf