



BICYCLISTS

The Bicyclists Challenge Area focuses on improving safety for people biking on public roads. This includes instances where a motor vehicle is involved in a crash with a bicyclist, including e-bikes and their riders.

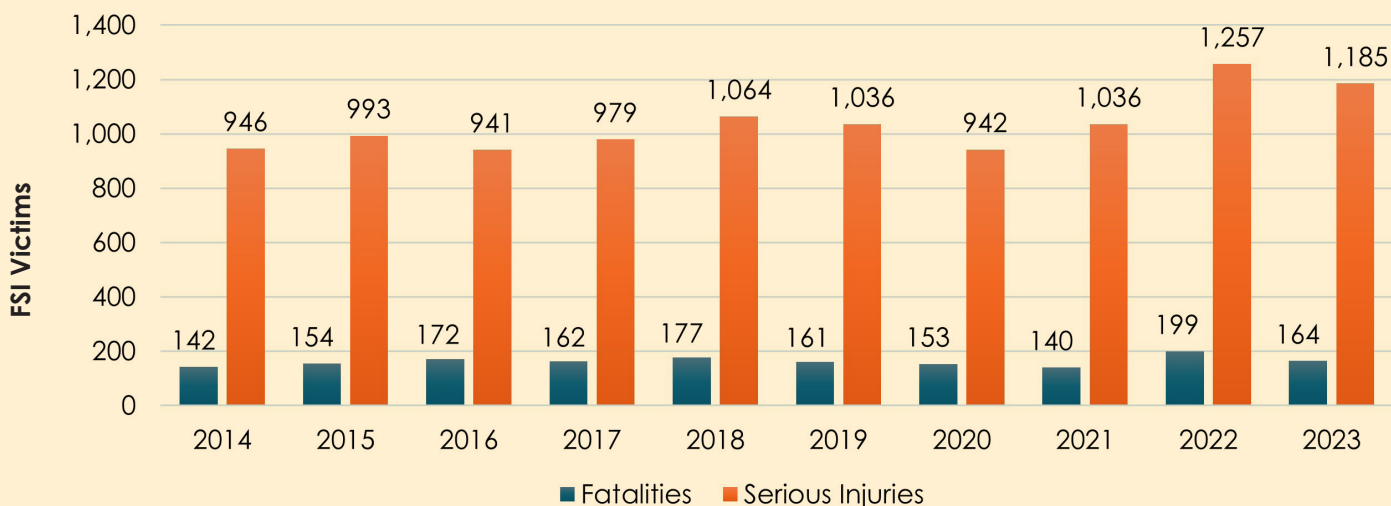
Defined as: All fatal or seriously injured bicyclists and their riders (victims)

Bicyclists Fatal and Serious Injury (FSI) Victims

12,003

6% of statewide FSI victims

FSI Victims by Year



Top Three Challenge Area Overlaps

Bicyclists FSI crashes also involve:



35%

Intersections



32%

Speed Management/
Aggressive Driving



20%

Lane Departures

Crashes often involve more than one factor and overlap with multiple Challenge Areas. See related fact sheets for overlapping Challenge Areas, as addressing one Challenge Area can improve the safety outcomes of the others.

Share of FSI Victims: State Highways vs. Local Roads



12%
State
Highways

VS

88%
Local
Roads



Share of FSI Victims: Rural vs. Urban Roads¹



12%
Rural
Roads

VS

88%
Urban
Roads



Source: All crash data is from Statewide Integrated Reporting System (SWITRS) 2014–2023.

1. Rural and urban data determined by 2020 US Census "Urban Areas" dataset. FSI crashes with unknown geolocation were excluded.

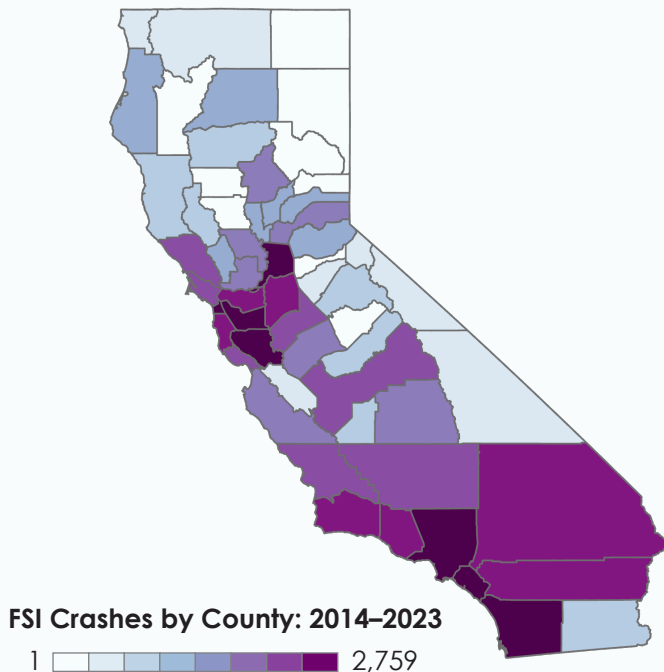
For more information,
visit the SHSP Crash
Data Dashboard:





FSI Crash Frequency and FSI Crash Rate by County

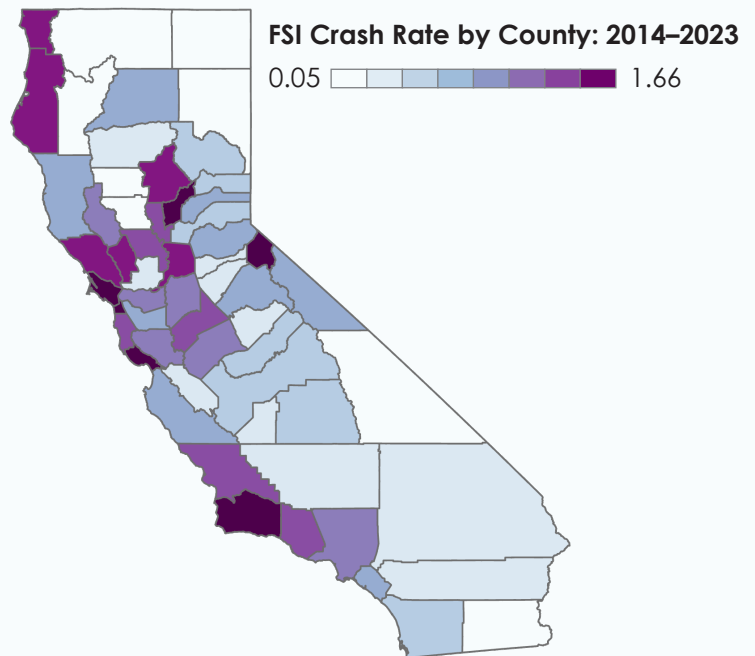
FSI Crash Frequency



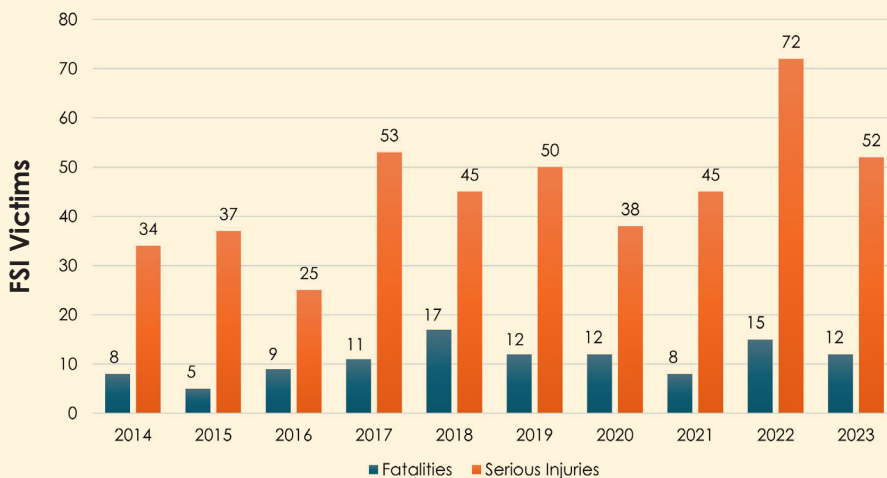
DVMT Source: Highway Performance Monitoring System

FSI Crash Rate

FSI Crashes per HMVMT (Hundred Million Vehicle Miles Traveled)



Yearly Trend for FSI Victims in Tribal Areas^{1,2}



Bicyclists makes up **4%** of tribal area FSI victims.

Since 2014, FSI victims in tribal areas increased by **52%**, versus the overall statewide increase of **24%**.

Source: All crash data is from SWITRS (2014–2023) unless otherwise noted.

1. Tribal boundaries provided by University of California, Berkeley's Safe Transportation Research and Education Center.

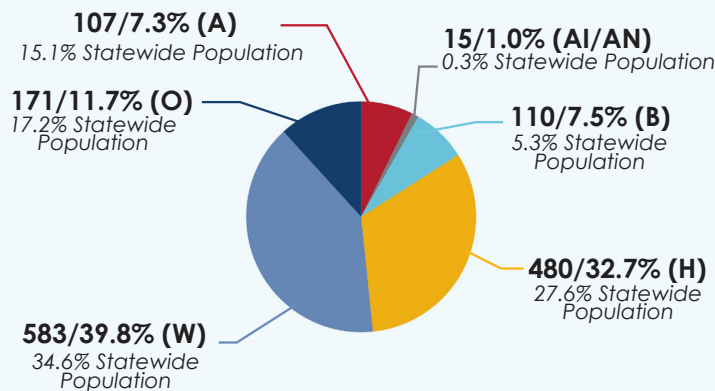
2. Tribal areas defined as areas within 5 miles of tribal boundaries.



BICYCLISTS

Race/Ethnicity in Traffic Fatalities

Distribution of California Traffic Fatalities by Race/Ethnicity



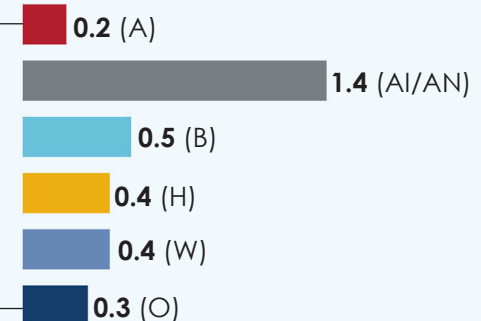
Asian (A) American Indian/Alaskan Native (AI/AN) Black (B) Hispanic (H) White (W) Other (O)

Fatality Rate by Race/Ethnicity

(Fatality Rate per 100,000 Population)

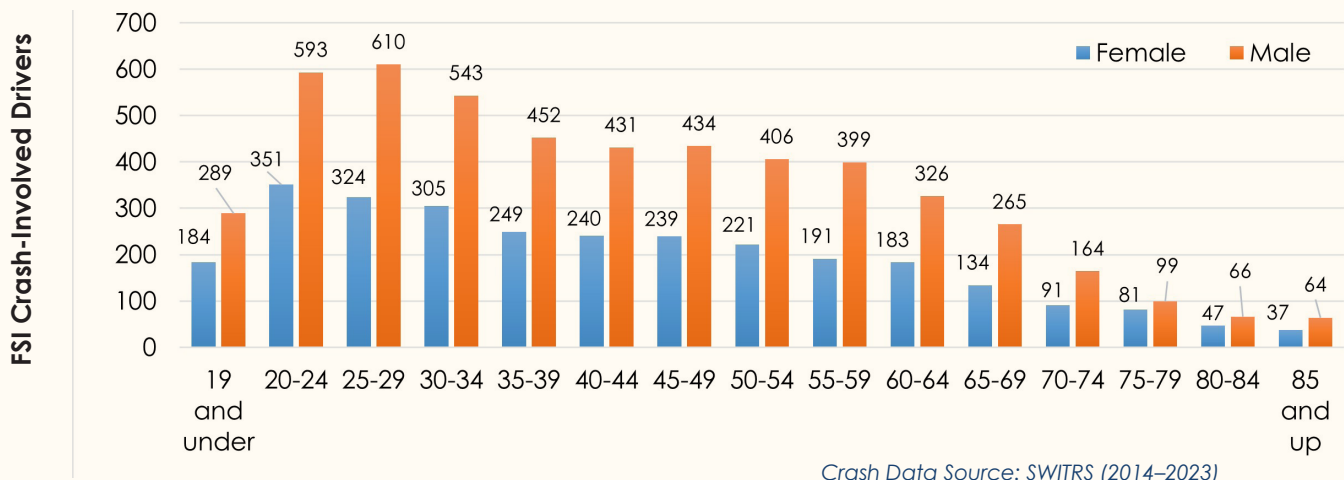


Bicyclists
Rate = 0.4



Comparison of Crash-Involved Drivers by Age and Sex

Male drivers are **1.8x** as likely to be involved in a Bicyclists FSI crash



Crash Data Source: SWITRS (2014–2023)

Income Impact in Traffic Fatalities^{1,2,3}

Increased Rate of Fatalities in Disadvantaged Communities Versus Non-Disadvantaged Communities

Statewide
Fatalities



40%
Higher

Bicyclists
Fatalities



39%
Higher

1. Income data is available for the Census Tracts where a traffic fatality occurs and not the individual (i.e. this data represents the income information of the Census Tracts where the crash occurred and not the income of the crash victim).

2. Disadvantaged communities were determined using 2023 ACS 5-Year estimate data for median household income at Census Tract level. The 2023 ACS 5-Year Estimate data was used to determine fatality rates per 100,000 population.

3. Assembly Bill 1550 stipulates that 80% of statewide median household income to be used as threshold for disadvantaged communities. 2023 threshold is \$77,067.

Source: US Census Bureau 2023 ACS 5-Year Estimate data and FARS 2014–2023 unless otherwise noted



Top Five Reported Violations per California Vehicle Codes (CVC)*



California Vehicle Codes (CVC) reported in SWITRS data. CVC code information can be found at the [California Legislative Information website](#).

Potential Countermeasures to Mitigate Bicyclists FSI Crashes

These countermeasures have been selected as data-backed strategies to improve traffic safety within the Bicyclists Challenge Area. See related fact sheets for overlapping Challenge Areas, as addressing one Challenge Area can improve the safety outcomes of other Challenge Areas.



Bicycle Lanes^{1,3}



Separated Bicycle Lanes^{1,3}



Improved Lighting^{1,3}



Training and Education for Local Agency Decision-Makers on Selecting Appropriate Speed Limits^{1,2}



Safe Routes to Schools Program Promotion²



Roadway Reconfiguration (Road Diet)^{1,3}

Countermeasure References and Resources

- [1. 28 Proven Safety Countermeasures, supported by Caltrans and FHWA](#)
- [2. NHTSA Countermeasures that Work, 2023](#)
- [3. Caltrans Local Roadway Safety Manual \(Version 1.7, April 2024\)](#)

Source: All crash data is from SWITRS unless otherwise noted.

*Percentages are calculated based on a total of 12,003 Bicyclists FSI victims.