CALIFORNIA SAFE ROADS

2020 - 2024 Strategic Highway Safety Plan

Strategic Highway Safety Plan (SHSP) Development Outreach Meeting

San Francisco Bay Area

April 11, 2019

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AGENDA

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

8:30 – 9:15 AM: Welcome / Introductions / Overview

9:15 – 9:45 AM: Statewide Summary

9:45 – 10:15 AM: Regional Summary

10:15 – 11:30 AM: Safety Strategy Session

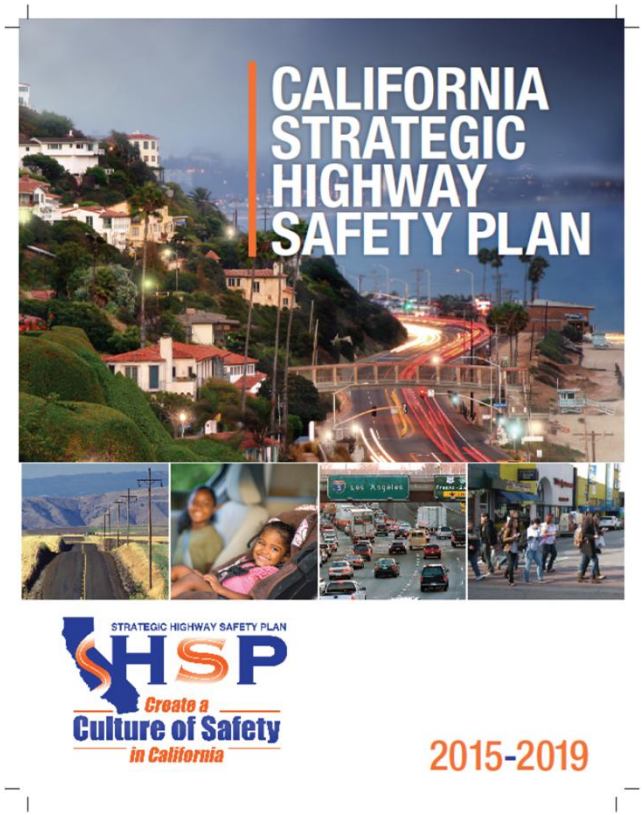
11:30 – 12:00 PM: Report Out and Closing

12:30 – 1:30 PM: Tribal Outreach Session

SHSP OVERVIEW

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

- Guides safety activities for all roadway users
- Addresses safety on all public roads
- All agency coordinated approach
- Strategic, data-driven process
- Federal requirement
- Current SHSP covers 2015 to 2019



SHSP OVERVIEW

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

- Guides safety activities for all roadway users
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SHSP LOCAL AND REGIONAL BENEFITS

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Improve safety
- Save lives
- Reduce preventable injuries

Improve livability
- Support active transportation goals
- Improve public health
- Coordinate with congestion management efforts

Share local knowledge
- Exchange best practices
- Access information and data
- Funding and partnering opportunities

SHSP VISION, MISSION & OBJECTIVE

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Vision

Safe Public Roads Across California

Mission

Ensure safety for all modes of travel on California's public roads

Objective

Zero Fatalities & Serious Injuries

MULTIPLE SAFETY APPROACHES

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TZD Toward Zero Deaths™
National Strategy on Highway Safety

VISION ZERO

ROAD TO ZERO

STATEWIDE COLLABORATION

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Working together to reduce fatalities and serious injuries on all public roadways.

DEVELOPMENT PROCESS

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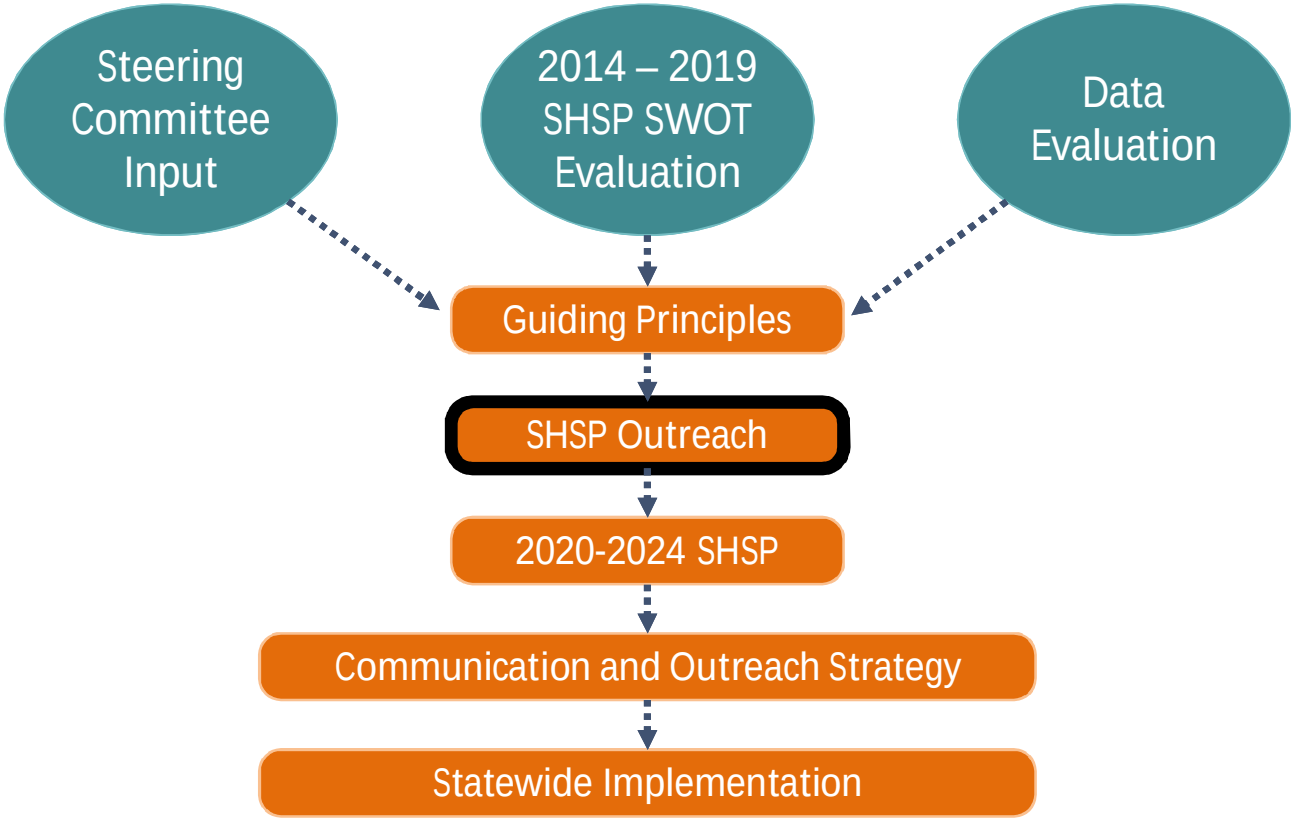
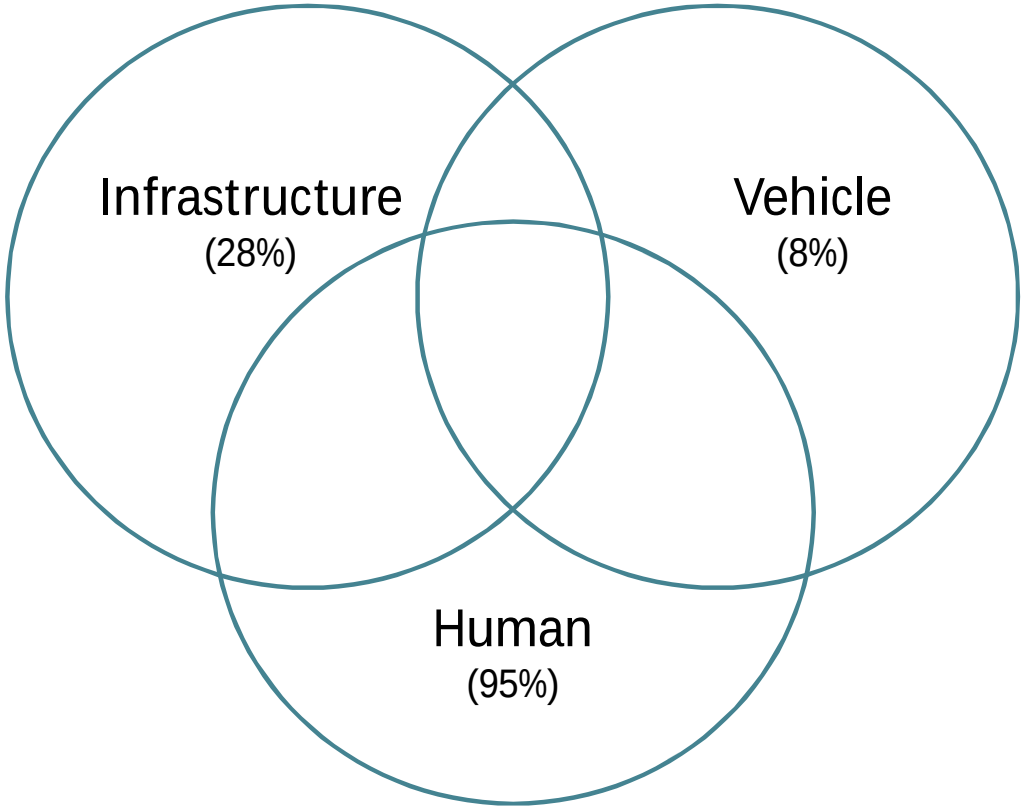


COLLISION FACTORS



4 Es NOW 5 Es OF TRAFFIC SAFETY

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SHSP CONNECTIONS

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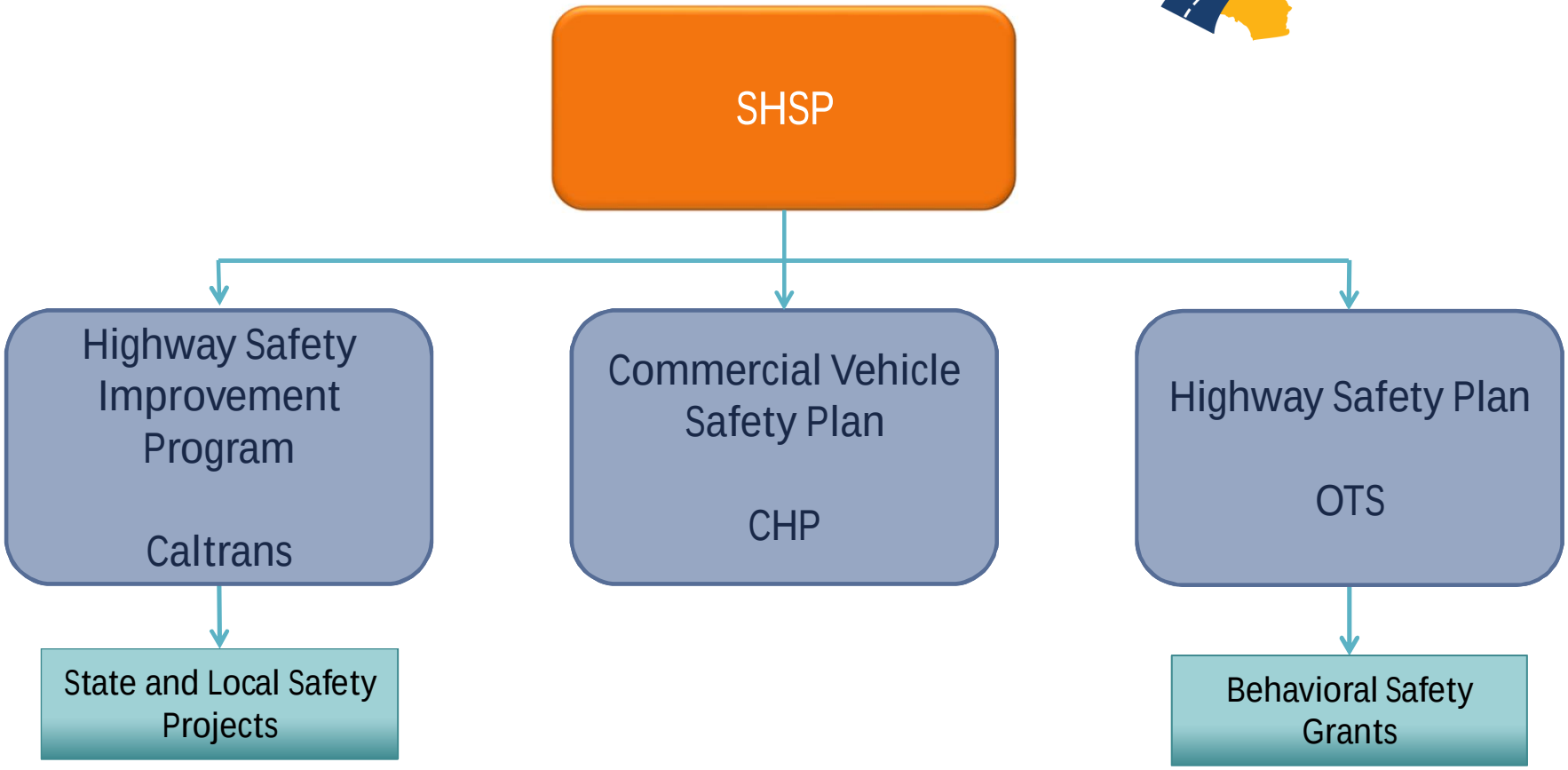

CALTRANS HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

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- FAST Act
  - Continues the Highway Safety Improvement Program as a core Federal Aid program to significantly reduce fatalities and serious injuries on all public roads.
  - Local HSIP Program
    - Safety Improvement Projects (Benefit/Cost selected safety projects)
    - (New) Systemic Safety Analysis Report Program (SSARP)

Caltrans

OFFICE OF TRAFFIC SAFETY

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- Liaison with the National Highway Traffic Safety Administration (NHTSA)
- California Highway Safety Plan
- Annual Performance Report
- Grant Programs

CALIFORNIA OFFICE OF TRAFFIC SAFETY

CALIFORNIA HIGHWAY PATROL

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- Mission - Provide the highest level of Safety, Service, and Security
- CHP involvement in the SHSP
  - Executive Committee - Commissioner Warren Stanley
  - Steering Committee - Assistant Chief
  - Lead or Co-lead on 10 of the 15 Challenge Areas
  - Active involvement on 13 of the 15 Challenge Areas
  - Lead or Co-lead on 25 of the Actions
  - Mileage Death Rate on the increase (2013: .94 to 2016: 1.08)
  - Work with the Office of Traffic Safety to incorporate SHSP initiatives into the CHP Grants

CALIFORNIA HIGHWAY PATROL

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- Current SHSP Actions the CHP is working on
  - Action 5.1 – Update CHP DUI Checkpoint Educational Pamphlet with an emphasis on drugs
  - Action 6.1 – Develop an issue paper establishing benefits of Standardized Field Sobriety Tests (SFSTs) training for law enforcement agencies
  - Action 6.2 – Increase the number of Advanced Roadside Impaired Driving Enforcement (ARIDE) personnel trained by 8 percent
  - Action 4.1 – Develop a media campaign….to raise awareness about speeding and aggressive driving
  - Action 2.2 - Identify locations with reported pedestrian safety issues and conduct high visibility pedestrian safety enforcement operations

CALIFORNIA HIGHWAY PATROL

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- Commercial Vehicle Safety Plan
  - Funded by the Motor Carrier Safety Assistance Program (MCSAP) Grant 2018-20
  - Reduce commercial motor vehicle (CMV) involved collisions within CHP jurisdiction, including the Mileage Death Rate for CMVs
  - 53 Commercial Vehicle Enforcement Facilities (38 locations)
  - 144 Mobile Road Enforcement Officers
  - CMV Fatal Crashes – 302.6 per year (5 year average)
  - MCSAP Activities: Driver and Vehicle Inspections, Enforcement, Compliance Reviews and Audits, Public Education, and Data Collection

FHWA

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- SHSP is a requirement under SAFETEA-LU
- Statewide-coordinated safety plan led by State DOT that provides comprehensive framework for reducing fatalities and serious injuries on all public roads
- Identifies a State's key safety needs and guides investment decisions towards strategies and countermeasure with the most potential to save lives and prevent injuries
- SHSP shall be data driven, evaluate performance and updated
- SHSP Challenge Areas, Revisions and Stakeholders

U.S. Department of Transportation
Federal Highway Administration

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Statewide Summary

DATA-DRIVEN IMPLEMENTATION

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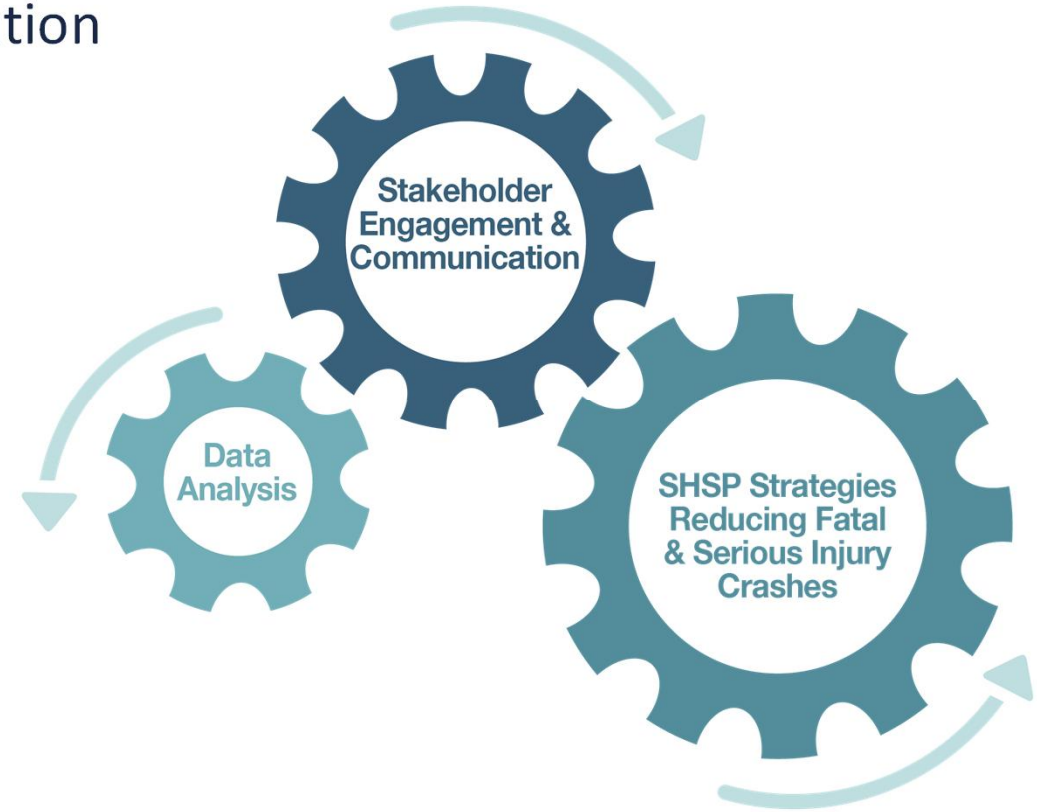
- Data analysis drives implementation
- 2020 to 2024 Data
  - 10 years (2008 to 2017)
  - 128,974 fatal and serious injury collisions
  - 147,458 fatal and serious injuries
  - 1.14 fatal and serious injuries / collision



STATEWIDE

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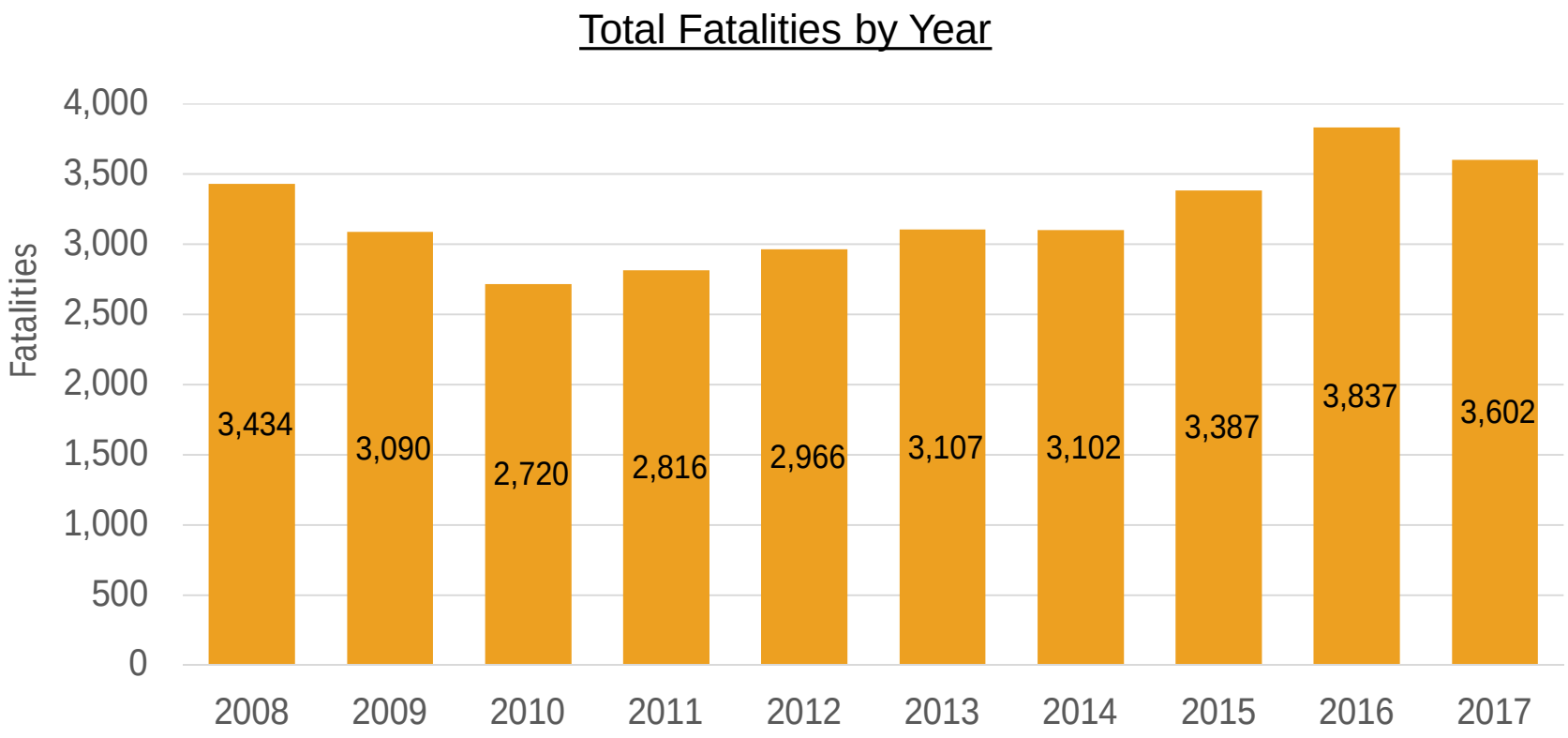

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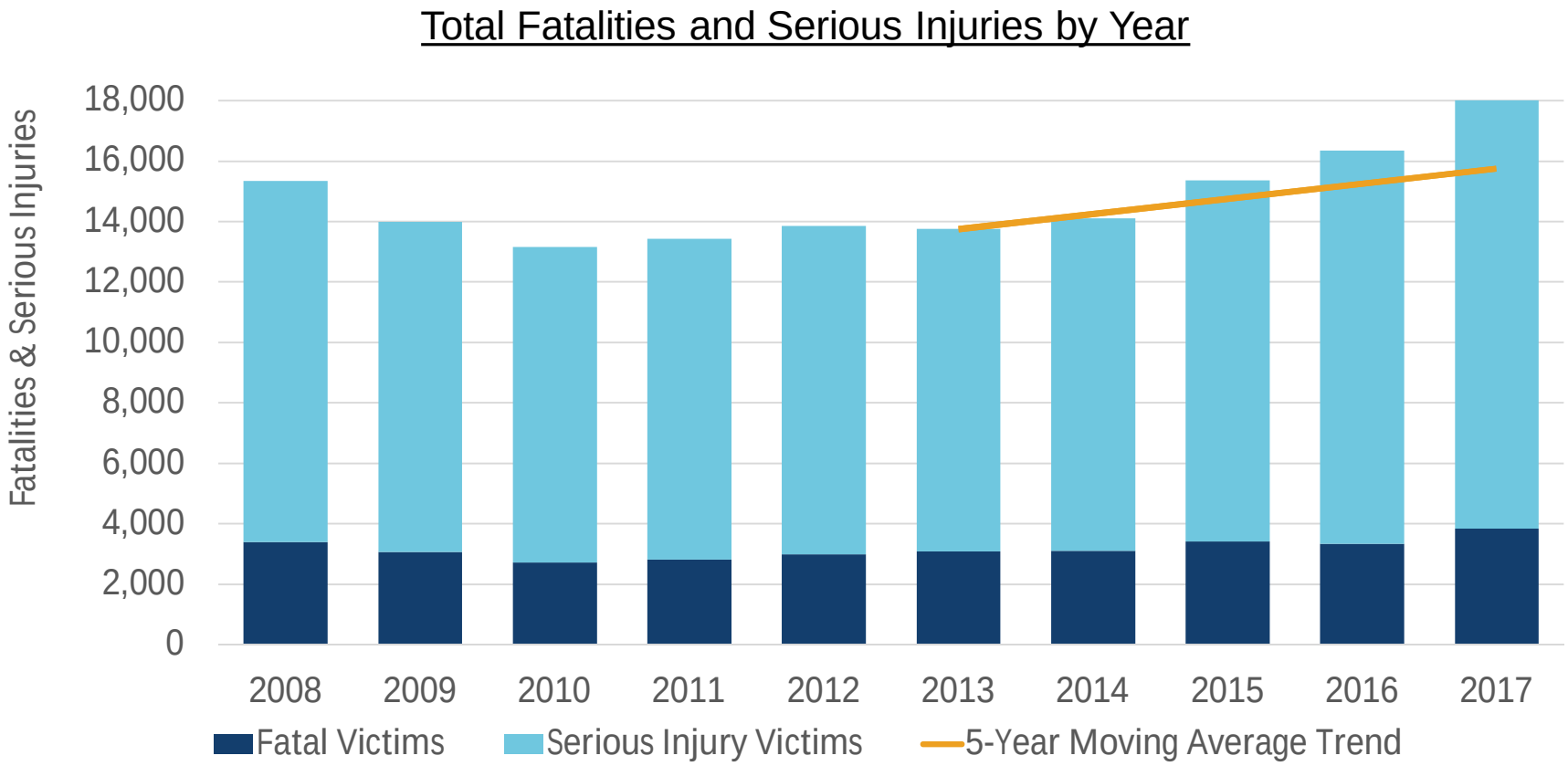

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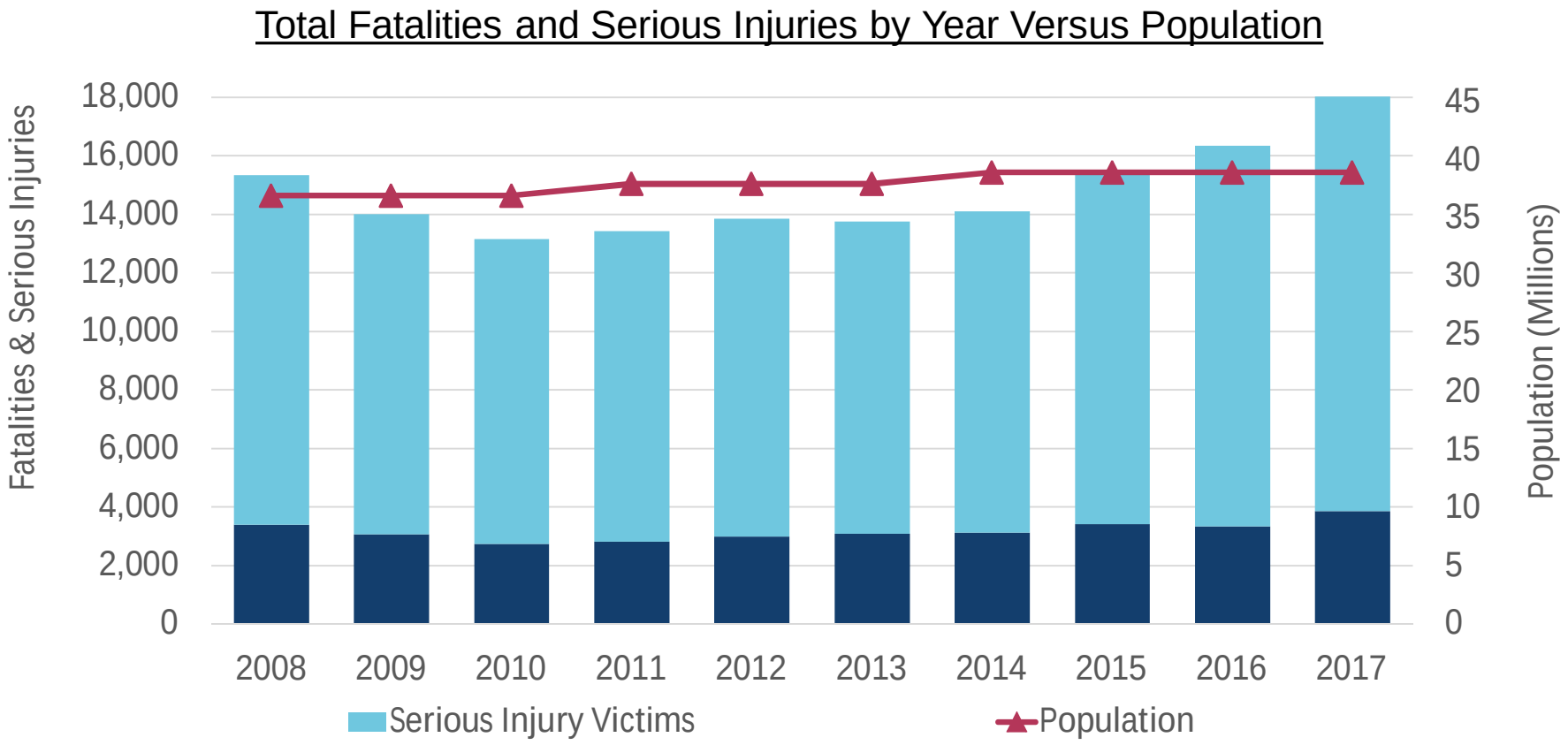

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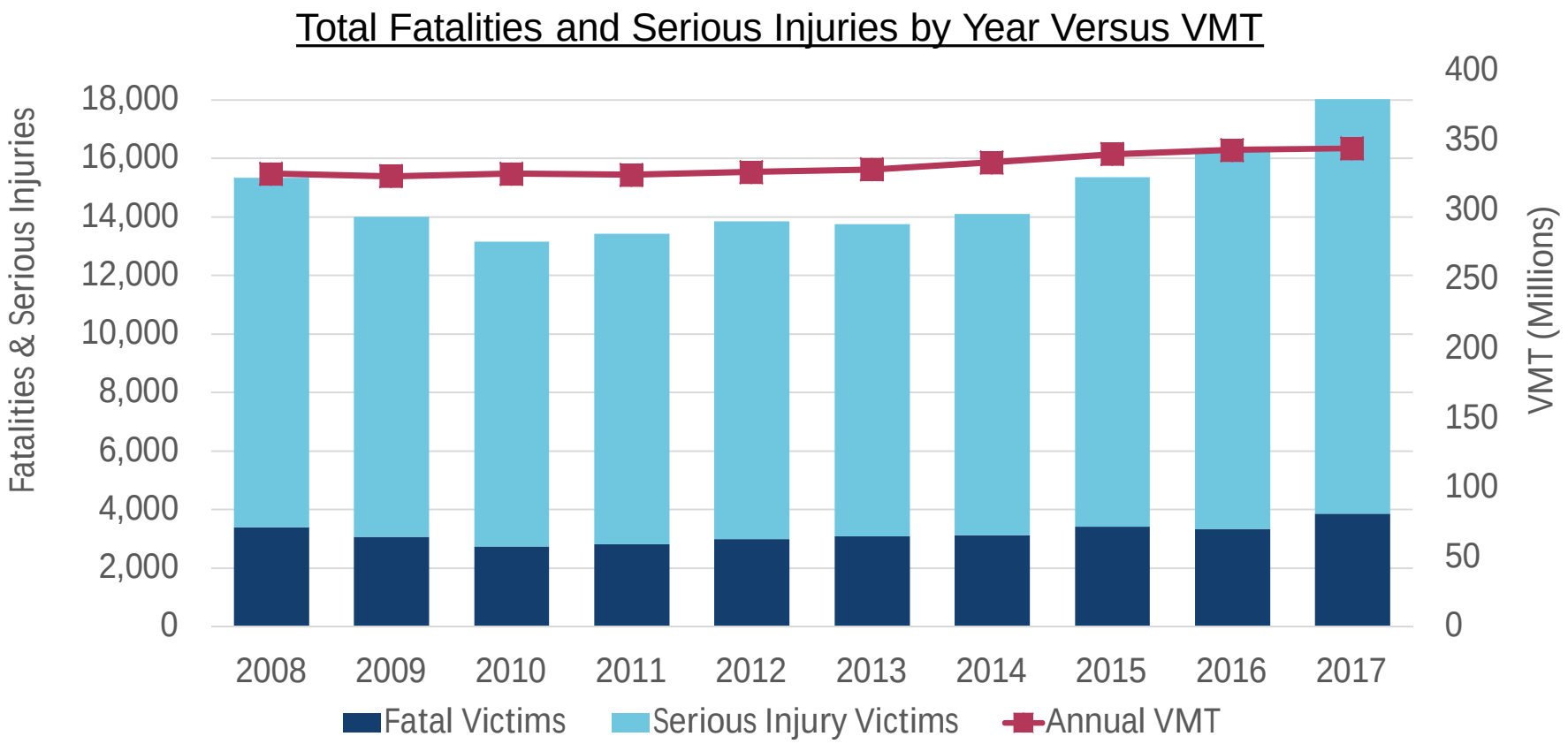

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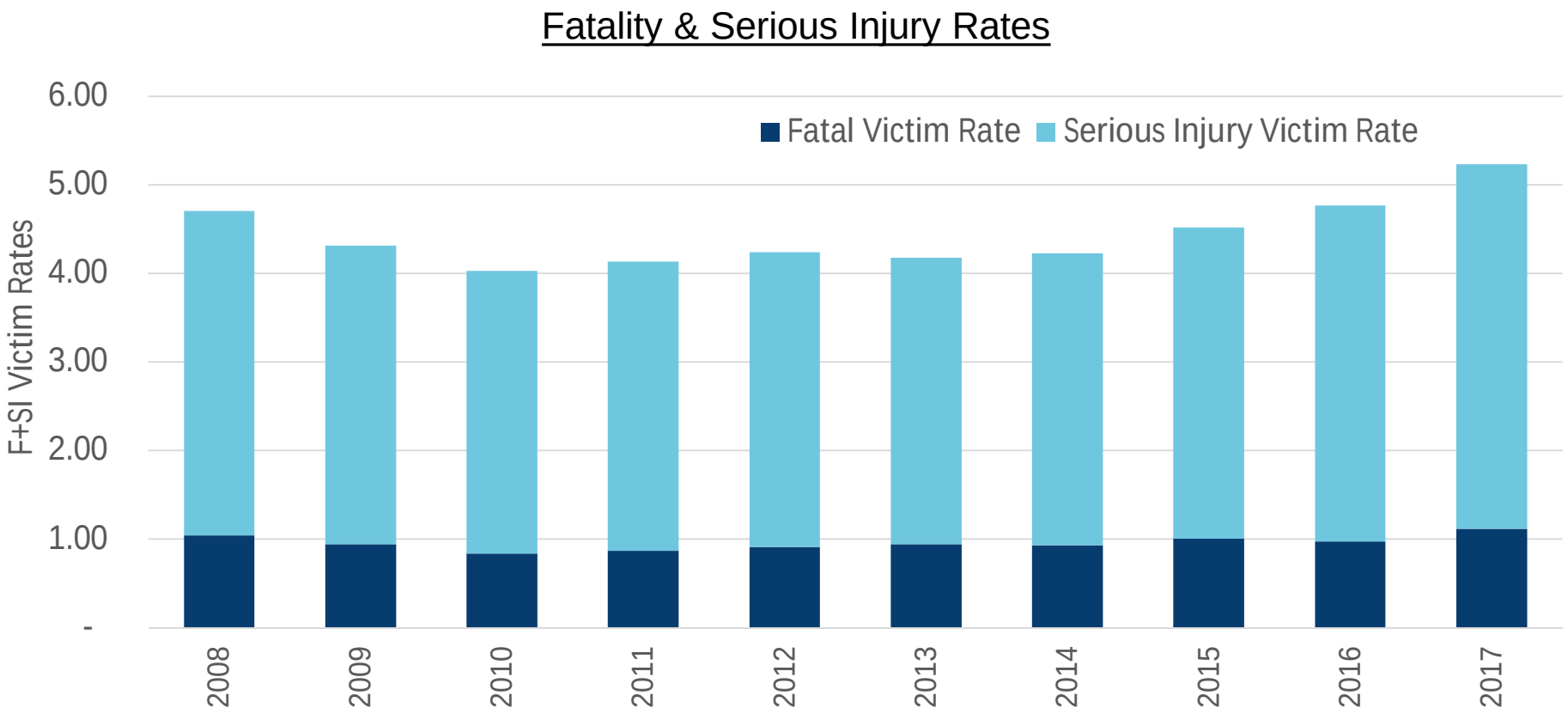

STATEWIDE

Fatal & Serious Injury Collisions

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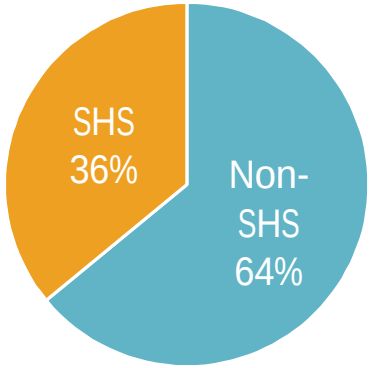
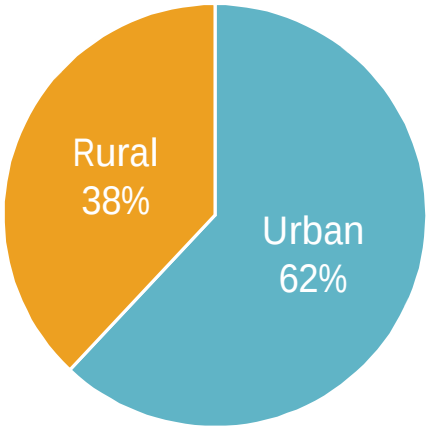
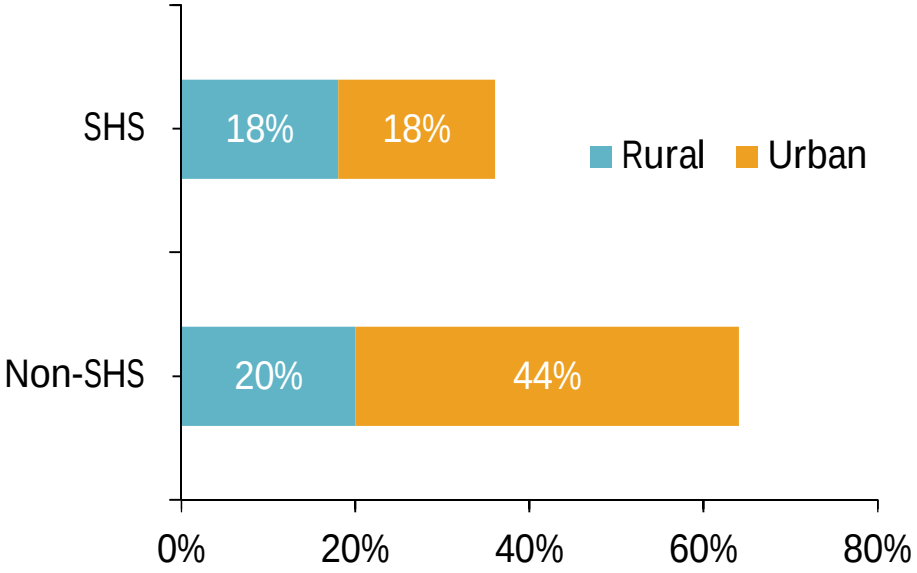
State Highway System (SHS) vs. Non-SHS



Rural vs. Urban



Percent of Victims by Location



STATEWIDE

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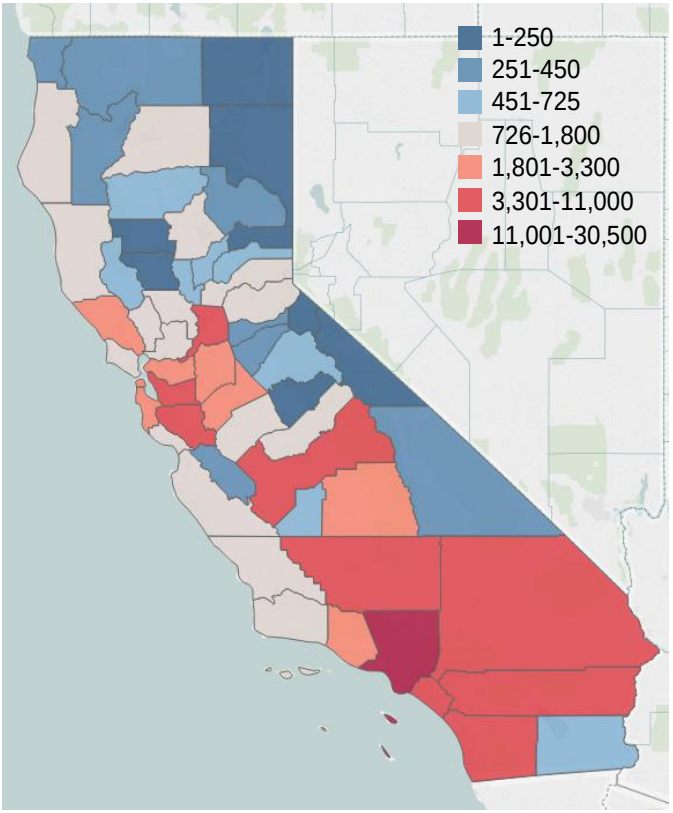
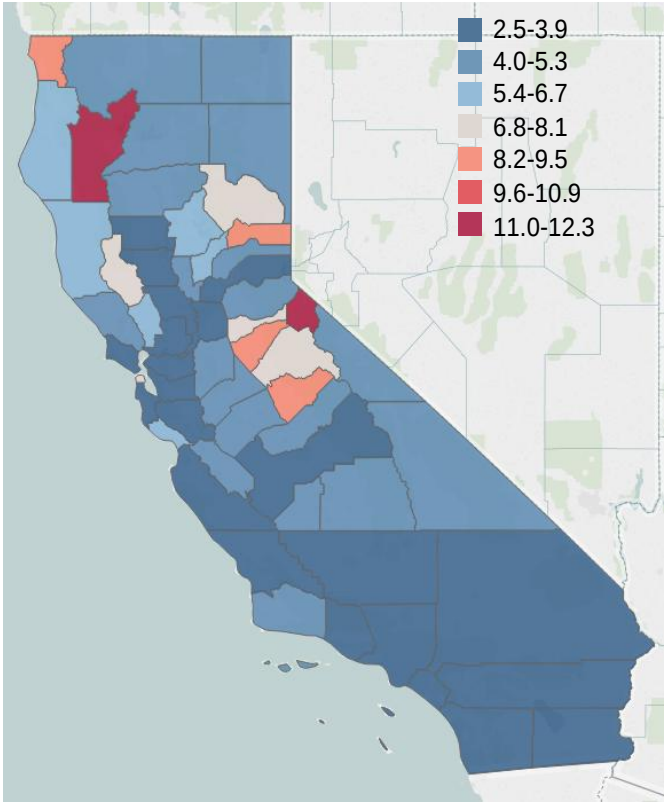
F+SI Collisions



F+SI Collision Rate per 100M VMT



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San Francisco Bay Region Summary

OUTREACH EVENTS

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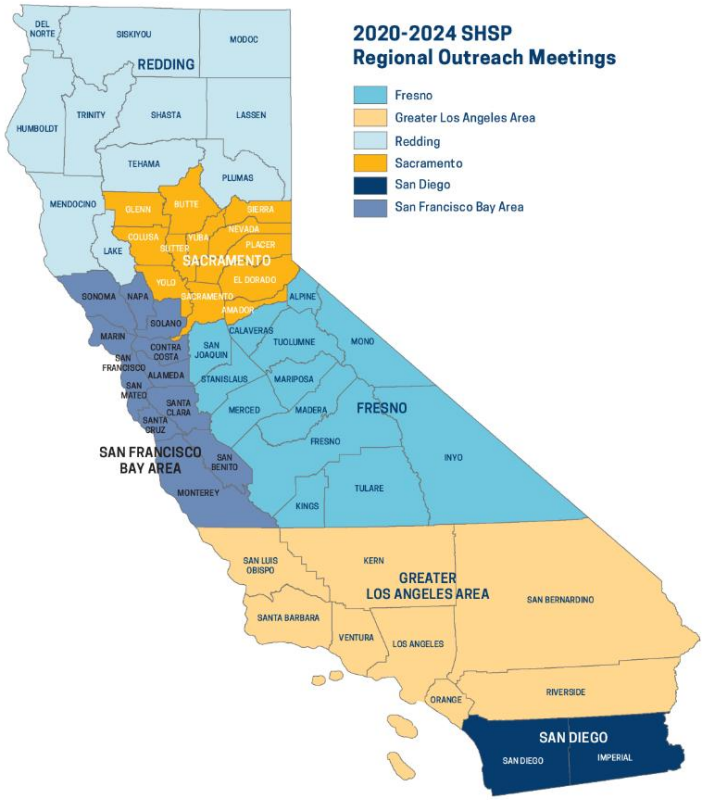

CALIFORNIA SAFE ROADS

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Join us at one of the following locations to collaborate on eliminating fatalities and serious injuries on all roadways in California.

April 10 // Sacramento
April 11 // San Francisco Bay Area
April 12 // Redding
April 23 // San Diego
April 24 // Greater Los Angeles Area
April 25 // Fresno

Email Ca-SHSP@Kimley-Horn.com for more information.

REGIONAL COLLISION DATA

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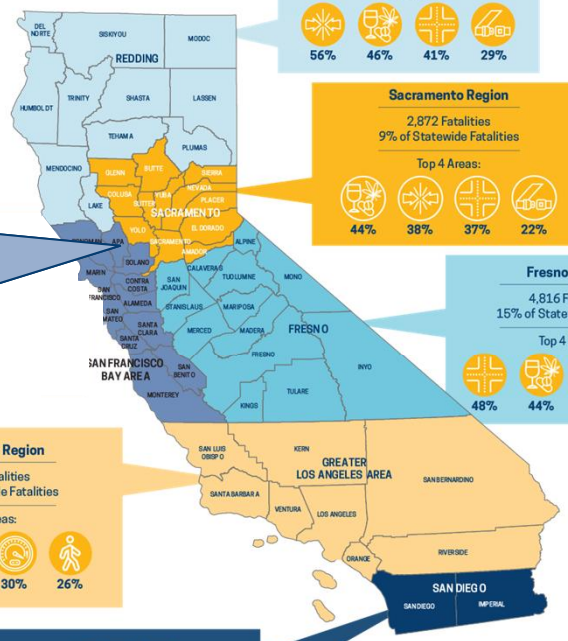
SF/Bay Area Region

4,708 Fatalities
15% of Statewide Fatalities

Top 4 Areas:

43% 39% 29% 26%



Redding Region
1,429 Fatalities
4% of Statewide Fatalities
Top 4 Areas:
56% 46% 41% 29%

Sacramento Region
2,872 Fatalities
9% of Statewide Fatalities
Top 4 Areas:
44% 38% 37% 22%

Fresno Region
4,816 Fatalities
15% of Statewide Fatalities
Top 4 Areas:
48% 44% 34% 24%

Los Angeles Region
15,530 Fatalities
49% of Statewide Fatalities
Top 4 Areas:
44% 41% 30% 26%

San Diego Region
2,564 Fatalities
8% of Statewide Fatalities
Top 4 Areas:
42% 41% 30% 26%

San Francisco REGION

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12 Counties

- Alameda
- Contra Costa
- Marin
- Monterey
- Napa
- San Benito
- San Francisco
- San Mateo
- Santa Clara
- Santa Cruz
- Solano
- Sonoma

REGIONAL COLLISION DATA

CALIFORNIA SAFE ROADS
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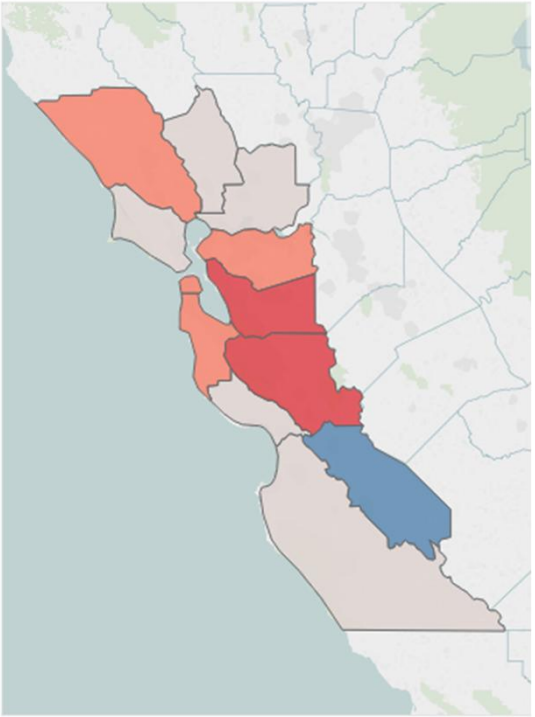
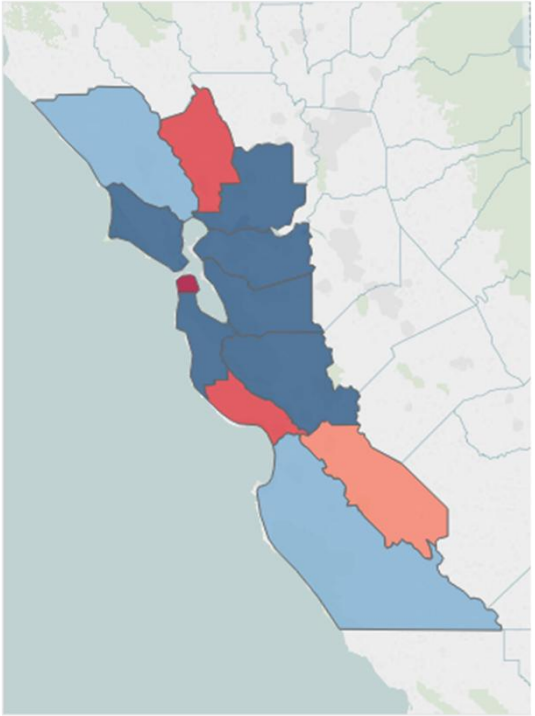
F+SI



County	F+SI
San Benito	293
Napa	747
Marin	857
Santa Cruz	1,290
Solano	1,379
Monterey	1,557
San Mateo	1,894
Sonoma	1,939
San Francisco	2,489
Contra Costa	2,637
Alameda	4,249
Santa Clara	4,330

F+SI per 100M VMT



County	F+SI per 100M VMT
San Mateo	2.5
Santa Clara	2.6
Alameda	2.7
Solano	2.7
Marin	2.8
Contra Costa	2.9
Monterey	3.8
Sonoma	4.3
San Benito	5.1
Napa	5.9
Santa Cruz	6.0
San Francisco	6.8

REGIONAL COLLISION DATA

CALIFORNIA SAFE ROADS
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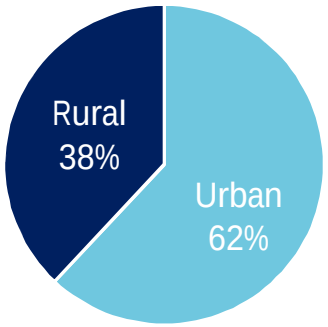
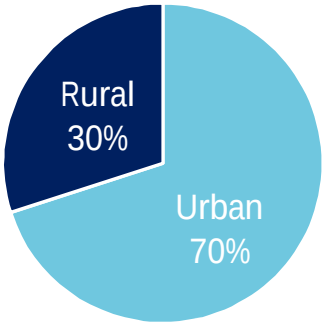
Population

Statewide:



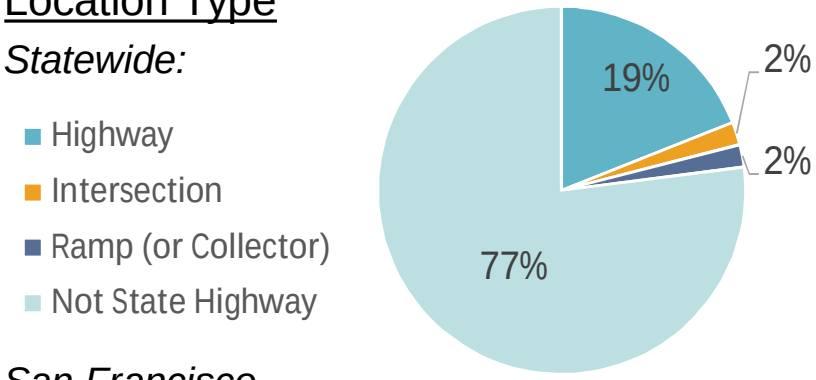
San Francisco Region:



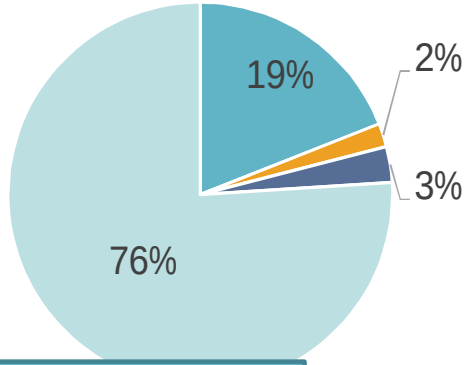
F+SI collisions occurred more in rural areas in this region than California overall.

Location Type

Statewide:



San Francisco Region:



F+SI collisions occurred on similar roadway types in this region as California overall.

REGIONAL COLLISION DATA

CALIFORNIA SAFE ROADS
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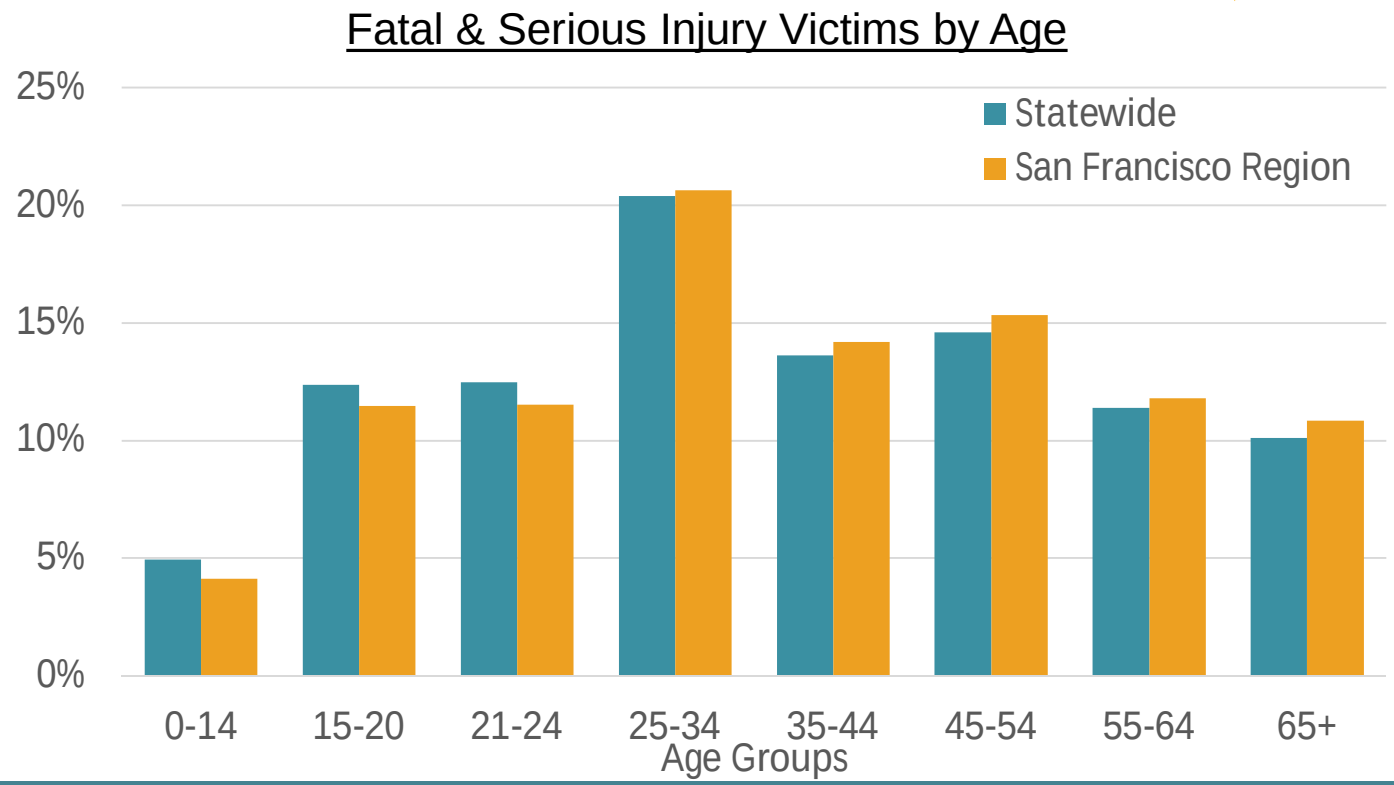

F+SI collisions involved more people aged 45+ in this region than California overall.

REGIONAL COLLISION DATA

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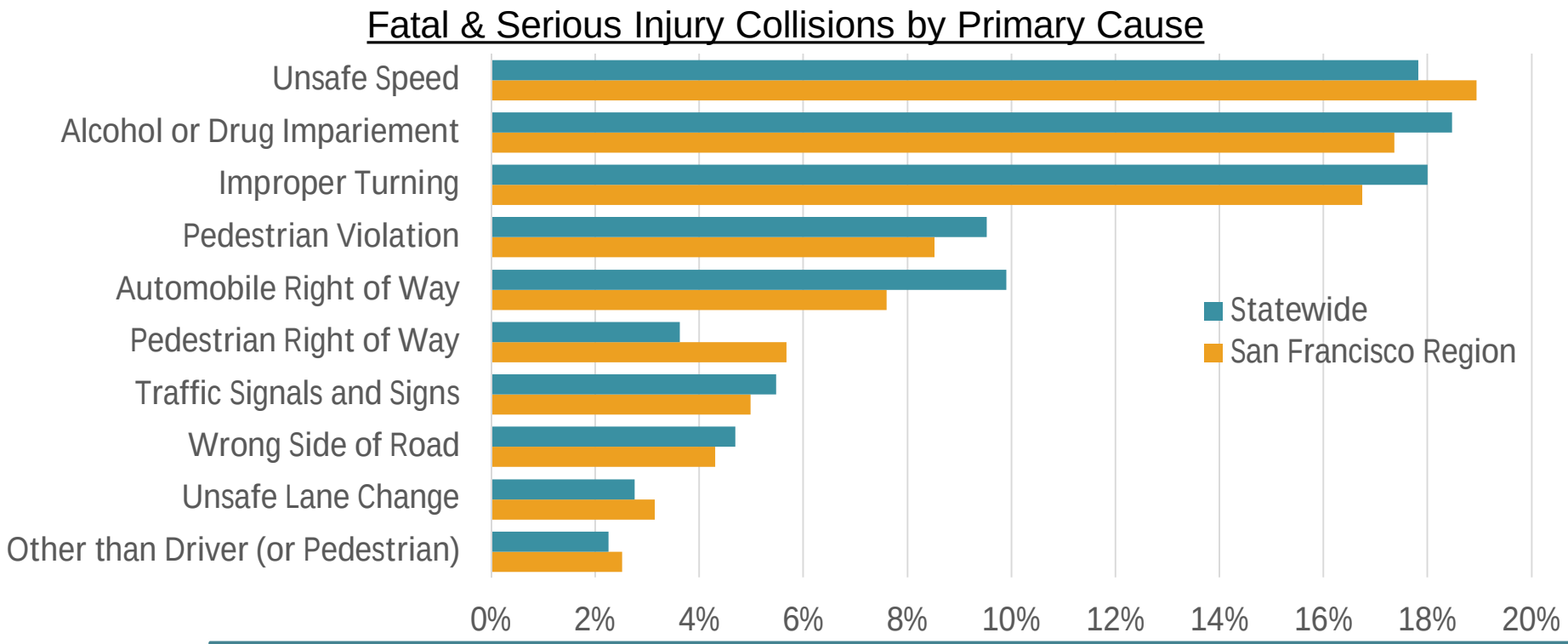

The top 5 primary collision factors were the same in this region and California overall.

REGIONAL COLLISION DATA

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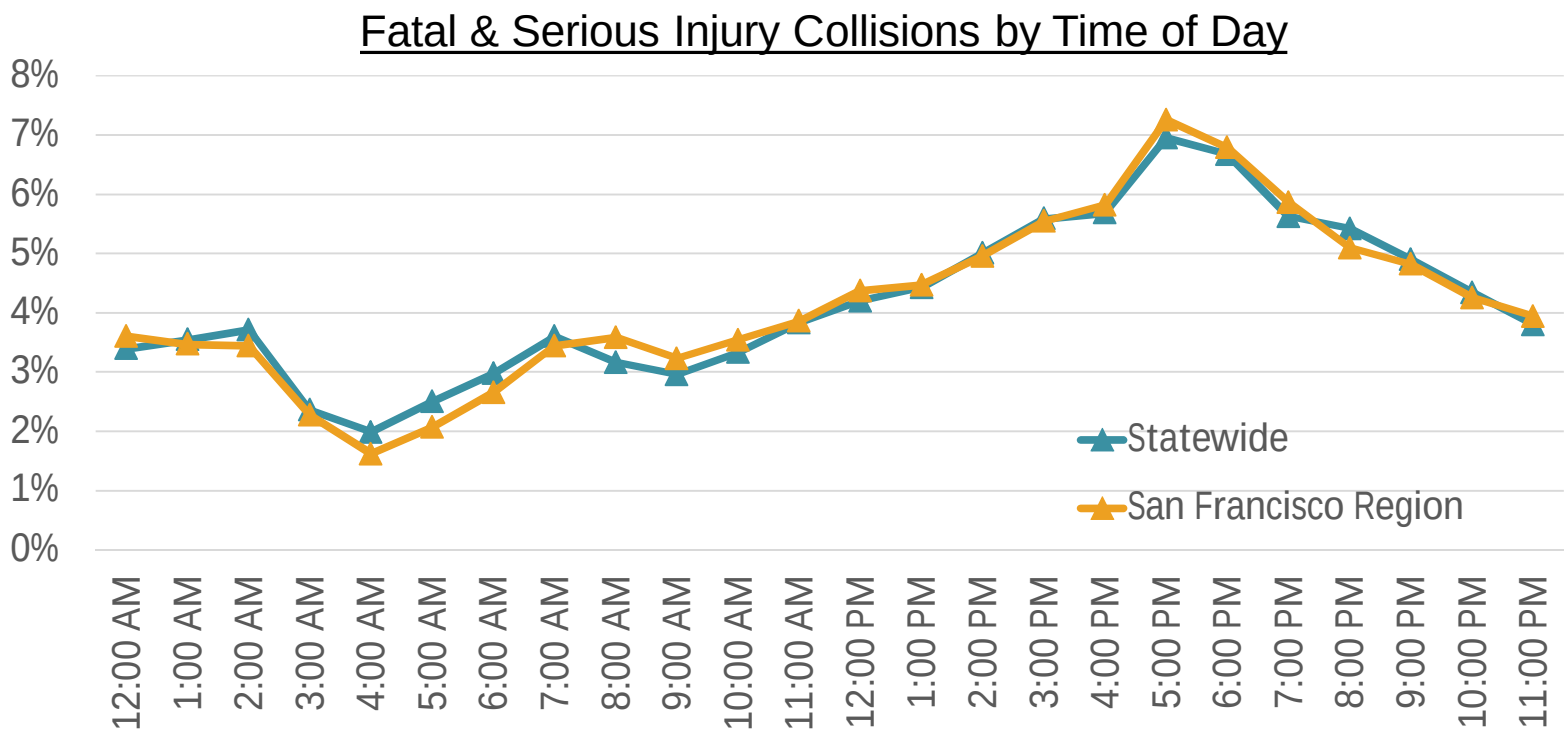

Trends were similar in this region to California overall.

REGIONAL COLLISION DATA

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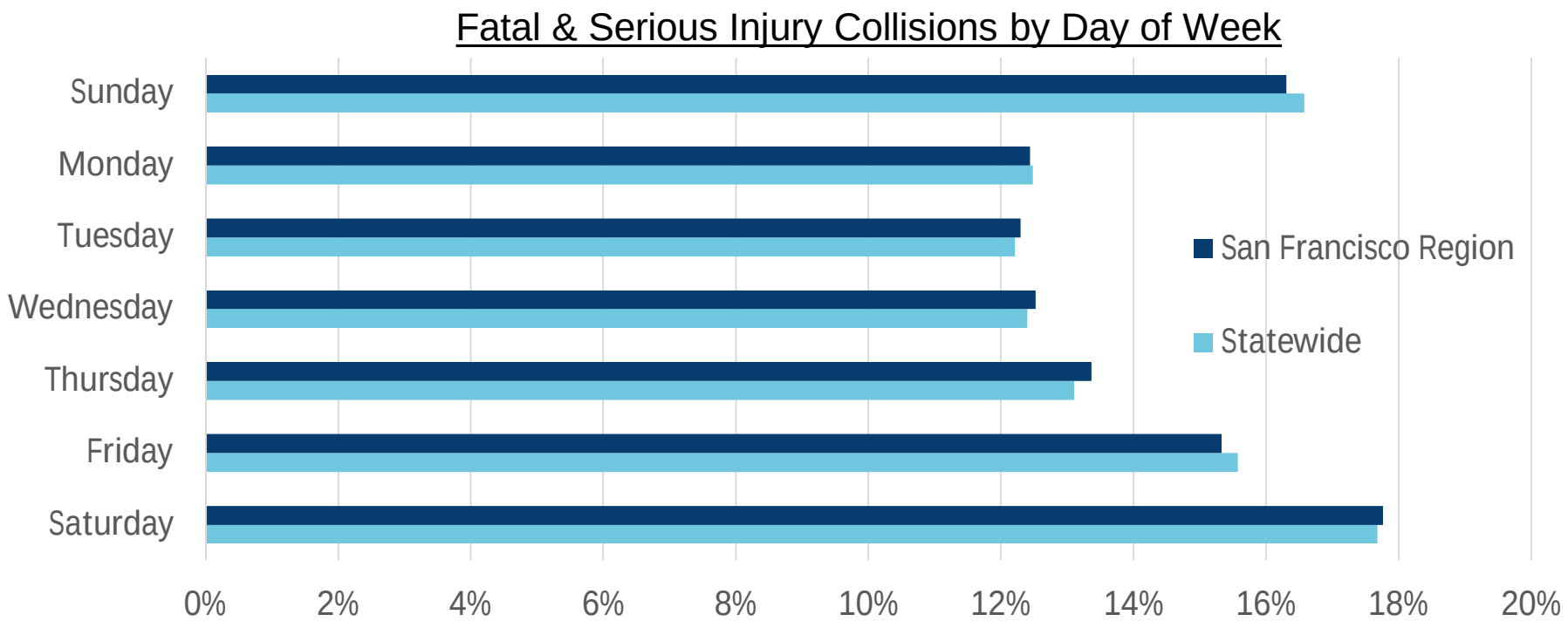

Trends were similar in this region to California overall.

REGIONAL COLLISION DATA

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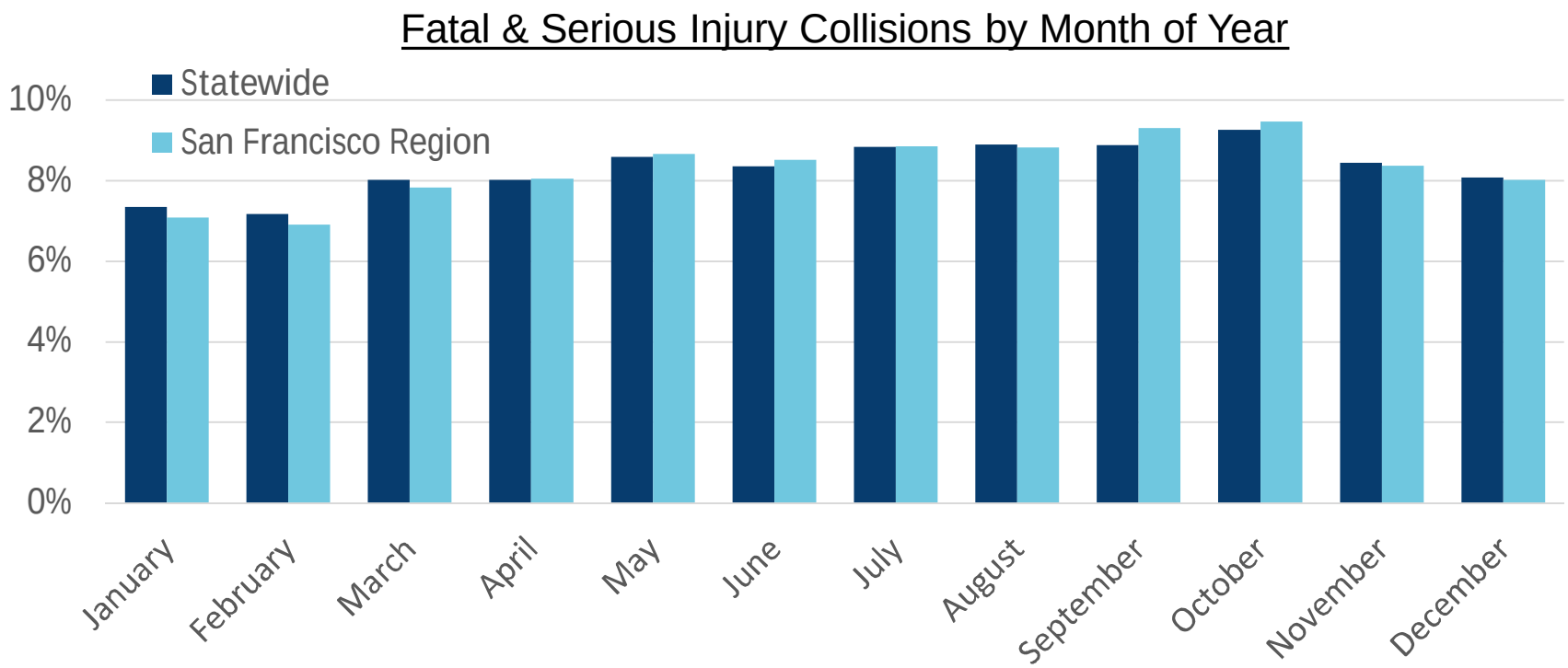

Trends were similar in this region to California overall.

COLLISIONS OVERVIEW

CALIFORNIA SAFE ROADS
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Intersections & Interchanges
Statewide: 43%
San Francisco Region: 43%

Alcohol and Drug Impairment
Statewide: 42%
San Francisco Region: 39%

Speeding and Aggressive Driving
Statewide: 28%
San Francisco Region: 29%

Pedestrians
Statewide: 23%
San Francisco Region : 26%
Higher

Roadway Departure
Statewide: 26%
San Francisco Region : 25%

Driver Licensing and Competency
Statewide: 25%
San Francisco Region: 24%

Occupant Protection
Statewide: 19%
San Francisco Region 16%
Lower

Aging Drivers
Statewide: 14%
San Francisco Region: 14%

Motorcycles
Statewide: 14%
San Francisco Region: 14%

Young Drivers
Statewide: 13%
San Francisco Region: 13%

Commercial Vehicles
Statewide: 10%
San Francisco Region: 9%

Bicycling
Statewide: 4%
San Francisco Region: 6%
Higher

Distracted Driving
Statewide: 5%
San Francisco Region: 5%

Work Zone
Statewide: 2%
San Francisco Region: 2%

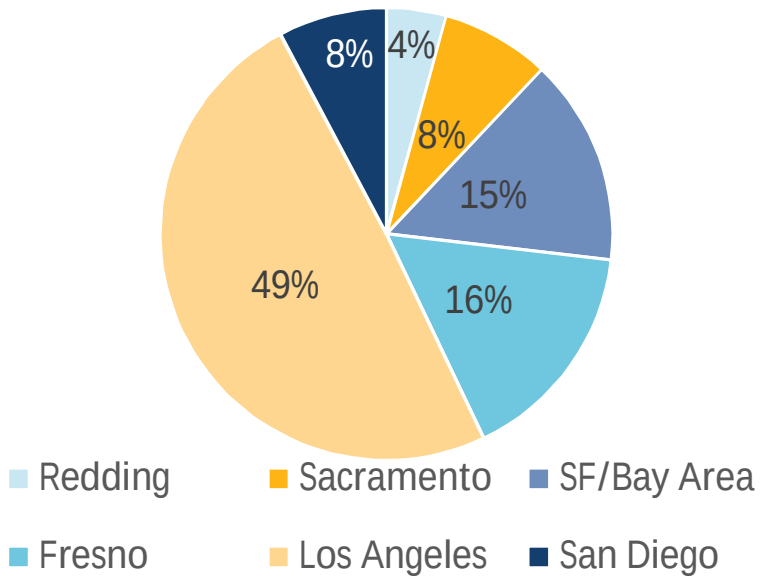
Percent of total fatalities

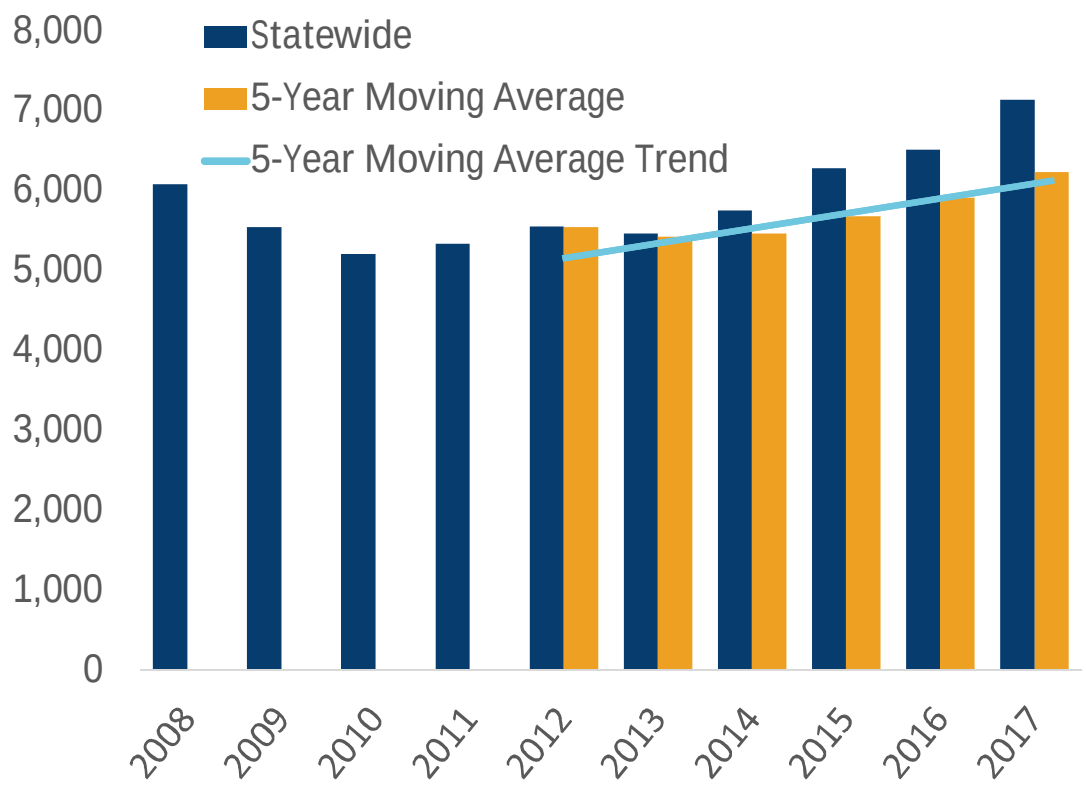
INTERSECTIONS & INTERCHANGES

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

Statewide: 43%

Fresno: 48%	Sacramento: 37%
Los Angeles: 44%	San Diego: 42%
Redding: 41%	SF/Bay Area 43%





ALCOHOL & DRUG IMPAIRMENT

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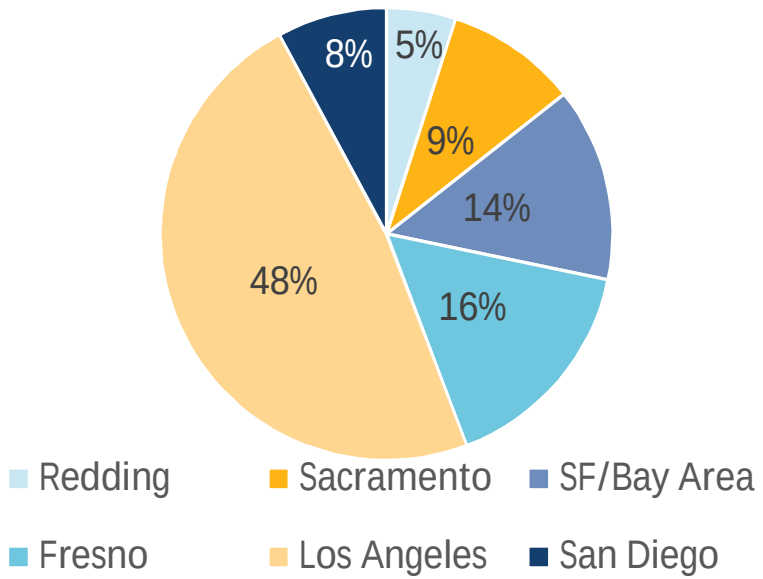
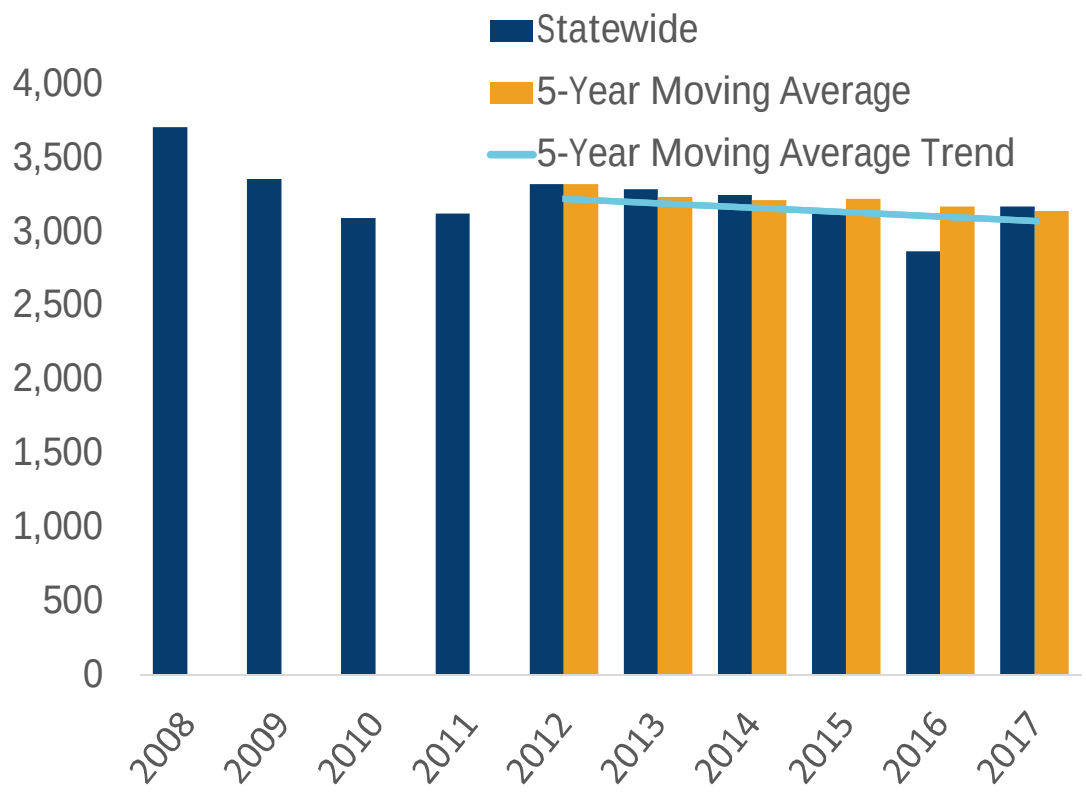
Statewide: 42%

Fresno: 44%	Sacramento: 44%
Los Angeles: 41%	San Diego: 41%
Redding: 46%	SF/Bay Area 39%





ROADWAY DEPARTURES

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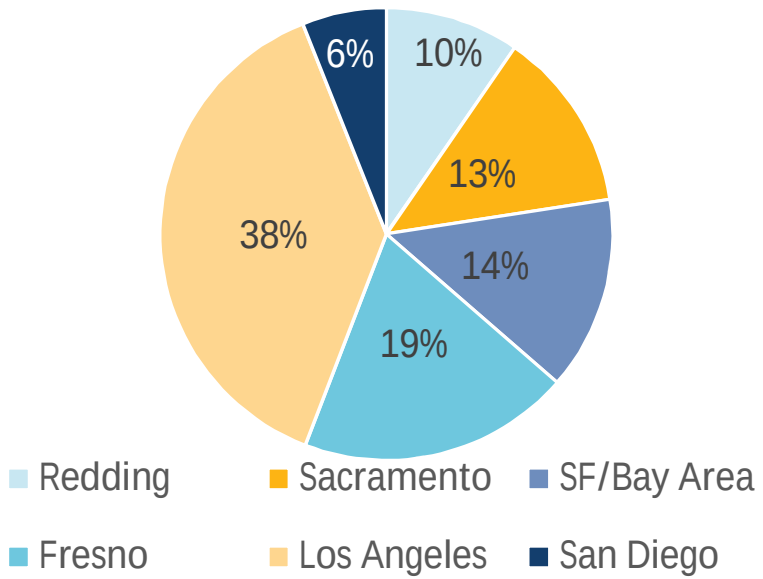
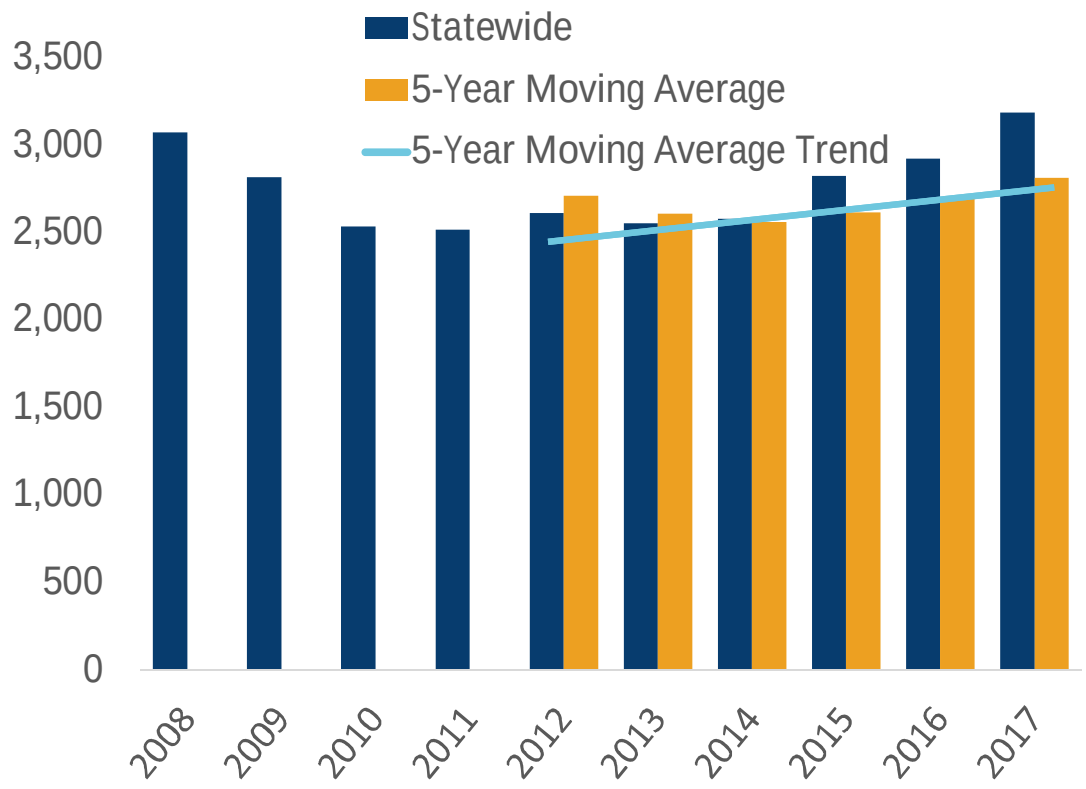
Statewide: 26%

Fresno: 34%	Sacramento: 38%
Los Angeles: 20%	San Diego: 21%
Redding: 56%	SF/Bay Area 25%





SPEEDING & AGGRESSIVE DRIVING

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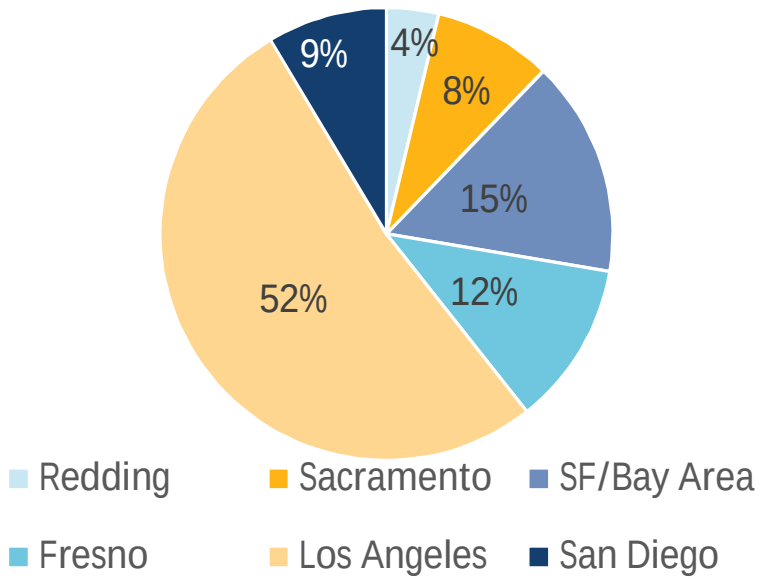
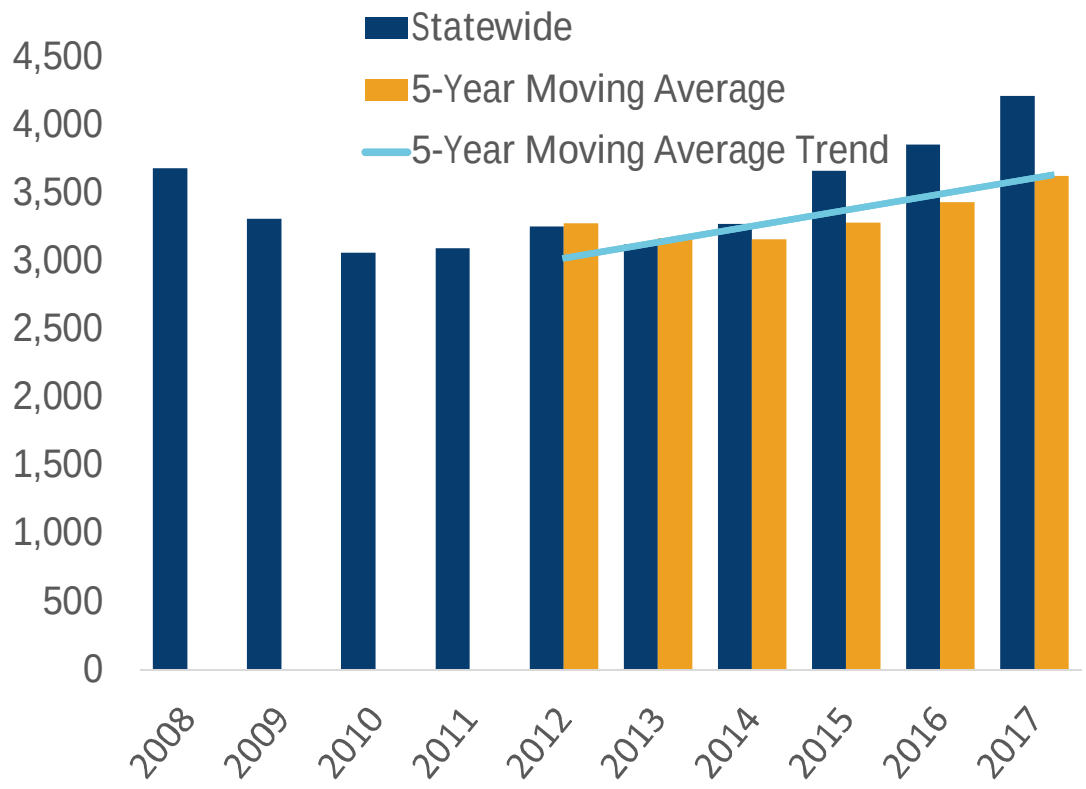
Statewide: 28%

Fresno: 22%	Sacramento: 26%
Los Angeles: 30%	San Diego: 30%
Redding: 23%	SF/Bay Area 29%



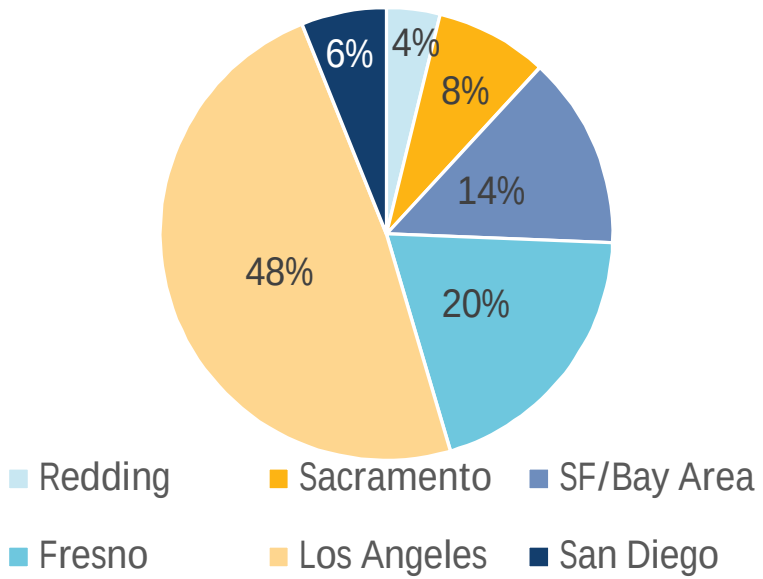


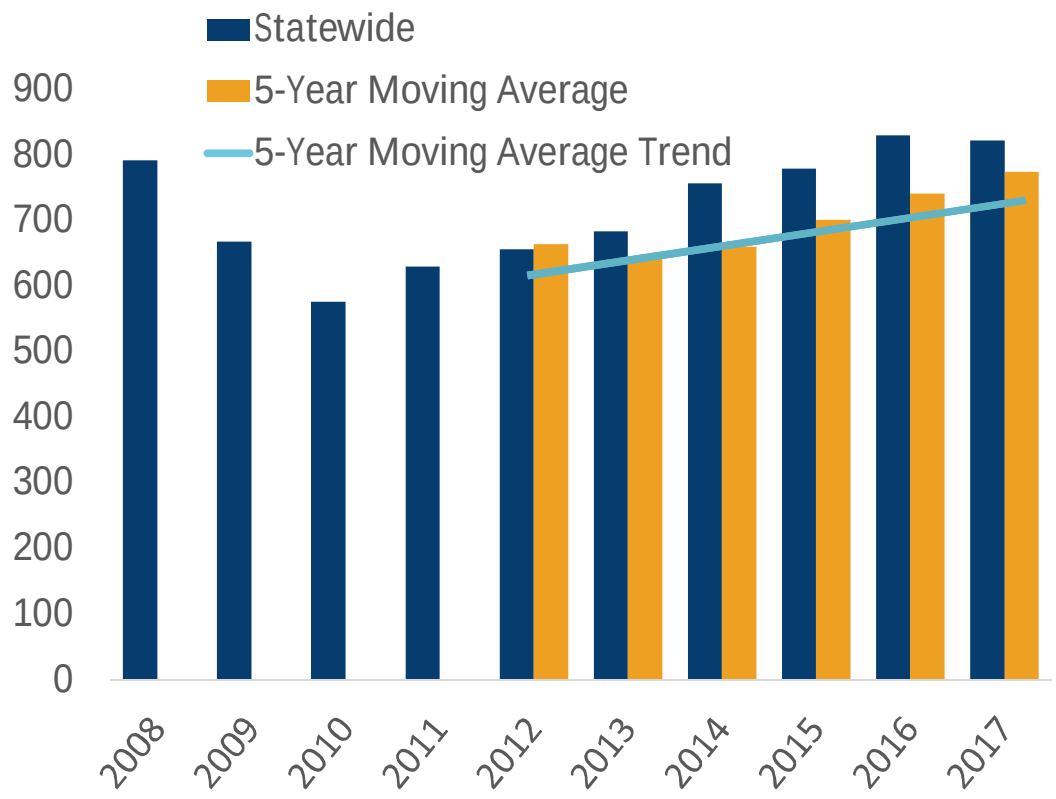
DRIVER LICENSING & COMPETENCY

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

Statewide: 25%

Fresno: 33%	Sacramento: 24%
Los Angeles: 25%	San Diego: 19%
Redding: 21%	SF/Bay Area 24%



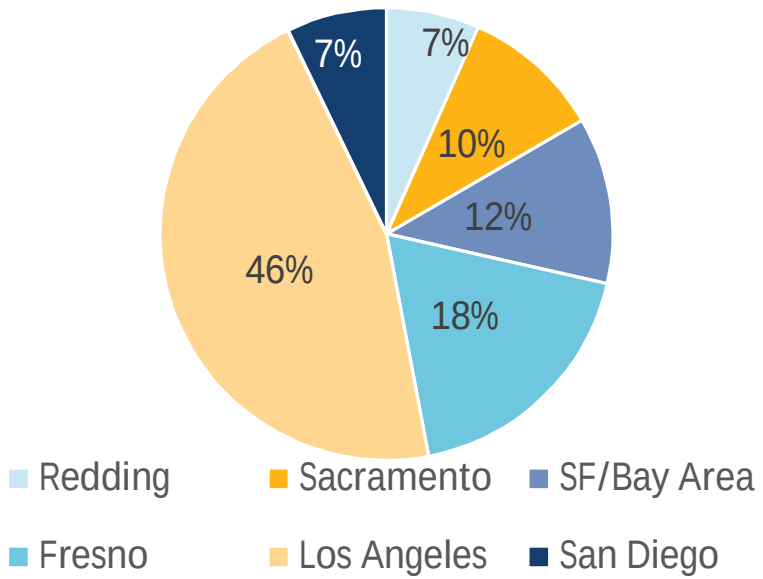


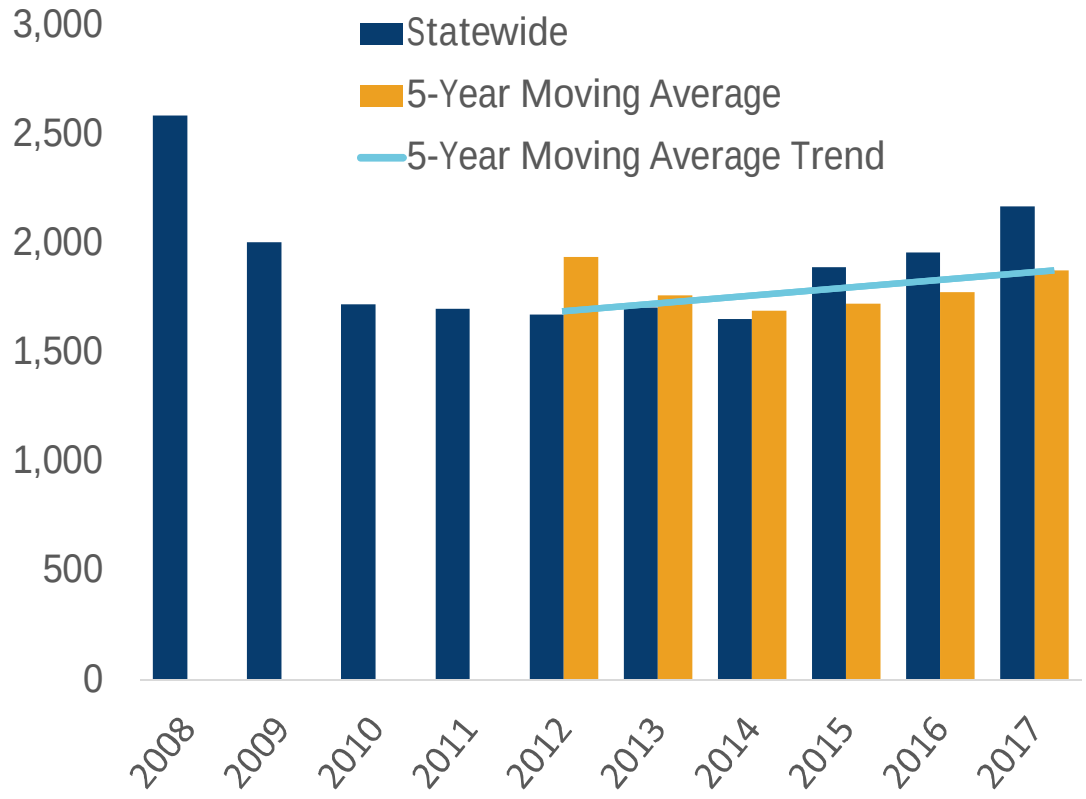
OCCUPANT PROTECTION

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

Statewide: 19%

Fresno: 24%	Sacramento: 22%
Los Angeles: 18%	San Diego: 17%
Redding: 29%	SF/Bay Area 16%



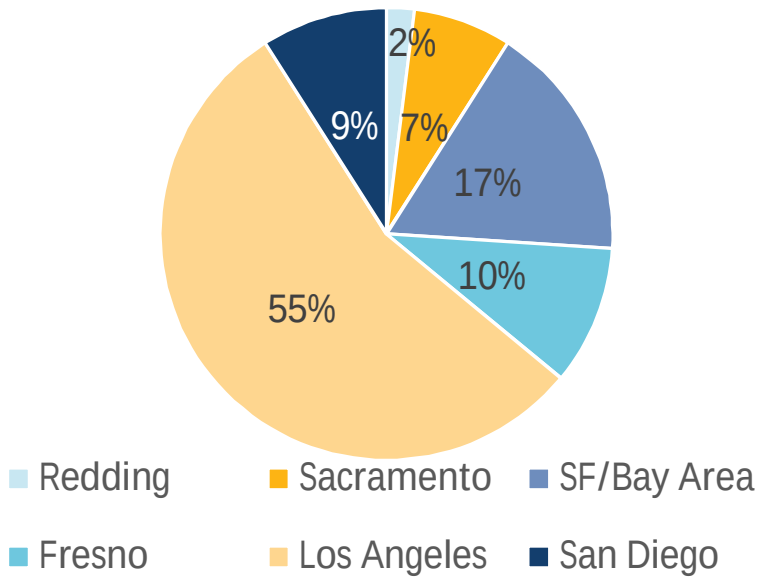


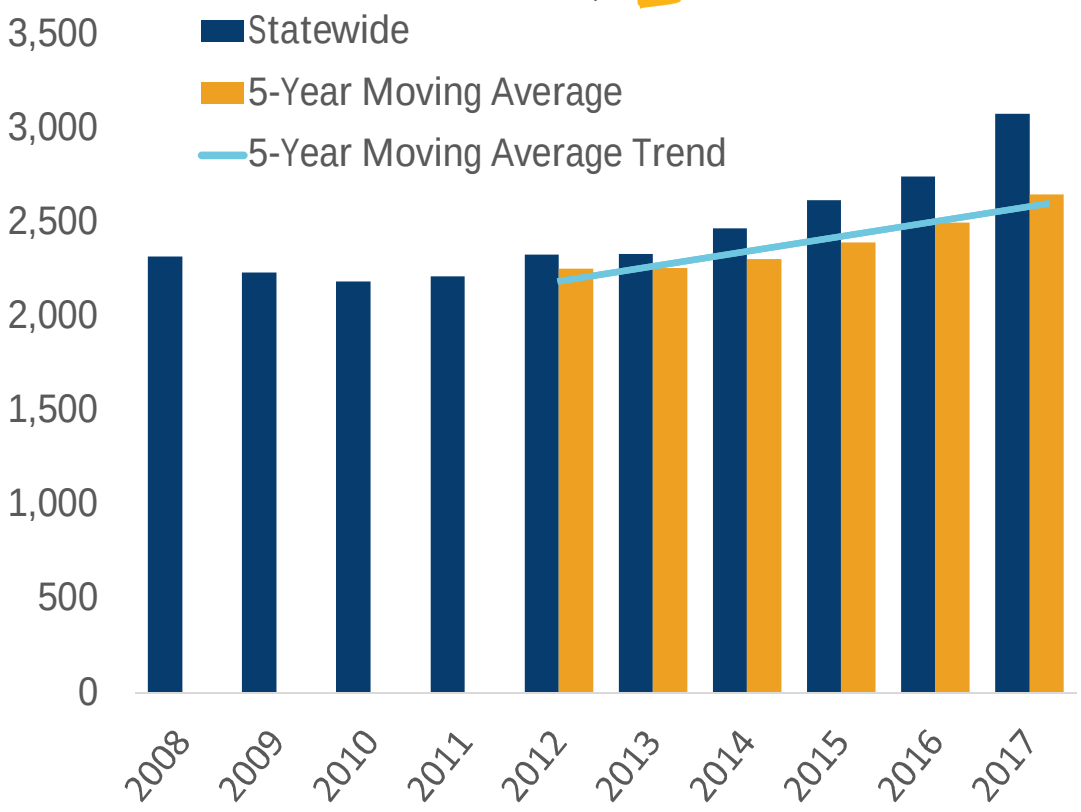
PEDESTRIANS

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

Statewide: 23%

Fresno: 15%	Sacramento: 19%
Los Angeles: 26%	San Diego: 26%
Redding: 12%	SF/Bay Area 26%

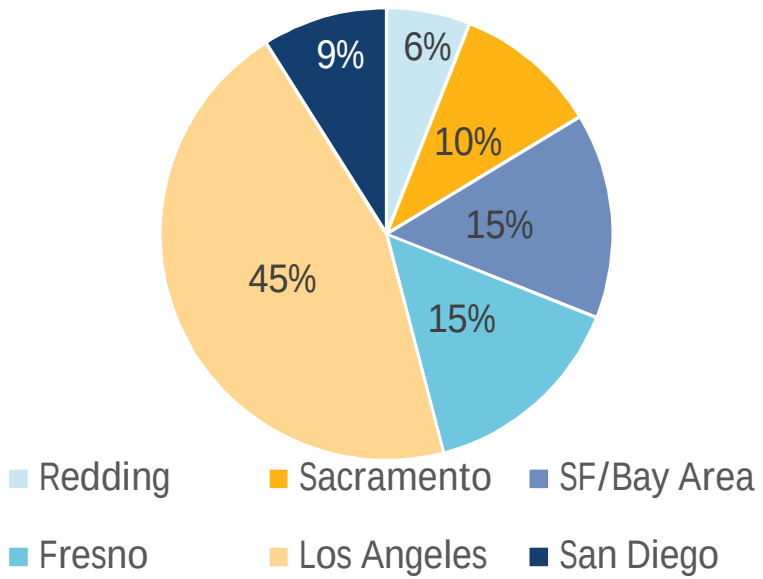


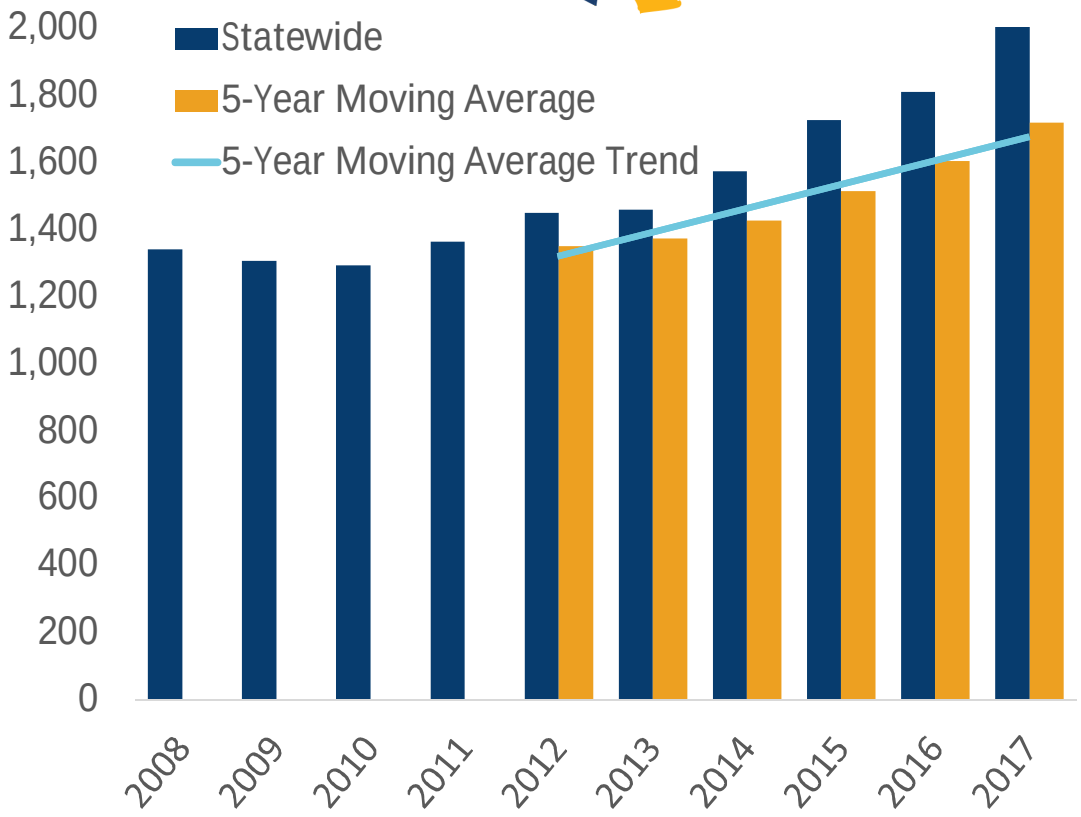


AGING DRIVERS

Statewide: 14%

Fresno: 14%	Sacramento: 16%
Los Angeles: 13%	San Diego: 15%
Redding: 19%	SF/Bay Area 14%

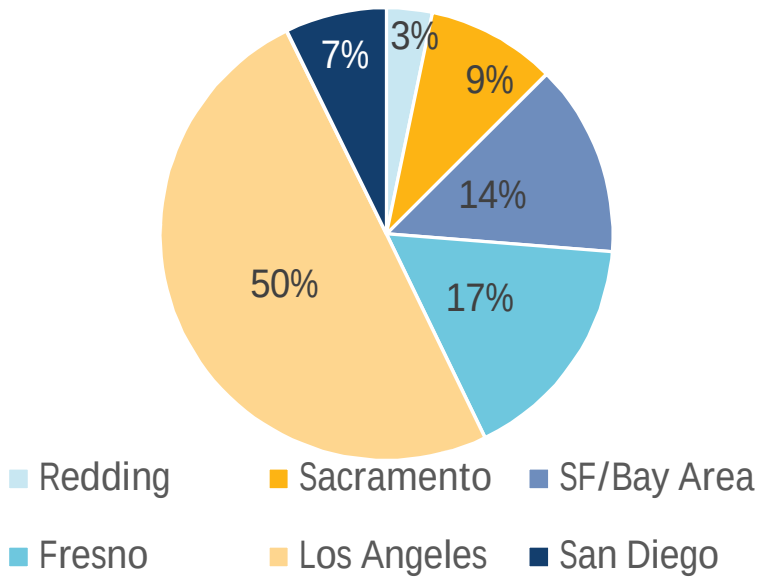


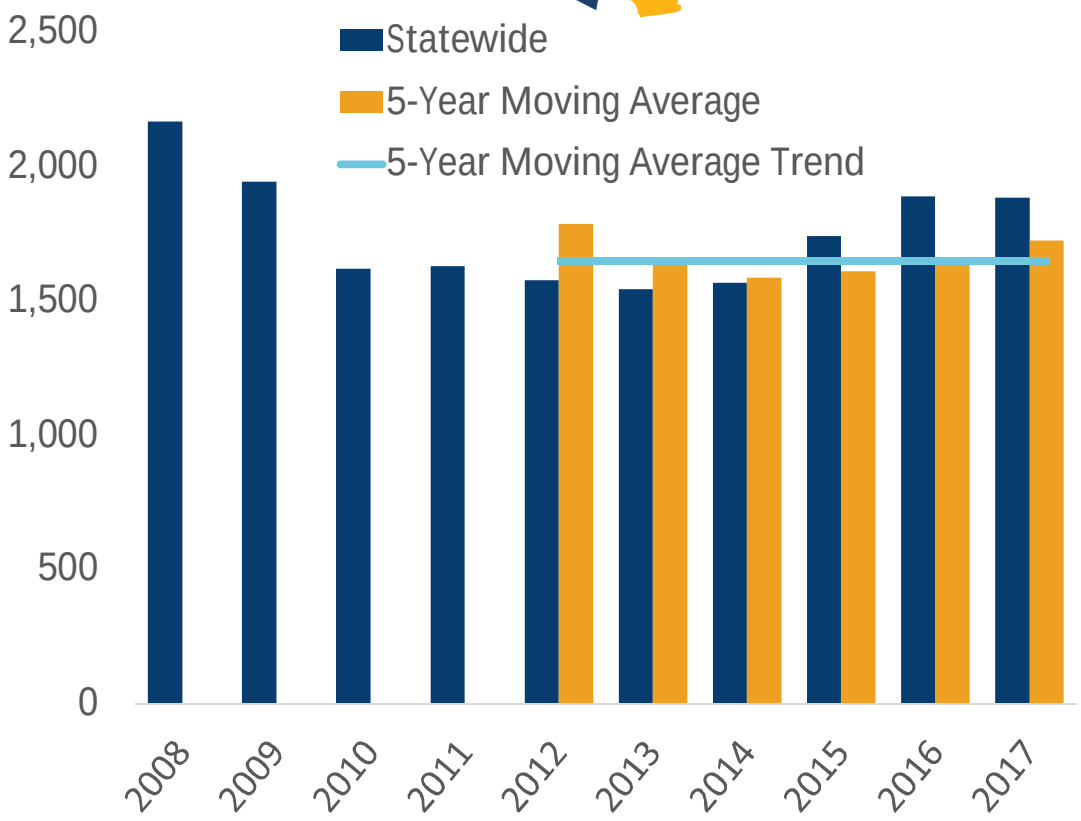


YOUNG DRIVERS

Statewide: 13%

Fresno: 15%	Sacramento: 14%
Los Angeles: 14%	San Diego: 12%
Redding: 10%	SF/Bay Area 13%

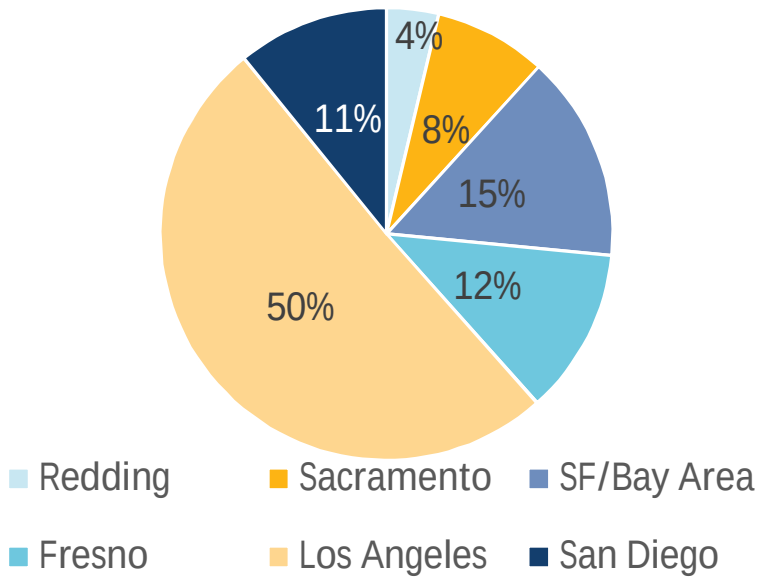


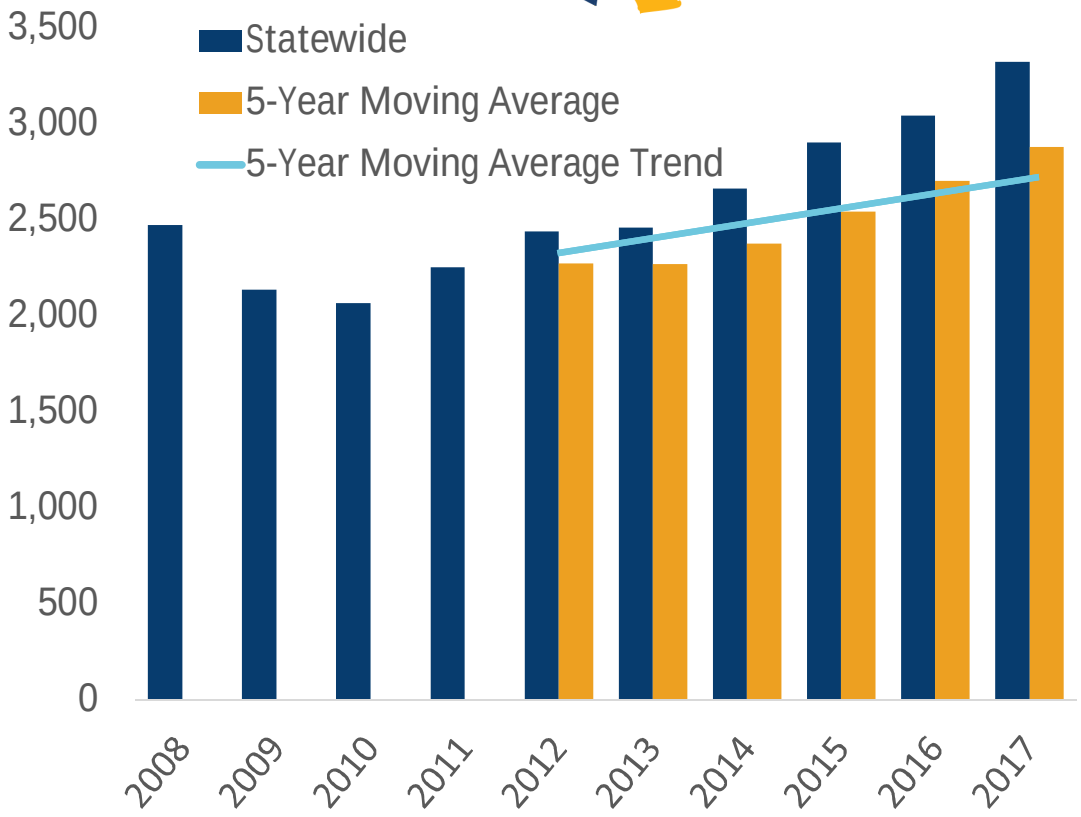


MOTORCYCLES

Statewide: 14%

Fresno: 11%	Sacramento: 13%
Los Angeles: 15%	San Diego: 19%
Redding: 12%	SF/Bay Area 14%



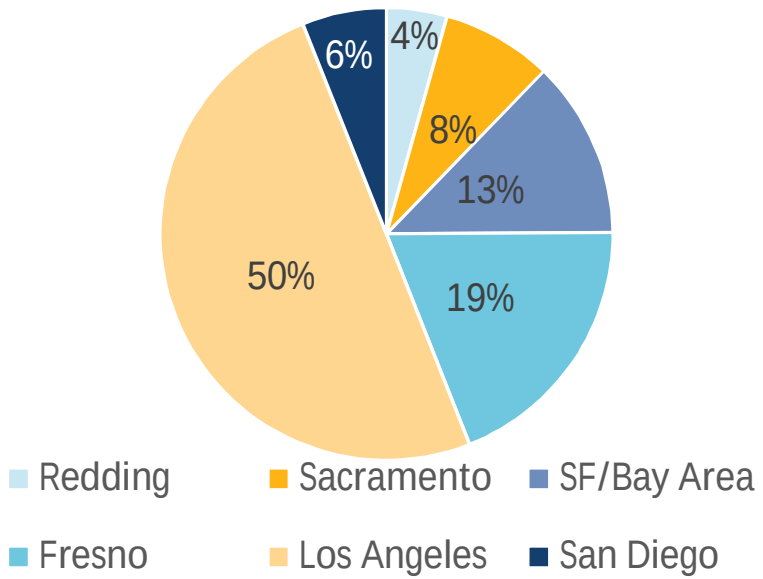


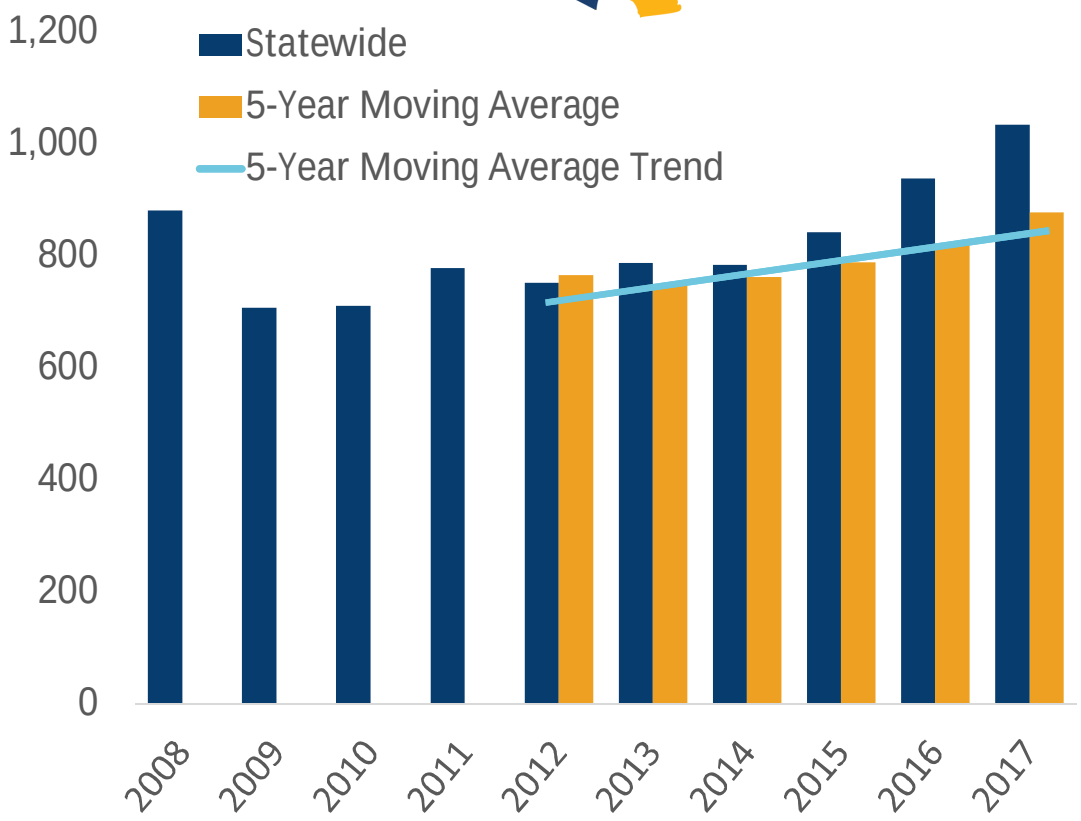
COMMERCIAL VEHICLES

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

Statewide: 10%

Fresno: 13%	Sacramento: 9%
Los Angeles: 10%	San Diego: 8%
Redding: 10%	SF/Bay Area 8%



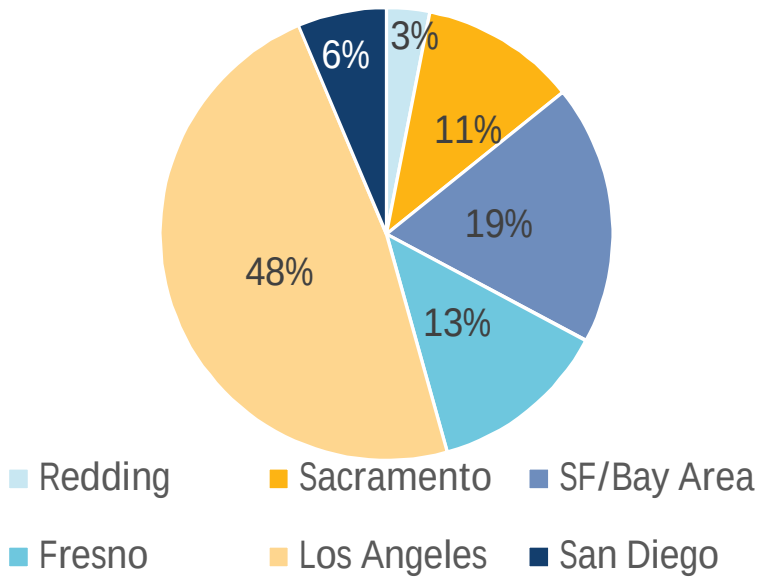


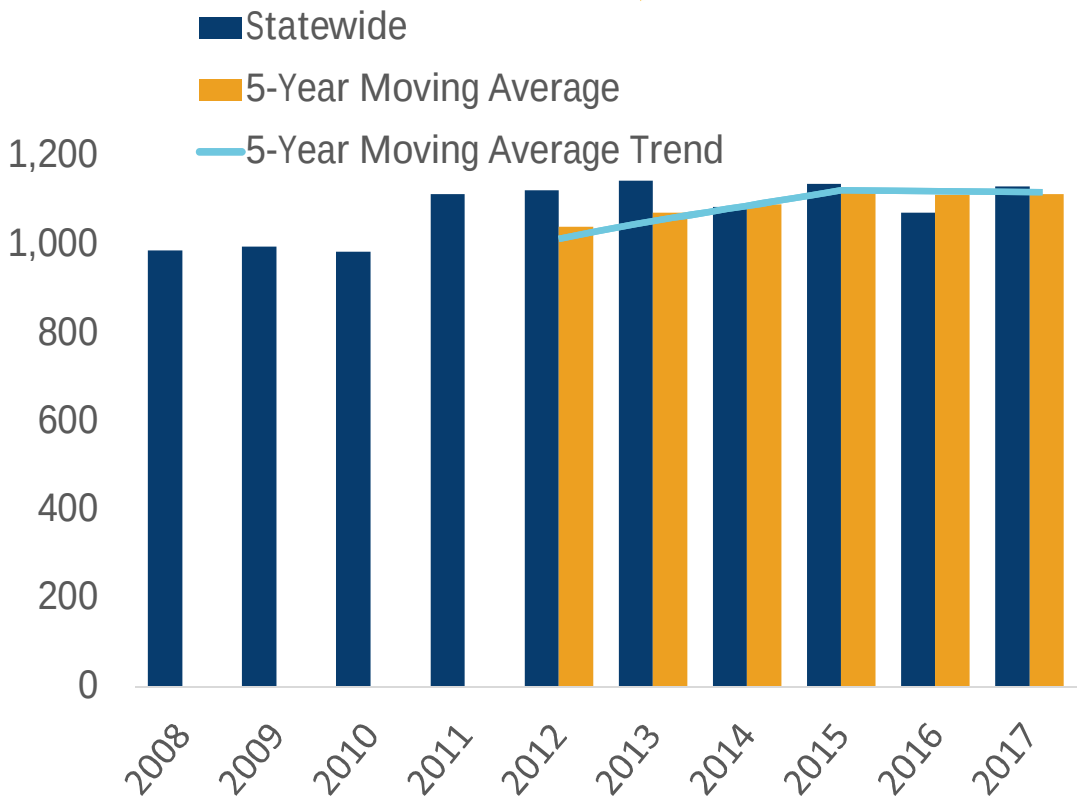
BICYCLING

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

Statewide: 4%

Fresno: 4%	Sacramento: 5%
Los Angeles: 4%	San Diego: 3%
Redding: 3%	SF/Bay Area 6%



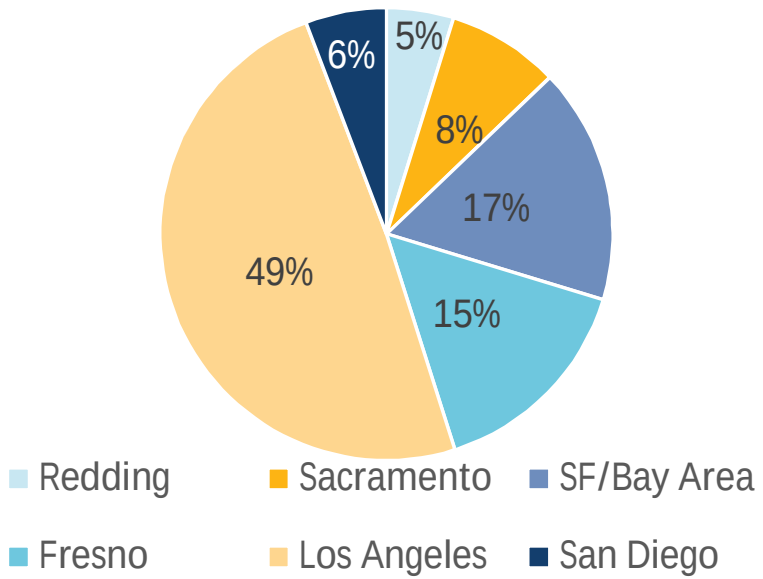


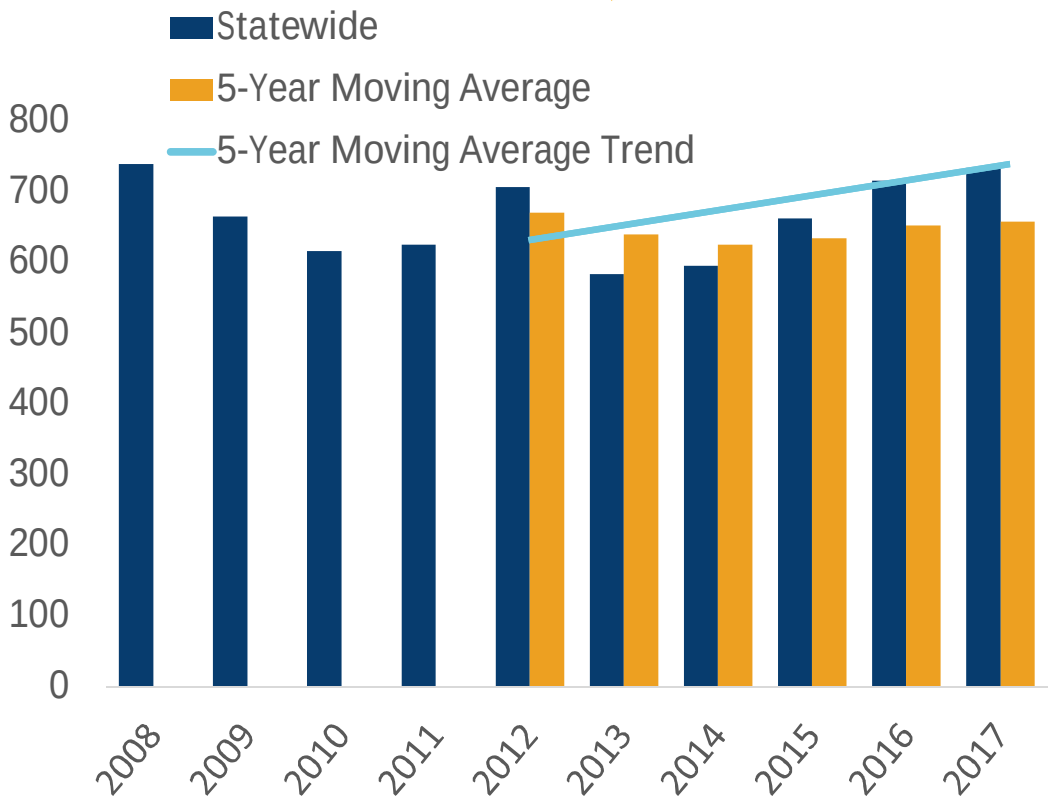
DISTRACTED DRIVING

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

Statewide: 5%

Fresno: 5%	Sacramento: 4%
Los Angeles: 5%	San Diego: 3%
Redding: 5%	SF/Bay Area 5%



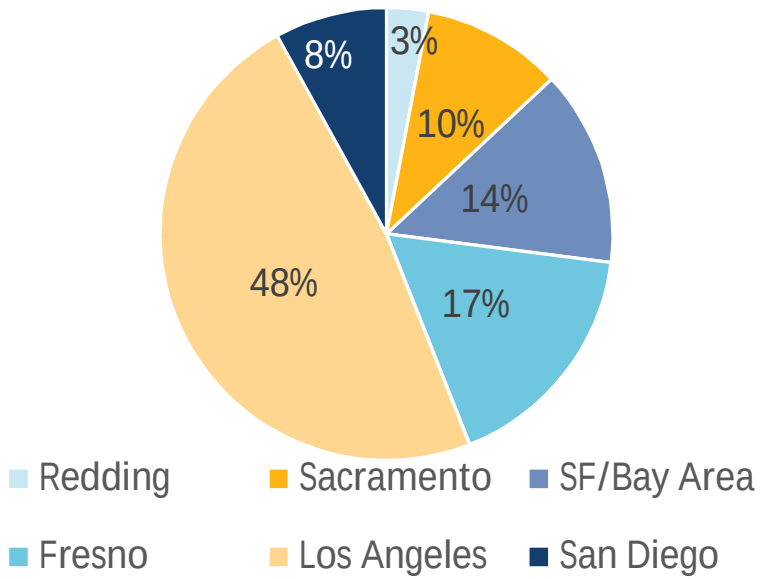


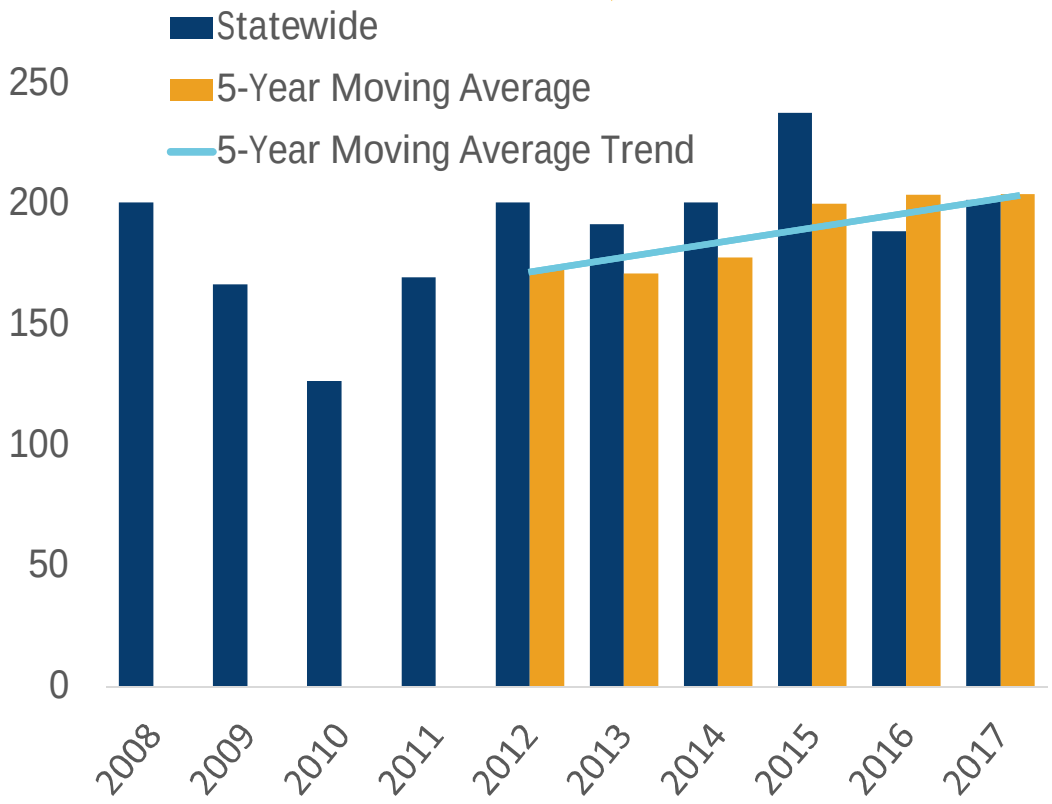
WORK ZONE

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

Statewide: 2%

Fresno: 2%	Sacramento: 2%
Los Angeles: 2%	San Diego: 2%
Redding: 1%	SF/Bay Area 2%





CALIFORNIA SAFE ROADS

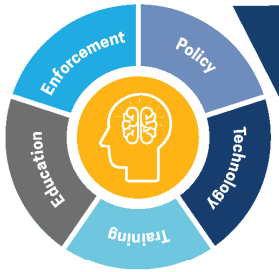
2020 - 2024 Strategic Highway Safety Plan

Safety Strategy Session

EXAMPLE STRATEGIES

Infrastructure-Related Collisions are inclusive of a variety of collision types, including pedestrians, bicyclists, motorcycles, roadway, and intersection collisions.

- Median and Pedestrian Crossing Islands
- Pedestrian Hybrid Beacon
- Leading Pedestrian Intervals
- Walkways
- Road Diet
- Crosswalk Enhancements
- Corridor Access Management
- Roadside Design Improvement at Curves
- Enhanced Delineation and Friction for Horizontal Curves
- Longitudinal Rumbe Stripes
- Median Barriers
- Tapered Edge
- Reduce Left-Turn Conflict Intersections
- Multiple Low-Cost Measures at Stop-Controlled Intersections
- Backplates with Retroreflective Borders
- Dedicated Left-turn and Right-turn lanes
- Roundabouts
- Yellow Change Intervals



Behavior-Related Collisions are inclusive of a variety of collision types, including aggressive driving, alcohol-involved, drug-involved, distracted, young driver, and aging driver collisions.

Policy

- All offender alcohol ignition interlock law
- DWI courts
- Stronger graduated driver licensing laws
- Screening of older drivers

Training

- Employer-based programs targeting workers that are at higher risk of drowsy-driving
- Drug recognition expert training for law enforcement
- Responsible beverage service training
- Motorcycle rider training

Technology

- Automated enforcement for speed and red light running.

Education

- Education campaigns about increased enforcement
- Alternative transportation programs
- Increased parental involvement programs
- Mandatory driver education for novice drivers
- Education campaigns for physicians and law enforcement about older driver screening
- Education campaigns targeted to low seat-belt users
- School programs

Enforcement

- High visibility enforcement
- Publicized sobriety check-points
- Saturation patrols
- Enforcement of graduated driver licensing and zero tolerance laws
- Integrated enforcement

EXAMPLE STRATEGIES

- Median and Pedestrian Crossing Islands
- Pedestrian Hybrid Beacon
- Leading Pedestrian Intervals
- Walkways
- Road Diet
- Crosswalk Enhancements
- Corridor Access Management
- Roadside Design Improvement at Curves
- Enhanced Delineation and Friction for Horizontal Curves

EXAMPLE STRATEGIES

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

- Longitudinal Rumbe Stripes
- Median Barriers
- Tapered Edge
- Reduce Left-Turn Conflict Intersections
- Multiple Low-Cost Measures at Stop-Controlled Intersections
- Backplates with Retroreflective Borders
- Dedicated Left-turn and Right-turn lanes
- Roundabouts
- Yellow Change Intervals

EXAMPLE STRATEGIES

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

Policy

- All offender alcohol ignition interlock law
- DWI courts
- Stronger graduated driver licensing laws
- Screening of older drivers

Training

- Employer-based programs targeting workers that are at higher risk of drowsy-driving
- Drug recognition expert training for law enforcement
- Responsible beverage service training
- Motorcycle rider training

Technology

- Automated enforcement for speed and red light running.

EXAMPLE STRATEGIES

Education

- Education campaigns about increased enforcement
- Alternative transportation programs
- Increased parental involvement programs
- Mandatory driver education for novice drivers
- Education campaigns for physicians and law enforcement about older driver screening
- Education campaigns targeted to low seat-belt users
- School programs

Enforcement

- High visibility enforcement
- Publicized sobriety check-points
- Saturation patrols
- Enforcement of graduated driver licensing and zero tolerance laws
- Integrated enforcement

SAFETY STRATEGY SESSION

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

- Open House Format
- Discuss data and strategies with facilitators and attendees at 5 stations
- Fill out comment forms
  - What is the biggest safety issue in your community?
  - What specific data should drive the strategies?
  - What strategies/programs are most effective in your region?
  - What can be done to improve implementation?
  - What other ideas do you have?

SAFETY STRATEGY SESSION

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

- Handouts
  - Statewide Overview
  - Data specific to each sub category
  - Example strategies

Safety Strategy Session

CALIFORNIA SAFE ROADS
2020 - 2024 Strategic Highway Safety Plan

- Stations

Overview
- Collision Overview
- Vision / Mission / Objective

Drivers & Passengers
1. Driver licensing
2. Aggressive driving
3. Driving under influence
4. Distracted driving
5. Occupant protection
6. Young drivers (<21)
7. Aging drivers (>65)
8. Commercial vehicle operations

Infrastructure
9. Intersections
10. Lane/Roadway departures
11. Work zones

Vulnerable Users
12. Pedestrians
13. Bicyclists
14. Motorcyclists

Vehicles
15. Equipment

Emergency Response
16. Emergency Response

CALIFORNIA SAFE ROADS

2020 - 2024 Strategic Highway Safety Plan

Report Out / Next Steps