

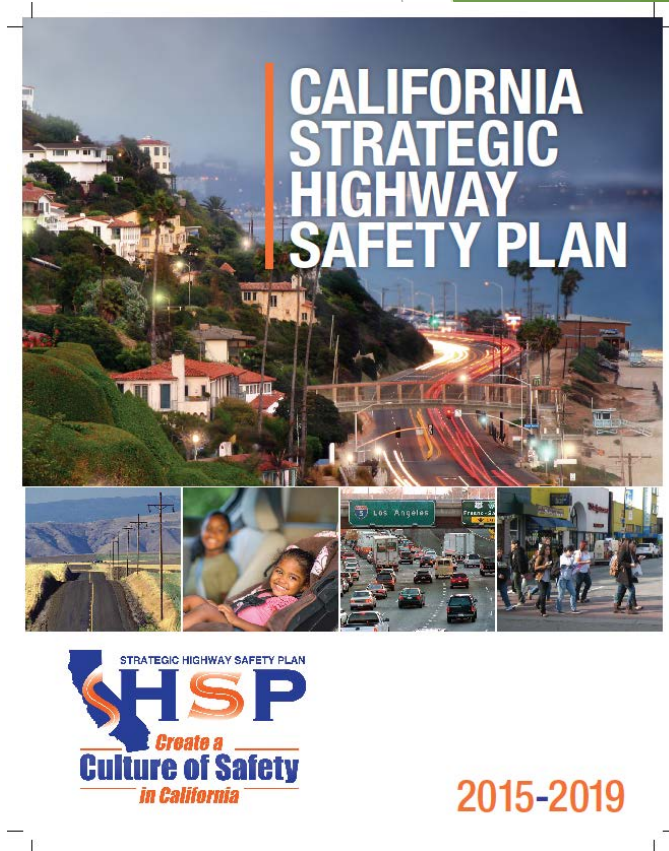
# 2017 Public Works Officers Institute and Expo

Gretchen Chavez, Program Manager  
California Strategic Highway Safety Plan  
California Department of Transportation



# SHSP Overview

- ▶ Base planning document for the HSIP and HSP
- ▶ Guides safety activities for all roadway users
- ▶ Addresses safety on all public roads
- ▶ Strategic, data-driven process
- ▶ Updated SHSP approved in September 2015
- ▶ Updated Implementation Plan approved early February 2016
- ▶ Federal ongoing requirement since April 2016



# What are We Trying to Achieve

## Vision Statement

- ▶ California will have a safe transportation system for all users.

## Mission Statement

- ▶ The mission is to ensure a safe and sustainable transportation system for all motorized and nonmotorized users on all public roads in California.

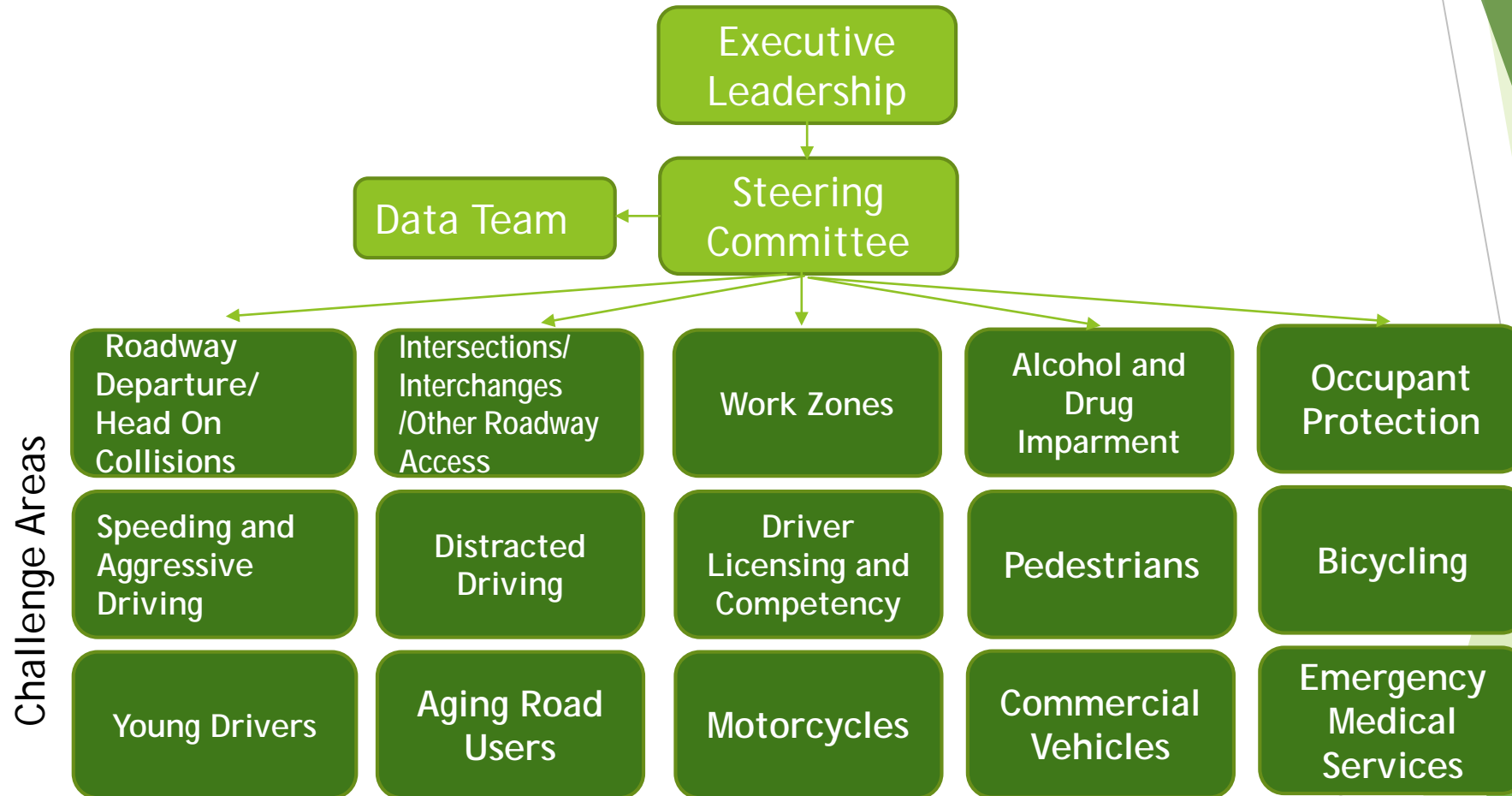
## Goal

- ▶ Toward Zero Deaths

## 4 E's

- ▶ Engineering, Education, Enforcement and Emergency Services

# Organizational Structure

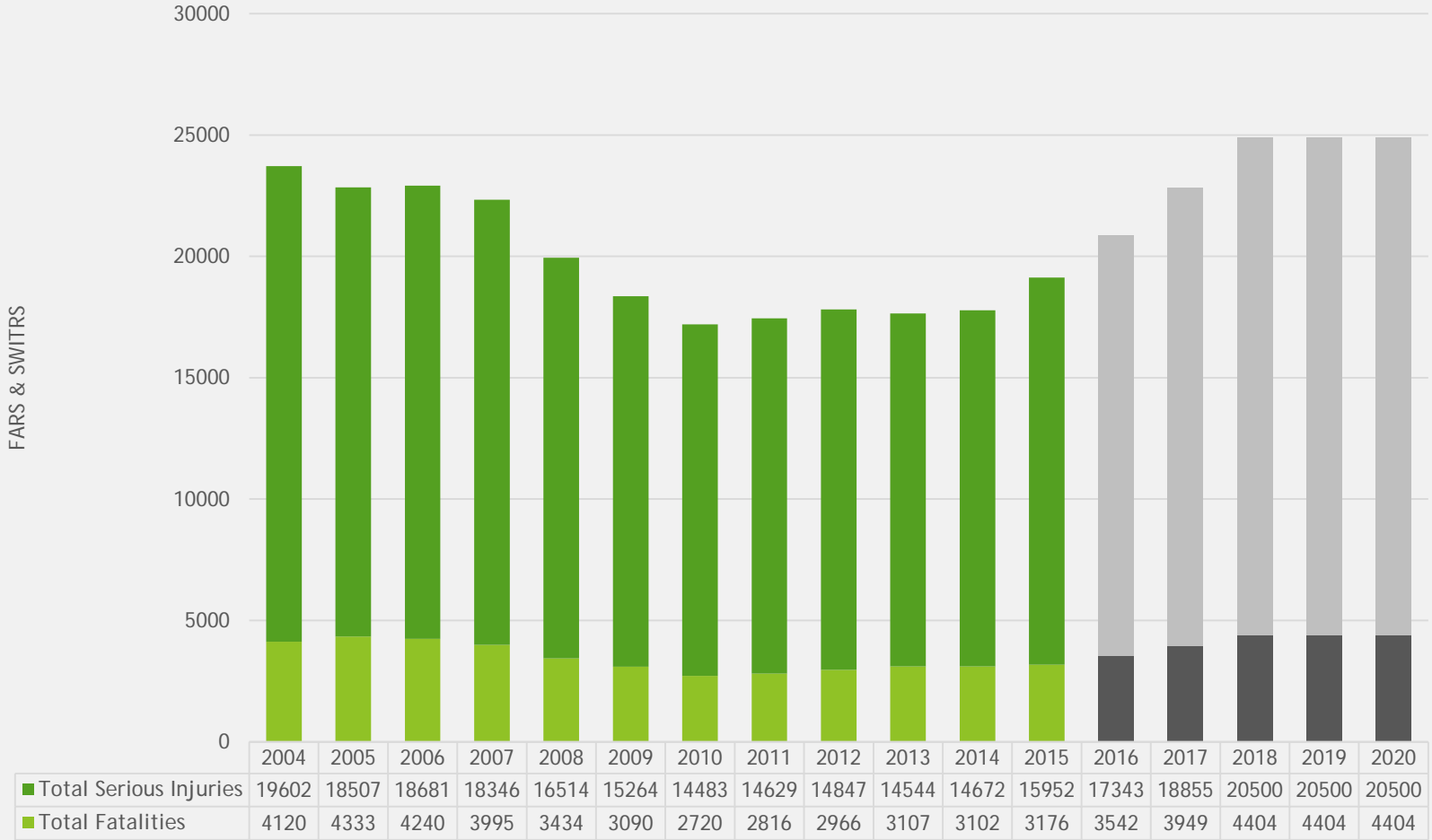


## Five Performance Targets

- Number of Fatalities (FARS)
- Rate of Fatalities per 100 Million VMT (FARS & HPMS)
- Number of Serious Injuries (SWITRS)
- Rate of Serious Injuries per 100 Million VMT (SWITRS & HPMS)
- Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries (Bicycles and Pedestrians) (FARS & SWITRS)

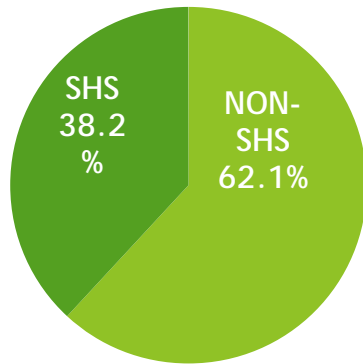
# Safety Progress

## The Total Number of Fatalities and Serious Injuries

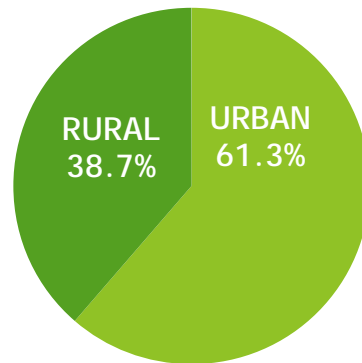


# Fatal and Severe Injuries by Location

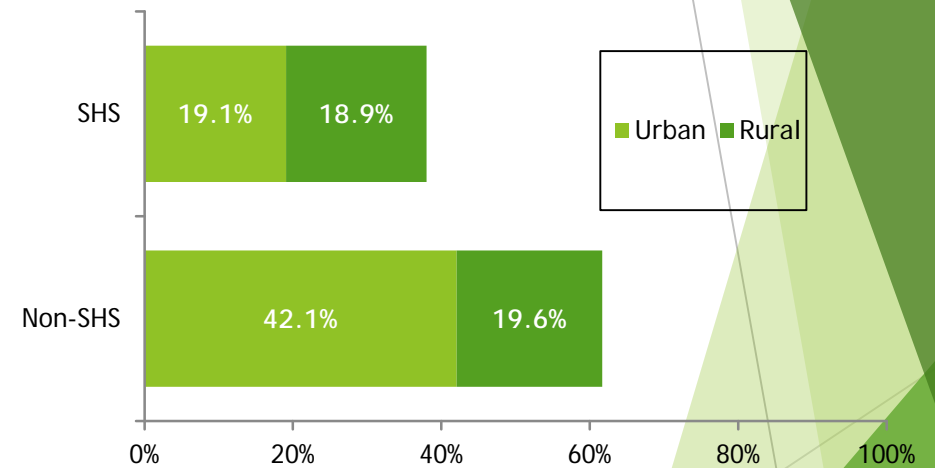
**State Highway System (SHS)  
vs. Non-SHS**



**Rural vs. Urban**



**Percent of Victims by Location**



# Challenge Area Rankings for Urban Fatalities in 2015

| Challenge Areas                                     | Area  | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Tot/Urban/Rural in 2015 (%) | % of Total (2015) |
|---|-------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------------------|-------------------|
| Intersections, Interchanges, & Other Roadway Access | Urban | 1117 | 1146 | 1188 | 1101 | 991  | 865  | 792  | 707  | 939  | 980  | 1026 | 953  | 52.89%                      | 30.01%            |
| Pedestrians   | Urban | 549  | 581  | 596  | 558  | 512  | 459  | 514  | 525  | 579  | 607  | 642  | 677  | 37.57%                      | 21.32%            |
| Alcohol and Drug Impairment                         | Urban | 1103 | 1242 | 1215 | 1128 | 999  | 988  | 913  | 941  | 1018 | 1123 | 854  | 622  | 34.52%                      | 19.58%            |
| Aging Road Users                                    | Urban | 426  | 410  | 395  | 436  | 370  | 339  | 360  | 373  | 432  | 415  | 466  | 454  | 25.19%                      | 14.29%            |
| Occupant Protection                                 | Urban | 857  | 854  | 905  | 721  | 689  | 585  | 452  | 476  | 614  | 675  | 528  | 435  | 24.14%                      | 13.70%            |
| Speed and Aggressive Driving                        | Urban | 335  | 399  | 396  | 414  | 343  | 273  | 250  | 260  | 294  | 309  | 318  | 323  | 17.92%                      | 10.17%            |
| Motorcycles   | Urban | 159  | 182  | 205  | 217  | 266  | 215  | 192  | 227  | 258  | 276  | 303  | 288  | 15.98%                      | 9.07%             |
| Roadway Departure & Head-On Collisions              | Urban | 365  | 394  | 385  | 353  | 303  | 253  | 223  | 227  | 241  | 252  | 255  | 273  | 15.15%                      | 8.60%             |
| Young Drivers                                       | Urban | 363  | 479  | 463  | 386  | 338  | 278  | 229  | 196  | 194  | 245  | 268  | 257  | 14.26%                      | 8.09%             |
| Commerical Vehicles                                 | Urban | 149  | 153  | 167  | 147  | 125  | 123  | 108  | 129  | 109  | 146  | 146  | 139  | 7.71%                       | 4.38%             |
| Bicycles  | Urban | 91   | 107  | 115  | 91   | 95   | 80   | 85   | 101  | 111  | 116  | 108  | 106  | 5.88%                       | 3.34%             |
| Work Zone   | Urban | 28   | 47   | 52   | 46   | 40   | 32   | 26   | 23   | 36   | 36   | 38   | 32   | 1.78%                       | 1.01%             |

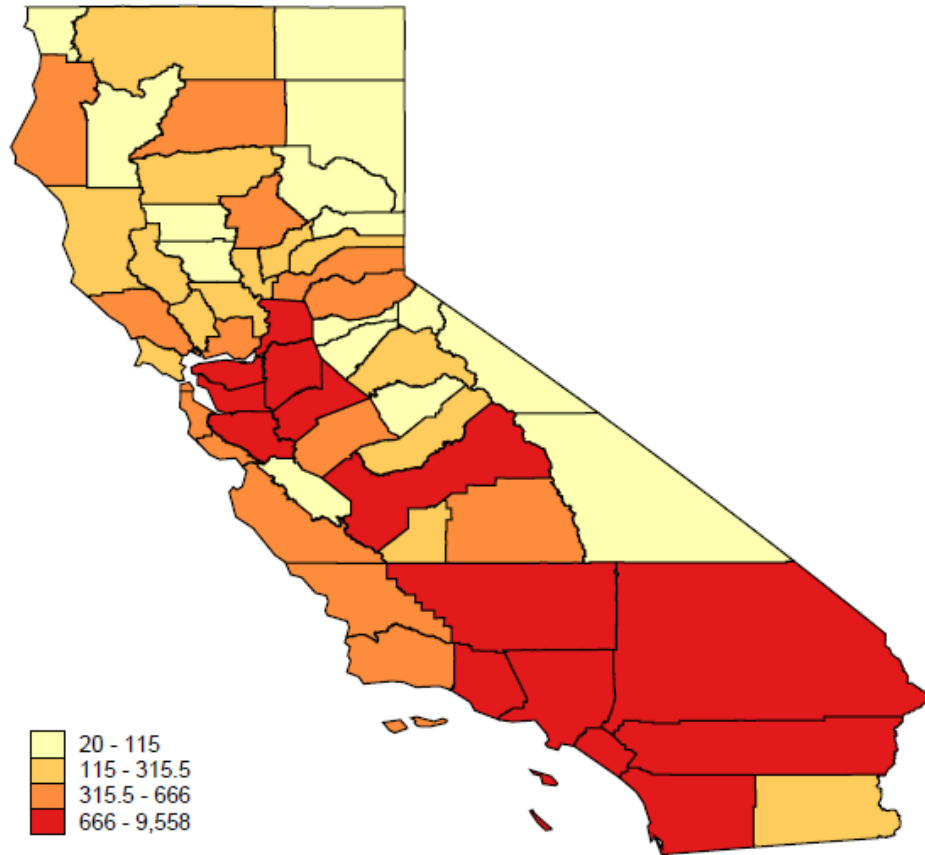


# Challenge Area Rankings for Rural Fatalities in 2015

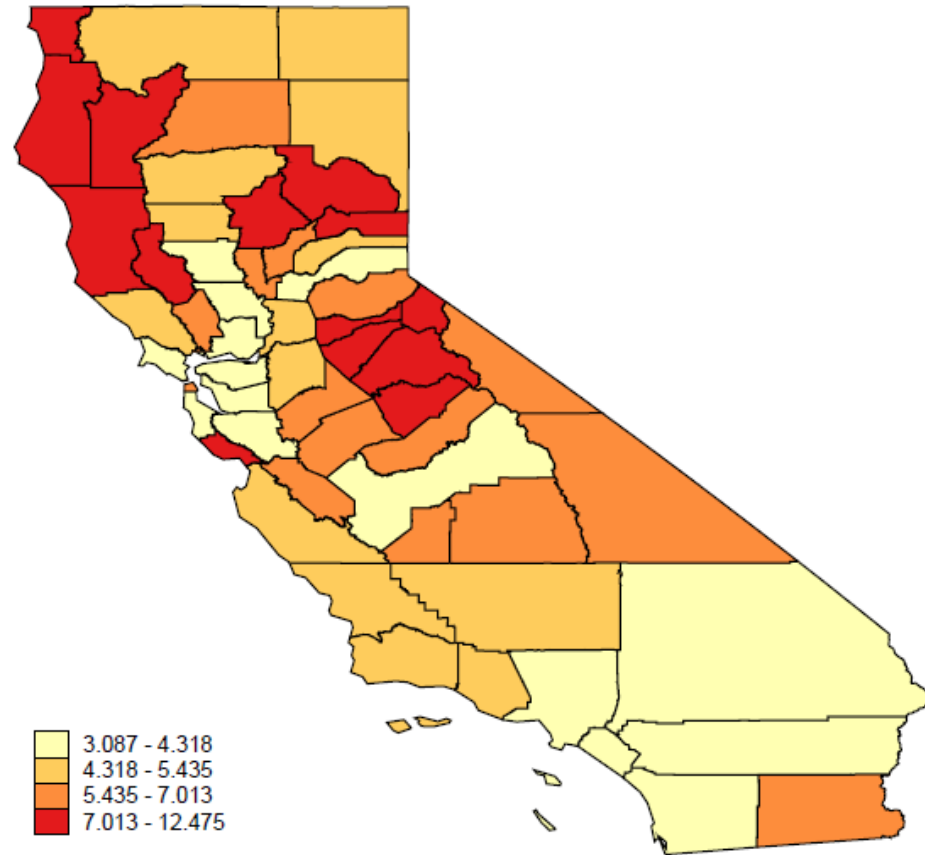
| Challenge Areas                                     | Area  | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Tot/Urban/Rural in 2015 (%) | % of Total (2015) |
|---|-------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------------------|-------------------|
| Occupant Protection                                 | Rural | 1371 | 1596 | 1504 | 1345 | 1477 | 1001 | 573  | 565  | 529  | 580  | 564  | 672  | 49.19%                      | 21.16%            |
| Roadway Departure & Head-On Collisions              | Rural | 970  | 993  | 882  | 830  | 678  | 607  | 499  | 504  | 518  | 511  | 462  | 594  | 43.48%                      | 18.70%            |
| Alcohol and Drug Impairment                         | Rural | 947  | 1000 | 968  | 903  | 840  | 723  | 644  | 676  | 714  | 732  | 673  | 501  | 36.68%                      | 15.77%            |
| Intersections, Interchanges, & Other Roadway Access | Rural | 551  | 591  | 427  | 456  | 387  | 347  | 349  | 288  | 353  | 343  | 348  | 417  | 30.53%                      | 13.13%            |
| Aging Road Users                                    | Rural | 278  | 301  | 297  | 293  | 245  | 259  | 225  | 229  | 229  | 256  | 250  | 286  | 20.94%                      | 9.01%             |
| Young Drivers                                       | Rural | 451  | 406  | 367  | 329  | 268  | 221  | 161  | 176  | 177  | 166  | 167  | 218  | 15.96%                      | 6.86%             |
| Motorcycles   | Rural | 191  | 222  | 228  | 248  | 260  | 168  | 156  | 190  | 193  | 187  | 214  | 202  | 14.79%                      | 6.36%             |
| Pedestrians   | Rural | 162  | 205  | 168  | 141  | 147  | 149  | 136  | 143  | 151  | 180  | 147  | 191  | 13.98%                      | 6.01%             |
| Speed and Aggressive Driving                        | Rural | 268  | 292  | 248  | 278  | 223  | 193  | 188  | 187  | 170  | 174  | 166  | 190  | 13.91%                      | 5.98%             |
| Commerical Vehicles                                 | Rural | 251  | 273  | 237  | 225  | 185  | 156  | 137  | 152  | 155  | 141  | 174  | 179  | 13.10%                      | 5.64%             |
| Bicycles  | Rural | 34   | 26   | 40   | 32   | 37   | 26   | 25   | 38   | 37   | 48   | 36   | 43   | 3.15%                       | 1.35%             |
| Work Zone   | Rural | 24   | 45   | 51   | 24   | 24   | 23   | 21   | 29   | 20   | 29   | 22   | 39   | 2.86%                       | 1.23%             |

# Fatal and Severe Injuries Number vs. Rate

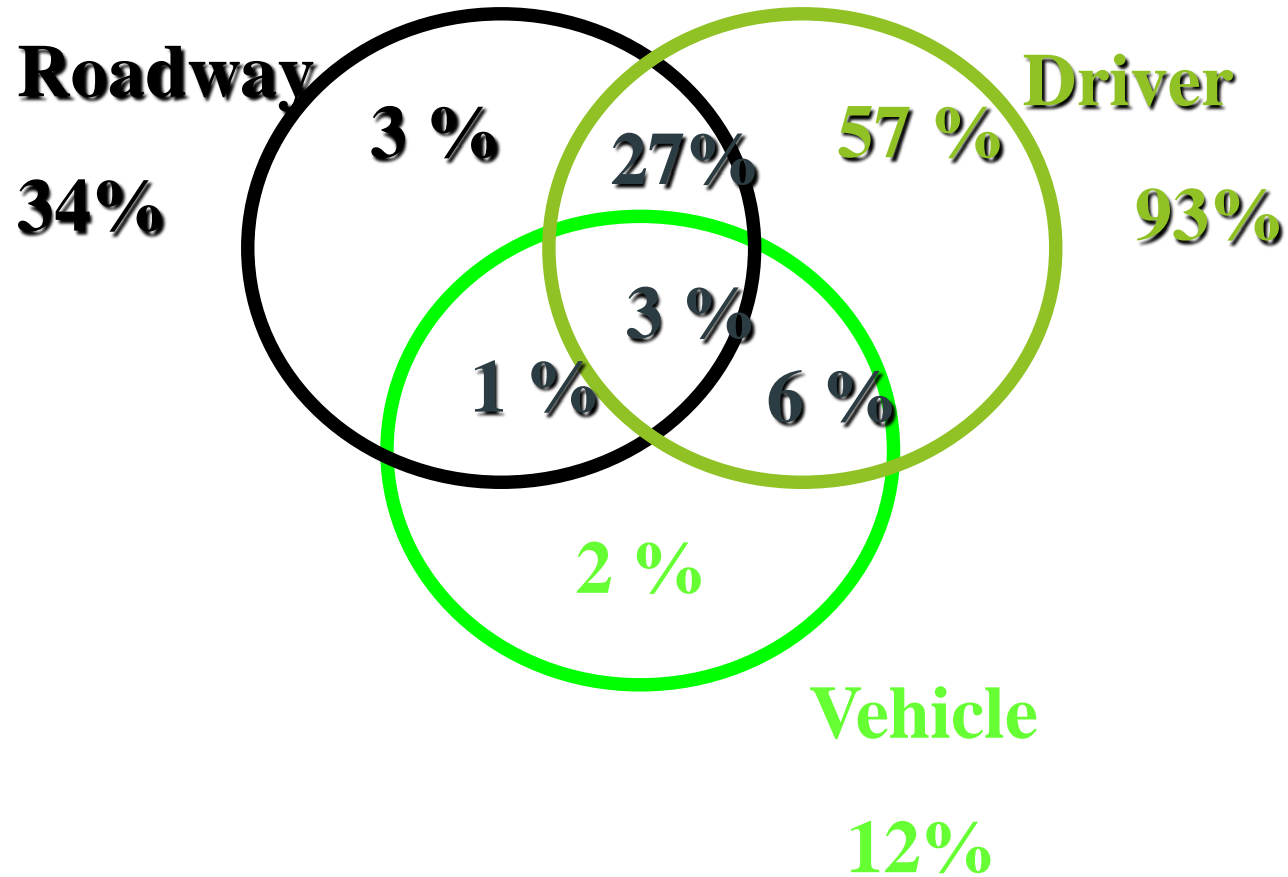
F+SI by County



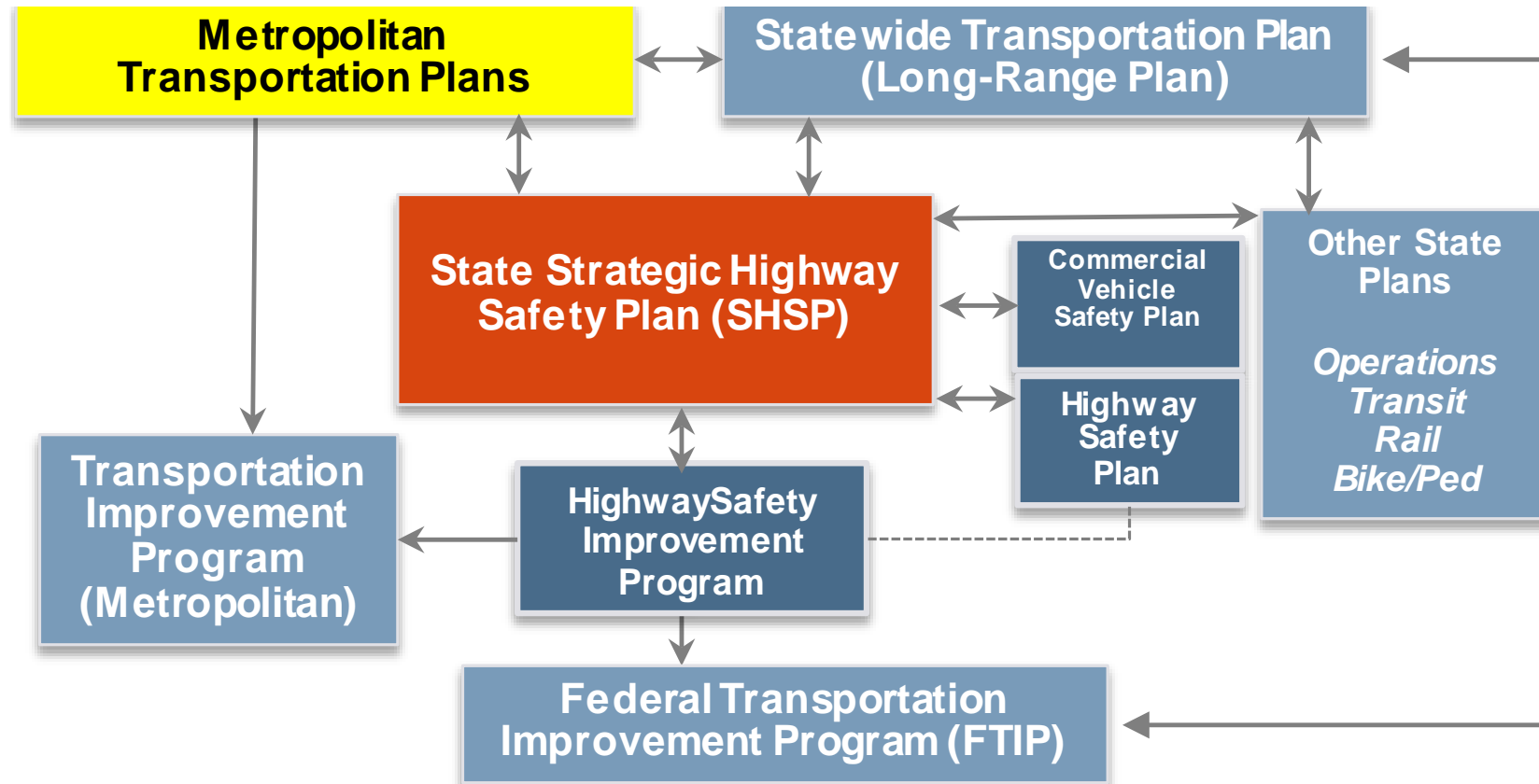
F+SI per 100M VMT by County



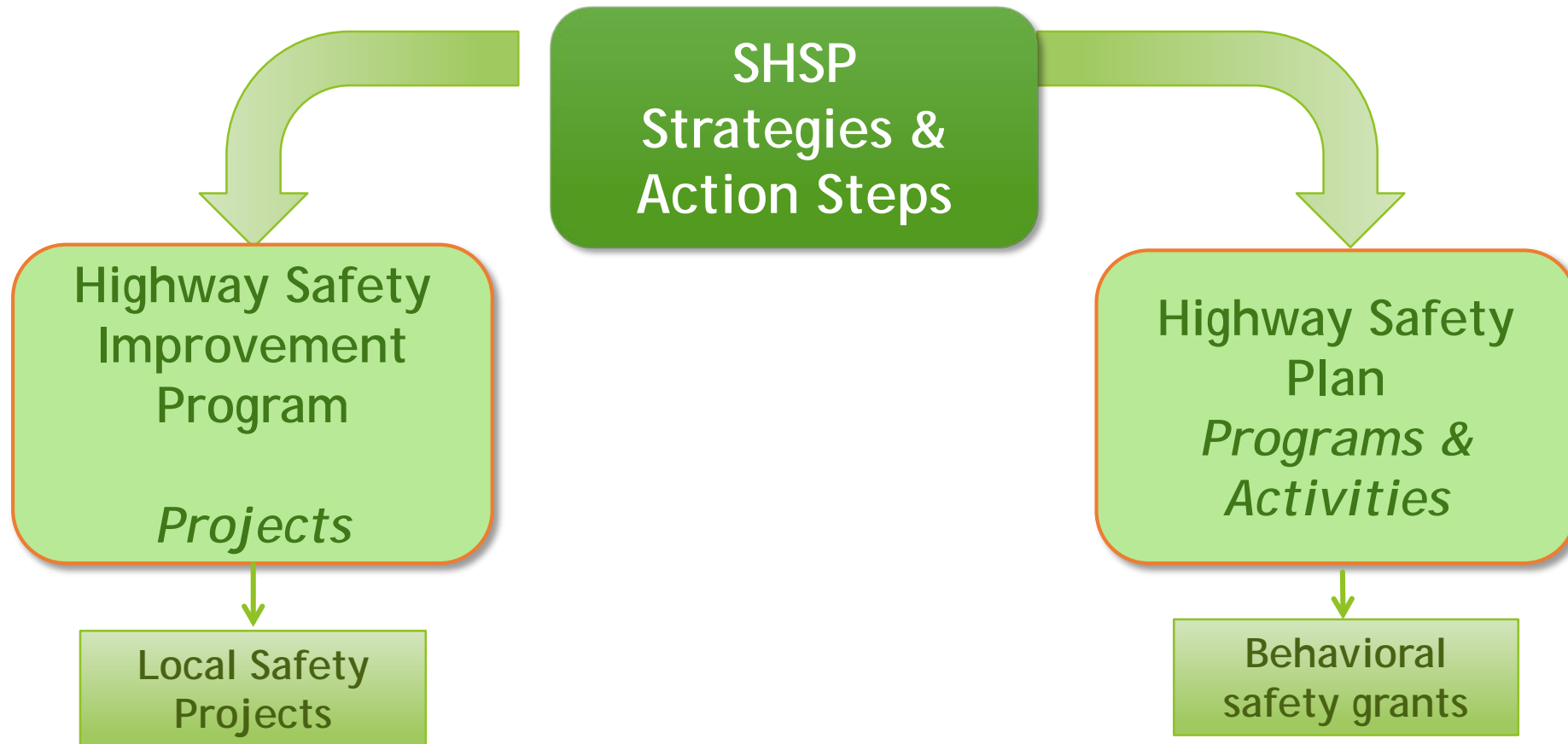
# Causes of Traffic Collisions



# Transportation Planning Coordination



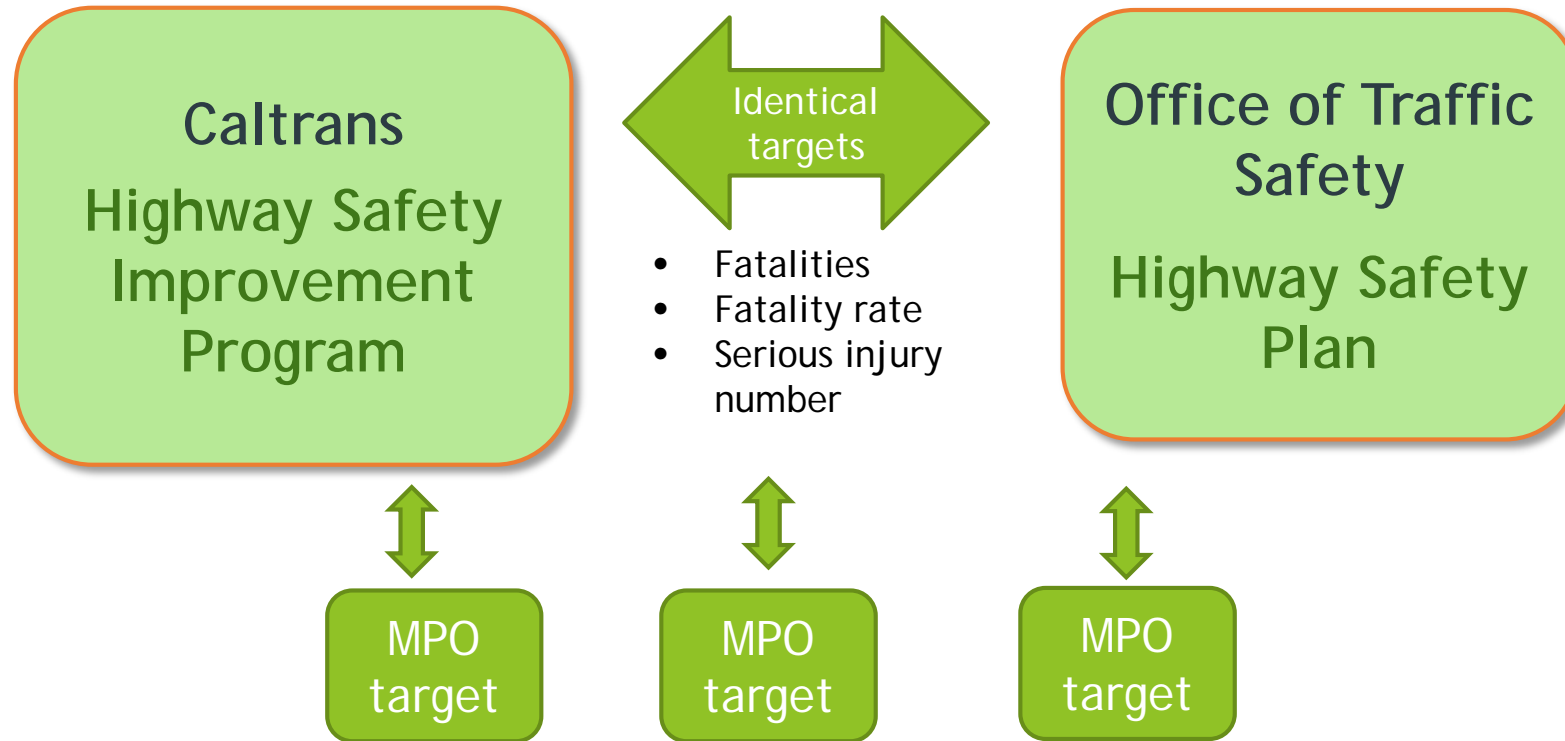
# Safety Planning and Funding Sources



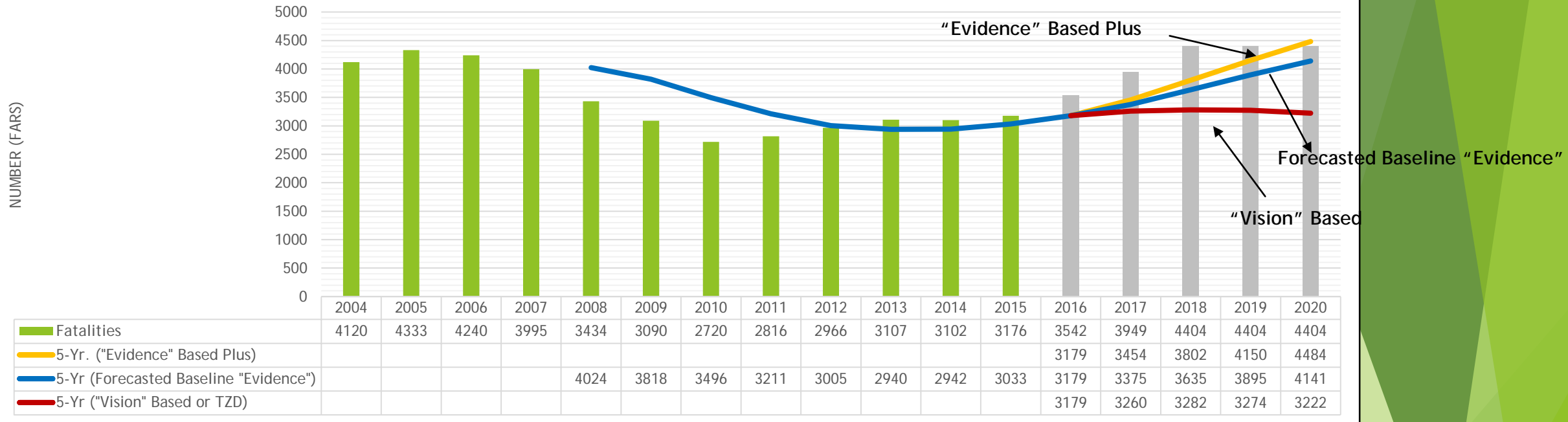
# Five Performance Targets

- ▶ Number of Fatalities
- ▶ Rate of Fatalities per 100 Million VMT
- ▶ Number of Serious Injuries
- ▶ Rate of Serious Injuries per 100 Million VMT
- ▶ Number of Non-motorized Fatalities and Non-motorized Serious Injuries (bike, pedestrian, etc.)

# SAFETY PERFORMANCE MANAGEMENT TARGET SETTING



## Total Number of Fatalities (Scenarios)



### Explanation of the Legend

- Fatalities:** The bar chart in green denotes the current data that is available in FARS. The grey bars depicts the forecasts for future years that are extrapolated from the "NSC Motor Vehicle Fatality Estimates" for the first nine months of 2016 and is prepared by the National Safety Council. The grey bars show a year-to-year increase of +11.5% until 2018 (which is based on the change of fatalities from 2015 to 2016). The outer years of 2019 and 2019 are held constant at 4404 fatalities.
- 5-Yr ("Evidence" Based Plus):** The yellow line is the five-year rolling average, which takes into account an additional increase in fatalities for years 2017 to 2020.
- 5-Yr (Forecasted Baseline "Evidence"):** The blue line is the five-year rolling average that also takes into account future forecasted years as well as years where data is available (up to 2015). This represents a target that is "evidenced" based.
- 5-Yr ("Vision" Based or TZD):** The red line represents the 5-Yr rolling average from annual fatality numbers that decrease to 50% of the 2016 number in 15 years (or in 2031). This is the "Toward Zero Death" concept that is incorporated in the Strategic Highway Safety Plan (SHSP). This is a "vision" based or "aspirational" target and it is based on a year-to-year decrease of 4.73%.



# TRANSPORTATION PROGRAMS

## ▶ DIVISION OF LOCAL ASSISTANCE

▶ <http://www.dot.ca.gov/localassistance/index.html>

### ▶ SSARP/ HSIP

▶ <http://www.dot.ca.gov/hq/LocalPrograms/HSIP/SSARP.htm>

### ▶ OFFICE OF ACTIVE TRANSPORTATION & SPECIAL PROGRAMS

▶ <http://www.dot.ca.gov/hq/LocalPrograms/atp/index.html>

### ▶ STATE:

▶ ACTIVE TRANSPORTATION, BICYCLE TRANSPORTATION ACCOUNT, SAFE ROUTES TO SCHOOL, BICYCLE FACILITIES UNIT, ENVIRONMENTAL ENHANCEMENT MITIGATION, STATE TRANSPORTATION IMPROVEMENT PROGRAM

### ▶ FEDERAL

▶ HIGHWAY SAFETY IMPROVEMENT PROGRAM, RURAL SURFACE TRANSPORTATION PROGRAM, CONGESTION MITIGATION & AIR QUALITY, HIGH RISK RURAL ROADS, INTELLIGENT TRANSPORTATION

# TRANSPORTATION PROGRAMS

- ▶ DIVISION OF TRANSPORTATION PLANNING
  - ▶ <http://dot.ca.gov/transplanning/>
  - ▶ OFFICE OF SMART MOBILITY & CLIMATE CHANGE
  - ▶ COMPLETE STREETS
  - ▶ SMART MOBILITY & ACTIVE TRANSPORTATION
- ▶ TRANSPORTATION ECONOMICS BRANCH

# RESOURCES – WWW.DOT.CA.GOV/TRAFFICOPS/SHSP

The screenshot shows a web browser window with the address bar displaying <http://www.dot.ca.gov/trafficops/shsp/>. The page features a header with the CA.GOV logo, a search bar, and a navigation menu with links for Travel, Working with CT, Online Services, News, Contact Us, A to Z, and Get to Know Caltrans. The main content area is titled "Strategic Highway Safety Plan (SHSP)" and includes a section for "Safety Performance Management - California Target Setting" with a list of resources. Below this are three PDF links: "Implementation Plan (PDF)", "SHSP Update 2015 (PDF)", and "SHSP Fact Sheet (PDF)". On the right side, there are profiles for California's Governor Edmund G. Brown Jr., Caltrans Director Malcolm Dougherty, and Division Chief Tom Hallenbeck. A "SHSP Links" section provides quick access to the SHSP homepage, target setting resources, leadership committees, challenge areas, and traffic safety resources. The Windows taskbar at the bottom shows the time as 2:57 PM.

CA.GOV

2 CARS PER GREEN LIGHT PER LANE

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## Strategic Highway Safety Plan (SHSP)

Safety Performance Management - California Target Setting

[Safety Performance Management - California Target Setting Resources](#), featuring:

- [FHWA Safety Performance Management Target Setting Training - NEW](#)
- State Target Setting Activities
- State Resources
- Federal Highway Administration (FHWA) Resources
- National Highway Traffic Safety Administration (NHTSA) Resources

Implementation Plan (PDF) SHSP Update 2015 (PDF) SHSP Fact Sheet (PDF)

California's Governor  
Edmund G. Brown Jr.  
[Visit His Webpage](#)

Caltrans Director  
Malcolm Dougherty  
Caltrans

Division Chief  
Tom Hallenbeck  
Traffic Operations

### SHSP Links

- [SHSP HOMEPAGE](#) (What is the SHSP?)
- [Safety Performance Management - CA Target Setting](#)
- [Leadership Committee](#)
- [Steering Committee](#)
- [Challenge Areas](#)
- [Traffic Safety Resources](#)

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