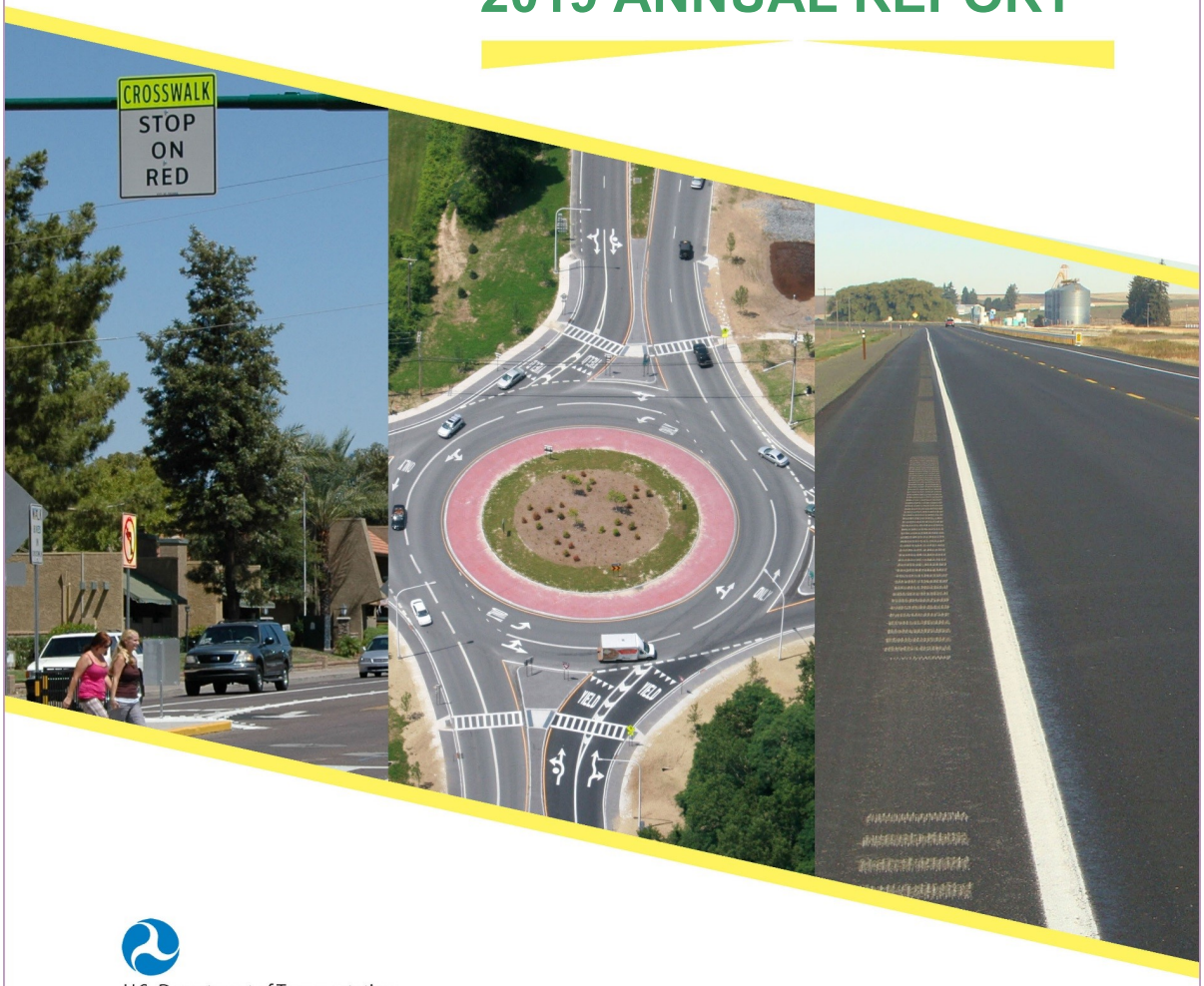
CALIFORNIA

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2019 ANNUAL REPORT



U.S. Department of Transportation
Federal Highway Administration

Photo source: Federal Highway Administration

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23 U.S.C. 148(h)(4) states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section[HSIP], shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in the reports, surveys, schedules, lists, or other data.”

23 U.S.C. 409 states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.”

Executive Summary

The Moving Ahead for Progress in the 21st Century Act or “MAP-21” (Pub. L. 112-141, 126 Stat. 405), was signed into law July 6, 2012, and continued the Highway Safety Improvement Program (HSIP) as a core program under title 23 United States Code section 148 to reduce fatalities and injuries on all public roadways. Title 23 United States Code section 148(h) requires each state to submit an annual report to the Federal Highway Administration (FHWA) regarding its HSIP implementation and effectiveness and title 23 Code of Federal Regulations sections 924.15(a)(1) and 924.15(a)(2) specify that the report be submitted no later than August 31 of each year. This annual report describes the progress being made to implement projects and the status of program evaluations for the HSIP as described in Title 23 United States Code section 148, and for High-Risk Rural Roads (HR3) (23 U.S.C. § 148(g)). The Railway-Highway Crossings (23 U.S.C. § 130(g)) report is submitted to FHWA directly by the California Public Utility Commission as a separate report. Under the “MAP-21” (Pub. L. 112-141, July 6, 2012; 126 Stat. 405), the High-Risk Rural Roads program was merged into the HSIP for safety improvements on public rural roadways that meet the functional classification requirements of title 23 United States Code section 148(a)(1). In addition to the above, in accordance with title 23 United States Code section 164 repeat intoxicated transfer funds, approximately $60.79 million was obligated for alcohol impaired driving countermeasures. Caltrans' Division of Traffic Operations provided information on the State Highway System (SHS) for this report, and Caltrans' Division of Local Assistance for local roads. Caltrans implements the HSIP for State highways by programming and funding projects in the Collision Reduction Category, one of eight categories that make up the State Highway Operation and Protection Program (SHOPP). The Collision Reduction Category is further divided into two programs: Safety Improvement and Collision Severity Reduction. The Safety Improvement Program is among Caltrans’ top priorities in the SHOPP. The projects evaluated in this report are funded by the Collision Reduction Category, which includes both federal HSIP and State highway funds.

The Fixing America's Surface Transportation (FAST) Act was signed into law on December 4, 2015 and continued the Highway Safety Improvement Program (HSIP) with only minor changes. The FAST Act confirmed the overall purpose of this program is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads through the implementation of infrastructure-related highway safety improvements.

Caltrans uses collision data from California Highway Patrol’s SWITRS (Statewide Integrated Traffic Record System) database. Collision data for the state highway system is imported into the Transportation System Network (TSN) Caltrans database, which includes volume and inventory data.

Introduction

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. As per 23 U.S.C. 148(h) and 23 CFR 924.15, States are required to report annually on the progress being made to advance HSIP implementation and evaluation efforts. The format of this report is consistent with the HSIP Reporting Guidance dated December 29, 2016 and consists of five sections: program structure, progress in implementing highway safety improvement projects, progress in achieving safety outcomes and performance targets, effectiveness of the improvements and compliance assessment.

Program Structure

Program Administration

Describe the general structure of the HSIP in the State.

Caltrans Division of Traffic Operations addresses the state highway system and Caltrans Division of Local Assistance administers the HSIP funds for local and tribal roads.

Where is HSIP staff located within the State DOT?

Other-Division of Traffic Operations and Division of Local Assistance

How are HSIP funds allocated in a State?

- Central Office via Statewide Competitive Application Process
- SHSP Emphasis Area Data

Describe how local and tribal roads are addressed as part of HSIP.

Caltrans Division of Local Assistance (DLA) uses an HSIP application benefit-cost tool to provide a consistent, data-driven methodology for ranking local roadway (non-State owned and operated) project applications on a statewide basis. This tool, known as HSIP Analyzer was developed by DLA. DLA also provides the Local Roadway Safety Manual for California local road owners and directly incorporates UC Berkeley's Transportation Injury Mapping System website to assist applicants applying for local HSIP funds. These tools and resources encourage local agencies to proactively analyze their roadway networks for the highest crash locations and develop and submit applications with the greatest chance of reducing fatalities and serious injuries using low cost proven systemic countermeasures. The DLA HSIP application process is also open and available to the tribes that would like to submit an application for HSIP funds.

Identify which internal partners (e.g., State departments of transportation (DOTs) Bureaus, Divisions) are involved with HSIP planning.

- Design
- Districts/Regions
- Local Aid Programs Office/Division
- Operations
- Planning

- Traffic Engineering/Safety
- Other-Research Innovation and System Information

Describe coordination with internal partners.

On the State Highway System, the Traffic Safety Program in Headquarters within the Division of Traffic Operations works with the Division of Planning, Division of Design, Division of Programming, Division of Research Innovation and System Information, and 12 Caltrans district offices to develop Project Initiation Documents to program projects.

For local roads, DLA staff manages the local agency share of HSIP funds with inputs from the Local HSIP Advisory Committee. The DLA prepares the HSIP guidelines and solicits project applications from local agencies and tribes. Additionally, Office of Federal Programs in DLA has been actively supporting the local agencies to develop their own local road safety plans.

Traffic Operations quarterly provides a list of high collision concentration locations to 12 districts. Each district's traffic investigation unit is required to investigate and respond with possible safety improvement recommendation and countermeasures. Traffic Operations is to concur with district's response and recommendation before any major safety improvement project can be initiated.

Identify which external partners are involved with HSIP planning.

- Academia/University
- FHWA
- Governors Highway Safety Office
- Law Enforcement Agency
- Local Government Agency
- Local Technical Assistance Program
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
- Tribal Agency

Describe coordination with external partners.

Caltrans has been working with 400 stakeholders from 170 public & private agencies including tribal agencies, local technical assistance program, and universities to develop CA-SHSP. Projects developed are consistent with SHSP strategies. Caltrans' DLA with local agencies are involved in planning projects on local roads. California started work on their SHSP update in July of 2018 and will be completed in December of 2019. Additional stakeholders and agencies will be asked to participate, which in turn will make for better HSIP projects and help to reduce fatal and serious injuries.

Caltrans coordinates with FHWA by asking for guidance and interpretation of HSIP funding criteria and other FHWA legislative requirements.

Describe HSIP program administration practices that have changed since the last reporting period.

The Pedestrian Monitoring program was launched on July 20, 2016. The Bicycle Monitoring program was launched on April 20, 2018.

Program Methodology

Does the State have an HSIP manual or similar that clearly describes HSIP planning, implementation and evaluation processes?

Yes
FileName:
2017 STATE HSIP GUIDELINES FINAL.pdf

Select the programs that are administered under the HSIP.

- Bicycle Safety
- HSIP (no subprograms)
- Local Safety
- Median Barrier
- Pedestrian Safety
- Roadway Departure
- Wrong Way Driving
- Other--2 and 3 Ln Cross Centerline Collision Monitoring Pro

Program: Bicycle Safety

Date of Program Methodology:4/20/2018

What is the justification for this program?

- Addresses SHSP priority or emphasis area
- Other-High Collision Concentration Location

What is the funding approach for this program?

Other-State is set-aside funding. DLA both competes with all projects and set-aside.

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes Fatal and serious injury crashes only	Volume Lane miles	Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Competitive application process
- Other-compete with all projects and funding is set aside.
- Other-Data and Criteria

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Other-meet minimum criteria:100

On the California State Highway System, if a proposed project meets data requirement and approved countermeasures, it will be funded from the set-side funding.
DLA does not have a bicycle safety improvement monitoring program; however, it has bicycle safety improvement projects that competes with all the benefit cost projects as well as the set-aside funding.

Program: HSIP (no subprograms)

Date of Program Methodology:6/20/2017

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes	Volume	Median width
Fatal and serious injury crashes only	Lane miles	Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Competitive application process
- Other-meet minimum criteria

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Other-meet minimum criteria:100

Program: Local Safety

Date of Program Methodology:1/1/2015

What is the justification for this program?

- Addresses SHSP priority or emphasis area
- FHWA focused approach to safety

What is the funding approach for this program?

Other-Competes with all other safety projects and set-aside funding

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes		

What project identification methodology was used for this program?

- Crash frequency

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

Are local road projects identified using the same methodology as state roads?

No

Describe the methodology used to identify local road projects as part of this program.

Local Agencies take the lead in identifying projects within their own juristrictions

How are projects under this program advanced for implementation?

- Competitive application process

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Ranking based on B/C:1
Available funding:2
Other-set asides:1

Program: Median Barrier

Date of Program Methodology:11/15/1977

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes Fatal crashes only	Volume	Median width Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Other-Any project that meets the established Median Barrier criteria for project selection can be programmed

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Other-Collision and volume warrants:100

Program: Pedestrian Safety

Date of Program Methodology:7/20/2016

What is the justification for this program?

- Addresses SHSP priority or emphasis area
- Other-High Collision Concentration Location

What is the funding approach for this program?

Other-State is set-aside. DLA both competes with all projects and set-aside.

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes Fatal and serious injury crashes only	Volume Lane miles	Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Competitive application process

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must

equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Other-meet minimum criteria:100

On the California State Highway System, if a proposed project meets data requirement and approved countermeasures, it will be funded from the set-side funding.
DLA does not have a pedestrian safety improvement monitoring program; however, it has pedestrian safety improvement projects that competes with all the benefit cost projects as well as the set-aside funding.

Program: Roadway Departure

Date of Program Methodology:11/15/2004

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
Other-see the optional description	Volume Lane miles Other-Fatal and injury crashes on Wet Pavement	Functional classification Roadside features Other-Fatal and injury crashes resulting in Overturned Vehicle

What project identification methodology was used for this program?

- Crash frequency
- Crash rate
- Other-see the optional description for this question

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Other-see the optional description for this question

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization.

Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Other-100% top 25% of run-off-road concentration locations with higher scores +100% of identified long segments selected based on collision frequency, roadway type, geometric characteristics and traffic volume. :100
Total Relative Weight:100

Program: Wrong Way Driving

Date of Program Methodology:1/15/1985

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes Fatal and serious injury crashes only	Volume Lane miles	Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Competitive application process

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must

equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Other-crash frequency and crash rate:100
Total Relative Weight:100

Program: Other--2 and 3 Ln Cross Centerline Collision Monitoring Pro

Date of Program Methodology:1/15/1985

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
Fatal crashes only Other-See optional description pertaining to this subprogram	Volume Lane miles	Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Other-All projects meeting established criteria can be programmed

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must

equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Other-Crash frequency and rate :100
Total Relative Weight:100

What percentage of HSIP funds address systemic improvements?

73

HSIP funds are used to address which of the following systemic improvements?

- Add/Upgrade/Modify/Remove Traffic Signal
- Cable Median Barriers
- Clear Zone Improvements
- High friction surface treatment
- Horizontal curve signs
- Install/Improve Lighting
- Install/Improve Pavement Marking and/or Delineation
- Install/Improve Signing
- Other-Median Barrier
- Pavement/Shoulder Widening
- Rumble Strips
- Safety Edge
- Traffic Control Device Rehabilitation
- Upgrade Guard Rails
- Wrong way driving treatments

California does incorporate tapered edge (also known as safety edge) systemically in projects; however, has not used HSIP funds to fund tapered edge projects.

What process is used to identify potential countermeasures?

- Crash data analysis
- Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)
- Engineering Study
- Road Safety Assessment
- SHSP/Local road safety plan
- Stakeholder input

Does the State HSIP consider connected vehicles and ITS technologies?

No

The team has not met yet. It's premature at this time to make determination at this time. Emerging technologies is a new challenge area in the SHSP 2020 - 2024. When the State HSIP has data on emerging technologies, the state will report on the HSIP annual report.

Does the State use the Highway Safety Manual to support HSIP efforts?

Yes

Please describe how the State uses the HSM to support HSIP efforts.

HSM training classes have been conducted. The state HSIP program is Integrating HSM methodology into the network screening and cost/benefit processes with a 2020 goal.

Describe other aspects of the HSIP methodology on which the State would like to elaborate.

For the most part, Local HSIP and State highway HSIP use the cost/benefit methodology as a qualifying criteria for HSIP funds with some differences. For State highway HSIP, the benefit / cost tool, called the safety index, is used for projects at spot locations whereas Local HSIP utilizes the benefit / cost methodology for both spot and systemic type of projects. For the State highway HSIP, the systemic approach is accomplished through various monitoring programs, like the Cross Median Collision Monitoring Program or the Two and Three Lane Cross Centerline Collision Monitoring Program. The Local HSIP utilizes set asides for low cost countermeasures, such as pedestrian crossing enhancements at non-signalized locations, horizontal curve signing and guardrail upgrades. These set asides do not require crash data to receive HSIP funding but is limited to a maximum dollar amount per agency and only specific low cost countermeasures can be selected.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

State Fiscal Year

Based on state fiscal year calendar - July 1, 2018 - Jun 30, 2019

Funding Category Descriptions: HSIP (23 U.S.C 148) is Federal HSIP Funding for Caltrans State and Local side; State and Local Funds are combination of Federal HSIP Funding and State HSIP Funding, which includes State Highway Operation and Protection Program (SHOPP) funds.

Penalty Funds and Other Federal-aid Funds are included in the programmed State HSIP until funds are obligated for specific projects and phases.

Enter the programmed and obligated funding for each applicable funding category.

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$351,675,000	$263,503,541	74.93%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$0	$0	0%
Penalty Funds (23 U.S.C. 154)	$0	$0	0%
Penalty Funds (23 U.S.C. 164)	$75,079,552	$64,769,867	86.27%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	$0	$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	$14,000,000	$14,646,221	104.62%
State and Local Funds	$89,000,000	$86,552,664	97.25%
Local HSIP (23 U.S.C 148)	$109,800,000	$90,680,598	82.59%
Totals	$639,554,552	$520,152,891	81.33%

How much funding is programmed to local (non-state owned and operated) or tribal safety projects?

$109,800,000

How much funding is obligated to local or tribal safety projects?

$90,680,598

Tribal Funding projects for this question were recently programmed in last FTIP, Obligations will be reported in future reports.

How much funding is programmed to non-infrastructure safety projects?

$14,000,000

How much funding is obligated to non-infrastructure safety projects?

$14,646,221

How much funding was transferred in to the HSIP from other core program areas during the reporting period under 23 U.S.C. 126?

$0

How much funding was transferred out of the HSIP to other core program areas during the reporting period under 23 U.S.C. 126?

$0

Caltrans contributes 2.5 to 3 times the Federal HSIP amount every year in addition to the Federal HSIP funds from the SHOPP.

Discuss impediments to obligating HSIP funds and plans to overcome this challenge in the future.

In the past years, local HSIP project delivery has been enforced through (1) monthly update of delivery status report posted in the DLA website, (2) HSIP manager's phone calls and emails to district focal-point contacts responsible for monitoring project delivery, (3) the set drop-dead dates for late projects in various previous project cycles, (4) requesting local agencies to send HSIP program an official delivery commitment letter for project delay request, and (5) efforts made by various Local HSIP Advisory Committee members. This has proved to be successful and is now a Local HSIP policy that all current projects programmed need to have construction authorization within five years of being programmed. Project delivery delay flags are held in place for PE Authorization and Construction Authorization to alarm local agencies with delayed project flags that they will be ineligible to apply any future HSIP funding until these flags are cleared.

Describe any other aspects of the State's progress in implementing HSIP projects on which the State would like to elaborate.

The DLA continues to investigate, with the help of locals and FHWA the delays caused by unnecessary environmental requirements in streamlining HSIP projects.

The DLA initiated the first ever tribal HSIP set-aside for $2 M for safety improvements on tribal lands. As a result $1.2 M was programmed into the Local HSIP.

General Listing of Projects

List the projects obligated using HSIP funds for the reporting period.

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
01-Hum-101 PM 78.1	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists		Intersections	$6,614,000	$10,016,000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Pedestrians	

For the complete list of projects obligated using HSIP funds, please see attachment list.

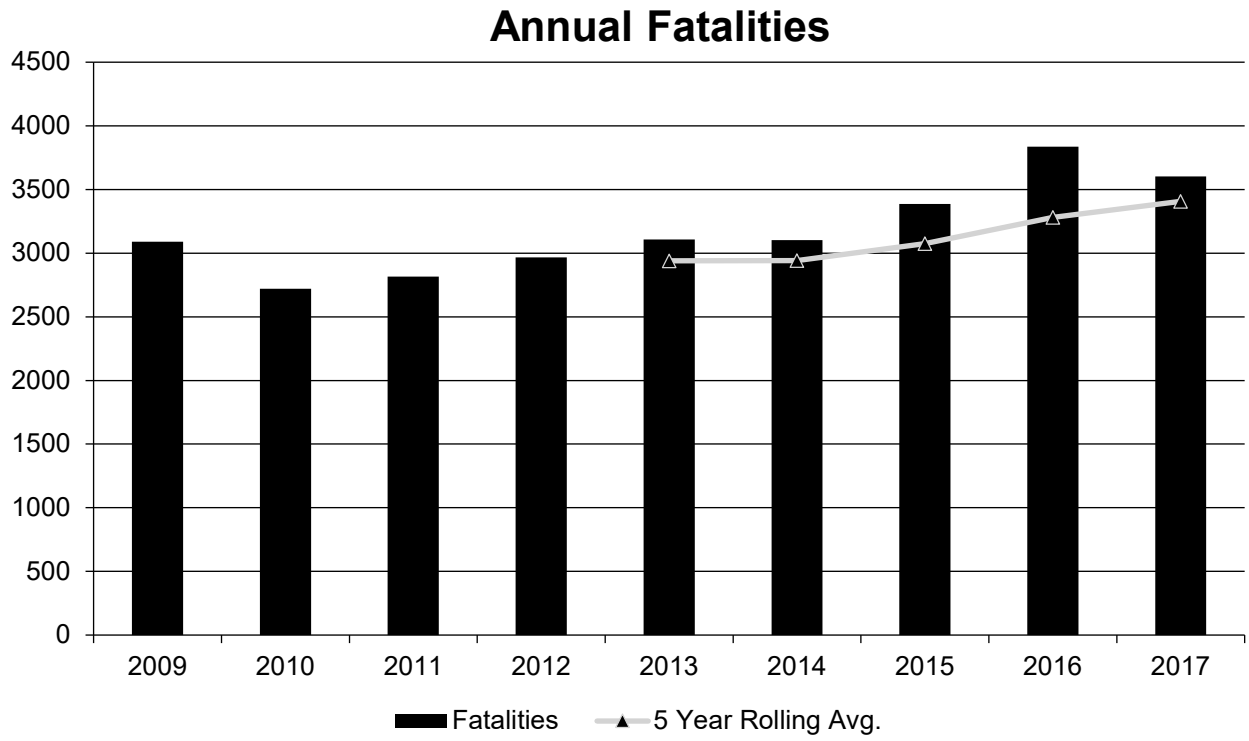
All safety projects using HSIP funding are tied back to one of the current SHSP Challenge Areas. Next year the State HSIP program will include a column in their safety project list showing relationship to SHSP challenge area.

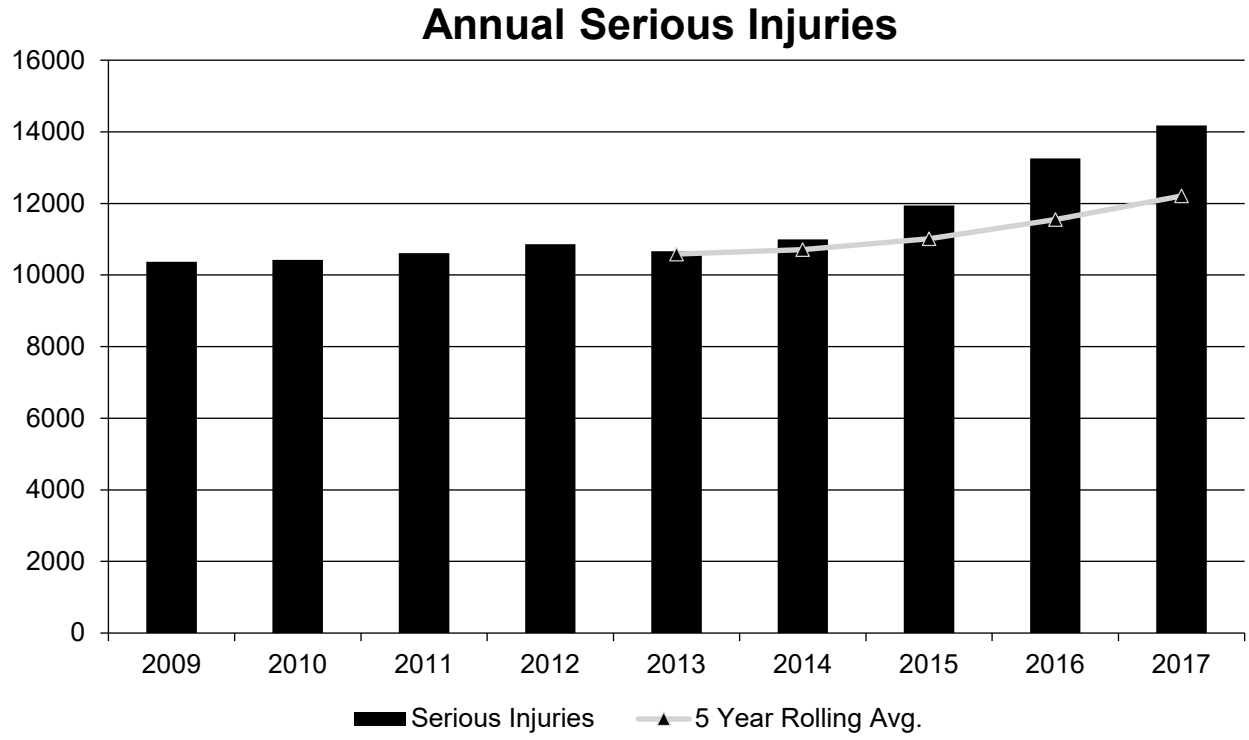
Safety Performance

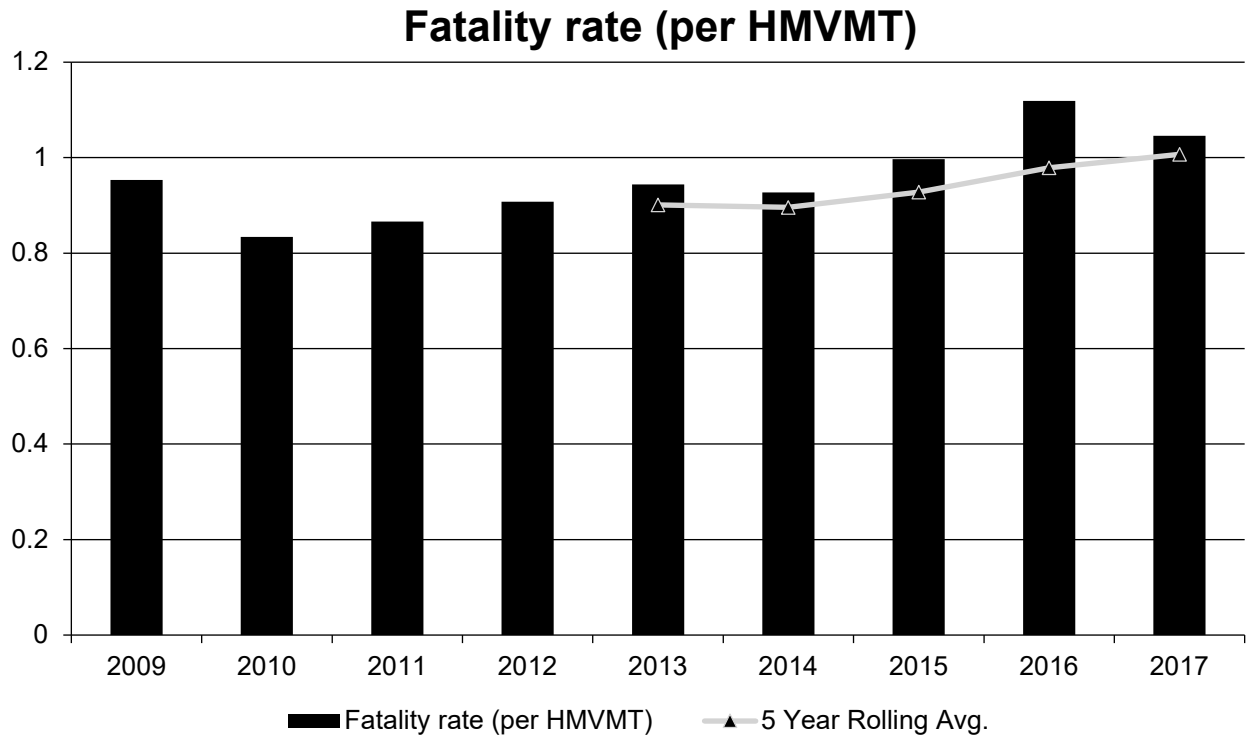
General Highway Safety Trends

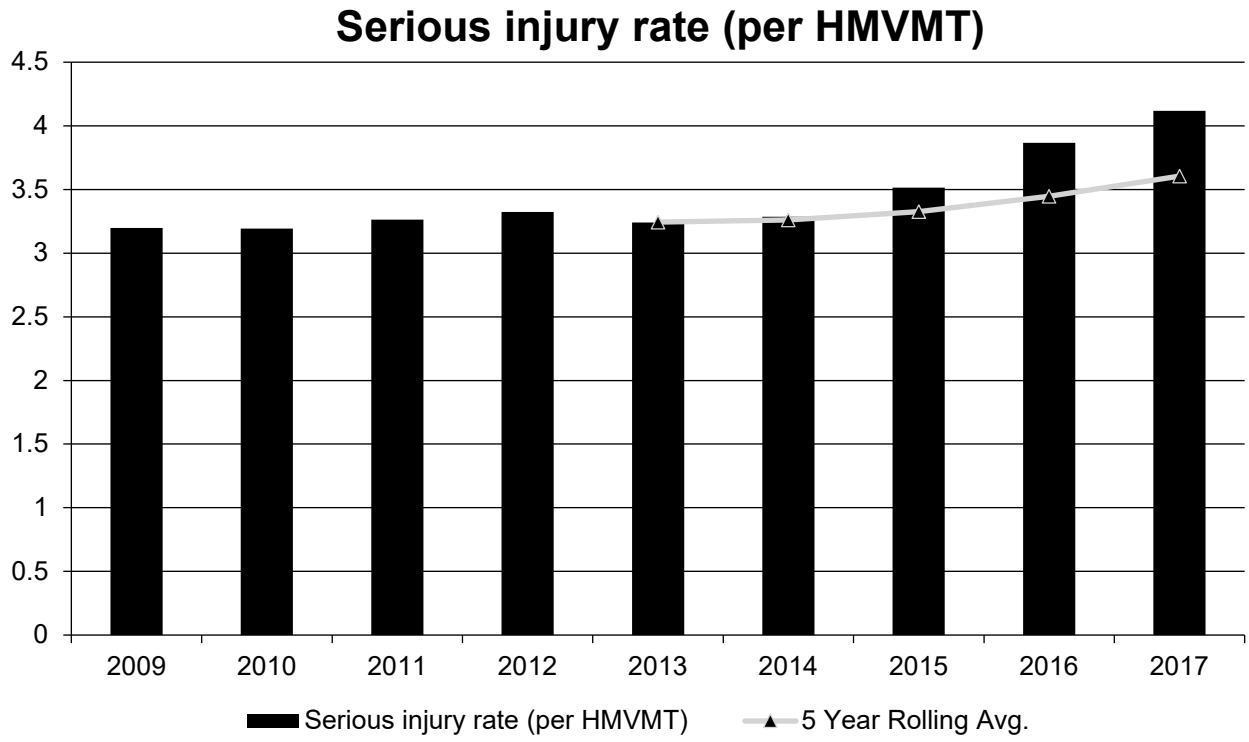
Present data showing the general highway safety trends in the State for the past five years.

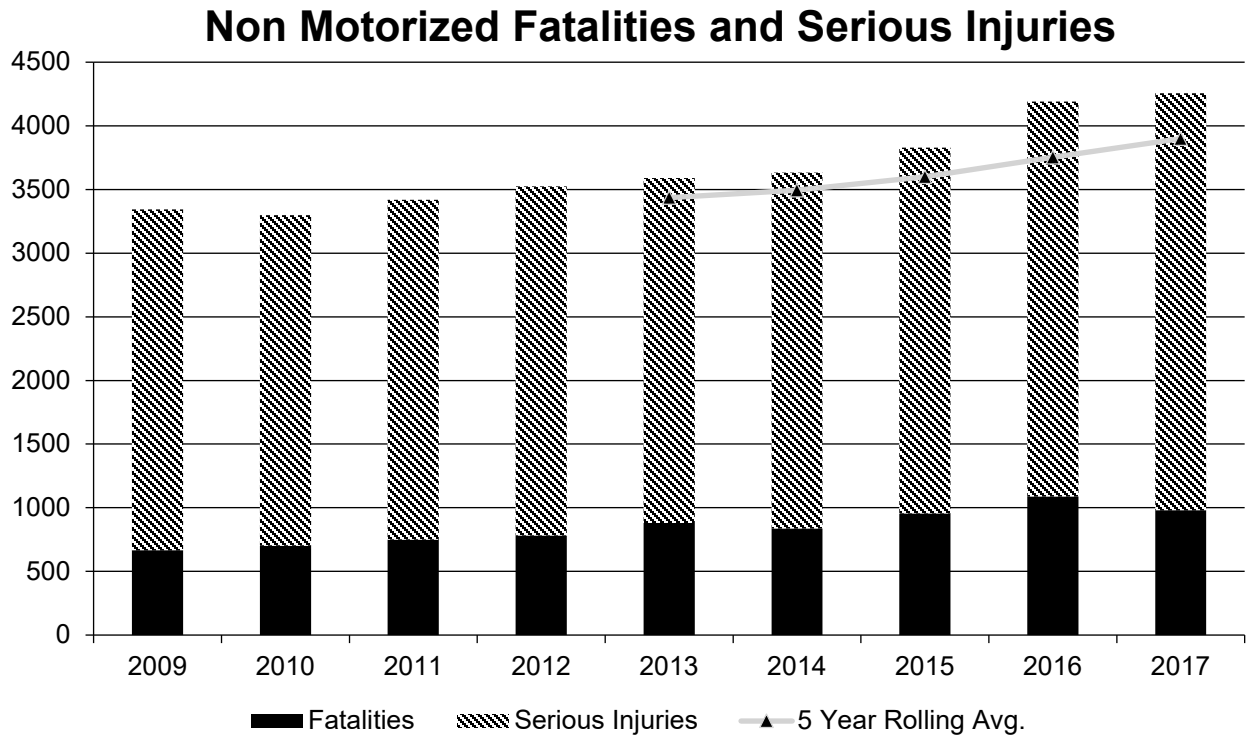
PERFORMANCE MEASURES	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fatalities	3,090	2,720	2,816	2,966	3,107	3,102	3,387	3,837	3,602
Serious Injuries	10,369	10,423	10,607	10,864	10,664	10,995	11,942	13,258	14,180
Fatality rate (per HMVMT)	0.953	0.834	0.866	0.908	0.944	0.927	0.997	1.119	1.046
Serious injury rate (per HMVMT)	3.198	3.194	3.263	3.324	3.240	3.285	3.514	3.867	4.118
Number non-motorized fatalities	666	701	749	782	881	838	955	1,088	982
Number of non-motorized serious injuries	2,678	2,598	2,671	2,743	2,710	2,795	2,874	3,102	3,273


Annual Fatalities
4500
4000
3500
3000
2500
2000
1500
1000
500
0
2009
2010
2011
2012
2013
2014
2015
2016
2017
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
16000
14000
12000
10000
8000
6000
4000
2000
0
2009
2010
2011
2012
2013
2014
2015
2016
2017
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.2
1
0.8
0.6
0.4
0.2
0
2009
2010
2011
2012
2013
2014
2015
2016
2017
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2009
2010
2011
2012
2013
2014
2015
2016
2017
Serious injury rate (per HMVMT)
5 Year Rolling Avg.



Describe fatality data source.

State Motor Vehicle Crash Database

Pull down menu, SWITRS, 2008 to 2017

Caltrans requested the latest Statewide Integrated Traffic Records System (SWITRS) data (raw data that contains all roadway types in CA) available through our external partner - California Highway Patrol. Working on raw data to extract data from Caltrans state highway system has been a challenge to achieve high level of confidence.

We also use FARS to cross check our numbers. Caltrans used SWITRS data for their numbers and rates.

To the maximum extent possible, present this data by functional classification and ownership.

Year 2017

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial (RPA) - Interstate				
Rural Principal Arterial (RPA) - Other Freeways and Expressways	1,462	4,467	2.67	8.16

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial (RPA) - Other				
Rural Minor Arterial				
Rural Minor Collector				
Rural Major Collector				
Rural Local Road or Street				
Urban Principal Arterial (UPA) - Interstate				
Urban Principal Arterial (UPA) - Other Freeways and Expressways	2,119			
Urban Principal Arterial (UPA) - Other				
Urban Minor Arterial				
Urban Minor Collector				
Urban Major Collector				
Urban Local Road or Street				

Year 2017

Roadways	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
State Highway Agency	3,457	12,444.6		
County Highway Agency				
Town or Township Highway Agency				
City or Municipal Highway Agency				
State Park, Forest, or Reservation Agency				
Local Park, Forest or Reservation Agency				
Other State Agency				
Other Local Agency				
Private (Other than Railroad)				
Railroad				
State Toll Authority				
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation				
Urban State Hwy	602.6	1,936.4		
Urban Non-State Hwy	1,289.4	4,807.8		
Rural State Hwy	698.6	1,742		
Rural Non-State Way	616.6	2,065.8		

Provide additional discussion related to general highway safety trends.

The general trend in fatalities, serious injuries, non-motorized fatal and serious injuries and the rates are on an upward trend; however, the trend may be leveling off in looking at 2017 data. More will be known with 2018 and 2019 data."

Safety Performance Targets

Safety Performance Targets

Calendar Year 2020 Targets *

Number of Fatalities:3518.0

Describe the basis for established target, including how it supports SHSP goals.

The fatality numbers are the latest recorded data in FARS. From 2017 to 2050, fatalities decrease to zero by the end of December 2049.

Number of Serious Injuries:13740.4

Describe the basis for established target, including how it supports SHSP goals.

The current data that is available in SWITRS. The number of serious injuries to decrease 1.5% from 2017 - 2050. The 5 year rolling average target for 2020.

Fatality Rate:1.023

Describe the basis for established target, including how it supports SHSP goals.

5 year rolling average for fatality rates.

Serious Injury Rate:3.994

Describe the basis for established target, including how it supports SHSP goals.

5 year rolling average for serious injuries

Total Number of Non-Motorized Fatalities and Serious Injuries:4147.4

Describe the basis for established target, including how it supports SHSP goals.

5 year rolling average. 1.5% decrease per year for serious injuries with fatalities decreasing to zero by the end of December 2049.

Describe efforts to coordinate with other stakeholders (e.g. MPOs, SHSO) to establish safety performance targets.

The state had a workshop on May 8, 2019 with MPOs and other stakeholders to set the safety performance targets for 2020.

Does the State want to report additional optional targets?

No

Describe progress toward meeting the State's 2018 Safety Performance Targets (based on data available at the time of reporting). For each target, include a discussion of any reasons for differences in the actual outcomes and targets.

We do not have 2018 data available at this time to make a determination regarding the 2018 performance targets. The targets set are aggressive and the data trend shows continual growth in ADT and collision increases from year to year.

Applicability of Special Rules

Does the HRRR special rule apply to the State for this reporting period?
No

The HRRR special rules does not apply to California for this reporting period, as it has been determined that the 5 year average fatality rate on rural roads in California does not increase from 2009 - 2013 to 2013 - 2017.

Provide the number of older driver and pedestrian fatalities and serious injuries 65 years of age and older for the past seven years.

PERFORMANCE MEASURES	2011	2012	2013	2014	2015	2016	2017
Number of Older Driver and Pedestrian Fatalities	156	172	185	190	198	205	206
Number of Older Driver and Pedestrian Serious Injuries	184	227	206	223	288	323	295

The latest data available is through 2017.

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

- Benefit/Cost Ratio
- Change in fatalities and serious injuries
- Other-3-year before & after

There are 3 levels of Evaluation to determine the effectiveness of overall HSIP Program: (1) Evaluation of Approved Countermeasures, (2) Evaluation of approved projects, and (3) Evaluation of various Safety and monitoring Programs within the HSIP Program. California state DOT, normally, performs at least one level of Evaluations annually by comparing fatality , injury, PDO from 3 year before and 3- year after, and including Benefit - Cost Analysis to determine whether a low-cost and effective countermeasure does reduce certain type of collisions and patterns. DLA does a preliminary screening for approving safety improvement projects by using method of Benefit-Cost Analysis and data criteria. It has not measured effectiveness from a 3-year before and after evaluation until 2020 due to a lack of 3-year after collision data.

Based on the measures of effectiveness selected previously, describe the results of the State's program level evaluations.

The California State HSIP program has reduced a significant number of collisions for specific collision types and patterns in the past 10 years even though the overall other-type of collisions are increasing as well as the ADDT. Local Assistance does not currently evaluate the effectiveness of HSIP funded projects on local roads, however they plan to evaluate the effectiveness starting in the year 2020.

What other indicators of success does the State use to demonstrate effectiveness and success of the Highway Safety Improvement Program?

- # RSAs completed
- HSIP Obligations
- Increased awareness of safety and data-driven process
- Increased focus on local road safety
- More systemic programs

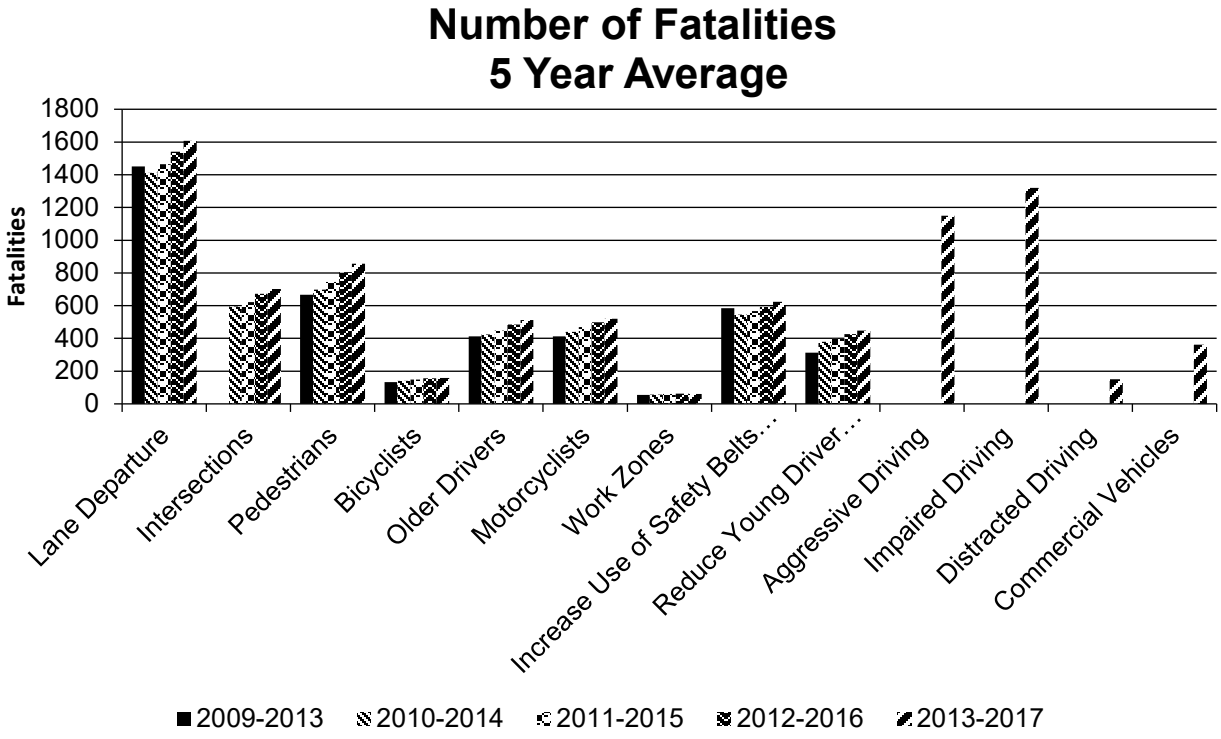
Effectiveness of Groupings or Similar Types of Improvements

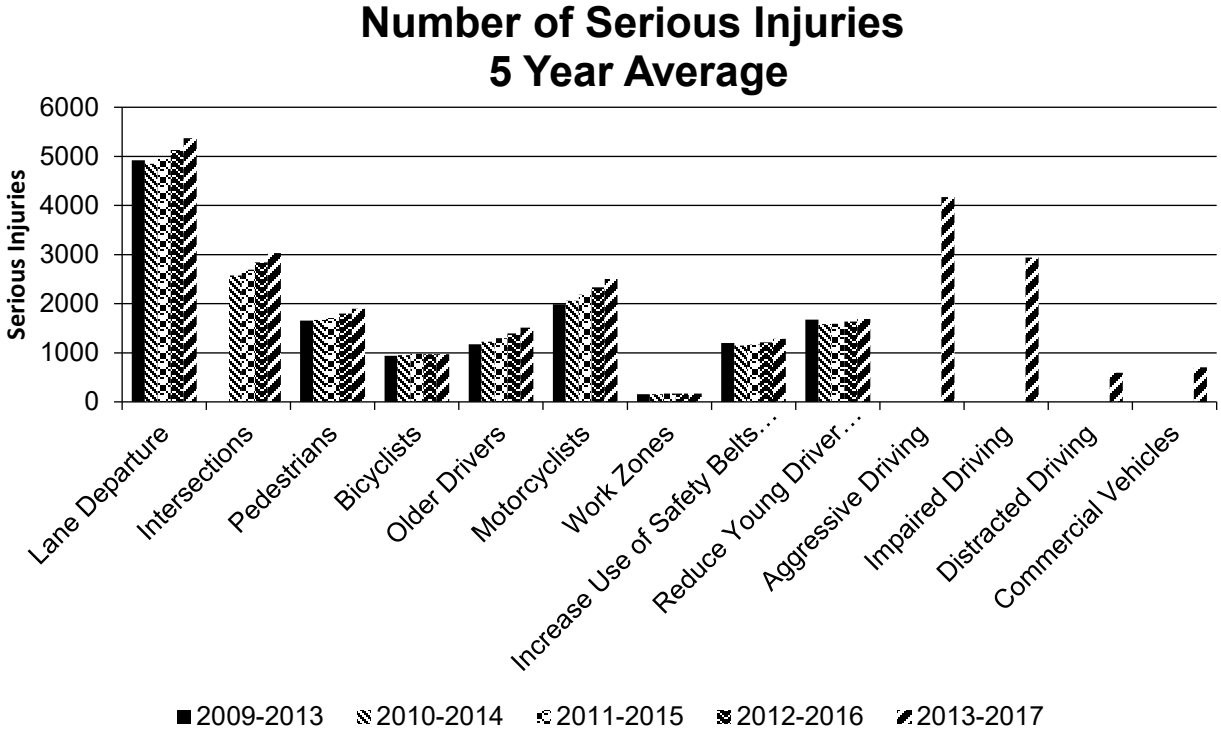
Present and describe trends in SHSP emphasis area performance measures.

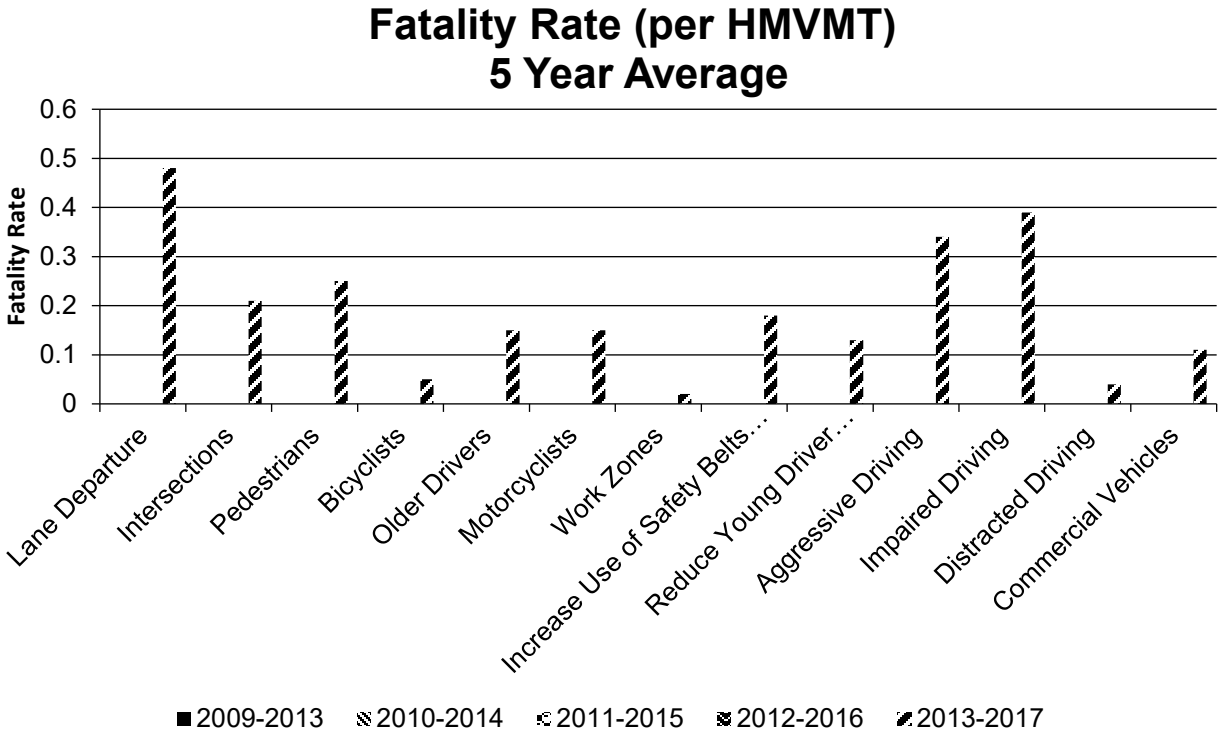
Year 2017

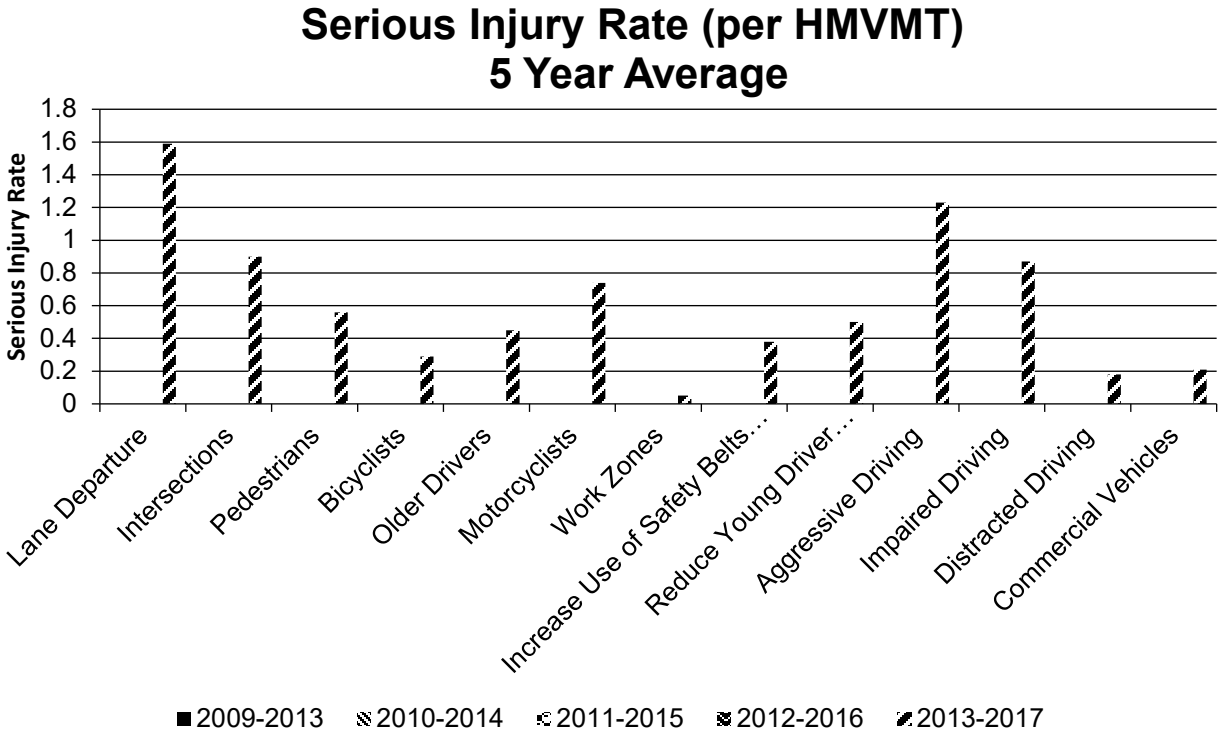
SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Lane Departure		1,607.6	5,369.4	0.48	1.59
Intersections		702.4	3,032.4	0.21	0.9

SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Pedestrians		856.6	1,898.6	0.25	0.56
Bicyclists		158.8	968.6	0.05	0.29
Older Drivers		513.2	1,511	0.15	0.45
Motorcyclists		520.6	2,502	0.15	0.74
Work Zones		60.2	170.6	0.02	0.05
Increase Use of Safety Belts and Child Safety Seats		623	1,287	0.18	0.38
Reduce Young Driver Fatalities		447	1,690.8	0.13	0.5
Aggressive Driving		1,149	4,174	0.34	1.23
Impaired Driving		1,319	2,936	0.39	0.87
Distracted Driving		150	596	0.04	0.18
Commercial Vehicles		361	703	0.11	0.21


Number of Fatalities
5 Year Average
Fatalities
1800
1600
1400
1200
1000
800
600
400
200
0
Lane Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Increase Use of Safety Belts…
Reduce Young Driver…
Aggressive Driving
Impaired Driving
Distracted Driving
Commercial Vehicles
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017


Number of Serious Injuries
5 Year Average
Serious Injuries
6000
5000
4000
3000
2000
1000
0
Lane Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Increase Use of Safety Belts…
Reduce Young Driver…
Aggressive Driving
Impaired Driving
Distracted Driving
Commercial Vehicles
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017





Has the State completed any countermeasure effectiveness evaluations during the reporting period?

No

Caltrans has not completed any countermeasure effectiveness evaluations during the reporting period.

Caltrans seldom conducts countermeasure effectiveness evaluations and typically refers to the CMF clearinghouse for countermeasure effectiveness.

Project Effectiveness

Provide the following information for previously implemented projects that the State evaluated this reporting period.

LOCATION	FUNCTIONAL CLASS	IMPROVEMENT CATEGORY	IMPROVEMENT TYPE	PDO BEFORE	PDO AFTER	FATALITY BEFORE	FATALITY AFTER	SERIOUS INJURY BEFORE	SERIOUS INJURY AFTER	ALL OTHER INJURY BEFORE	ALL OTHER INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
01-HUM-299-PM 19.3/19.8		Roadway	Roadway widening - curve	2.00	2.00							2.00	2.00	
01-HUM-101-PM 86.3/87.8		Roadside	Barrier - cable	29.00	30.00	2.00		13.00	11.00			44.00	41.00	6.82
01-MEN-101-PM 50.7/51.2		Roadway	Roadway - other	10.00	5.00	1.00	1.00	15.00	4.00			26.00	10.00	61.54
03-SUT-099 PM 13.7		Shoulder treatments	Shoulder treatments - other	36.00	73.00	5.00	5.00	39.00	57.00			80.00	135.00	-68.75
03-yol-113 PM21.8		Roadside	Barrier - other	3.00	3.00			1.00				4.00	3.00	25
04-SCL-009 PM 2.5/7.0		Roadway	Roadway widening - add lane(s) along segment	44.00	30.00	1.00	1.00	43.00	32.00			88.00	63.00	28.4
04-SCL-152 PM19.5		Roadway	Roadway - other	37.00	43.00			15.00	27.00			52.00	70.00	-33
04-SOL-012 PM 20.6/21.3		Intersection geometry	Intersection geometrics - miscellaneous/other/unspecified	1.00	5.00							1.00	5.00	-400
04-ALA-061 PM 19.20/0.00		Roadside	Drainage improvements	10.00	12.00			9.00	4.00			19.00	16.00	15.79
04-SON-101 PM 25.0/29.30		Interchange design	Convert at-grade intersection to interchange	81.00	139.00		3.00	49.00	83.00			130.00	225.00	-73.08
05-SCR-001- PM 9.70/17.60		Roadside	Barrier - concrete	601.00	578.00		4.00	328.00	240.00			929.00	822.00	11.52
05-SBT-025 PM 18.80/19.50		Roadway	Roadway widening - curve	1.00								1.00		100
05-MON-001 PM R77.6/R78.1		Roadway	Roadway - other	33.00	59.00			13.00	39.00			46.00	98.00	
05-SCR-017 PM9.4/10.1		Shoulder treatments	Widen shoulder - paved or other	125.00	104.00	1.00		63.00	42.00			189.00	146.00	22.75
05-MON-101 PM 57.1/60.8		Roadside	Barrier - concrete	39.00	64.00					17.00	12.00	56.00	76.00	-35.71
05-SB-101 PM13.0/22.80		Roadway signs and traffic control	Sign sheeting - upgrade or replacement	627.00	679.00	3.00	4.00	259.00	289.00			889.00	972.00	-9.34

LOCATION	FUNCTIONAL CLASS	IMPROVEMENT CATEGORY	IMPROVEMENT TYPE	PDO BEFORE	PDO AFTER	FATALITY BEFORE	FATALITY AFTER	SERIOUS INJURY BEFORE	SERIOUS INJURY AFTER	ALL OTHER INJURY BEFORE	ALL OTHER INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
06-FRE-145 PM 32.80/33.40		Intersection traffic control	Modify control - no control to roundabout	8.00	8.00			5.00	2.00			13.00	10.00	23.08
06-KER-099 PM 24.60/0.0		Intersection geometry	Auxiliary lanes - modify right-turn lane offset	65.00	90.00			22.00	46.00			87.00	136.00	-56.32
06-FRE-041 PM 24.5/24.8		Roadside	Barrier - concrete	17.00	11.00			14.00	4.00			31.00	15.00	51.61
06-FRE-041 PM 25.2/31.7		Roadside	Barrier - concrete	429.00	627.00		4.00	258.00	318.00			687.00	949.00	-38.14
06-KER-058 PM36.30/39.9		Roadway	Roadway widening - travel lanes	17.00	5.00			4.00	7.00			21.00	12.00	42.86
06-MAD-152 PM 0.0/1.1		Roadway	Rumble strips - center	1.00	2.00		4.00	6.00	7.00			7.00	13.00	-85.71
07-LA-010 PM R4.929/14.803		Roadway	Rumble strips - center	2578.00	2744.00	7.00	5.00	987.00	1312.00			3572.00	4061.00	-13.69
07-VEN-101 PM5.168/5.269		Intersection traffic control	Modify traffic signal - add additional signal heads	18.00				7.00				25.00		
07-LA-105 PMR0.54/R0.051		Roadway	Pavement surface - high friction surface	7.00	6.00		1.00	1.00	6.00			8.00	13.00	-62.5
07-LA-105 PM R0.951/R 4.94		Roadway	Roadway - other	356.00	599.00	1.00		133.00	286.00			490.00	885.00	-198.98
07-LA-134 PM 10.8/11.50		Roadway	Rumble strips - center	63.00	81.00	1.00		31.00	33.00			95.00	114.00	-20
08-sbd-095 PM 51.2/51.6		Roadway	Pavement surface - miscellaneous	1.00								1.00		100
08-SBD-018 PM 59.7/65.0		Roadway	Rumble strips - center	9.00	18.00		1.00	26.00	24.00			35.00	43.00	-22.86
08-SBD-395 PM 16.225/16.225		Intersection geometry	Auxiliary lanes - add left-turn lane	16.00	7.00			14.00	1.00			30.00	8.00	73.33
09-MNO-006 PM 0.66/2.06		Roadway	Roadway widening - travel lanes	1.00								1.00		100
10-SJ-088 PM 6.1/8.9		Roadside	Barrier transitions	15.00	9.00	1.00		12.00	21.00			28.00	30.00	-7.14
10-MER-140 PM40.7		Intersection traffic control	Intersection flashers - add miscellaneous/other/unspecified	5.00	4.00			7.00	5.00			12.00	9.00	25
10-STA-108 PM 33.1/36.1		Roadway	Rumble strips - unspecified or other	30.00	29.00	1.00	2.00	20.00	33.00			51.00	64.00	-25.49
10-AMA-016 PM 0.0/2.5		Roadway	Rumble strips - unspecified or other	3.00	1.00		1.00	5.00	2.00			8.00	4.00	50

2019 California Highway Safety Improvement Program

LOCATION	FUNCTIONAL CLASS	IMPROVEMENT CATEGORY	IMPROVEMENT TYPE	PDO BEFORE	PDO AFTER	FATALITY BEFORE	FATALITY AFTER	SERIOUS INJURY BEFORE	SERIOUS INJURY AFTER	ALL OTHER INJURY BEFORE	ALL OTHER INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
10-SJ-005 PM41.7/45.9		Roadway	Rumble strips - center	29.00	48.00			15.00	26.00			44.00	74.00	-68.18
10-SJ-088 PM 15.4/19.4		Roadway	Rumble strips - center	14.00	16.00	2.00	4.00	19.00	17.00			35.00	37.00	-5.71
11-SD-005 PM12.6/72.2		Roadway	Roadway - other	3060.00	4392.00	28.00	35.00	2093.00	2687.00			5181.00	7114.00	-37.309
11-SD-005 PM 23.9/25.5		Roadside	Barrier - concrete	64.00	69.00	1.00		48.00	63.00			113.00	132.00	-16.81
12-ORA-091 PM 0.3/0.3		Intersection traffic control	Systemic improvements - signal-controlled	1.00	3.00							1.00	3.00	-200
12-ORA-039 PM 7.1/9.6		Lighting	Continuous roadway lighting	193.00	126.00	2.00	2.00	160.00	194.00			355.00	322.00	9.30
12-ORA-039 PM 2.1/6.1		Lighting	Lighting - other	446.00	265.00	2.00	4.00	408.00	433.00			856.00	702.00	18.0

In the following reporting year the sample size being analyzed will be larger and focus on data quality. This before/after project list does not account for volume increase.

Compliance Assessment

What date was the State's current SHSP approved by the Governor or designated State representative?

09/01/2015

What are the years being covered by the current SHSP?

From: 2015 To: 2019

When does the State anticipate completing it's next SHSP update?

2020

The next update to the SHSP is expected in December 2019 with an Implementation Plan is expected in Spring of 2020.

Provide the current status (percent complete) of MIRE fundamental data elements collection efforts using the table below.

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
ROADWAY SEGMENT	Segment Identifier (12)										
	Route Number (8)	100	100								
	Route/Street Name (9)	100	100								
	Federal Aid/Route Type (21)	100	100								
	Rural/Urban Designation (20)	100	100						100		
	Surface Type (23)	100							10		
	Begin Point Segment Descriptor (10)	100	100						100	100	100
	End Point Segment Descriptor (11)	100	100						100	100	100
	Segment Length (13)	100	100								
	Direction of Inventory (18)	100	100								
	Functional Class (19)	100	100						100	100	100
	Median Type (54)	100									
	Access Control (22)	100	100								

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
	One/Two Way Operations (91)	100	100								
	Number of Through Lanes (31)	100	100						100		
	Average Annual Daily Traffic (79)	60	100						100		
	AADT Year (80)	100	100								
	Type of Governmental Ownership (4)	100	100						100		
INTERSECTION	Unique Junction Identifier (120)										
	Location Identifier for Road 1 Crossing Point (122)			100							
	Location Identifier for Road 2 Crossing Point (123)										
	Intersection/Junction Geometry (126)			100							
	Intersection/Junction Traffic Control (131)			100							
	AADT for Each Intersecting Road (79)			100	100						
	AADT Year (80)			100	100						
	Unique Approach Identifier (139)										
INTERCHANGE/RAMP	Unique Interchange Identifier (178)										
	Location Identifier for Roadway at Beginning of Ramp Terminal (197)					100					
	Location Identifier for Roadway at Ending Ramp Terminal (201)										
	Ramp Length (187)										

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
	Roadway Type at Beginning of Ramp Terminal (195)					100					
	Roadway Type at End Ramp Terminal (199)					100					
	Interchange Type (182)					100					
	Ramp AADT (191)					60					
	Year of Ramp AADT (192)					60					
	Functional Class (19)					100					
	Type of Governmental Ownership (4)					100					
Totals (Average Percent Complete):		**92.22**	**83.33**	**62.50**	**25.00**	**65.45**	**0.00**	**0.00**	**78.89**	**60.00**	**60.00**

*Based on Functional Classification

Caltrans is focusing on better data quality and is on schedule to be MIRE FDE compliant come 2026. Caltrans has made significant efforts to get more local involvement in the process.

Describe actions the State will take moving forward to meet the requirement to have complete access to the MIRE fundamental data elements on all public roads by September 30, 2026.

Caltrans will continue with its efforts to continue collecting data and update MIRE Fundamental data elements annually to meet the requirement by September 30, 2026 Division of Local Assistance is preparing a contract that will aid in getting MIRE Fundamental data elements on all non-state public roads.

Did the State conduct an HSIP program assessment during the reporting period?

No

When does the State plan to complete its next HSIP program assessment.

2022

Optional Attachments

Program Structure:

2017 STATE HSIP GUIDELINES FINAL.pdf
Project Implementation:

LOCAL_HSIP_ProjectData_for_2019 HSIP_Annual_Report.xlsx
#29 2019 HSIP Annual Report 18-19 010 projects.xlsx
LOCAL_HSIP_ProjectData_for_2019 HSIP_Annual_Report.xlsx
Safety Performance:

Evaluation:

2017 SWITRS.xls
Compliance Assessment:

Glossary

5 year rolling average: means the average of five individuals, consecutive annual points of data (e.g. annual fatality rate).

Emphasis area: means a highway safety priority in a State's SHSP, identified through a data-driven, collaborative process.

Highway safety improvement project: means strategies, activities and projects on a public road that are consistent with a State strategic highway safety plan and corrects or improves a hazardous road location or feature or addresses a highway safety problem.

HMVMT: means hundred million vehicle miles traveled.

Non-infrastructure projects: are projects that do not result in construction. Examples of non-infrastructure projects include road safety audits, transportation safety planning activities, improvements in the collection and analysis of data, education and outreach, and enforcement activities.

Older driver special rule: applies if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65 in a State increases during the most recent 2-year period for which data are available, as defined in the Older Driver and Pedestrian Special Rule Interim Guidance dated February 13, 2013.

Performance measure: means indicators that enable decision-makers and other stakeholders to monitor changes in system condition and performance against established visions, goals, and objectives.

Programmed funds: mean those funds that have been programmed in the Statewide Transportation Improvement Program (STIP) to be expended on highway safety improvement projects.

Roadway Functional Classification: means the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide.

Strategic Highway Safety Plan (SHSP): means a comprehensive, multi-disciplinary plan, based on safety data developed by a State Department of Transportation in accordance with 23 U.S.C. 148.

Systematic: refers to an approach where an agency deploys countermeasures at all locations across a system.

Systemic safety improvement: means an improvement that is widely implemented based on high risk roadway features that are correlated with specific severe crash types.

Transfer: means, in accordance with provisions of 23 U.S.C. 126, a State may transfer from an apportionment under section 104(b) not to exceed 50 percent of the amount apportioned for the fiscal year to any other apportionment of the State under that section.