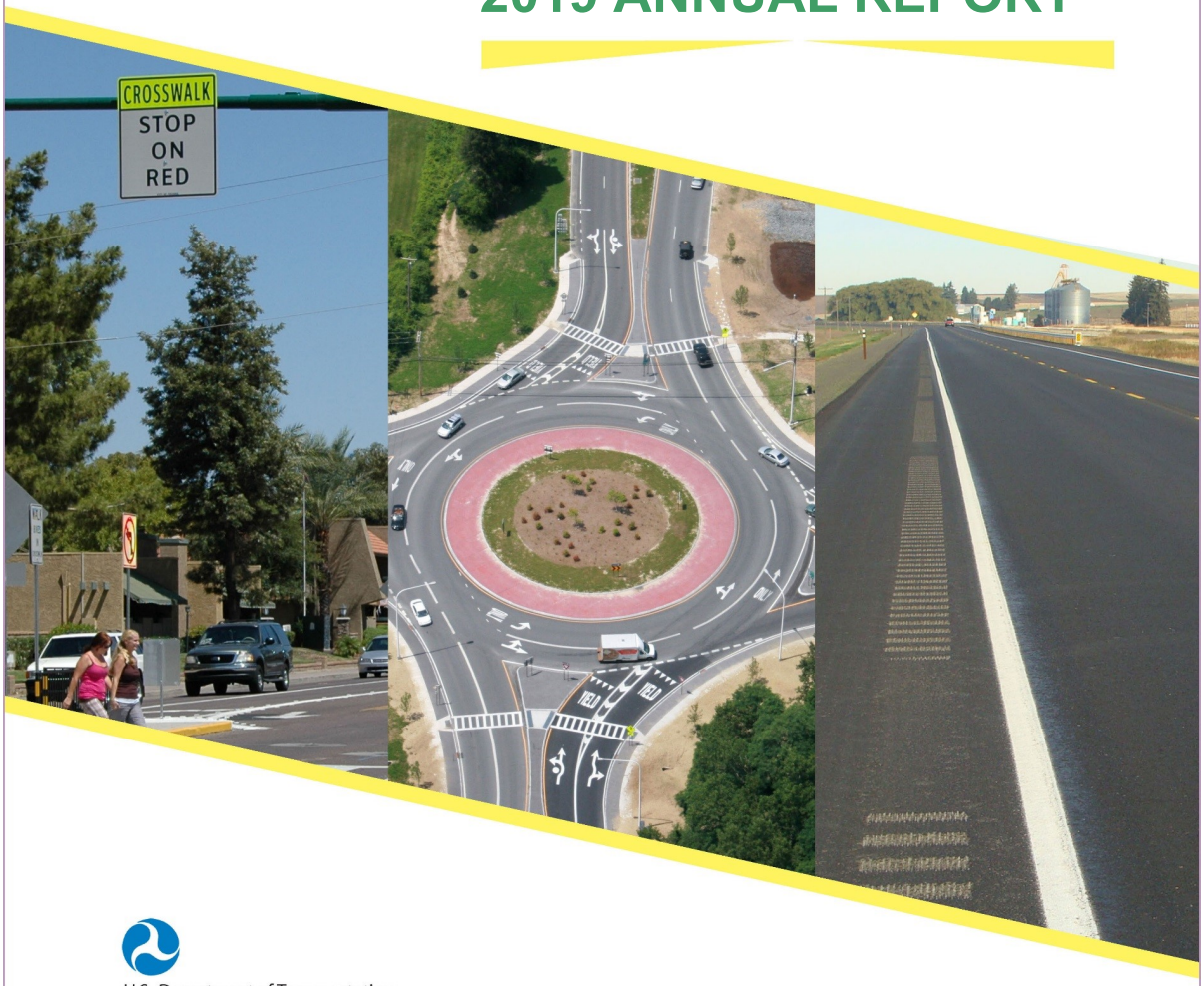
ARIZONA

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2019 ANNUAL REPORT



U.S. Department of Transportation
Federal Highway Administration

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Disclaimer

Protection of Data from Discovery Admission into Evidence

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

This annual report has been prepared by the Arizona Department of Transportation (ADOT), TSM&O Division, Traffic Safety Section (TSS) based on best available data and information collected from various internal and external sources.

Arizona DOT is continuing to make progress in the HSIP implementation on all public roads statewide. ADOT-TSS has been leading the efforts to deliver the HSIP program.

Arizona SHSP has been updated in October 2014 to reflect MAP-21 requirements and FHWA guidance. The SHSP implementation phase began in early 2015. This annual report reflects Arizona 2014 SHSP emphasis areas and performance measures.

NOTE: Data are presented by different reporting periods, e.g. funding data or project listing is given by State Fiscal Year (SFY) whereas annual fatality and serious injury data is by Calendar Year (CY). Fatalities and serious injury tables and charts in the output report are given in 5-year rolling average.

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.

The AZ ADOT HSIP Program Manager issues a call for potential HSIP projects in January of each calendar year. Agencies interested in applying must complete an HSIP application that is updated each year before the call for projects. The application process requires the agency to submit a cover/transmittal letter, a complete application, a cost estimate, a crash data spreadsheet, a B/C ratio calculation sheet, a location map, a project limits map and any warrant studies (if applicable). The documentation is evaluated by the ADOT HSIP Program Manager and staff to determine if the potential project is HSIP eligible, i.e. compliant with 26 USC 148 / 26 CFR 924, a proven safety countermeasure, identify fatal and serious injury crashes that countermeasure can potentially reduce, supports the AZ SHSP, and B/C ratio of equal to or greater than 2.5. The approved HSIP eligible project is then ranked by the HSIP Program Manager based on the B/C ratio." A Safety Review Committee, comprised of FHWA, ADOT staff, COG/MPO's, Inter Tribal Council and locals, reviews and approves the proposed list. The HSIP Program Manager then presents the list to the Director, TSM&O for final ranking and approval. Once the prioritized HSIP eligible list for the year is approved, the HSIP Program Manager issues the approved HSIP eligibility letters and enters the projects in the ADOT Five Year Transportation Facilities Construction Program.

Where is HSIP staff located within the State DOT?

Other-TSM&O

The HSIP staff are members of the ADOT Traffic Safety Section (TSS) which is a component of Operational Traffic and Safety Group under the Transportation Systems Management and Operations (TSMO) Division https://www.azdot.gov/business/tsmo/operational-and-traffic-safety

How are HSIP funds allocated in a State?

- Central Office via Statewide Competitive Application Process

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

Arizona's HSIP funds are available for all public agencies and tribes to apply for as described in the prior general structure of the HSIP in the State. Prior year commitments are first identified and set aside, then 10% of the remaining eligible funds are set aside for unforeseen safety projects, and finally the remaining funds are available for statewide call for projects. ADOT and local public agencies identify high crash locations using any acceptable screening method and develop safety improvement projects. In recent years COGs/MPOs have been provided HSIP funds to develop Strategic Transportation Plans (STSP) with projects to support the State

Strategic Highway Safety Plan (SHSP). ADOT reviews all potential projects on a statewide basis and prioritize projects for funding. ADOT LPA, in consultation with MPOs and COGs, provides assistance to local agencies throughout the process of identifying and developing the projects.

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

- Design
- Districts/Regions
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety
- Other-ADOT Traffic Safety Section (TSS) and Local Public Agency Section (LPAS)

Describe coordination with internal partners.

Safety analyses begin with the compilation and correlation of data elements on a statewide system. Coordination takes place within ADOT including the State Engineer's Office, the Director's Office, Project Managers, District Engineers and others involved in safety projects as well as the Department of Public Safety (State enforcement agency). Once the project is identified, depending on the nature of the project, justification of HSIP funding through evaluation and formal eligibility process is established by ADOT and FHWA Arizona Division Office.

Identify which external partners are involved with HSIP planning.

- FHWA
- Law Enforcement Agency
- Local Government Agency
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
- Tribal Agency

In addition to the direct involvement of those listed, other agencies can participate in the HSIP planning through the Road Safety Assessment (RSA)application process available at https://azdot.gov/business/transportation-systems-management-and-operations/operational-and-traffic-safety/road-safety

Describe coordination with external partners.

External coordination involves participation and membership in COG/MPOs Safety Committee meetings, workshops, and advisory groups. ADOT TSS encourages local and state agencies to submit their draft HSIP applications in advance of the final submittal date for the call for projects so the application can be reviewed and comments provided to the agencies to ensure a successful application. In addition to the direct involvement through the HSIP application process, agencies can participate in the Road Safety Assessment (RSA) program which can lead to HSIP applications. RSA applications are made available at: https://azdot.gov/business/transportation-systems-management-and-operations/operational-and-traffic-safety/road-safety

Program Methodology

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

Yes
FileName:

2015 HSIP Manual (RevDec18)
HSIP Appendix A
HSIP Appendix_B
HSIP Appendix_C
HSIP Appendix_D

https://azdot.gov/business/transportation-systems-management-and-operations/operational-and-traffic-safety

Select the programs that are administered under the HSIP.

- HRRR
- Roadway Departure
- Shoulder Improvement
- Wrong Way Driving
- Other-RSA
- Other-Tree Removal

Program: HRRR

Date of Program Methodology:5/1/2015

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?

Competes with all projects

What data types were used in the program methodology?

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

What project identification methodology was used for this program?

- Crash frequency
- Relative severity index

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?

Yes

How are projects under this program advanced for implementation?

- selection committee

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

Program: Roadway Departure

Date of Program Methodology:6/29/2012

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?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes Fatal and serious injury crashes only		

What project identification methodology was used for this program?

- Crash frequency
- Relative severity index

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?

Yes

How are projects under this program advanced for implementation?

- Competitive application process
- Other-Based on B/C Ratio and systemic projects based on crash type.

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:2
Available funding:1

Program: Shoulder Improvement

Date of Program Methodology:4/30/2010

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?

Competes with all projects

What data types were used in the program methodology?

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

What project identification methodology was used for this program?

- Crash frequency
- Relative severity index

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?

Yes

How are projects under this program advanced for implementation?

- Other-Based on B/C Ratio and systemic projects based on crash type.

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:2
Available funding:1

Program: Wrong Way Driving

Date of Program Methodology:4/11/2017

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
Fatal and serious injury crashes only		

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?

Yes

How are projects under this program advanced for implementation?

- selection committee

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:2
Available funding:1

April 11, 2017 an HSIP eligibility letter was approved to fund Statewide – Wrong Way/Do Not Enter Sign Installation.

Program: Other-RSA

Date of Program Methodology:1/10/2006

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?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes	Volume	Median width Horizontal curvature Roadside features

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?

Yes

How are projects under this program advanced for implementation?

- Other-Based on B/C Ratio and systemic projects based on crash type.

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:2
Available funding:1

Program: Other-Tree Removal

Date of Program Methodology:6/15/2010

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?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
Fatal and serious injury crashes only		

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?

No

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

How are projects under this program advanced for implementation?

- Other-Based on B/C Ratio and systemic projects based on crash type.

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:2
Available funding:1

What percentage of HSIP funds address systemic improvements?

20

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

- Add/Upgrade/Modify/Remove Traffic Signal
- Clear Zone Improvements
- Horizontal curve signs
- Install/Improve Pavement Marking and/or Delineation
- Pavement/Shoulder Widening
- Rumble Strips

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?

Yes

Describe how the State HSIP considers connected vehicles and ITS technologies.

ITS technologies are critical components in Arizona's transportation management systems and are effective at improving safety, as well as mobility. Arizona has leveraged ITS technologies for freeway traffic management with so many miles of freeways currently managed. ITS technologies are critical for providing data to travelers through the AZ511 system, including the highway road closure system. Connected vehicles are emerging as new technology that has the ability to significantly reduce crashes and save lives. ADOT is investing in connected vehicle technologies so that we can maximize the benefits as the technology becomes available in commercial freight and passenger vehicles. Connected vehicle infrastructure, comprised of the roadside units, on-board units, communication network and software platforms, will allow significantly improved traffic management systems through the dissemination of information, such as basic safety messages. Areas of potential improvement will be in speed harmonization, queue warning, and work zone traffic management. The primary goal of connected vehicles is improving safety and Arizona believes that this emerging technology will save lives. Therefore, State HSIP fund can be utilized for connected vehicles and associated ITS technologies.

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.

The HSM has been used on a limited bases primarily to support B/C ratio analysis and determining CMFs. Arizona's emphasis on predictive modeling over the last few years has been focused on bring Safety Analyst on-line. It currently has been used to identify systemic projects on the State Highway System.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

State Fiscal Year

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$32,992,353	$32,992,353	100%
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)	$0	$0	0%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	$0	$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	$0	$0	0%
State and Local Funds	$498,477	$498,477	100%
Totals	$33,490,830	$33,490,830	100%

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

23%

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

23%

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

6%

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

6%

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%

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

None

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
M6945; La Paz County CRASH DATA - TRACS (TRAFFIC CRIMINAL SOFTWARE)	Non-infrastructure	Data/traffic records	1	Enforcement Agencies	$23575	$25000	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	N/A	Data	Improve analysis and sharing of safety data
T0180; PEART RD; JK BLVD - AVENIDA ELLENA	Roadway	Rumble strips - edge or shoulder	5	Miles	$154708	$154708	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	17,000	45	Town or Township Highway Agency	Spot	Roadway Departure	Reduce fatalities through roadway infrastructure improvements
H8930; SR-377; SR277 - S77	Roadway	Roadway widening - curve	2	Curves	$1111262	$1178433	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,341	65	State Highway Agency	Spot	Roadway Departure	Reduce fatalities through roadway infrastructure improvements
M6983; STRATIGIC HIGHWAY SAFETY PLAN UPDATE - FY19	Non-infrastructure	Transportation safety planning	1	STSP	$235750	$250000	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	N/A	STSP	Provides comprehensive framework
H8388; US 95; US 95 AND 8E Traffic Signal,Safety intersection improvement	Intersection geometry	Intersection geometry - other	1	Intersections	$2184148	$2184148	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	12,424	55	State Highway Agency	Spot	Intersections	Reduce fatalities through geometric configuration
T0031; City of Glendale VARIOUS LOCATIONS - FLASHING YELLOW ARROWS	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	12	Signal heads	$1218179	$1218179	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	0	0	City	Systemic	Intersections	Reduce fatalities through geometric configuration
F0029; SR 95 AT KIOWA BLVD - RIGHT TURN LANES RAISED MED	Intersection geometry	Auxiliary lanes - add right-turn lane	2	Lanes	$1194414	$1266610	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	22,394	45	State Highway Agency	Spot	Intersections	Reduce fatalities through geometric configuration
T0169; MACRAE RD - WOODRUFF RD to VAH KI INN RD	Roadway	Rumble strips - edge or shoulder	7.2	Miles	$117836	$117836	HSIP (23 U.S.C. 148)	Rural	Major Collector	4,991	40	Town or Township Highway Agency	Spot	Roadway Departure	Reduce fatalities through roadway infrastructure improvements

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
F0186; I-10 & US 60 URBAN SAFETY CORRIDORS (SPEED FEEDBACK SIGNS)	Roadway signs and traffic control	Roadway signs and traffic control - other	4	Signs	$126362	$126362	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	0	65	State Highway Agency	Spot	Speeding and Aggressive Driving	Speed Management
H7637; SR 70, BYLAS AREA	Pedestrians and bicyclists	Pedestrian signal - Pedestrian Hybrid Beacon	1	Locations	$1076234	$1076234	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	0	45	State Highway Agency	Spot	Pedestrians	Making walking and street crossing safer
H8919; SR 77, RIVER RD-CALLE CONCORDIA	Pedestrians and bicyclists	Install sidewalk	5	Miles	$101844	$101844	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	42,115	50	State Highway Agency	Spot	Pedestrians	Making walking and street crossing safer
F0143; STATEWIDE HORIZONTAL CURVE SIGNS	Roadway signs and traffic control	Roadway signs (including post) - new or updated	4813	Signs	$986334	$986334	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	State Highway Agency	Systemic	Signage	Improve retroreflectivity and visibility
M6974; STATEWIDE CRASH HOT SPOTS - SPEED RELATED	Speed management	Radar speed signs	68	Speed Feedback Trailers	$311190	$330000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	State Highway Agency	Systemic	Speeding and Aggressive Driving	Speed Management
M6950; LED ENHANCED SPEED LIMIT SIGNS - CMF STUDY	Non-infrastructure	Non-infrastructure - other	1	CMF Study	$25461	$27000	HSIP (23 U.S.C. 148)	Rural	N/A	0	0	COG	Systemic	Speeding and Aggressive Driving	Speed Management
F0019; SOUTHEAST DISTRICT SAFETY IMPROVEMENTS	Roadway	Rumble strips - edge or shoulder	188.8	Miles	$1699582	$1699582	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	0	State Highway Agency	Systemic	Roadway Departure	Reduce fatalities through roadway infrastructure improvements
F0164; SR 68 MP 8.5 - MP 11, SAFETY IMPROVEMENTS	Roadway delineation	Delineators post-mounted or on barrier	2.5	Miles	$378143	$378143	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0	65	State Highway Agency	Spot	Roadway Departure	Reduce fatalities through roadway infrastructure improvements
M6977; SR 68 PRECONSTRUCTION SAFETY CORRIDOR	Speed management	Speed management - other	1	Enforcement	$94300	$100000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0	65	State Highway Agency	Spot	Speeding and Aggressive Driving	Speed Management
SH600; CENTRAL YAVAPAI COUNTY, VARIOUS LOCATIONS	Roadway signs and traffic control	Roadway signs (including post) - new or updated	2192	Signs	$110000	$110000	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	0	COG	Systemic	Signage	Improve retroreflectivity and visibility
T0165; JUAN SANCHEZ BLVD; 10th AVE to AVE E	Roadway	Rumble strips - center	3	Miles	$318374	$318374	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	0	65	Town or Township	Spot	Lane Departure	Reduce fatalities through

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
												Highway Agency			roadway infrastructure improvements
SH607; SIGN INVENTORY MANAGEMENT SYSTEM/ SIGN UPGRADE	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1920	Signs	$240007	$240007	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	City	Systemic	Signage	Improve retroreflectivity and visibility
T0117; PAVEMENT MARKINGS UPGRADE CATALINA HWY-ARIVACA RD	Roadway delineation	Improve retroreflectivity	47.6	Miles	$551000	$576000	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,562	45	County Highway Agency	Spot	Lane Departure	Improve retroreflectivity and visibility
H8838; RUINS DR AT SR87	Intersection traffic control	Intersection traffic control - other	1	Intersections	$84870	$84870	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	11,998	50	State Highway Agency	Spot	Intersections	Reduce fatalities through geometric configuration
M6949; SMART WORK ZONE (SMZ) STUDY	Non-infrastructure	Non-infrastructure - other	1	SMZ Specifications	$235750	$250000	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	N/A	Work Zones	Develop and improve work-zone design and mgt practices
F0025; I-17; NEW RIVER (MP 232 TO SR 169 (MP 279)	Roadway signs and traffic control	Roadway signs and traffic control - other	4	DMS and Speed Feedback Signs	$130898	$130898	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	31,765	75	State Highway Agency	Spot	Speeding and Aggressive Driving	Speed Management
F0178; ROAD SAFETY ASSESSMENT PROGRAM	Non-infrastructure	Road safety audits	1	RSA Program	$348910	$376000	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	N/A	RSA Program	RSA Program
H8265; SR 92 @ FOOTHILLS BLVD	Roadway signs and traffic control	Roadway signs and traffic control - other	1	Intersections	$3225170	$3225170	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	25,696	45	State Highway Agency	Spot	Intersections	Reduce fatalities through geometric configuration
SH596; CITY OF FLAGSTAFF VARIOUS LOCATIONS	Roadway signs and traffic control	Roadway signs (including post) - new or updated	4165	Signs	$290797	$290797	HSIP (23 U.S.C. 148)	Multiple/Varies	Local Road or Street	0	0	City	Systemic	Signage	Improve retroreflectivity and visibility
SH511; SWITZER CANYON/TURQUOISE DRIVE ROUNDABOUT	Intersection traffic control	Modify control - all-way stop to roundabout	1	Intersections	$1334259	$1334259	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	13,600	45	City	Spot	Intersections	Reduce fatalities through geometric configuration
SH628; LED ENHANCED SPEED LIMIT SIGN	Roadway signs and traffic control	Roadway signs (including post) - new or updated	20	Signs	$91414	$91414	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	0	COG	Spot	Speeding and Aggressive Driving	Speed Management

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
H8859; SR70, SAN CARLOS HIGH SCHOOL - BIA 170	Intersection geometry	Auxiliary lanes - add right-turn lane	1	Intersections	$130542	$138433	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	8,875	55	State Highway Agency	Spot	Intersections	Reduce fatalities through geometric configuration
H8877; SR 87, RANDOLPH RD INTERSECTION	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersections	$17979	$19066	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	7,736	55	State Highway Agency	Spot	Intersections	Reduce fatalities through geometric configuration
PSG18; 2018 WORK PROGRAM SEAGO	Non-infrastructure	Transportation safety planning	1	Transportation Safety Plan	$173328.23	$183805	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	COG	N/A	Intersections	Improve analysis and sharing of safety data
T0032; PHB, 8TH ST AND 21ST AVE - YUMA	Pedestrians and bicyclists	Pedestrian signal - Pedestrian Hybrid Beacon	1	Locations	$198974	$198974	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	15,146	35	City	Spot	Pedestrians	Making walking and street crossing safer
PNG18; 2018 PL WORK PROGRAM (NACOG)	Non-infrastructure	Transportation safety planning	1	Transportation Safety Plan	$245000	$259809	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	COG	N/A	Data	Improve analysis and sharing of safety data
SH603; SIGN INVENTORY-VARIOUS LOCATIONS	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1243	Signs	$116274	$116274	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	Town or Township Highway Agency	Systemic	Signage	Improve retroreflectivity and visibility
H8308; SR 88/SUPERSTITION BLVD - ROUNDABOUT	Intersection traffic control	Modify control - all-way stop to roundabout	1	Intersections	$3962768	$3962768	HSIP (23 U.S.C. 148)	Urban	Major Collector	5,822	40	State Highway Agency	Spot	Intersections	Reduce fatalities through geometric configuration
SS998; RIO RICO DR & PENDLETON DR INTERSECTION IMPROVE	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersections	$259325	$275000	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	8,450	35	County Highway Agency	Spot	Intersections	Reduce fatalities through geometric configuration
H8659; US 93, WINDY POINT ROAD - MINERAL PARK ROAD	Shoulder treatments	Widen shoulder - paved or other	10.5	Miles	$213118	$226000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	24,313	65	State Highway Agency	Systemic	Roadway Departure	Reduce fatalities through roadway infrastructure improvements
H8658; US 93, ELEVENTH ST - WINDY POINT ROAD	Shoulder treatments	Widen shoulder - paved or other	10	Miles	$205574	$218000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	14,700	65	State Highway Agency	Systemic	Roadway Departure	Reduce fatalities through roadway

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
															infrastructure improvements
M5167; CRASH DATA - TRACS (TRAFFIC CRIMINAL SOFTWARE)	Non-infrastructure	Data/traffic records	1	Enforcement Agencies	$23575	$25000	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	N/A	Data	Improve analysis and sharing of safety data
M5212; CRASH DATA - TRACS (TRAFFIC CRIMINAL SOFTWARE)	Non-infrastructure	Data/traffic records	1	Enforcement Agencies	$25000	$25000	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	N/A	Data	Improve analysis and sharing of safety data
H8489; SR 95 @ MOHAVE RD - ROUNDABOUT	Intersection traffic control	Modify control - all-way stop to roundabout	1	Intersections	$885267	$885267	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	5,000	35	State Highway Agency	Spot	Intersections	Reduce fatalities through geometric configuration
SH571; REAY LANE; US70 - SAFFORD BRYCE ROAD	Shoulder treatments	Widen shoulder - paved or other	0.2	Miles	$106971	$113437	HSIP (23 U.S.C. 148)	Rural	Minor Collector	1,317	45	County Highway Agency	Spot	Roadway Departure	Reduce fatalities through roadway infrastructure improvements
F0020; SOUTHCENTRAL/CENTRAL DISTRICT SAFETY IMPROVEMENTS	Roadway	Rumble strips - center	44.87	Miles	$551035	$551035	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0	0	State Highway Agency	Systemic	Lane Departure	Reduce fatalities through geometric configuration
PYM18; YMPO-STSP UPDATE	Non-infrastructure	Transportation safety planning	1	Transportation Safety Plan	$87000	$92258	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	COG	N/A	Data	Improve analysis and sharing of safety data
H7167; SR 92; BUFFALO SOLDIER TRAIL - KACHINA TRAIL	Access management	Access management - other	1	Raised Median	$938643	$995380	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	22,900	55	State Highway Agency	Spot	Lane Departure	Reduce fatalities through geometric configuration
F0146; SR 95, AZTEC ROAD - S. BULLHEAD CITY	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	$849000	$849000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	32,000	45	State Highway Agency	Spot	Intersections	Reduce fatalities through roadway infrastructure improvements
H8557; GILA BEND REST AREA - I-10	Roadway signs and traffic control	Sign sheeting - upgrade or replacement	948	Signs	$1881390	$1881390	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	9,367	75	State Highway Agency	Spot	Signage	Improve retroreflectivity and visibility

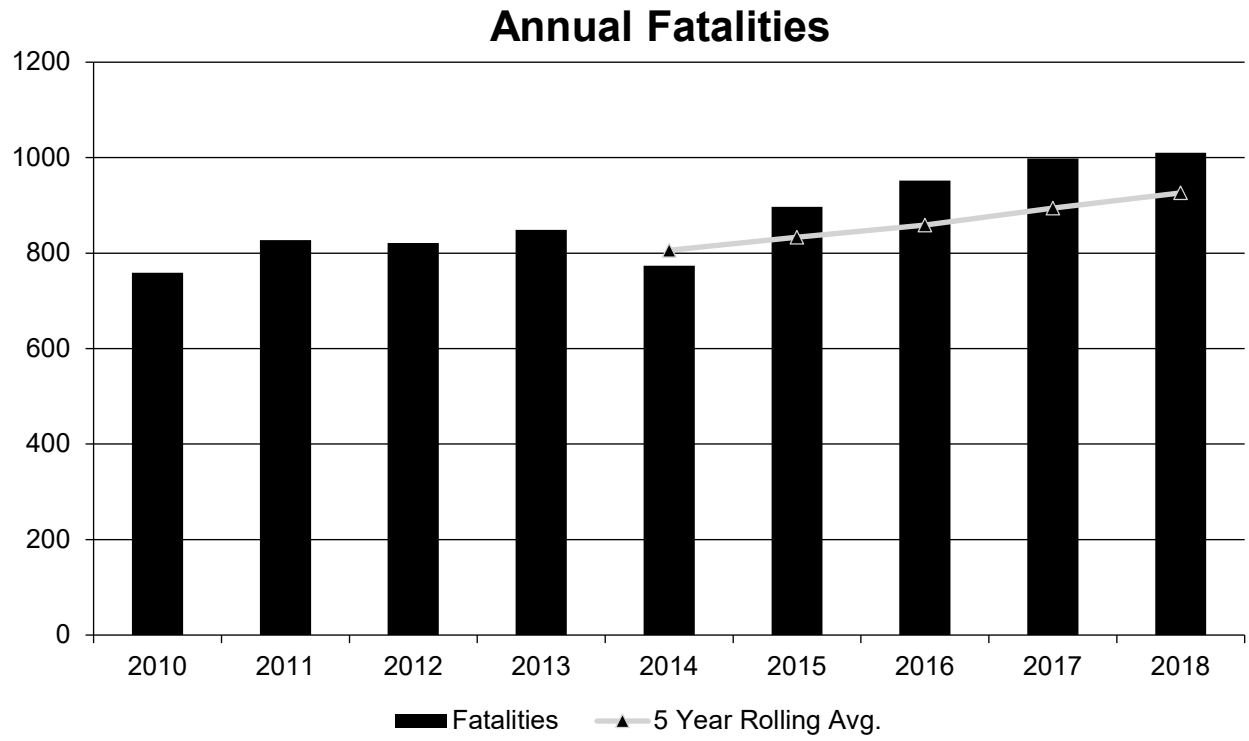
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
T0146; SIGN PANEL REPLACEMENT	Roadway signs and traffic control	Roadway signs (including post) - new or updated	38901	Signs	$643000	$643000	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	0	County Highway Agency	Systemic	Signage	Improve retroreflectivity and visibility
SH533; PAG REGION SANTA CRUZ COUNTY	Roadway signs and traffic control	Roadway signs and traffic control - other	1	Intersections	$56580	$56580	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	County Highway Agency	Systemic	Signage	Improve retroreflectivity and visibility
F0023; I-10, DRAGOON ROAD - JOHNSON ROAD PHII	Shoulder treatments	Widen shoulder - paved or other	5.5	Rock Removal	$2065327	$2171240	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	14,944	75	State Highway Agency	Systemic	Roadway Departure	Reduce fatalities through roadway infrastructure improvements
SH634; SIGN MGMT SYSTEM/SIGN UPGRADE	Roadway signs and traffic control	Roadway signs (including post) - new or updated	2490	Signs	$151688	$151688	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	City	Systemic	Signage	Improve retroreflectivity and visibility
T0113; NACOG REGIONAL SIGN REPLACEMENT - PHASE 3	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1710	Signs	$596470	$596470	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	COG	Systemic	Signage	Improve retroreflectivity and visibility
SH568; 4TH AVE /CONGRESS STREET/TOOLE AVE -CITY OF TUCSON	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1	Crosswalks	$286829	$286829	HSIP (23 U.S.C. 148)	Urban	Major Collector	0	0	City	Spot	Pedestrians	Making walking and street crossing safer
SS991; 8TH AVE & AIRPORT ROAD	Roadway	Roadway - other	1	Intersections	$65012.32	$65012.32	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	4,595	45	County Highway Agency	Spot	Intersections	Reduce fatalities through geometric configuration
T0009; SIGN MANAGEMENT SYSTEM & SIGN INSTALLATION	Roadway signs and traffic control	Roadway signs (including post) - new or updated	3360	Signs	$255912	$255912	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	City	Systemic	Signage	Improve retroreflectivity and visibility

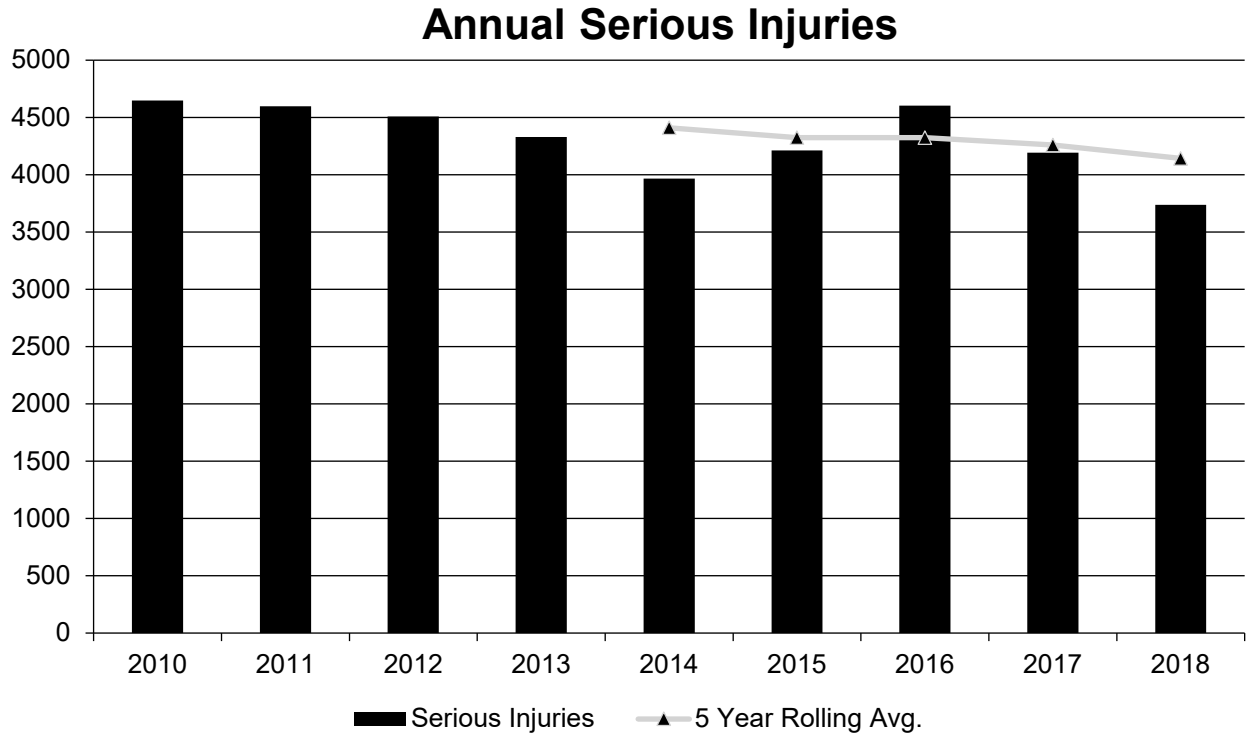
Safety Performance

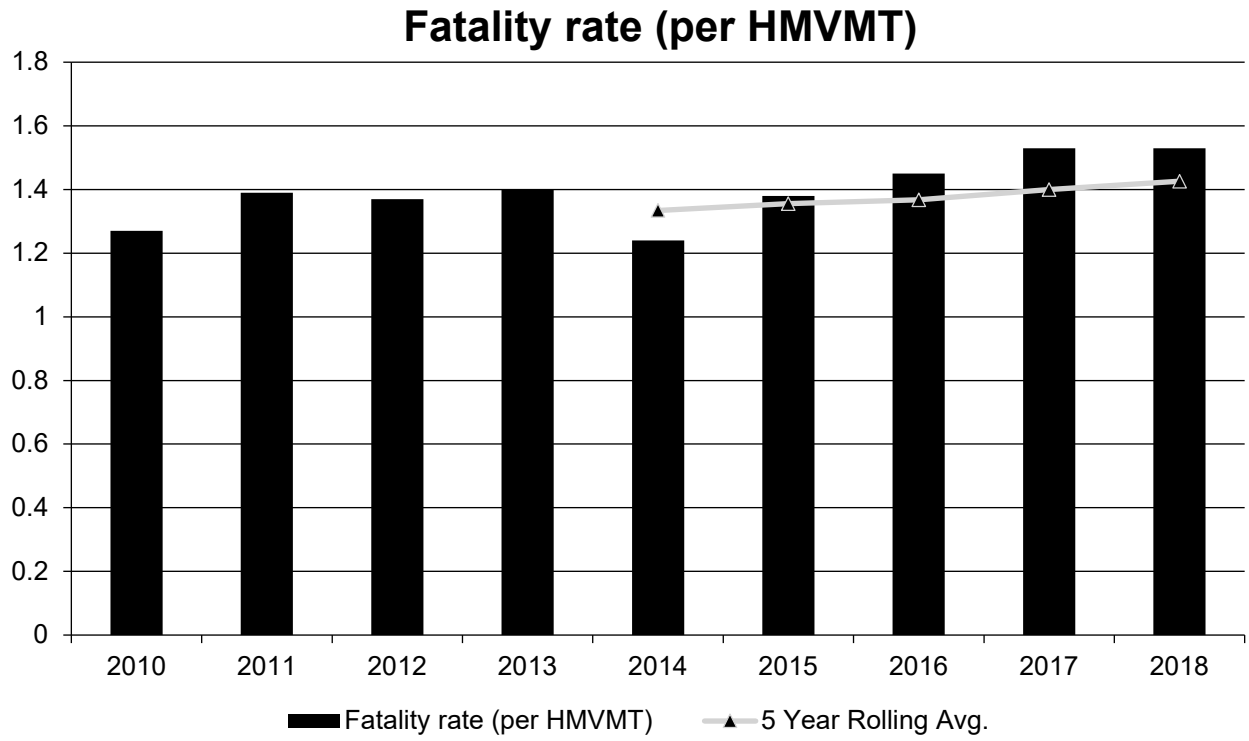
General Highway Safety Trends

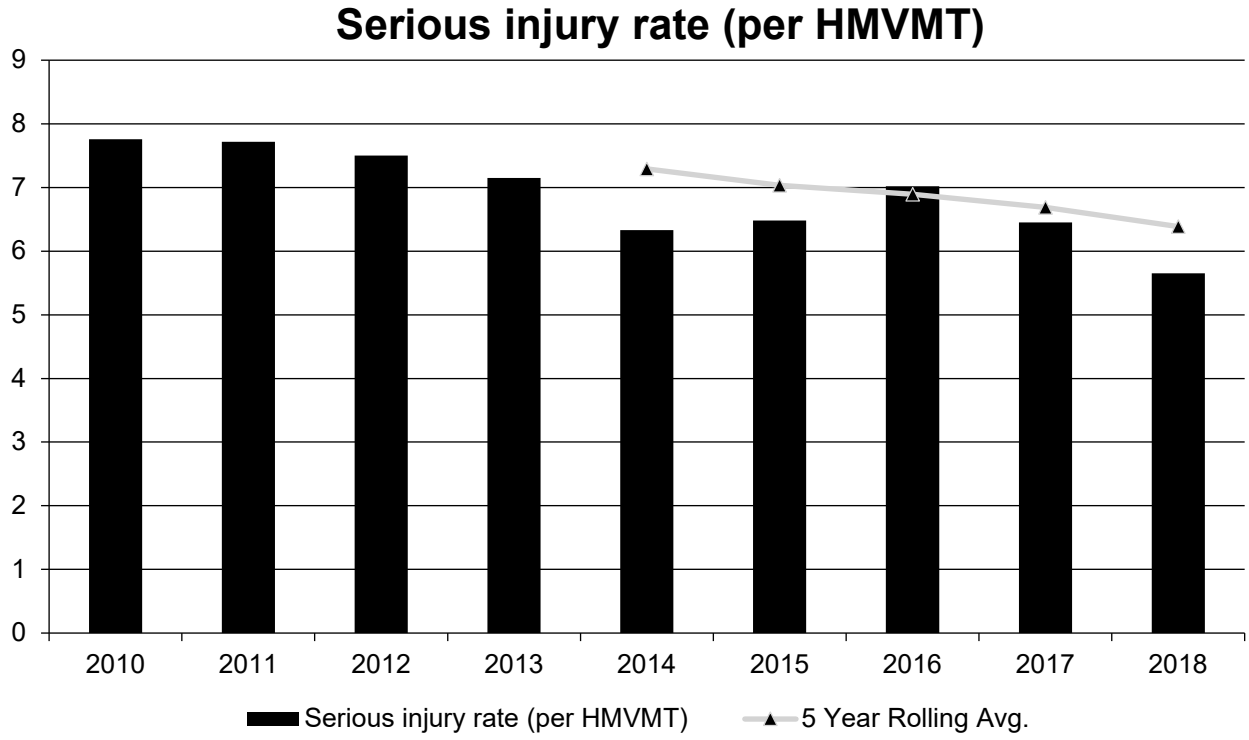
Present data showing the general highway safety trends in the State for the past five years.

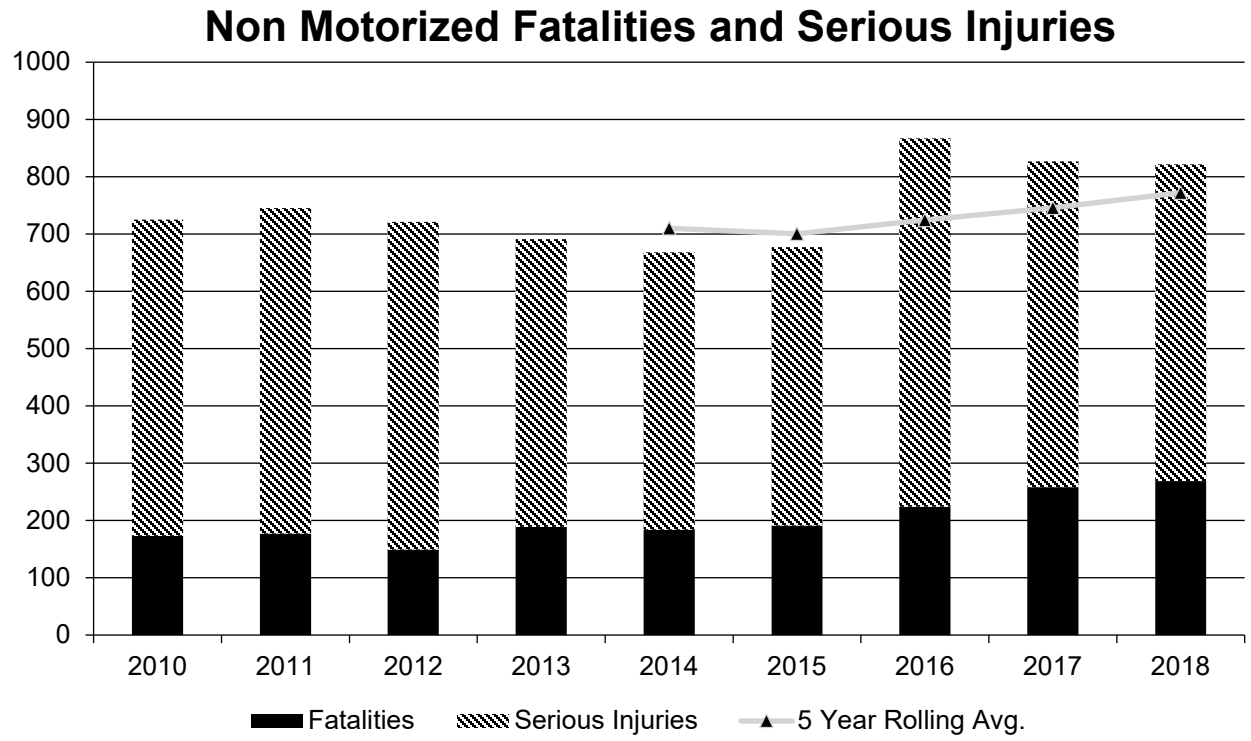
PERFORMANCE MEASURES	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fatalities	759	827	821	849	774	897	952	998	1,010
Serious Injuries	4,648	4,598	4,508	4,329	3,966	4,213	4,604	4,194	3,738
Fatality rate (per HMVMT)	1.270	1.390	1.370	1.400	1.240	1.380	1.450	1.530	1.530
Serious injury rate (per HMVMT)	7.760	7.720	7.500	7.150	6.330	6.480	7.020	6.450	5.650
Number non-motorized fatalities	173	177	149	189	184	191	224	258	269
Number of non-motorized serious injuries	552	568	572	502	484	486	643	569	553


Annual Fatalities
1200
1000
800
600
400
200
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
9
8
7
6
5
4
3
2
1
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Serious injury rate (per HMVMT)
5 Year Rolling Avg.



Describe fatality data source.

FARS

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

Year 2018

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	79.6	208	0.12	0.32
Rural Principal Arterial (RPA) - Other Freeways and Expressways	1.8	0.2	0	0
Rural Principal Arterial (RPA) - Other	69	159.4	0.11	0.25
Rural Minor Arterial	42.4	80.2	0.07	0.12
Rural Minor Collector	13.2	22.8	0.02	0.04
Rural Major Collector	74.2	153.2	0.11	0.24
Rural Local Road or Street	46.6	25.6	0.07	0.04

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)**
Urban Principal Arterial (UPA) - Interstate	55.8	177.6	0.09	0.27
Urban Principal Arterial (UPA) - Other Freeways and Expressways	38	219	0.06	0.34
Urban Principal Arterial (UPA) - Other	239.2	687.8	0.37	1.06
Urban Minor Arterial	161.2	1,591.4	0.25	2.45
Urban Minor Collector	2.8	5.8	0	0.01
Urban Major Collector	40.8	237.4	0.06	0.37
Urban Local Road or Street	53.6	62	0.08	0.1

Year 2018

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	318.8	447.8	0.49	0.68
County Highway Agency	58.2	154	0.09	0.24
Town or Township Highway Agency	7.4	5	0.01	0.01
City or Municipal Highway Agency	294.2	963.6	0.45	1.47
State Park, Forest, or Reservation Agency	0	0	0	0
Local Park, Forest or Reservation Agency	0.2	0	0	0
Other State Agency	0	0	0	0
Other Local Agency	0	0	0	0
Private (Other than Railroad)	0.6	0.8	0	0
Railroad	0	0	0	0
State Toll Authority	0	0	0	0
Local Toll Authority	0	0	0	0
Other Public Instrumentality (e.g. Airport, School, University)	0.2	0	0	0
Indian Tribe Nation	0.8	2.2	0	0

Safety Performance Targets

Safety Performance Targets

Calendar Year 2020 Targets *

Number of Fatalities:1014.4

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

Arizona established our safety performance projections based on the 5-year rolling averages of statewide crash data. While the targets cover central areas of our State Strategic Highway Safety

Plan, the projections do not reflect the goals of the plan which call for a 3-7 percent reduction in fatalities and serious injury crashes by the end of 2019.

Number of Serious Injuries:3934.0

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

Arizona established our safety performance projections based on the 5-year rolling averages of statewide crash data. While the targets cover central areas of our State Strategic Highway Safety Plan, the projections do not reflect the goals of the plan which call for a 3-7 percent reduction in fatalities and serious injury crashes by the end of 2019.

Fatality Rate:1.522

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

Arizona established our safety performance projections based on the 5-year rolling averages of statewide crash data. While the targets cover central areas of our State Strategic Highway Safety Plan, the projections do not reflect the goals of the plan which call for a 3-7 percent reduction in fatalities and serious injury crashes by the end of 2019.

Serious Injury Rate:5.936

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

Arizona established our safety performance projections based on the 5-year rolling averages of statewide crash data. While the targets cover central areas of our State Strategic Highway Safety Plan, the projections do not reflect the goals of the plan which call for a 3-7 percent reduction in fatalities and serious injury crashes by the end of 2019.

Total Number of Non-Motorized Fatalities and Serious Injuries:865.4

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

Arizona established our safety performance projections based on the 5-year rolling averages of statewide crash data. While the targets cover central areas of our State Strategic Highway Safety Plan, the projections do not reflect the goals of the plan which call for a 3-7 percent reduction in fatalities and serious injury crashes by the end of 2019.

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

Individual meetings were held with each COG/MPO to discuss the State safety performance targets in addition to a general meeting with the State COG/MPO council. Each COG/MPO was given the opportunity to establish their own targets or to adopt the State safety performance targets. Sample target letters and wording was provided to aid them in meeting the submittal date. Prior to adopting the proposed targets, a meeting was conducted with GOHS to reach consensus on the State’s safety performance targets. The process that ADOT followed in reaching the recommended safety performance targets was described. Attendees agreed to support the suggested targets.

Does the State want to report additional optional targets?

No

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.

After the review of the actual crash data for 2018 and compare the numbers to 2018 targets that were reported in August 2017 HSIP report and 2016 baseline, Arizona is making progress toward meeting the State's 2018 Safety Performance Targets (based on data available as of August 30, 2019). Anticipated at least 4 out of 5 targets will be met.

Applicability of Special Rules

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

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	2012	2013	2014	2015	2016	2017	2018
Number of Older Driver and Pedestrian Fatalities	90	110	105	126	121	131	173
Number of Older Driver and Pedestrian Serious Injuries	349	396	328	421	421	373	386

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

- Benefit/Cost Ratio
- Change in fatalities and serious injuries

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

None

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

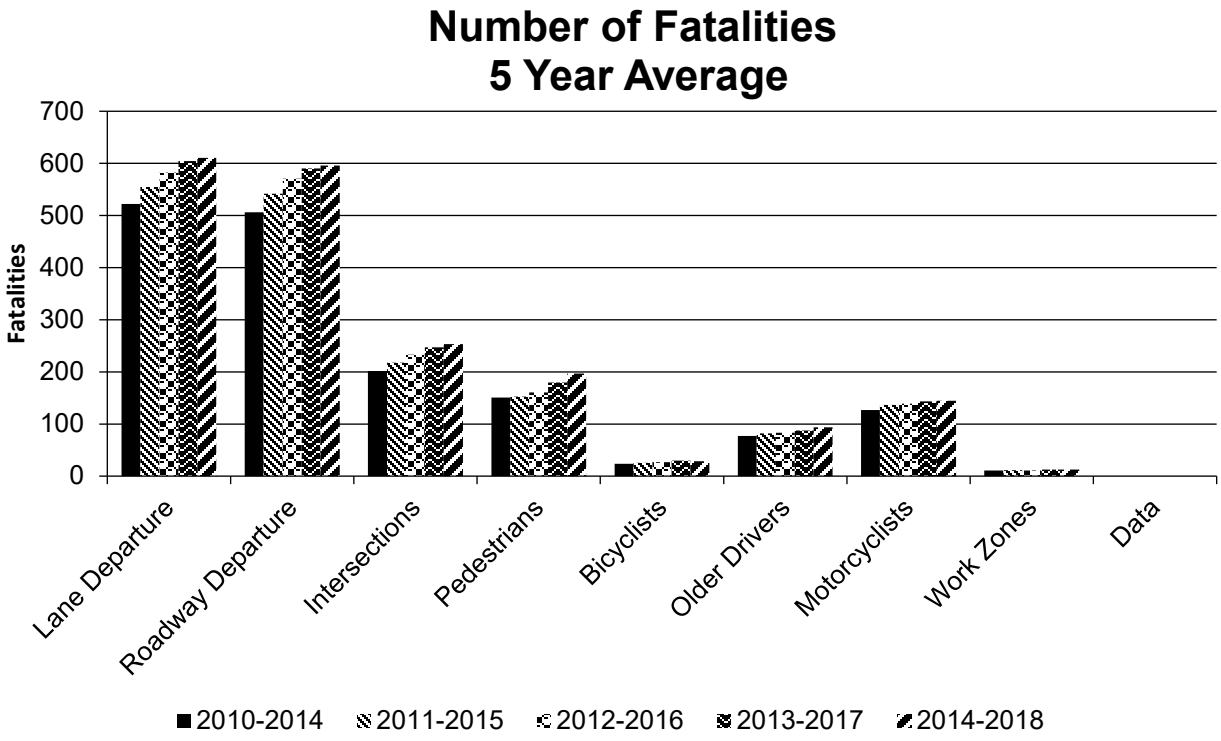
- # RSAs completed
- HSIP Obligations
- Increased awareness of safety and data-driven process
- Increased focus on local road safety
- More systemic programs

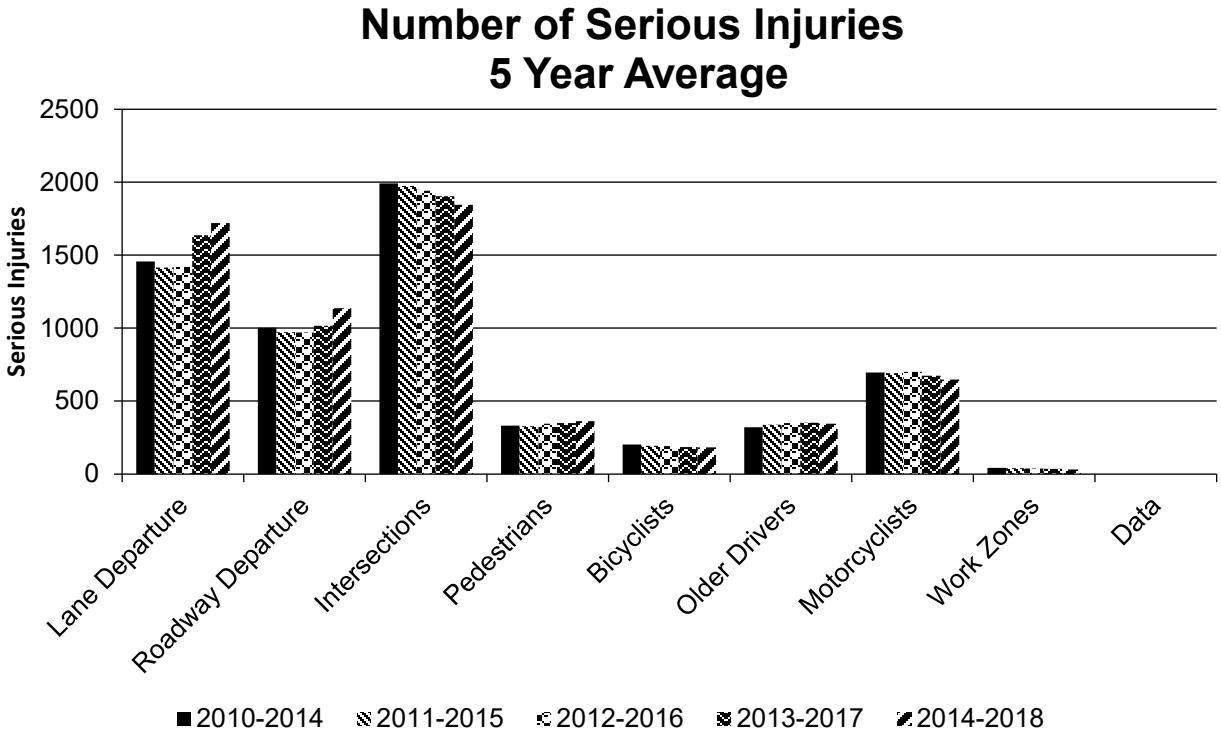
Effectiveness of Groupings or Similar Types of Improvements

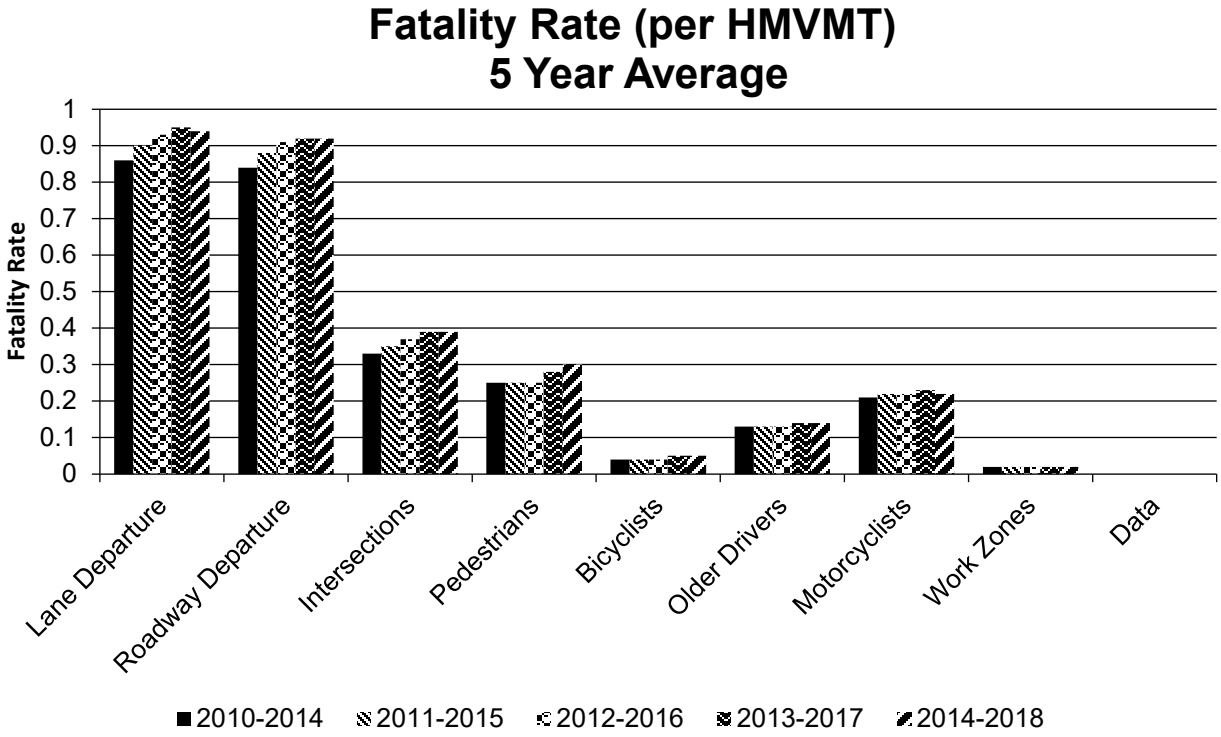
Present and describe trends in SHSP emphasis area performance measures.

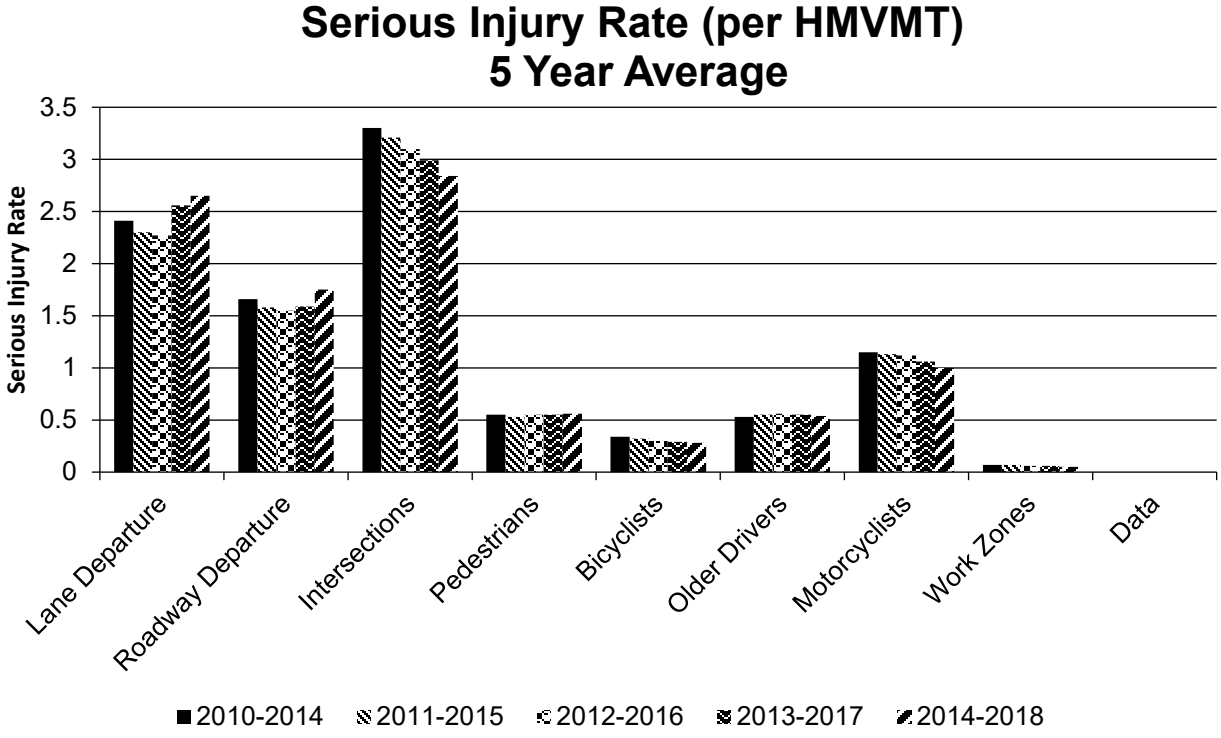
Year 2018

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)	Other 1	Other 2	Other 3
Lane Departure		610.8	1,720.8	0.94	2.65	0	0	0
Roadway Departure		596	1,137.2	0.92	1.75	0	0	0
Intersections		253.4	1,844.4	0.39	2.84	0	0	0
Pedestrians		196.6	363.2	0.3	0.56	0	0	0
Bicyclists		28.8	183	0.05	0.28	0	0	0
Older Drivers		93.6	346.4	0.14	0.54	0	0	0
Motorcyclists		144.4	647	0.22	1	0	0	0
Work Zones		12.4	32.2	0.02	0.05	0	0	0
Data		0	0	0	0	0	0	0


Number of Fatalities
5 Year Average
Fatalities
700
600
500
400
300
200
100
0
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
2010-2014
2011-2015
2012-2016
2013-2017
2014-2018


Number of Serious Injuries
5 Year Average
Serious Injuries
2500
2000
1500
1000
500
0
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
2010-2014
2011-2015
2012-2016
2013-2017
2014-2018





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

No

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)
none														

Compliance Assessment

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

10/14/2014

What are the years being covered by the current SHSP?

From: 2014 To: 2019

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

2019

The updated SHSP is in its final draft format and upon completion will be forwarded to the Governor for signature by October 2019.

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)	100	100					100	50		
	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	100		
	Surface Type (23)	100	100					100	100		
	Begin Point Segment Descriptor (10)	100	100					100	50		
	End Point Segment Descriptor (11)	100	100					100	50		
	Segment Length (13)	100	100								
	Direction of Inventory (18)	100									
	Functional Class (19)	100	100					100	100		
	Median Type (54)	100	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	10					100	10		
	Average Annual Daily Traffic (79)	100	100					100	10		
	AADT Year (80)	100	100								
	Type of Governmental Ownership (4)	100	10					100	10		
INTERSECTION	Unique Junction Identifier (120)			100							
	Location Identifier for Road 1 Crossing Point (122)			100							
	Location Identifier for Road 2 Crossing Point (123)			100							
	Intersection/Junction Geometry (126)										
	Intersection/Junction Traffic Control (131)										
	AADT for Each Intersecting Road (79)			100	100						
	AADT Year (80)			100	100						
	Unique Approach Identifier (139)										
INTERCHANGE/RAMP	Unique Interchange Identifier (178)					100	100				
	Location Identifier for Roadway at Beginning of Ramp Terminal (197)										
	Location Identifier for Roadway at Ending Ramp Terminal (201)										
	Ramp Length (187)					100	10				

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)										
	Ramp AADT (191)					100	10				
	Year of Ramp AADT (192)					100	10				
	Functional Class (19)					100	100				
	Type of Governmental Ownership (4)					100	100				
Totals (Average Percent Complete):		**100.00**	**84.44**	**62.50**	**25.00**	**72.73**	**30.00**	**100.00**	**53.33**	**0.00**	**0.00**

*Based on Functional Classification

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.

ADOT proposes the following steps to meet the requirement to have complete access to the MIRE fundamental data elements on all public roadways by September 30, 2026. Each of the following steps describes necessary actions and completion dates to meet this goal.

Step 1. Establish a MIRE task force committee comprising representatives from the Transportation Systems Management and Operations Division (TSMO), the Information Technology Group (ITG), and the Multimodal Planning Division (MPD) who will take responsibility in ensuring completion of the following steps.

ADOT has formed a preliminary MIRE task force committee consisting of nine total members, three from each division stated above:

Transportation Systems Management and Operations Division (TSMO)

- John Riemer
- Vacant
- Kerry Wilcoxon

Information Technology Group (ITG)

- Mark Flahan
- Scott Parkey*
- Tom Tyndall

Multimodal Planning Division (MPD)

- Mick Cseri*
- James Meyer
- Patrick Whiteford

* Indicates MIRE task force co-leader responsible for ensuring the following steps are completed.

Step 2. Create an outreach plan to facilitate communication between ADOT and Tribal and local agencies. The plan will include specific measures to promote awareness and understanding of the MIRE FDE plan and establish a mutual understanding of potential future data needs. This step will be completed in 2017. ADOT parties involved: MPD/ITG/TSMO.

Step 3. Verify the completeness and compatibility of the data that ADOT has at the State level for ADOT-maintained roads, noting the collection methodology and frequency. This step should also include verifying which division collects, receives, and maintains the data as well as how the data is stored, managed, and who has access to it. This step will be completed in 2017. ADOT parties involved: MPD/ITG/TSMO.

Step 3b. For all new elements, ADOT will establish a database schema.

Step 4. Determine the roadway characteristics and format of the data that each of the 15 Counties, 46 Cities, 45 Towns, 22 Tribes, and other agencies is collecting for their non-ADOT-maintained roadways. The collection methodology and frequency, quality control / quality assurance measures employed for the collected data, database schema, and software that each locality uses should also be confirmed. This step will begin in 2017. ADOT parties involved: MPD/ITG/TSMO.

Step 4b. Determine if the locality data is complete and compatible with ADOT's existing data. This step will begin in 2017 and be completed simultaneously with Step 2. This step will determine if data needs to be collected by ADOT for the non-ADOT-maintained roadways. ADOT parties involved: MPD/TSMO.

Step 5. Finalize the data collection needs for both ADOT and non-ADOT-maintained roadways. This step should be completed directly following Step 3. This step will be completed in 2018. ADOT parties involved: MPD/TSMO.

Step 6. Create a detailed data collection and maintenance plan to include specific costs, resource needs, prioritization, and schedules. The data collection plan should specify the anticipated data collection methodology, who is responsible for collecting the data, how it will be made available to ADOT, and how frequently the data will be updated. If a quality assurance / quality control process has not yet been established, ADOT will create one prior to data collection. This step will be completed in 2019. ADOT parties involved: MPD/ITG/TSMO.

Step 7. Create a cost estimate for all data collection and maintenance efforts. This step will be completed in 2018. ADOT parties involved: MPD/TSMO.

Step 8. Identify funding sources for the data collection and maintenance process. This step will be completed in 2019. ADOT parties involved: MPD/TSMO.

Step 9. Allocate funding and resources for the data collection efforts. This step will be completed in 2020. ADOT parties involved: MPD/TSMO.

Step 10. Gather all remaining data. This step will be completed by September 2025 to allow one year for post-processing. ADOT parties involved: MPD/TSMO.

Step 11. Post-process all data into a user-friendly format compatible with appropriate State data systems. This step must be completed by September 2026 to meet federal regulations. ADOT parties involved: MPD/TSMO.

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

No

The last HSIP Program Review was completed in May 2018 and submitted as an attachment to last year's HSIP Annual Report.

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

2023

Optional Attachments

Program Structure:

HSIP Appendix_D (Dec 18).pdf
HSIP Appendix_C.pdf
HSIP Appendix_ B.pdf
HSIP Appendix A(Rev Dec18).pdf
2015 HSIP Manual (RevDec18).pdf
Project Implementation:

Safety Performance:

Evaluation:

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.