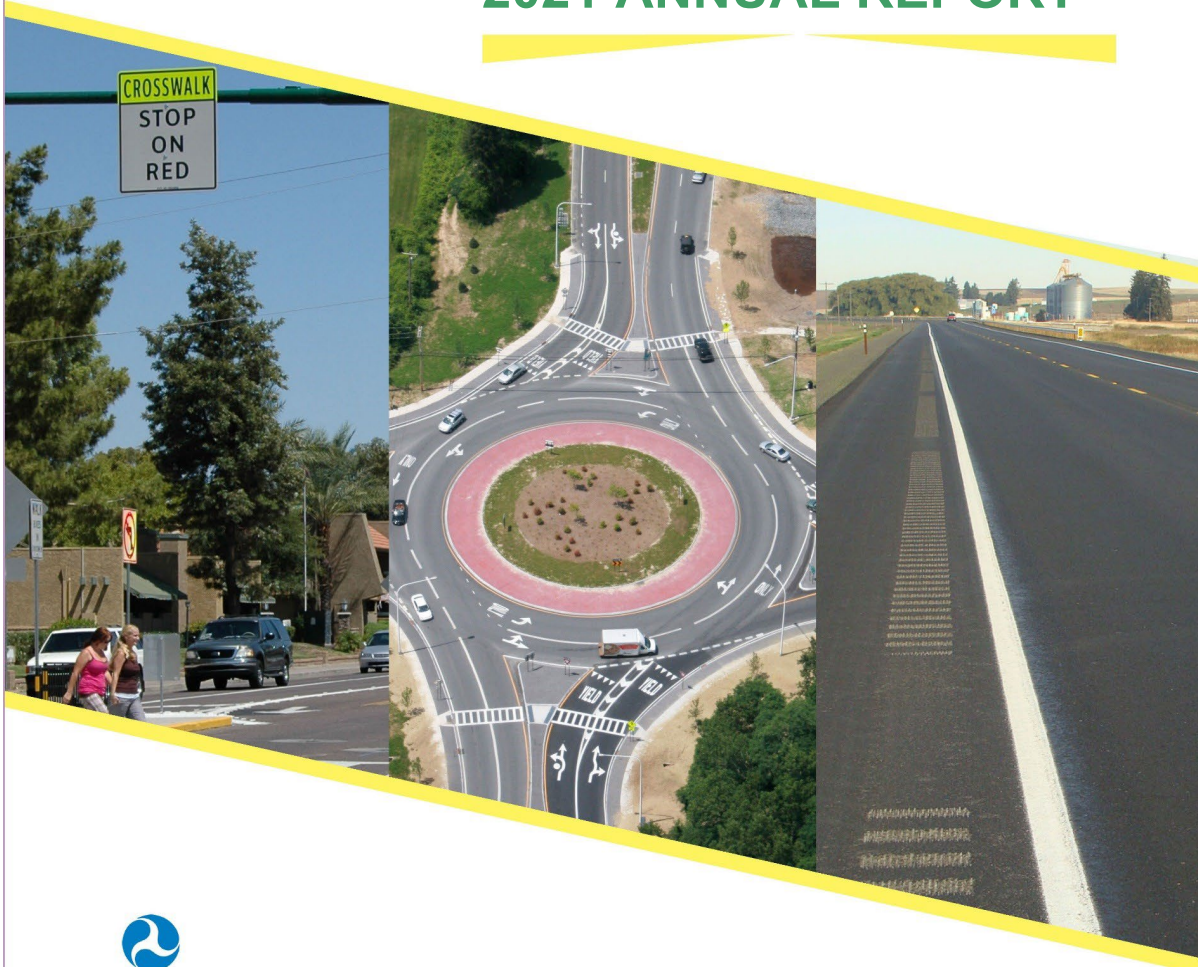




ARIZONA

# HIGHWAY SAFETY IMPROVEMENT PROGRAM 2021 ANNUAL REPORT



U.S. Department of Transportation  
Federal Highway Administration

Photo source: Federal Highway Administration

Table of Contents

Disclaimer ..... 3  
    Protection of Data from Discovery Admission into Evidence ..... 3  
Executive Summary ..... 4  
Introduction ..... 5  
Program Structure..... 5  
    Program Administration ..... 5  
    Program Methodology ..... 7  
Project Implementation ..... 10  
    Funds Programmed..... 10  
    General Listing of Projects ..... 12  
Safety Performance ..... 16  
    General Highway Safety Trends..... 16  
    Safety Performance Targets..... 22  
    Applicability of Special Rules..... 23  
Evaluation ..... 24  
    Program Effectiveness ..... 24  
    Effectiveness of Groupings or Similar Types of Improvements ..... 24  
    Project Effectiveness ..... 28  
Compliance Assessment ..... 29  
Optional Attachments..... 33  
Glossary..... 34

## **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. 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), the Transportation Systems Management and Operations (TSMO) 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 Strategic Traffic Safety Plan (STSP) has been updated in October 2019 meeting requirements for SHSPs in the Fixing America's Surface Transportation Act (FAST Act) and FHWA guidance. The STSP implementation phase began in early 2020. ADOT recognizes the importance of the upcoming implementation phase in continuing the collaboration, cooperation, and sharing of knowledge and resources by all safety stakeholders to make safety our top priority.

Arizona HSIP call for projects for State Fiscal Year (SFY) 2023 and State Fiscal Year (SFY) 2024 was announced in January 2020 for all public roads. Total of 75 applications were received. The amount of applications that were received represents twice the amount of HSIP funds available. Local and State agencies are actively applying for HSIP funds. The distribution of awarded projects for the SFY23 and SFY24 is 20% state and 80% local. The next call for HSIP for State Fiscal year 2025 and 2026 is expected to be in the calendar year 2022.

The projects reflected in this annual report continue to reflect 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 every other year for funding for two years. Agencies interested in applying must complete an HSIP application and submit all required documents during 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). All documents are evaluated by the ADOT HSIP Program Manager and staff to determine if the potential project is HSIP eligible, i.e. compliant with 23 USC 148 / 23 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, TSMO 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 State projects in the ADOT Five Year Transportation Facilities Construction Program. COGs/MPOs add local projects in their TIPs.

#### **Where is HSIP staff located within the State DOT?**

Other-TSM&O

Located in the Operational Traffic and Safety Group under Traffic Safety Section.

#### **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, project cost increase, and finally the remaining funds are available for statewide call for projects. ADOT and local public agencies, including Tribes, identify high crash locations using network screening, Arizona Crash Information System (ACIS) and develop safety improvement projects. In recent years COGs/MPOs have been provided HSIP funds to develop

## 2021 Arizona Highway Safety Improvement Program

Regional Strategic Transportation Safety 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 based on the B/C ratio analysis. ADOT Local Public Agency (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). In addition, the ADOT Traffic Safety Section performs a crash data network screening process of the state highway system to identify "hot spots" and shares the top 5 locations for each District with the appropriate stakeholder (District representative and Regional Traffic Engineer). If a 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. The top 5 locations can be recommended for Road Safety Assessment (RSA) and additional safety evaluations.

### **Identify which external partners are involved with HSIP planning.**

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

### **Describe coordination with external partners.**

External coordination involves participation and membership in COGs/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, the ADOT Traffic Safety Section performs a crash data network screening process of the local highway system to identify "hot spots" and shares the top 5 locations with the appropriate stakeholder (Local Agency or Tribe). Local agencies are trained and encouraged to identify potential "hot spots" utilizing data from the ADOT Arizona Crash Information System (ACIS) database. If a 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. 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>

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

ADOT currently uses AASHTOWare Safety Analyst as the data driven safety analysis tool. AASHTO intends to sunset AASHTOWare Safety Analyst on June 30, 2022. The Safety Analyst software is now 18 years old and has reached the end of its technology lifecycle. In the past few years of Safety Analyst implementation, ADOT worked on improving the quantity and quality of the roadway, traffic volume and crash data that are the inputs for the data driven analysis for better results.

ADOT is currently working on a project to find the AASHTOWare Safety Analyst replacement tool for data driven safety analysis at ADOT and our governmental and non-governmental safety partners.

***Program Methodology***

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

Yes

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.**

- Other-RSA

**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**

- All crashes

**Exposure**

- Volume

**Roadway**

- Median width
- Horizontal curvature
- Roadside features

***What project identification methodology was used for this program?***

## 2021 Arizona Highway Safety Improvement 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**

Available funding:1

Other-Network Screening:2

Other-Owner Request:2

**What percentage of HSIP funds address systemic improvements?**

39.1

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

- Clear Zone Improvements
- Horizontal curve signs
- Pavement/Shoulder Widening
- Rumble Strips
- Wrong way driving treatments

**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.**

If an application for HSIP funding were submitted it would be considered. Connected vehicles and 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. ITS projects compete for HSIP funds with B/C ratio used to prioritize projects for funding.

**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 methods are used on a regular basis primarily to support B/C ratio analysis and determining CMFs. Arizona's has also supported an emphasis on predictive modeling over the last few years has been focused on bring Safety Analyst on-line. Safety Analyst is currently has been used to identify systemic projects on the State Highway System. HSM methods are also used to support any requested design exceptions.

## Project Implementation

### Funds Programmed

#### Reporting period for HSIP funding.

State Fiscal Year

State Fiscal Year (SFY) 2020 start on July 1, 2019 and ends on June 30, 2020.

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	\$37,720,000	\$32,938,690	87.32%
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	\$2,280,000	\$1,186,360	52.03%
<b>Totals</b>	<b>\$40,000,000</b>	<b>\$34,125,050</b>	<b>85.31%</b>

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

24%

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

33%

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

2%

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

5%

**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
F0146: US 95, Aztec Road - S. Bullhead City Parkway, Raised Median	Access management	Change in access - close or restrict existing access	3.5	Miles	\$2124025.645	\$2124025.645	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	12,424	55	State Highway Agency	Spot	Lane Departure	
F0164: SR 68, MP 8.5 - MP 11, signs, RPMs, guardrails	Roadway signs and traffic control	Roadway signs (including post) - new or updated	58	Signs	\$1400000	\$1400000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	8,067	65	State Highway Agency	Spot	Roadway Departure	
F0190: SR87; SR 187 TO GIBLERT RD, Traffic Signals	Intersection traffic control	Modify control – new traffic signal	3	Intersections	\$107279	\$107279	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	6,552	65	State Highway Agency	Spot	Intersections	
F0193: US 191: M450-M452.5 Shoulder Widening and Rumble Strips	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	12.3	Miles	\$437573.689	\$437573.689	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	4,655	65	State Highway Agency	Systemic	Roadway Departure	
F0208: SR 347 AND OLD MARICOPA RD INTERSECTION, Traffic Signal	Intersection traffic control	Modify control – new traffic signal	1	Intersections	\$350000	\$350000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	32,674	55	State Highway Agency	Spot	Intersections	
F0209: US 95, 7TH STREET TO AVIATION WAY, Raised Median	Access management	Change in access - close or restrict existing access	1	Miles	\$1015198.821	\$1015198.821	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	12,424	55	State Highway Agency	Spot	Lane Departure	
F0213: I-8 & I-10 Various Locations, Curve Warning Signs	Roadway signs and traffic control	Curve-related warning signs and flashers	267	Signs	\$1059436	\$1059436	HSIP (23 U.S.C. 148)	Rural	Principal Interstate	0	0	State Highway Agency	Systemic	Roadway Departure	
F0243: US 160, MP 322.6 TO MP 324.5, Lighting	Lighting	Continuous roadway lighting	1.83	Miles	\$799953	\$799953	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	4,787	65	State Highway Agency	Spot	Pedestrians	
F0269: SR 69 AND SPRING LANE INTERSECTION, Signal	Intersection traffic control	Modify control – new traffic signal	1	Intersections	\$842600	\$842600	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	14,888	65	State Highway Agency	Spot	Intersections	
F0280: SR-68, Verde Rd to Bacobi Rd, Raised Median	Access management	Change in access - close or restrict existing access	3.02	Miles	\$494388.496	\$494388.496	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	14,266	50	State Highway Agency	Spot	Lane Departure	
F0281: I-40, Transwestern Rd - I-17 TI, VSLs	Advanced technology and ITS	Advanced technology and ITS - other	24	Signs	\$561409.695	\$561409.695	HSIP (23 U.S.C. 148)	Rural	Principal Interstate	28,688	75	State Highway Agency	Spot	Roadway Departure	

2021 Arizona Highway Safety Improvement Program

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
F0284: TUCSON REGION WRONG WAY SIGNS - PHASE 1	Roadway signs and traffic control	Roadway signs (including post) - new or updated	770	Signs	\$180000	\$180000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	State Highway Agency	Systemic	Older Drivers	
F0287: YUMA REGION WRONG WAY SIGNS	Roadway signs and traffic control	Roadway signs (including post) - new or updated	260	Signs	\$120000	\$120000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	State Highway Agency	Systemic	Older Drivers	
F0311: Statewide Road Safety Assessment (RSA) FY 20	Miscellaneous	Road safety audits	57	Reports	\$598050.6	\$598050.6	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	N/A	All Emphasis Areas	
H7475: SR 80, FREMONT ST. - TOMBSTONE Sidewalks	Pedestrians and bicyclists	Install sidewalk	0.37	Miles	\$97268.27929	\$97268.27929	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	7,020	40	State Highway Agency	Spot	Pedestrians	
H8125: I-40, Walnut Canyon - Twin Arrows, RPMs & Shoulder Rumble Strips	Roadway	Rumble strips – edge or shoulder	66	Miles	\$285725	\$285725	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Interstate	19,300	75	State Highway Agency	Systemic	Roadway Departure	
H8245: SR 260, RIM RD - GIBSON RD, SEGMENT I, Shoulder Widening	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	21.58	Miles	\$193315	\$193315	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	7,507	65	State Highway Agency	Systemic	Roadway Departure	
H8267: SR 77, POWER LINE - SAN MANUEL ROAD, End Treatments, Rumble Strips	Roadside	Barrier end treatments (crash cushions, terminals)	54	Guard Rail End Treatments	\$1618489	\$1618489	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	42,115	50	State Highway Agency	Systemic	Roadway Departure	
H8659: SR 93, WINDY POINT ROAD - MINERAL PARK ROAD, Shoulder Widening	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	10.48	Miles	\$9465160.18	\$9465160.18	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	24,313	65	State Highway Agency	Systemic	Roadway Departure	
H8838: SR 87 & RUINS DRIVE, Traffic Signal	Intersection traffic control	Modify control – new traffic signal	1	Intersections	\$93365.35	\$93365.35	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	11,998	50	State Highway Agency	Spot	Intersections	
M6937: SAFETY ANALYST TECHNICAL SUPPORT	Miscellaneous	Data analysis	1	Software Support	\$713673.716	\$713673.716	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	N/A	Data	
M7143: STATEWIDE AZTRaCS YEARLY LICENSE FEE	Miscellaneous	Data collection	1	Software License	\$74756.325	\$74756.325	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	N/A	Data	
M7148: AZ Crash Information System Enhancement	Miscellaneous	Data analysis	1	Software Support	\$299025.3	\$299025.3	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	N/A	Data	

2021 Arizona Highway Safety Improvement Program

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
SH511: SWITZER CANYON/TURQUOISE DRIVE, Roundabout	Intersection traffic control	Modify control – Modern Roundabout	1	Intersections	\$119701.61	\$119701.61	HSIP (23 U.S.C. 148)	Urban	Minor Collector	13,600	45	City or Municipal Highway Agency	Spot	Intersections	
SH544: SOUTHERN AVE AT STAPLEY DR, Left Turn Lane	Intersection geometry	Add/modify auxiliary lanes	1	Intersections	\$6119165.374	\$6119165.374	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	33,450	40	City or Municipal Highway Agency	Spot	Intersections	
SS998: RIO RICO AND PENDLETON DRIVE INTERSECTION IMPROVEMENTS, Signal	Intersection traffic control	Modify control – new traffic signal	1	Intersections	\$984555	\$984555	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	14,350	35	City or Municipal Highway Agency	Spot	Intersections	
T0048: RURAL RD AND SOUTHERN AVE, Signal Modification	Intersection traffic control	Modify traffic signal timing – left-turn phasing	1	Intersections	\$124300	\$124300	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	32,517	40	City or Municipal Highway Agency	Spot	Intersections	
T0168: JK BLVD; CASA GRANDE AVE - MILLIGAN AVE, Rumble Strips	Roadway	Rumble strips – edge or shoulder	14.74	Miles	\$324827	\$324827	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	9,291	45	City or Municipal Highway Agency	Spot	Roadway Departure	
T0169: Macrae Rd - Woodruff Rd to Vah Ki Inn Rd, Rumble Strips	Roadway	Rumble strips – edge or shoulder	5.37	Miles	\$242025	\$242025	HSIP (23 U.S.C. 148)	Rural	Major Collector	4,991	40	City or Municipal Highway Agency	Spot	Roadway Departure	
T0175: Courtwright Rd & Pierce Ferry Rd, Rumble Strips	Roadway	Rumble strips – edge or shoulder	10	Miles	\$898880	\$898880	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	3,792	55	County Highway Agency	Spot	Roadway Departure	
T0180: Peart Road and Early Rd, Illumination and turn lane	Lighting	Intersection lighting	1	Intersections	\$147137	\$147137	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	17,000	45	City or Municipal Highway Agency	Spot	Intersections	
T0183: Sierra Vista, Adaptive Signal Controls	Intersection traffic control	Dilemma Zone Detection System	4	Intersections	\$841253	\$841253	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	10,724	45	City or Municipal Highway Agency	Spot	Intersections	
T0191: Stockton Hill Rd, Safety Improvements	Roadway signs and traffic control	Roadway signs and traffic control - other	0.87	Miles	\$602513	\$602513	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	31,959	35	City or Municipal Highway Agency	Spot	Aggressive Driving	
T0202: ACOMA BLVD & PIMA DR, HAWK	Pedestrians and bicyclists	Pedestrian hybrid beacon	1	PHB	\$340000	\$340000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	14,800	35	City or Municipal Highway Agency	Spot	Pedestrians	

2021 Arizona Highway Safety Improvement Program

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
T0247: FOURTH ST, CEDAR AVE, LOCKETT RD, Roundabout	Intersection traffic control	Modify control – Modern Roundabout	1	Intersections	\$450000	\$450000	HSIP (23 U.S.C. 148)	Urban	Major Collector	17,771	30	City or Municipal Highway Agency	Spot	Intersections	

## Safety Performance

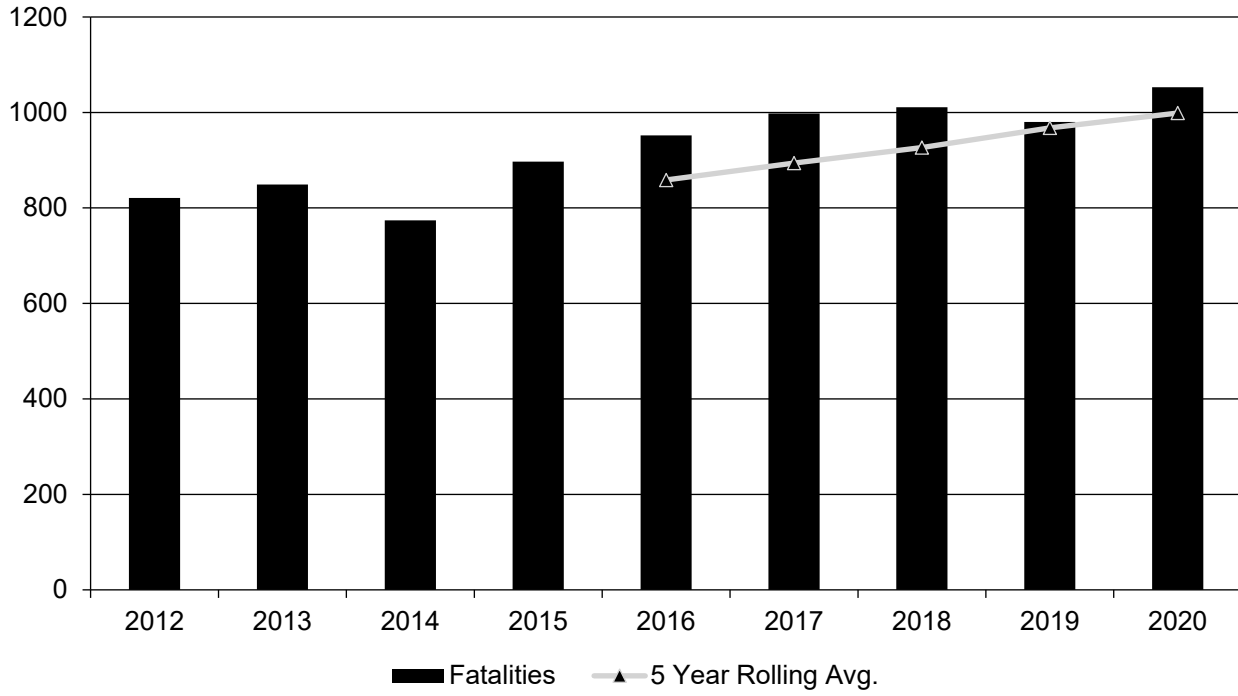
### *General Highway Safety Trends*

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

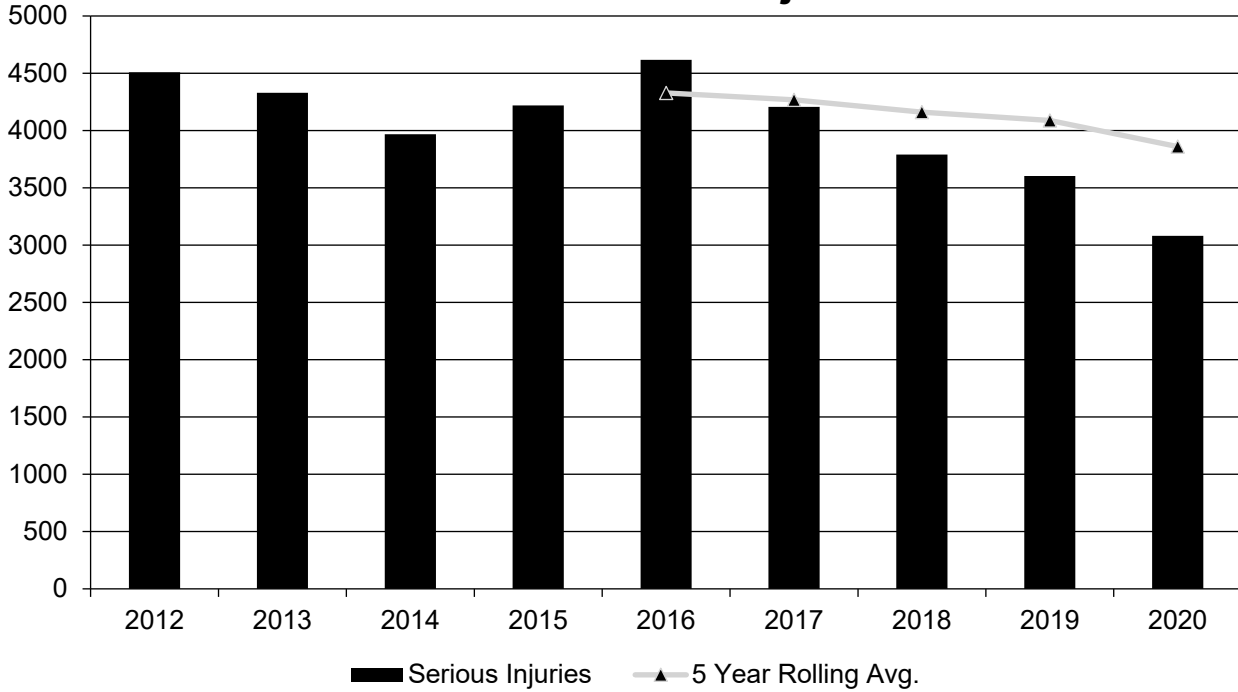
<b>PERFORMANCE MEASURES</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Fatalities	821	849	774	897	952	998	1,011	980	1,053
Serious Injuries	4,508	4,329	3,968	4,220	4,617	4,207	3,790	3,604	3,081
Fatality rate (per HMVMT)	1.365	1.401	1.236	1.379	1.451	1.534	1.528	1.397	1.606
Serious injury rate (per HMVMT)	7.497	7.145	6.332	6.477	7.024	6.450	5.715	5.067	4.699
Number non-motorized fatalities	149	189	184	191	224	258	269	248	267
Number of non-serious motorized injuries	572	502	486	493	653	576	560	526	429



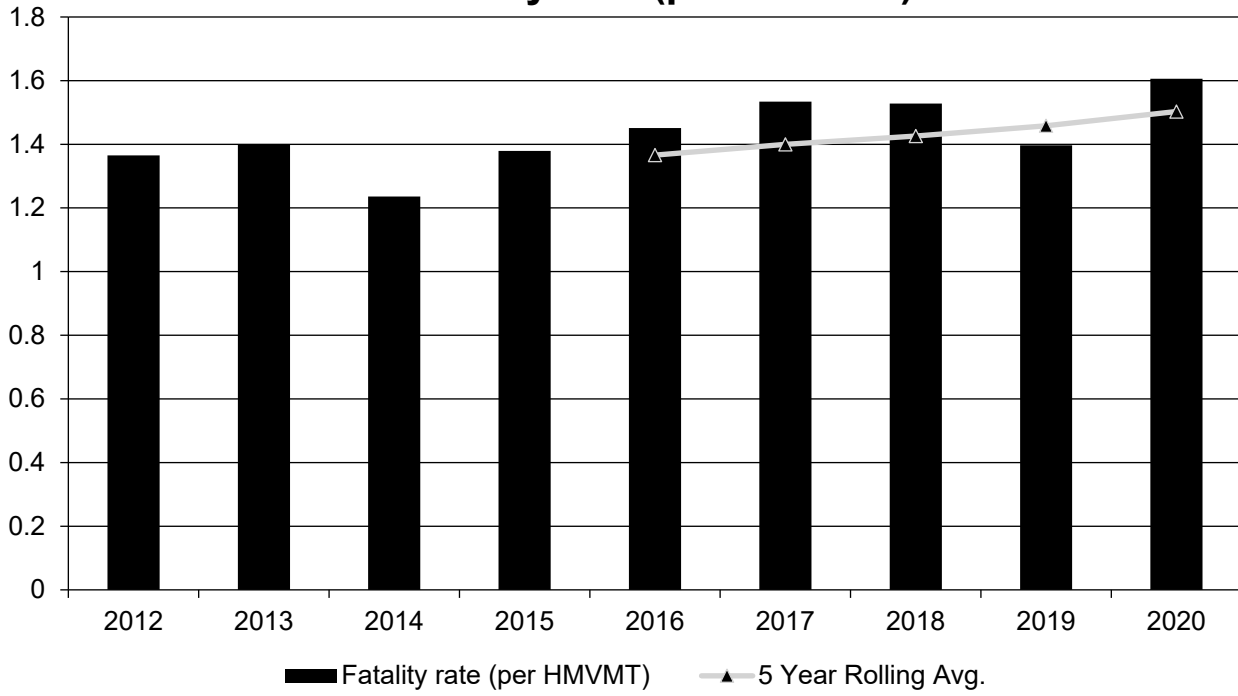
### Annual Fatalities



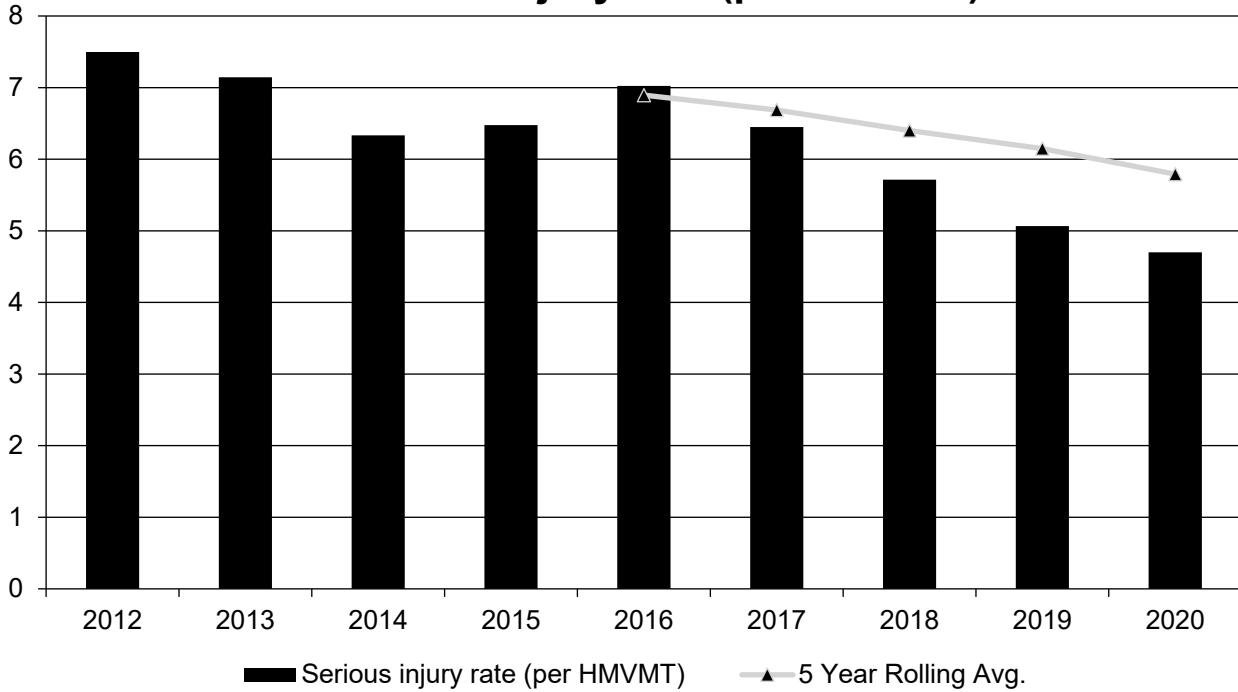
### Annual Serious Injuries



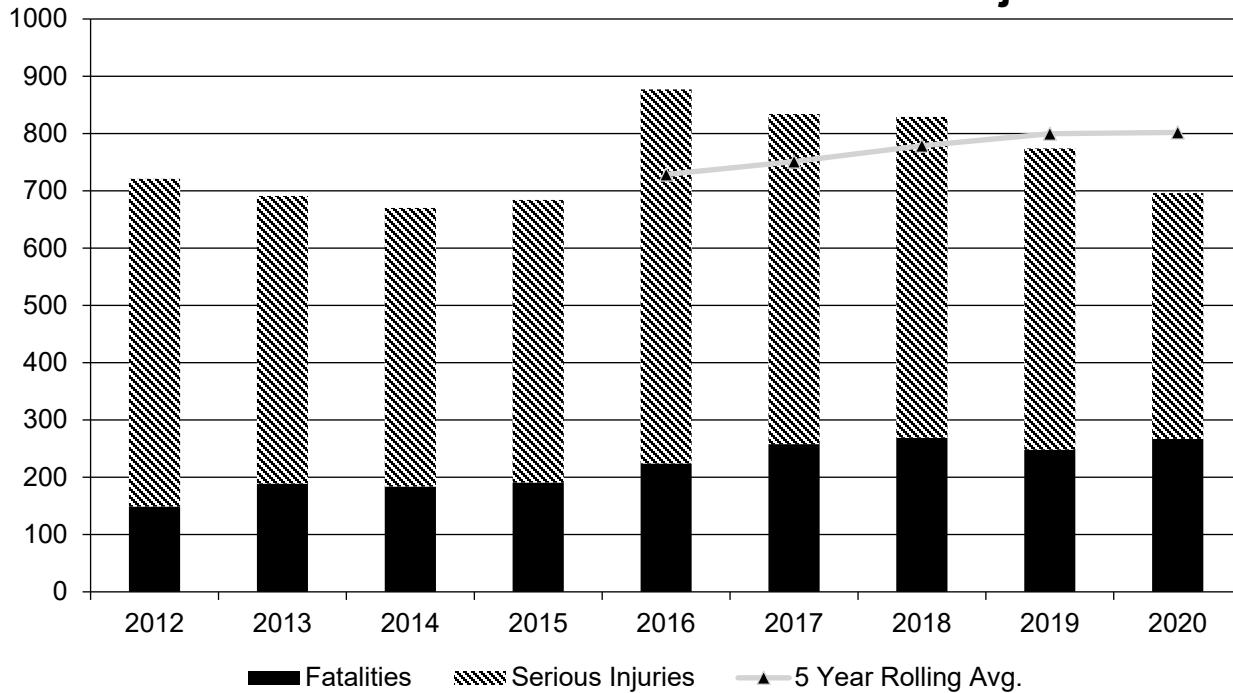
### Fatality rate (per HMVMT)



### Serious injury rate (per HMVMT)



### Non Motorized Fatalities and Serious Injuries



**Describe fatality data source.**

FARS

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

**Year 2020**

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	85.6	204	0.13	0.31
Rural Principal Arterial (RPA) - Other Freeways and Expressways	0.6	0.2	0	0
Rural Principal Arterial (RPA) - Other	72.2	185.6	0.11	0.28
Rural Minor Arterial	50.6	97.2	0.08	0.15
Rural Minor Collector	11.2	23	0.02	0.03
Rural Major Collector	69.6	142.8	0.1	0.21

## 2021 Arizona Highway Safety Improvement Program

<b>Functional Classification</b>	<b>Number of Fatalities (5-yr avg)</b>	<b>Number of Serious Injuries (5-yr avg)</b>	<b>Fatality Rate (per HMVMT) (5-yr avg)</b>	<b>Serious Injury Rate (per HMVMT) (5-yr avg)</b>
Rural Local Road or Street	9.4	24.6	0.01	0.04
Urban Principal Arterial (UPA) - Interstate	48	160.8	0.07	0.24
Urban Principal Arterial (UPA) - Other Freeways and Expressways	38.8	177.4	0.06	0.27
Urban Principal Arterial (UPA) - Other	121.8	584.4	0.18	0.88
Urban Minor Arterial	264.6	1,352.6	0.4	2.04
Urban Minor Collector		20.6		0.03
Urban Major Collector	39.4	210.8	0.06	0.32
Urban Local Road or Street	11.4	47.2	0.02	0.07

2021 Arizona Highway Safety Improvement Program

**Year 2020**

<b>Roadways</b>	<b>Number of Fatalities (5-yr avg)</b>	<b>Number of Serious Injuries (5-yr avg)</b>	<b>Fatality Rate (per HMVMT) (5-yr avg)</b>	<b>Serious Injury Rate (per HMVMT) (5-yr avg)</b>
State Highway Agency	394.2	876.4	0.59	1.31
County Highway Agency	93.2	277.4	0.14	0.42
Town or Township Highway Agency	14.6	57	0.02	0.08
City or Municipal Highway Agency	387.2	1,604.6	0.58	2.41
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	3.2	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	0.2	0	0
Indian Tribe Nation	5.6	3.6	0.01	0.01

**Provide additional discussion related to general highway safety trends.**

While Americans drove less in 2020 due to the pandemic, 1054 people died in motor vehicle traffic crashes in Arizona, the largest number of fatalities since 2008. This represents an increase of about 7.6 percent as compared to the 980 fatalities reported in 2019. The 2020 Arizona Motor Vehicle Crash Facts shows vehicle miles traveled (VMT) in 2020 decreased by about a 6.70 percent. The fatality rate for 2020 was 1.61 fatalities per 100 million VMT, up from 1.39 fatalities per 100 million VMT in 2019. ADOT will continue to analyze the various data to identify the contributing factors for the increase.

## ***Safety Performance Targets***

### **Safety Performance Targets**

#### **Calendar Year 2022 Targets \***

##### ***Number of Fatalities:1045.2***

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

The 2022 Safety Performance Projections (Targets) created using the following analysis:

2020 Fatalities are showing an increase from 2019.

2020 Fatalities increased by 7.86% from the year 2019

2021 fatality count is 408 as of June 2nd, 2021

##### ***Number of Serious Injuries:3210.7***

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

The 2022 Safety Performance Projections (Targets) created using the following analysis:

2020 Serious injury crashes are showing higher than predicted declines from 2019.

2020 Serious injuries declined by 14.25% from 2019

2021 Serious injuries count is 1066 as of June 2nd, 2021

##### ***Fatality Rate:1.568***

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

Statewide VMT and crash data for 2020 as of June 2, 2021 are preliminary and subject to change

##### ***Serious Injury Rate:4.797***

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

Statewide VMT and crash data for 2020 as of June 2, 20201 are preliminary and subject to change.

##### ***Total Number of Non-Motorized Fatalities and Serious Injuries:736.2***

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

The 2022 Safety Performance Projections (Targets) created using the following analysis:

The 2020 Non Motorized fatalities and serious injuries declined by 7.89% from 2019

The 2022 Safety Performance Projections (Targets) was completed on June 2, 2021. Statewide VMT and crash data for 2020 was preliminary and subject to change.

##### **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 2020 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.**

PERFORMANCE MEASURES	TARGETS	ACTUALS
Number of Fatalities	1014.4	998.8
Number of Serious Injuries	3934.0	3859.8
Fatality Rate	1.522	1.503
Serious Injury Rate	5.936	5.791
Non-Motorized Fatalities and Serious Injuries	865.4	802.0

The annual number of fatalities for 2020 projected to be 1072, the actual number for 2020 currently is 1054. The annual number of serious injuries for 2020 projected to be 3514, the actual number for 2020 currently is 3089.

The annual numbers of non-motorized fatalities and serious injuries projected to be 904, the actual number for 2020 is 703

***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	2014	2015	2016	2017	2018	2019	2020
Number of Older Driver and Pedestrian Fatalities	105	126	121	131	170	169	149
Number of Older Driver and Pedestrian Serious Injuries	328	421	424	373	386	359	290

## Evaluation

### Program Effectiveness

#### How does the State measure effectiveness of the HSIP?

- Change in fatalities and serious injuries

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

While Americans drove less in 2020 due to the pandemic, 1054 people died in motor vehicle traffic crashes in Arizona, the largest number of fatalities since 2008. This represents an increase of about 7.6 percent as compared to the 980 fatalities reported in 2019. The 2020 Arizona Motor Vehicle Crash Facts shows vehicle miles traveled (VMT) in 2020 decreased by about a 6.70 percent. The fatality rate for 2020 was 1.61 fatalities per 100 million VMT, up from 1.39 fatalities per 100 million VMT in 2019. ADOT will continue to analyze the various data to identify the contributing factors for the increase.

#### 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

Number of RSA's with countermeasures implemented is an indicators of the effectiveness and success of the HSIP program. During the calendar year 2020, the AZ Road Safety Assessment Program (RSA) team established a goal for the program to conduct 50 RSAs and implement the RSA countermeasures recommended. The number of RSAs conducted was 57 and the number of locations with RSA countermeasures implemented was 11. Crash analysis for the locations with countermeasures implemented shows a 21% reduction in the total number of crashes.

### Effectiveness of Groupings or Similar Types of Improvements

#### Present and describe trends in SHSP emphasis area performance measures.

##### Year 2020

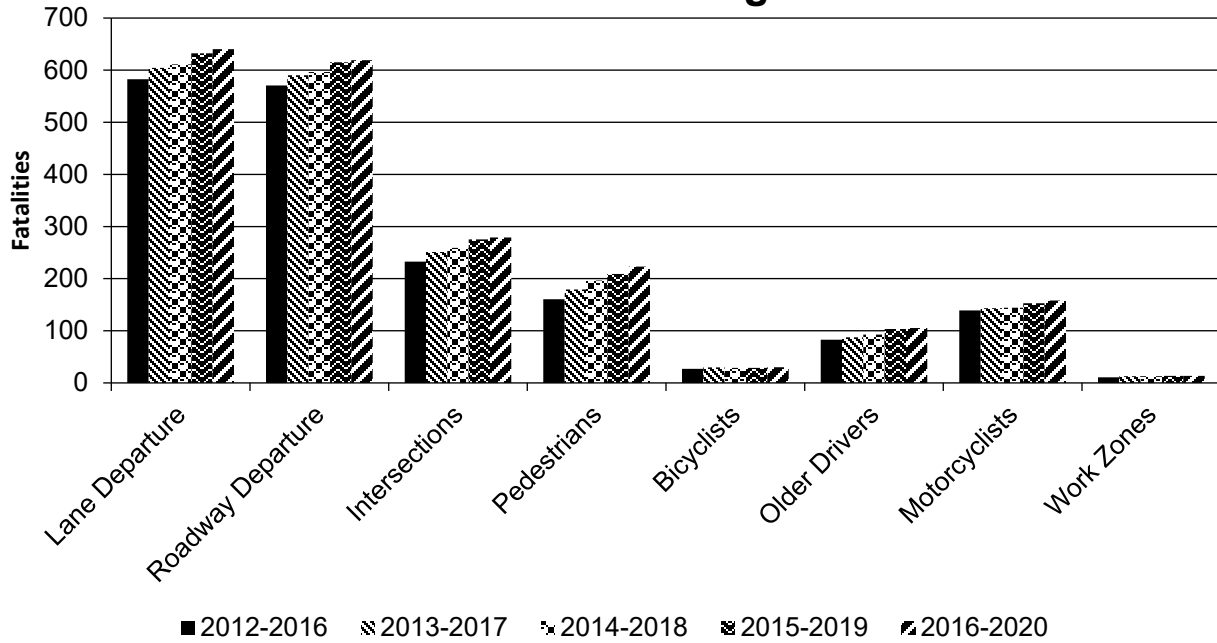
SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)	Other 1	Other 2	Other 3
Lane Departure	Head on	640.4	1,814.8	0.96	2.73	0	0	0



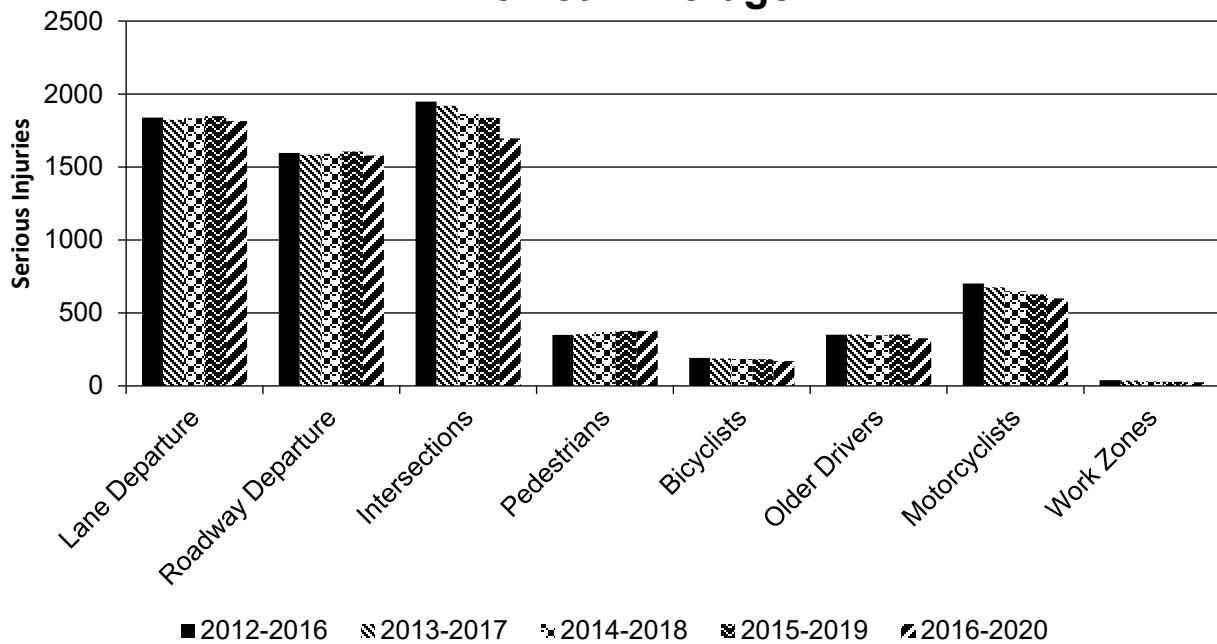
2021 Arizona Highway Safety Improvement Program

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
Roadway Departure	Run-off-road	619.2	1,579.2	0.93	2.38	0	0	0
Intersections	Intersections	279	1,695.6	0.42	2.55	0	0	0
Pedestrians	Vehicle/pedestrian	223.2	376.6	0.34	0.57	0	0	0
Bicyclists	Vehicle/bicycle	30	170.2	0.05	0.26	0	0	0
Older Drivers	All	105.4	327	0.16	0.49	0	0	0
Motorcyclists	All	158	600	0.24	0.9	0	0	0
Work Zones	Work Zone	13.4	25.4	0.02	0.04	0	0	0

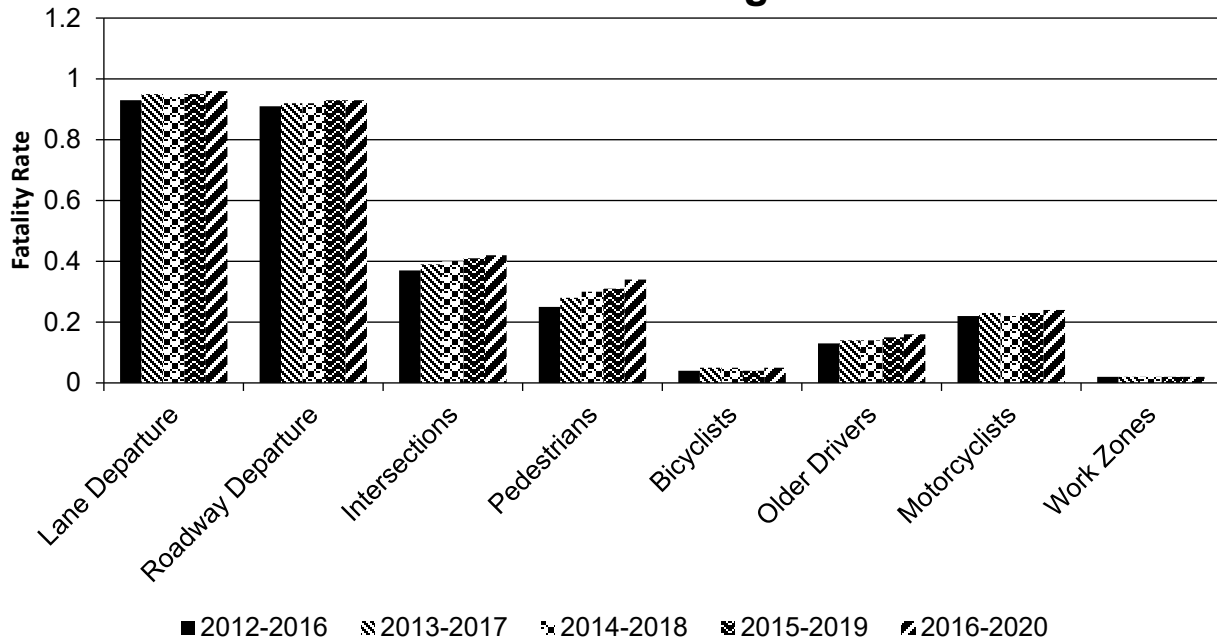
### Number of Fatalities 5 Year Average



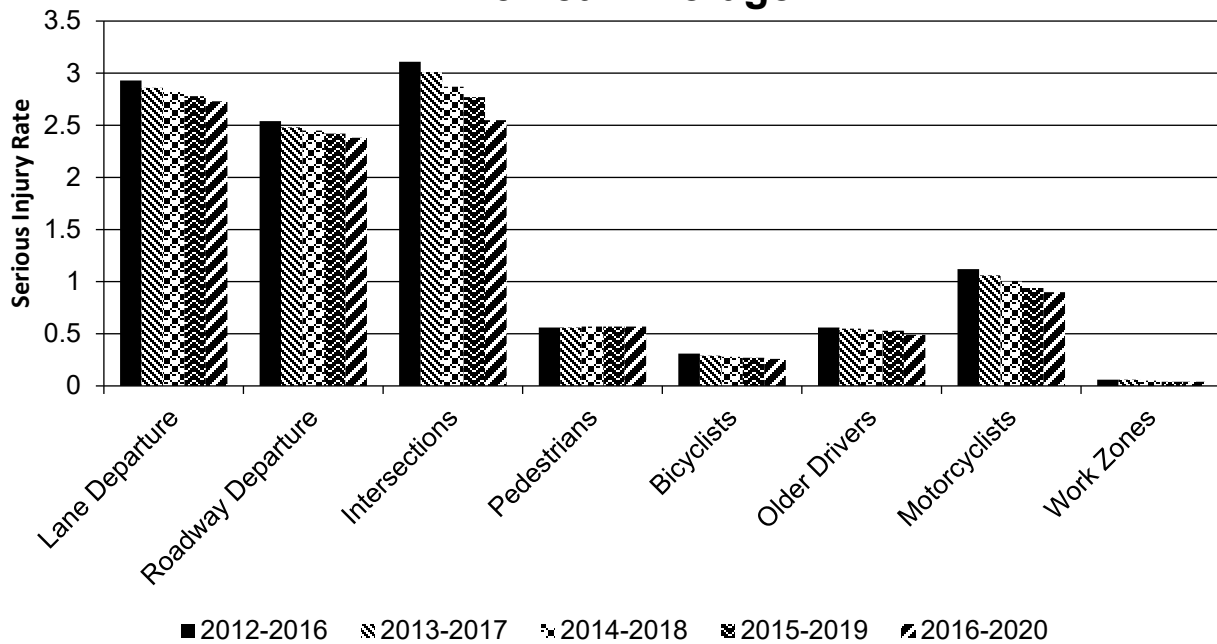
### Number of Serious Injuries 5 Year Average



### Fatality Rate (per HMVMT) 5 Year Average



### Serious Injury Rate (per HMVMT) 5 Year Average



**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)
US 60, MP229.4 to MP 242.4, Oak Flat - Miami	Rural Principal Arterial (RPA) - Other	Roadway	Roadway widening - add lane(s) along segment	58.00	52.00	4.00		11.00	7.00	26.00	45.00	99.00	104.00	
US 60 WB, MP172.4 to MP173.52	Urban Principal Arterial (UPA) - Other Freeways and Expressways	Interchange design	Installation of new lane on ramp	165.00	125.00	1.00	1.00	5.00		414.00	56.00	585.00	182.00	

The AZ HSIP eligibility requires all agencies receiving the HSIP funds to establish and maintain a data inventory of before and after crashes for the safety improvement project in order for an analysis and evaluation to be carried out by ADOT.

## Compliance Assessment

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

10/01/2019

**What are the years being covered by the current SHSP?**

From: 2019 To: 2024

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

2024

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

\*Based on Functional Classification (MIRE 1.0 Element Number) [MIRE 2.0 Element Number]

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	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
ROADWAY SEGMENT	Segment Identifier (12) [12]	100	100					100	90	100	90
	Route Number (8) [8]	100	100								
	Route/Street Name (9) [9]	100	100								
	Federal Aid/Route Type (21) [21]	100	100								
	Rural/Urban Designation (20) [20]	100	100					100	100		
	Surface Type (23) [24]	100	100					100	100		
	Begin Point Segment Descriptor (10) [10]	100	100					100	100	100	100
	End Point Segment Descriptor (11) [11]	100	100					100	100	100	100
	Segment Length (13) [13]	100	100								
	Direction of Inventory (18) [18]	100	100								
Functional Class (19) [19]	100	100					100	100	100	100	

2021 Arizona Highway Safety Improvement Program

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	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Median Type (54) [55]	100	100								
	Access Control (22) [23]	100	100								
	One/Two Way Operations (91) [93]	100	100								
	Number of Through Lanes (31) [32]	100	100					100	70		
	Average Annual Daily Traffic (79) [81]	100	100					100	5		
	AADT Year (80) [82]	100	100								
	Type of Governmental Ownership (4) [4]	100	100					100	50	100	20
	<b>INTERSECTION</b>	Unique Junction Identifier (120) [110]			100	80					
	Location Identifier for Road 1 Crossing Point (122) [112]			100	50						
	Location Identifier for Road 2 Crossing Point (123) [113]			100	50						
	Intersection/Junction Geometry (126) [116]			60	80						
	Intersection/Junction Traffic Control (131) [131]			60	95						
	AADT for Each Intersecting Road (79) [81]			100	100						
	AADT Year (80) [82]			100	50						
	Unique Approach Identifier (139) [129]			100	50						
<b>INTERCHANGE/RAMP</b>	Unique Interchange Identifier (178) [168]					100	80				
	Location Identifier for Roadway at					100	50				

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	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Beginning of Ramp Terminal (197) [187]										
	Location Identifier for Roadway at Ending Ramp Terminal (201) [191]					100	50				
	Ramp Length (187) [177]					100	50				
	Roadway Type at Beginning of Ramp Terminal (195) [185]					100	50				
	Roadway Type at End Ramp Terminal (199) [189]					100	50				
	Interchange Type (182) [172]										
	Ramp AADT (191) [181]					100	10				
	Year of Ramp AADT (192) [182]					100	10				
	Functional Class (19) [19]					100	90				
	Type of Governmental Ownership (4) [4]					100	80				
<b>Totals (Average Percent Complete):</b>		<b>100.00</b>	<b>100.00</b>	<b>90.00</b>	<b>69.38</b>	<b>90.91</b>	<b>47.27</b>	<b>100.00</b>	<b>79.44</b>	<b>100.00</b>	<b>82.00</b>

\*Based on Functional Classification (MIRE 1.0 Element Number) [MIRE 2.0 Element Number]

**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.**

This discussion focuses on the steps (actions) ADOT is taking to meet the requirement for States to have access to the MIRE fundamental data elements on all public roads by September 30, 2026 and is updated each year based on current progress.

Each of the following steps describes necessary actions and completion dates to meet the 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:

Each division of the MIRE task force committee will work closely to ensure the following steps are completed timely and accurately.

## 2021 Arizona Highway Safety Improvement Program

**Step 2.** Create an outreach plan to facilitate communication between ADOT internal staff 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 2021. ADOT parties involved: MPD/ITG/TSMO.

**Step 3.** Verify the completeness of MIRE data elements and fill in data gaps on the Federal aid system via a gap analysis. So far more than 5,636 miles have been collected. This work will continue to be done until data gaps are filled in. This step will be completed in 2023. ADOT parties involved: MPD/ITG/TSMO.

**Step 3b.** For all new elements, ADOT will establish a database schema. Much of this is being done with junction and junction leg datasets.

**Step 4.** Develop data collection and integration plan by determining 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 began in 2021. ADOT parties involved: MPD/ITG/TSMO.

**Step 4b.** Perform a statewide assessment of federal functional classification. The goal being to align mileage percentage breakdowns with FHWA guidance. This task has been completed as of 2020: MPD.

**Step 4c.** Determine if the locality data is complete and compatible with ADOT's existing data. This step will begin in 2020 and be completed simultaneously with Step 3. 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 2023. ADOT parties involved: MPD/TSMO.

**Step 6.** Create a detailed data 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. This plan will likely leverage local agencies to assist with data verification. This step will be completed in 2024. ADOT parties involved: MPD/ITG/TSMO. Identify training needs for data collection from all stakeholders.

**Step 7.** Create a cost estimate for all data collection and maintenance efforts. This step will be completed in 2024. ADOT parties involved: MPD/TSMO.

**Step 8.** Identify funding sources (HSIP and SPR) for the data collection and maintenance process. This step will be completed in 2020. ADOT parties involved: MPD/TSMO.

**Step 9.** Allocate funding and resources for the data collection efforts. This step will be completed in 2021. ADOT parties involved: MPD/TSMO.

**Step 10.** Gather all remaining data and perform a data effectiveness evaluation. 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.



## **Optional Attachments**

Program Structure:

2015 HSIP Manual (RevDec18).pdf

HSIP Appendix A(Rev Dec18).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.