ARIZONA

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2024 ANNUAL REPORT

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Photo source: Federal Highway Administration

Table of Contents

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. 407 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 Highway Safety Plan (SHSP) is being updated under the umbrella of the Safe System Approach to meet the requirements for SHSPs in the Infrastructure Investment and Jobs Act (IIJA) and FHWA guidance. The 2024 SHSP is scheduled to be completed in October 1st, 2024. Guiding development of the SHSP is an Executive Committee composed of high-level management staff from the state, Tribal, and federal organizations. Arizona first Active Transportation Action Plan (ATSAP) is being developed in close coordination with the SHSP and under the umbrella of the Safe System Approach. Public and stakeholder outreach has been a critical component of both the SHSP and ATSAP efforts.

The SHSP implementation phase will begin in October 2024. ADOT recognizes the importance of the 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 2027/2028 was announced on January 4, 2024 for all public roads. A total of 78 applications were received. These applications are currently under review for HSIP eligibility, scoping, design and funding. Local and State agencies are actively applying for HSIP funds.

This annual report continues to reflect a combination of Arizona 2014 and 2019 SHSP emphasis areas and performance measures as projects are programmed under the 2014 and 2019 SHSP.

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 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 and submit HSIP applications and 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 Benefit to Cost Ratio (B/C) calculation sheet, a location map, a project limits map and any warrant studies (if applicable). HSIP applications and cost estimates are submitted to the ADOT Project Management Group (PMG), the ADOT Local Public Agency Group, State Traffic Safety Engineer, Districts and Regional Traffic Engineers for review and comments. 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 suspected serious injury crashes that countermeasure can potentially reduce, supports the AZ Strategic Highway Safety Plan (SHSP), and B/C ratio of equal to or greater than 2.5. The draft comments are consolidated and returned to the submitting agency for review and incorporation into the final submittal to ADOT. The final applications are again reviewed and the approved HSIP eligible projects are then ranked by the HSIP Program Manager based on the B/C ratio. The HSIP Program Manager then presents the list to the Director, TSMO for final ranking and approval. A Safety Review Committee comprised of FHWA, ADOT staff, COG/MPO's, Inter Tribal Council and locals, reviews and approves the proposed list. 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 Transportation Improvement Programs (TIPs).

Where is HSIP staff located within the State DOT?

Other-TSM&O

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. 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

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 requires 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.

AASHTO Safety Analyst has reached the end of its technology lifecycle. In the past few years ADOT has been working on the Safety Analyst implementation, ADOT has 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 replacement for the AASHTO Safety Analyst. A Task Order has been issued for a scope of work which is intended to cover the definition of detailed requirements for a predictive modeling tool for the Arizona Department of Transportation (ADOT), and to conduct a fit analysis for the AASTHOWare Safety Management module using the defined requirements as the baseline for the analysis.

Program Methodology

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

Yes

2023 HSIP Manual
2023 HSIP Appl
HSIP Appendix A (Rev Oct23)
HSIP Appendix_B
HSIP Appendix_C

HSIP Appendix _D (Under Development)

HSIP Appendix_E

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

Select the programs that are administered under the HSIP.

- Vulnerable Road Users
- Other-RSA

Program: Vulnerable Road Users

Date of Program Methodology:7/1/2022

What is the justification for this program?

- 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?

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

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

Program: Other-RSA

Date of Program Methodology:7/1/2022

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
- Other-Agency Request

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

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

How are projects under this program advanced for implementation?

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).

What percentage of HSIP funds address systemic improvements?

7.2

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

- Horizontal curve signs
- 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 guidance and methodology.. Arizona has also supported an emphasis on predictive modeling over the last few years. The Arizona Crash Information System (ACIS) is used to identify hot spots and 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

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$26,982,432	$20,787,190	77.04%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$4,093,716	$7,751,621	189.35%
VRU Safety Special Rule (23 U.S.C. 148(g)(3))	$8,523,852	$11,135,582	130.64%
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	$0	$1,286,326	0%
Totals	$39,600,000	$40,960,719	103.44%

See comments in Question 26 for additional information.

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

$34,953,663

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

$19,441,046

HSIP Projects are prioritized for funding based on the Benefit/Cost (B/C) ratio. In FY23, 48.3% of the funded projects were local or Native Nations/Tribal Governments projects.

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

$668,800

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

$3,768,510

$575,000 was programmed in SFY23 for the AZ RSA and $93,800 programmed in SFY23 for the Yearly License Fee for AZTRaCS software to report crash data to ADOT electronically for .

Per ADOT HSIP guidance, non-infrastructure total project programming is capped at 10% of the SFY OA. Applications are evaluated when submitted to ensure the potential project is HSIP eligible.

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?

$27,844,582

The initial SFY23 AZ HSIP program had $39.6m obligation authority (OA) which was 90% of the SFY $44m HSIP apportionment. (This is the dollar amount that is reflected in Question 23.) IIJA provided an additional $28m to the ADOT SFY23 HSIP program, but because the FHWA guidance for IIJA was not issued until the 3rd Quarter of the State Fiscal Year (SFY), programming and obligation of the addition funding by the ADOT HSIP was not feasible. Therefore, ADOT Financial Management System transferred the above amount from apportioned HSIP funding to the Surface Transportation Block Grant Flex Program to be used on safety projects on the US 93 corridor.

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

Underestimating of construction cost estimates and increased unit costs resulted in significant underestimating of final project design and construction costs. As a result ADOT Management decided to conduct an eight step HSIP Plan-Do-Check-Act (PDCA) which is a process in Continuous Improvement that takes on a challenge and makes sure progress is being made. In this case, better and more efficient and effective cost estimating. The team was comprised of members from the Multi-Modal Planning Division, Project Management Group, Senior TSMO Management, JPA Section, HSIP Team Members and others. The results of this review process identified the need for an outside engineering consultant agency reviewing the submitting agency's application for scope, schedule and budget prior to final HSIP approval and inclusion in the ADOT Five-Year Transportation Construction Program. This new process will take effect HSIP projects programmed for SFY27 and SFY28.

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 OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
F027101C, MAG Region - Various Locations	Intersection geometry	Intersection geometry - other	3	Intersections	$110330		HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0	0	State Highway Agency	Spot	Intersections	
F033901C, SR264/IR4	Pedestrians and bicyclists	Install sidewalk	0.24	Miles	$285884		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Rural	Minor Arterial	2,937	55	State Highway Agency	Spot	Pedestrians	
F035201C, US60 - N Cherry Ave to Radanovich Blvd	Lighting	Continuous roadway lighting	1.8	Miles	$98316		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Urban	Principal Arterial-Other	45,796	45	State Highway Agency	Spot	Pedestrians	
F035701C, SR287 - Hachienda to SR87	Roadway	Rumble strips – edge or shoulder	8	Miles	$194451		HSIP (23 U.S.C. 148)	Rural	Minor Arterial	7,550	55	State Highway Agency	Spot	Lane Departure	
F036101C, US-60X (Apache Trail) - Sossaman to Meridian	Pedestrians and bicyclists	Install sidewalk	5.52	Miles	$6176950		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Urban	Principal Arterial-Other	22,469	55	State Highway Agency	Spot	Pedestrians	
F037301C, SR87 - Kenworthy Rd & SR-287 at Christensen Rd	Intersection geometry	Add/modify auxiliary lanes	2	Intersections	$1199881		HSIP (23 U.S.C. 148)	Rural	Minor Arterial	11,368	55	State Highway Agency	Spot	Intersections	
F039401C, SR80 - Mule Pass Tunnel, Bisbee	Lighting	Continuous roadway lighting	0.83	Miles	$1384289		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Rural	Principal Arterial-Other	5,220	45	State Highway Agency	Spot	Pedestrians	
F04210C, SR87 - SR179 & SR260	Roadside	Removal of fixed objects (trees, poles, etc.)	53.5	Miles	$4688833		HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	0	State Highway Agency	Spot	Roadway Departure	
F043201C, Wrong Way Do Not Enter Signs - Stage IV	Roadway signs and traffic control	Roadway signs (including post) - new or updated	199	Signs	$92507		HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	State Highway Agency	Systemic	Older Drivers	
F043301C, Wrong Way Do	Roadway signs and traffic control	Roadway signs (including post) - new or updated	412	Signs	$222636		HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	State Highway Agency	Systemic	Older Drivers	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
Not Enter Signs - Stage V															
F051201C, SR89A - Grant Woods Parkway to I-17	Roadway	Rumble strips – center	11.5	Miles	$382341		HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	31,986	65	State Highway Agency	Spot	Lane Departure	
F051901C, SR89 - MP 339 to MP 363	Roadway	Rumble strips – center	22.79	Miles	$498420		HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	3,600	65	State Highway Agency	Spot	Lane Departure	
F055301D, SR87/ Kleck Road	Intersection traffic control	Modify control – new traffic signal	1	Intersections	$239703		HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	8,686	55	State Highway Agency	Spot	Intersections	
F055901D, SR89 - W Road 5 N to Paulden	Roadway	Rumble strips – edge or shoulder	2.48	Miles	$358323		HSIP (23 U.S.C. 148)	Rural	Major Collector	13,322	65	State Highway Agency	Spot	Roadway Departure	
F056001D, US160/IR21	Intersection traffic control	Intersection flashers –sign-mounted or overhead	3	Approaches	$144427		HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural	Principal Arterial-Other	3,400	45	State Highway Agency	Spot	Intersections	
F056301D, I-40 -Various Locations	Roadway signs and traffic control	Roadway signs (including post) - new or updated	200	Interchanges	$1265811		HSIP (23 U.S.C. 148)	Multiple/Varies	Principal Arterial-Interstate	0	0	State Highway Agency	Systemic	Older Drivers	
F056401D, I-10, SR90 - MP302.95 to MP303.4	Roadway	Roadway widening - add lane(s) along segment	0.55	Miles	$223455		HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	32,782	75	State Highway Agency	Spot	Lane Departure	
F056501D, SR89/Little Ranch Rd	Intersection geometry	Add/modify auxiliary lanes	0.28	Miles	$256859		HSIP (23 U.S.C. 148)	Rural	Minor Arterial	15,552	65	State Highway Agency	Spot	Intersections	
F057401D, SR73/SR-260	Pedestrians and bicyclists	Pedestrians and bicyclists – other	1	Intersection Lighting	$326869		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Rural	Principal Arterial-Other	5,745	30	State Highway Agency	Spot	Pedestrians	
H769601X, I-10 - SR-87 TI to Town of Picacho	Interchange design	Interchange improvements	2.03	Miles	$263750		HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	44,600	45	County Highway Agency	Spot	Intersections	
M714301X, Statewide - AZTraCS	Miscellaneous	Data collection	1	License	$88453		HSIP (23 U.S.C. 148)	N/A	N/A	0	0	All Agencies	Statewide	All EAs	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
M719801X, Statewide - Crash Records	Miscellaneous	Data collection	1	License	$707250		HSIP (23 U.S.C. 148)	N/A	N/A	0	0	All Agencies	Statewide	Data	
M720001X, Statewide - RSA	Miscellaneous	Road safety audits	1	Safety Assessments	$801550		HSIP (23 U.S.C. 148)	N/A	N/A	0	0	All Agencies	Statewide	All EAs	
M720201/02XX, Statewide - STSP/ATSAP	Miscellaneous	SHSP Development	1	STSP	$1414500		HSIP (23 U.S.C. 148)	N/A	N/A	0	0	All Agencies	Statewide	All EAs	
M720601X, Statewide - Tribal Summit	Miscellaneous	Transportation safety planning	1	Planning/Education	$72611		HSIP (23 U.S.C. 148)	N/A	N/A	0	0	Other Local Agency	Tribal Boundaries	All EAs	
PNG2204P, NACOG SRTSP	Miscellaneous	Local road safety plans	1	Regional Trans Safety Plans	$377200		HSIP (23 U.S.C. 148)	Multiple/Varies	N/A	0	0	Other Local Agency	COG Boundaries	All EAs	
PAC2307P, Pinal Co SRTSP	Miscellaneous	Local road safety plans	1	Regional Trans Safety Plans	$306946		HSIP (23 U.S.C. 148)	Multiple/Varies	N/A	0	0	Other Local Agency	County Boundaries	All Eas	
PSV2307P, SVMPO SRTSP	Miscellaneous	Local road safety plans	1	Regional Trans Safety Plans	$400000		HSIP (23 U.S.C. 148)	Multiple/Varies	N/A	0	0	Other Local Agency	COG Boundaries	All EAs	
PWG2305P, WACOG SRTSP	Miscellaneous	Local road safety plans	1	Regional Trans Safety Plans	$339449		HSIP (23 U.S.C. 148)	Multiple/Varies	N/A	0	0	Other Local Agency	COG Boundaries	All EAs	
T019901C, Phoenix - Thomas Rd & Indian School Rd	Intersection traffic control	Modify traffic signal – modernization/replacement	4	Intersections	$1072907		HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	40,000	40	City or Municipal Highway Agency	Spot	Intersections	
T027201C, Mohave Co - Northern Ave, Stockton Hill Rd to Castle Rock Rd	Pedestrians and bicyclists	Install sidewalk	2.48	Miles	$265353		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Urban	Minor Collector	7,800	35	City or Municipal Highway Agency	Spot	Pedestrians	
T027701C, Casa Grande - Cottonwood Ln/Kadota Ave	Pedestrians and bicyclists	Pedestrian hybrid beacon	1	Locations	$607500		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Urban	Minor Arterial	16,846	40	City or Municipal Highway Agency	Spot	Pedestrians	
T027801C, Bullhead City - Bullhead Pkwy and Silver Creek Rd	Lighting	Continuous roadway lighting	5.08	Miles	$607500		HSIP (23 U.S.C. 148)	Urban	Minor Arterial	6,571	50	City or Municipal Highway Agency	Spot	Lane Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
T028001C, Kingman - Various Locations	Speed management	Dynamic Speed Feedback Signs	12	Locations	$47025		HSIP (23 U.S.C. 148)	Urban	Minor Arterial	22,247	35	City or Municipal Highway Agency	Spot	Lane Departure	
T028401C, Yavapa Co - Cornville Rd, Sissaw to Beaverhead Flat Rd	Roadway	Rumble strips – edge or shoulder	4.92	Miles	$3269647		HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural	Major Collector	13,499	50	County Highway Agency	Spot	Roadway Departure	
T029101C, Santa Cruz Co - Pendleton Dr at Sonoita Creek Wash	Roadway	Roadway - other	0.17	Vertical Curve Correction	$549350		HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural	Major Collector	2,770	30	County Highway Agency	Spot	Roadway Departure	
T030501C, Graham Co - Golf Course Rd & Cottonwood Wash Rd	Roadway	Rumble strips – edge or shoulder	1.55	Miles	$1927744		HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural	Major Collector	3,140	45	County Highway Agency	Spot	Roadway Departure	
T031001C, Pinal Co - Overfield Rd & Signal Peak Rd	Roadway	Rumble strips – edge or shoulder	4.98	Miles	$311580		HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	0	Town or Township Highway Agency	Spot	Roadway Departure	
T034201D, Marana - Dove Mt Blvd/Moore Rd	Intersection traffic control	Modify control – new traffic signal	1	Intersections	$189000		HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural	Major Collector	9,602	40	Town or Township Highway Agency	Spot	Intersections	
T034301D, Glendale - 67th Ave/Montebello	Pedestrians and bicyclists	Pedestrian hybrid beacon	1	Locations	$199500		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Urban	Minor Arterial	2,550	40	City or Municipal Highway Agency	Spot	Pedestrians	
T034901C, Glendale - Various Locations	Intersection traffic control	Modify traffic signal – add flashing yellow arrow	3	Intersections	$649587		HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0	40	City or Municipal Highway Agency	Systemic	Intersections	
T0351O1C, Lake Havasu City - London Bridge Rd	Pedestrians and bicyclists	On road bicycle lane	2.98	Miles	$406286		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Rural	Minor Arterial	4,071	35	City or Municipal Highway Agency	Spot	Bicyclists	
T0352O1D, Pinal Co - Hunt Hwy, Bella Vista & Gantzel Rd	Intersection traffic control	Modify traffic signal – add flashing yellow arrow	3	Intersections	$419379		HSIP (23 U.S.C. 148)	Rural	Minor Arterial	0	45	County Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
T035301C, Mohave Co - Boundary Cone & Oatman Hwy	Roadway	Rumble strips – edge or shoulder	28.73	Miles	$1071299		HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural	Minor Collector	0	0	County Highway Agency	Spot	Roadway Departure	
T035401C, Mohave Co - Various Locations	Roadway delineation	Raised pavement markers	18	Curves	$252000		HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	0	County Highway Agency	Systemic	Roadway Departure	
T035501D, Yavapai Co - Old Hw;y 77/Ft Rock Rd	Intersection geometry	Add/modify auxiliary lanes	2	Lanes	$301996		HSIP (23 U.S.C. 148)	Rural	Major Collector	1,485	65	County Highway Agency	Spot	Intersections	
T035601D, Edgar - Main St to Springervill City Limits	Lighting	Continuous roadway lighting	1.04	Miles	$157500		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Rural	Principal Arterial-Other	7,300	40	Town or Township Highway Agency	Spot	Pedestrians	
T035801D, Pima Co - Various Locations	Roadway signs and traffic control	Roadway signs (including post) - new or updated	4195	Signs	$455000		HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	County Highway Agency	Systemic	Lane Departure	
T036201D, Yuma Co - CO 19th & Ave G	Roadway	Rumble strips – center	17	Miles	$189000		HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural	Major Collector	5,098	50	County Highway Agency	Spot	Lane Departure	
T036501D, Apache Junction - Apache Trail & Superstition Blvd	Pedestrians and bicyclists	Pedestrians and bicyclists – other	3	Street Lighting	$420000		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Urban	Principal Arterial-Other	18,597	40	City or Municipal Highway Agency	Spot	Pedestrians	
T036601D, Peoria - 107th Ave/Rose Garden	Intersection traffic control	Modify control – new traffic signal	1	Intersections	$138000		HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	8,384	40	City or Municipal Highway Agency	Spot	Intersections	
T037501D, Apache Junction - Ironwood Dr, Baseline Dr to Elliot Rd	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	1.86	Miles	$257439		HSIP (23 U.S.C. 148)	Rural	Major Collector	8,843	55	City or Municipal Highway Agency	Spot	Roadway Departure	
T037601D, Yuma Co - Various Locations	Roadway delineation	Wider Edge Lines (6 inch markings)	78.15	Miles	$136500		HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0	0	City or Municipal Highway Agency	Spot	Lane Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
T037701D, Yuma Co - CO 14th St/Ave 4E	Intersection traffic control	Modify control – new traffic signal	1	Intersections	$207932		HSIP (23 U.S.C. 148)	Rural	Major Collector	6,687	50	County Highway Agency	Spot	Intersections	
T037801D, Yuma Co - CO 11th St/Ave G	Alignment	Horizontal curve realignment	1	Locations	$542697		HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural	Major Collector	4,627	50	County Highway Agency	Spot	Roadway Departure	
T038001C, Tucson - Nogales Hwy, Drexel to Los Reales	Lighting	Continuous roadway lighting	2.1	Miles	$136500		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Urban	Principal Arterial-Other Freeways & Expressways	26,960	45	City or Municipal Highway Agency	Spot	Bicyclists	
T038101C, Tucson - Country Club Rd, Grant Rd to 22nd St	Lighting	Continuous roadway lighting	3.1	Miles	$174300		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Urban	Minor Arterial	19,111	35	City or Municipal Highway Agency	Spot	Bicyclists	
T038201D, Tucson - Various Locations	Pedestrians and bicyclists	Pedestrian hybrid beacon	2	Locations	$126000		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Urban	Principal Arterial-Other	0	35	City or Municipal Highway Agency	Spot	Pedestrians	
T038301D, Tucson - Various Locations	Pedestrians and bicyclists	Pedestrian hybrid beacon	8	Locations	$504000		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Urban	Minor Arterial	0	0	City or Municipal Highway Agency	Spot	Pedestrians	
T038401D, Tucson - Various Locations	Intersection traffic control	Modify traffic signal – add flashing yellow arrow	22	Intersections	$110250		HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	0	45	City or Municipal Highway Agency	Spot	Intersections	
T038501D, Tucson - Various Locations	Intersection traffic control	Modify traffic signal – add flashing yellow arrow	40	Intersections	$152250		HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	0	50	City or Municipal Highway Agency	Spot	Intersections	
T039001D, Gila Co - Control Rd, SR260 to E of Roberts Mesa Rd	Roadway	Roadway - other	3.81	Pave Roadway	$178227		HSIP (23 U.S.C. 148)	Rural	Local Road or Street	813	25	County Highway Agency	Spot	Roadway Departure	
T039101D, Gila Co - Houston Mesa Rd, SR260 to S of SF198	Roadway	Roadway - other	4.41	Pave Roadway	$178227		HSIP (23 U.S.C. 148)	Rural	Local Road or Street	3,110	35	County Highway Agency	Spot	Roadway Departure	

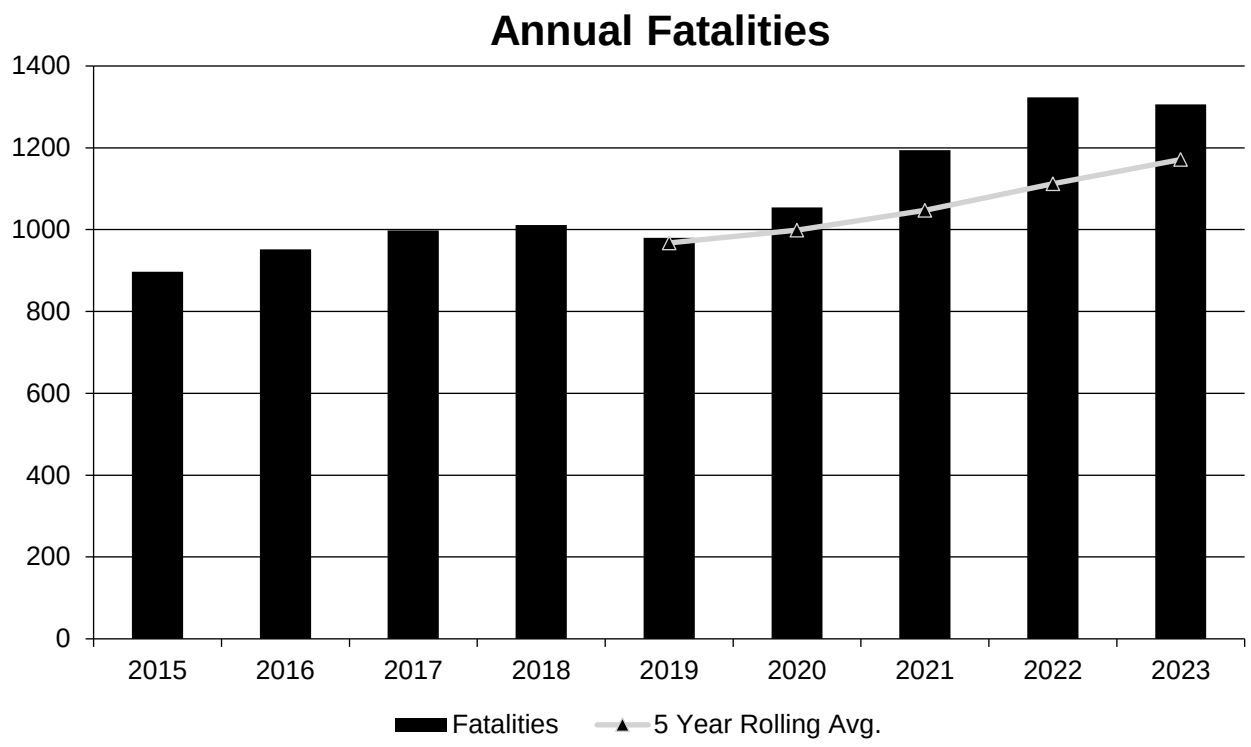
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
T039301D, Bullhead City - Bullhead Pkwy, Silver Creek Rd to Laredo	Lighting	Continuous roadway lighting	1.24	Miles	$247527		HSIP (23 U.S.C. 148)	Rural	Minor Arterial	11,171	50	City or Municipal Highway Agency	Spot	Roadway Departure	
T039901C, Lake Havasu City - McCulloch Blvd/Jamaica Blvd	Intersection traffic control	Modify control – new traffic signal	1	Intersections	$244000		HSIP (23 U.S.C. 148)	Urban	Major Collector	13,500	40	City or Municipal Highway Agency	Spot	Intersections	
T040901D, City of Yuma - Various Locations	Intersection traffic control	Modify traffic signal – add flashing yellow arrow	3	Intersections	$162750		HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	0	45	City or Municipal Highway Agency	Spot	Intersections	
T041001D, City of Yuma - Various Locations	Pedestrians and bicyclists	Pedestrian hybrid beacon	5	Locations	$273000		VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Urban	Principal Arterial-Other	0	35	City or Municipal Highway Agency	Spot	Pedestrians	
T041901D, City of Yuma - Various Locations	Roadway delineation	Wider Edge Lines (6 inch markings)	5	Locations	$136500		HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	0	40	City or Municipal Highway Agency	Spot	Lane Departure	
T042101D, Kingman - Andy Devine Ave & Various Locations	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	0.05	Miles	$257		HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	10,850	35	City or Municipal Highway Agency	Spot	Intersections	
T044201D, San Luis - 10th Ave/Los Alamos St	Alignment	Horizontal curve realignment	1	Locations	$306955		HSIP (23 U.S.C. 148)	Rural	Local Road or Street	3,093	25	City or Municipal Highway Agency	Spot	Roadway Departure	
T044501C, MAG Region - Various Locations	Intersection geometry	Intersection realignment	1	Intersections	$399228		HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0	0	City or Municipal Highway Agency	Spot	Intersections	
T044601C, MAG Region - Various Locations	Intersection geometry	Intersection realignment	1	Intersections	$57033		HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0	0	City or Municipal Highway Agency	Spot	Intersections	

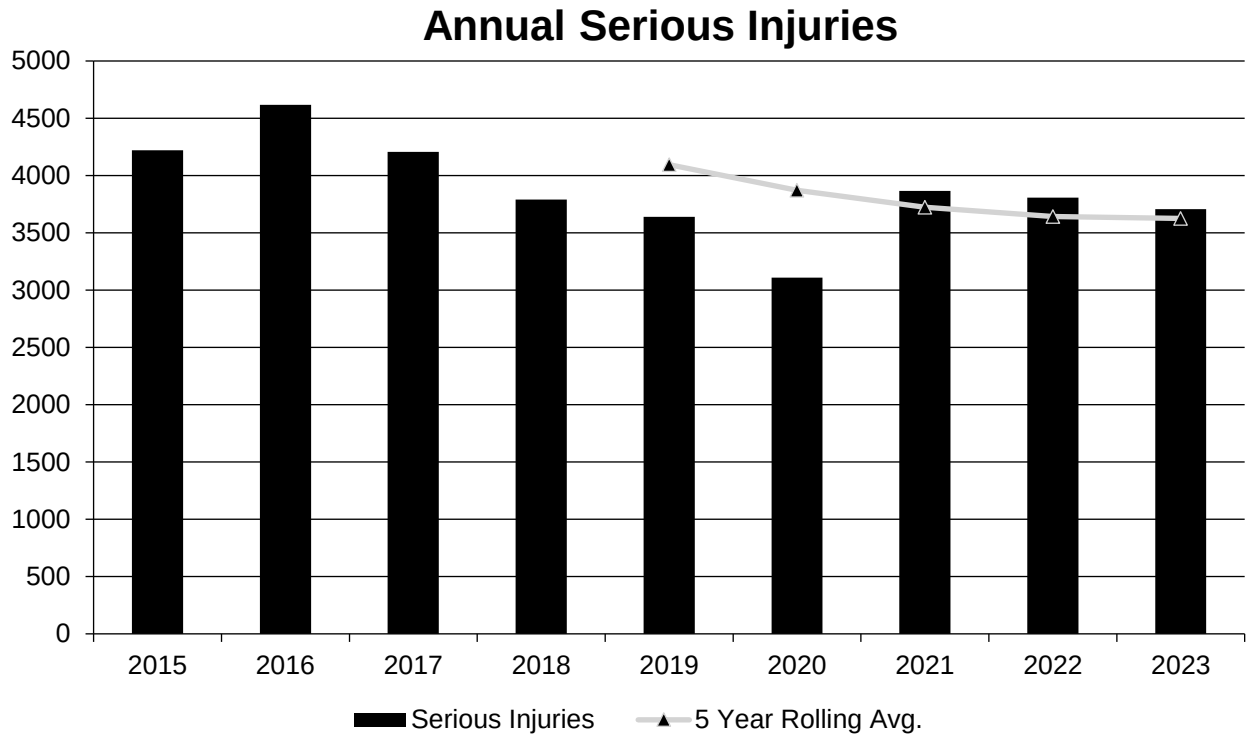
Safety Performance

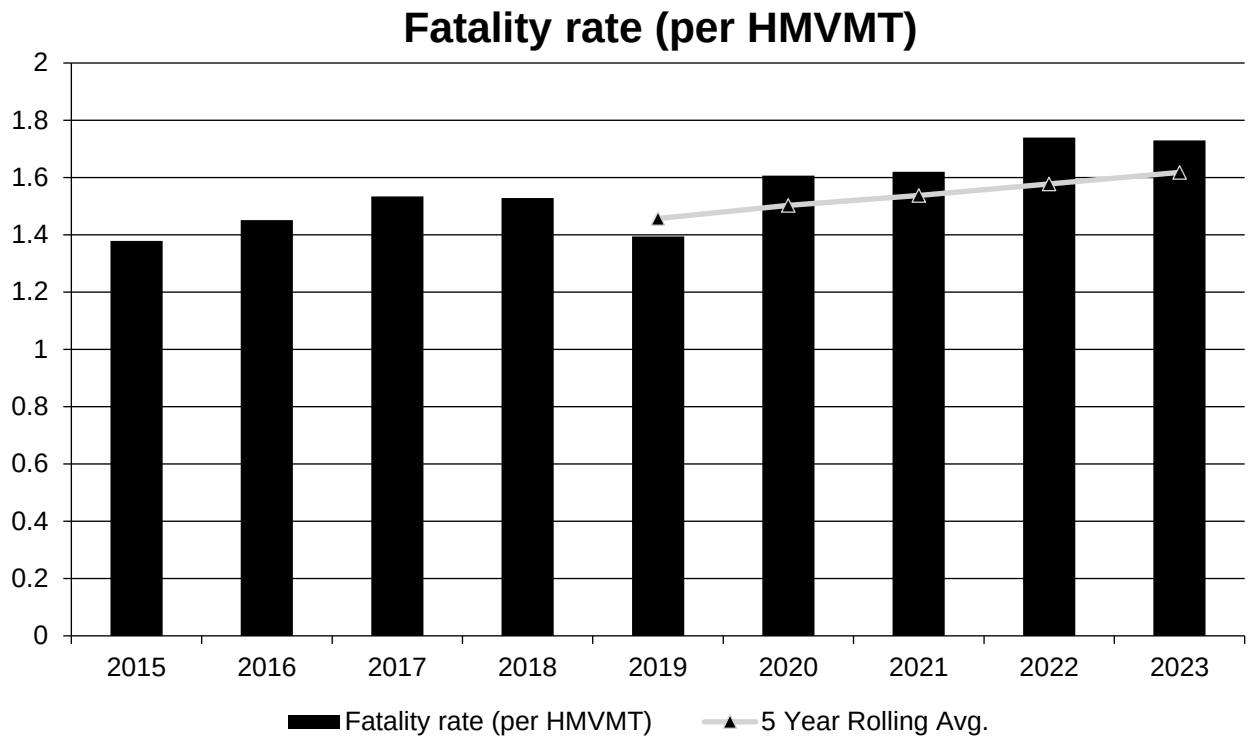
General Highway Safety Trends

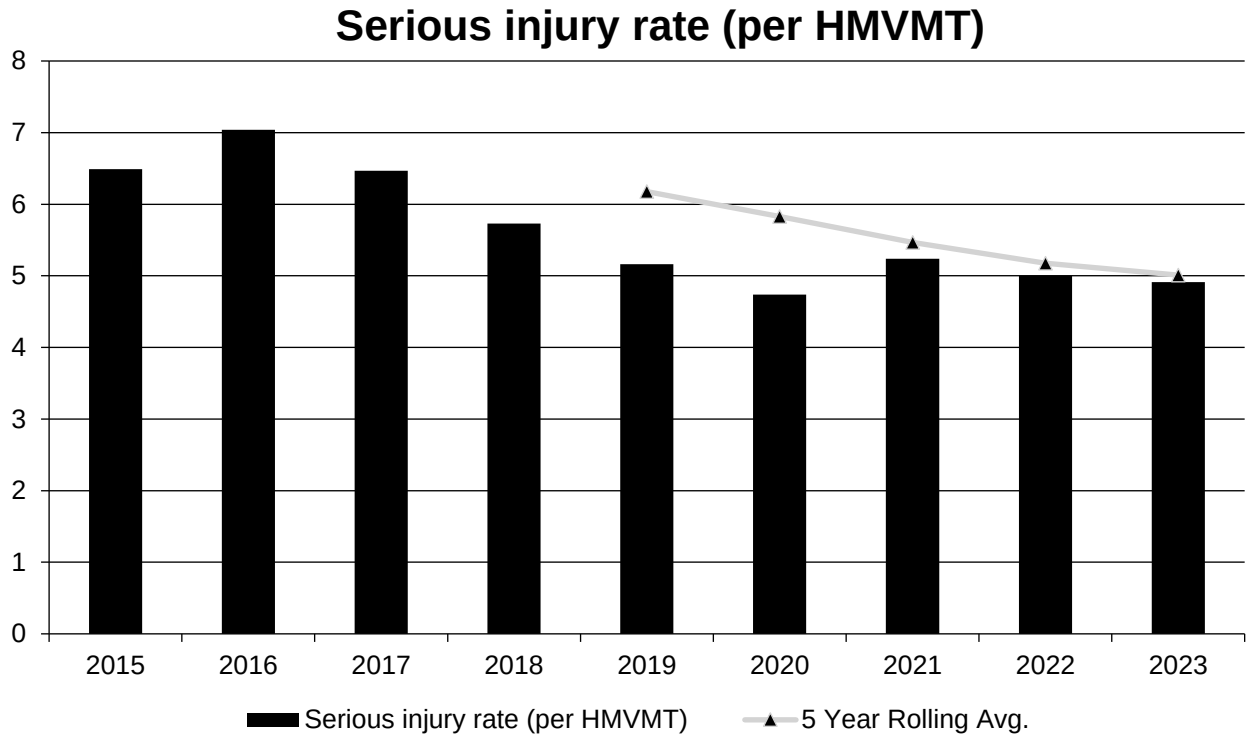
Present data showing the general highway safety trends in the State for the past five years.

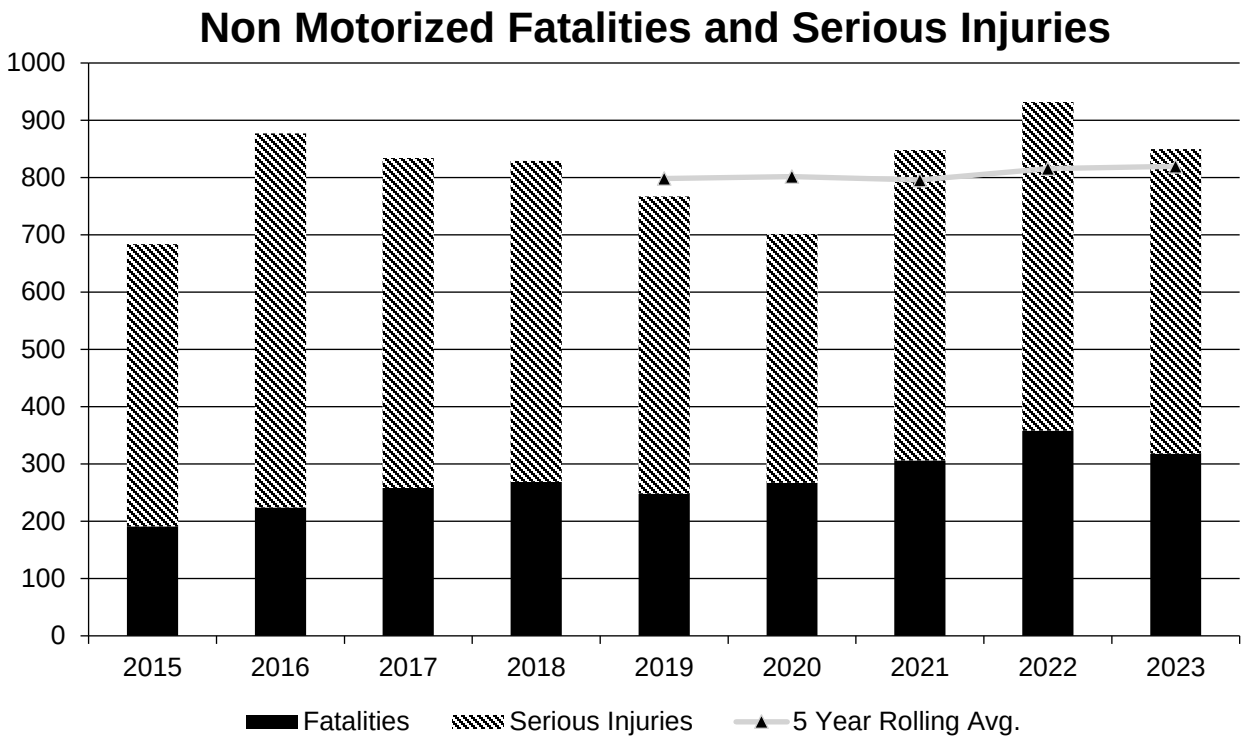
PERFORMANCE MEASURES	2015	2016	2017	2018	2019	2020	2021	2022	2023
Fatalities	897	952	998	1,011	980	1,054	1,194	1,323	1,306
Serious Injuries	4,220	4,617	4,207	3,790	3,641	3,109	3,867	3,806	3,706
Fatality rate (per HMVMT)	1.379	1.451	1.534	1.528	1.394	1.607	1.620	1.740	1.730
Serious injury rate (per HMVMT)	6.488	7.037	6.465	5.730	5.161	4.738	5.240	5.000	4.910
Number non-motorized fatalities	191	224	258	269	248	267	306	358	318
Number of non-motorized serious injuries	493	653	576	560	519	434	542	574	532


Annual Fatalities
1400
1200
1000
800
600
400
200
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
8
7
6
5
4
3
2
1
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
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 2023

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	83.4	208	0.12	0.29
Rural Principal Arterial (RPA) - Other Freeways and Expressways	1.2	1	0	0
Rural Principal Arterial (RPA) - Other	93.8	214.4	0.13	0.3
Rural Minor Arterial	71	131.4	0.1	0.18
Rural Minor Collector	11.8	37.8	0.02	0.05
Rural Major Collector	52	114.4	0.07	0.16

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Local Road or Street	4.4	20.6	0.01	0.03
Urban Principal Arterial (UPA) - Interstate	58.2	153.8	0.08	0.22
Urban Principal Arterial (UPA) - Other Freeways and Expressways	50.6	158.6	0.07	0.22
Urban Principal Arterial (UPA) - Other	135.4	460.2	0.19	0.64
Urban Minor Arterial	268.2	1,000.2	0.37	1.39
Urban Minor Collector	13.2	65.2	0.02	0.09
Urban Major Collector	41.4	174.8	0.06	0.24
Urban Local Road or Street	5.8	22.6	0.01	0.03

Year 2023

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	452.8	1,173.8	0.63	1.63
County Highway Agency	126.8	374.4	0.18	0.52
Town or Township Highway Agency	32.2	147	0.04	0.2
City or Municipal Highway Agency	464.4	1,684.6	0.64	2.34
State Park, Forest, or Reservation Agency	0	0	0	0
Local Park, Forest or Reservation Agency	0	0	0	0
Other State Agency	0	0	0	0
Other Local Agency	0	0	0	0
Private (Other than Railroad)	3.4	14.2	0.01	0.02
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	0.6	0	0
Indian Tribe Nation	13.6	4	0.02	0.01

Provide additional discussion related to general highway safety trends.

In Arizona the total number of crashes in 2023 is 122,247, this represents a 1.57 percent increase from the year 2022. 1307 people died in motor vehicle traffic crashes in Arizona in 2023. This represents a decrease of about 0.98 percent as compared to the 1320 fatalities reported in 2022. Vehicle miles traveled (VMT) in 2023 decreased by about a 0.95 percent from the year 2022. The biggest contribution to the reduction in the 2023 VMT is with urban minor collectors. This is mostly a “correction”. There are likely other minor contributions to the VMT reduction as well but further research would be needed to identify what those are. ADOT will continue to analyze the various data to identify the contributing factors for the increase. Resource: 2023 Arizona Motor Vehicle Crash Facts.

Safety Performance Targets

Safety Performance Targets

Calendar Year 2025 Targets *

Number of Fatalities:1263.8

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

Annual targets were set based on a reduction of 20% by 2030, this will supports Arizona's Governor's Office and the 2024 Arizona SHSP goal. Fatalities: 1,307 in 2023 to 1,045 by 2030. Serious Injuries: 3,777 in 2023 to 3,021 by 2030. Non-Motorized Fatalities and Serious Injuries: 820 in 2023 to 676 by 2030. Vehicle Miles Traveled (VMT) projections are based 2019-2023 five-year average change in VMT (1.47% growths per year). Targets for rates of fatalities and serious injuries are based on annual targets and projected VMTs.

2023 Crash Data and VMT are preliminary and not final. 2023 number of fatalities will continue to fluctuate as we reconfigure all month's numbers against death certificates.

Number of Serious Injuries:3729.6

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

Annual targets were set based on a reduction of 20% by 2030, this will supports Arizona's Governor's Office and the 2024 Arizona SHSP goal. Fatalities: 1,307 in 2023 to 1,045 by 2030. Serious Injuries: 3,777 in 2023 to 3,021 by 2030. Non-Motorized Fatalities and Serious Injuries: 820 in 2023 to 676 by 2030. Vehicle Miles Traveled (VMT) projections are based 2019-2023 five-year average change in VMT (1.47% growths per year). Targets for rates of fatalities and serious injuries are based on annual targets and projected VMTs.

2023 Crash Data and VMT are preliminary and not final. 2023 number of fatalities will continue to fluctuate as we reconfigure all month's numbers against death certificates.

Fatality Rate:1.665

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

Annual targets were set based on a reduction of 20% by 2030, this will supports Arizona's Governor's Office and the 2024 Arizona SHSP goal. Fatalities: 1,307 in 2023 to 1,045 by 2030. Serious Injuries: 3,777 in 2023 to 3,021 by 2030. Non-Motorized Fatalities and Serious Injuries: 820 in 2023 to 676 by 2030. Vehicle Miles Traveled (VMT) projections are based 2019-2023 five-year average change in VMT (1.47% growths per year). Targets for rates of fatalities and serious injuries are based on annual targets and projected VMTs.

2023 Crash Data and VMT are preliminary and not final. 2023 number of fatalities will continue to fluctuate as we reconfigure all month's numbers against death certificates.

Serious Injury Rate:4.914

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

Annual targets were set based on a reduction of 20% by 2030, this will supports Arizona's Governor's Office and the 2024 Arizona SHSP goal. Fatalities: 1,307 in 2023 to 1,045 by 2030. Serious Injuries: 3,777 in 2023 to 3,021 by 2030. Non-Motorized Fatalities and Serious Injuries: 820 in 2023 to 676 by 2030. Vehicle Miles Traveled (VMT) projections are based 2019-2023 five-year average change in VMT (1.47% growths per year). Targets for rates of fatalities and serious injuries are based on annual targets and projected VMTs.

2023 Crash Data and VMT are preliminary and not final. 2023 number of fatalities will continue to fluctuate as we reconfigure all month's numbers against death certificates.

Total Number of Non-Motorized Fatalities and Serious Injuries:846.6

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

Annual targets were set based on a reduction of 20% by 2030, this will supports Arizona's Governor's Office and the 2024 Arizona SHSP goal. Fatalities: 1,307 in 2023 to 1,045 by 2030. Serious Injuries: 3,777 in 2023 to 3,021 by 2030. Non-Motorized Fatalities and Serious Injuries: 820 in 2023 to 676 by 2030. Vehicle Miles Traveled (VMT) projections are based 2019-2023 five-year average change in VMT (1.47% growths per year). Targets for rates of fatalities and serious injuries are based on annual targets and projected VMTs.

2023 Crash Data and VMT are preliminary and not final. 2023 number of fatalities will continue to fluctuate as we reconfigure all month's numbers against death certificates.

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

Meetings were held with COG/MPO to discuss the Arizona 2025 safety performance targets and the 2025 HSIP Implementation Plan. 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 review and discuss 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. ADOT Traffic Safety met with FHWA Arizona Division and presenting on the Safety Targets.

Does the State want to report additional optional targets?

No

No

Describe progress toward meeting the State’s 2023 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	1200.0	1171.4
Number of Serious Injuries	3659.4	3625.8
Fatality Rate	1.655	1.618
Serious Injury Rate	5.039	5.010

Non-Motorized Fatalities and Serious Injuries	793.6	819.6

The Arizona 2023 Safety Performance Targets were established in June 2022, Statewide VMT and crash data for 2023 were preliminary and subject to change at that time. The 2023 Safety Performance Projections Targets was created using the following methodology:
1. A review of the five-year crash trend (2018-2022), three years crash trend (2020-2022) and crash data for the first quarter of the year 2023, the annual number of fatalities in 2022 and 2023 were anticipated to be 1322 and 1436, but as of August 2023, the annual numbers of fatalities in 2022 and 2023 were 1320 and 1307. This reduction in the number of fatalities caused the actual 2023 outcomes to be lower than the 2023 targets.
2. The annual number of serious injuries in 2022 and 2023 projected to be 3854 and 3930. The actual annual numbers in 2022 and 2023 as of August 2023 were 3788 and 3777. This reduction in the number of serious injuries caused the actual 2023 outcomes to be lower than the 2023 targets.
3. The annual numbers of non-motorized fatalities and serious injuries for 2023 and 2023 projected to be 834 and 857. The actual annual numbers for 2022 and 2023 as of August, 2023, were 929 and 845. This increase in the number of non-motorized fatalities and serious injuries in 2022 caused the actual 2023 outcomes to be higher than the 2023 targets and higher than the baseline (2017-2021)
4. The total number of traffic fatalities in Arizona in 2023 calendar year decreased by 0.98% from the calendar year 2022.

Applicability of Special Rules

Does the HRRR special rule apply to the State for this reporting period?

No

Does the VRU Safety Special Rule apply to the State for this reporting period?

Yes

Arizona is required to obligate in FY 2023 not less than 15 percent of the amount apportioned under 23 U.S.C. 104(b)(3) for highway safety improvement projects to address the safety of Vulnerable Road Users. All highway safety improvement projects, including those implemented under the Vulnerable Road User Safety Assessment (VRU) Special Rule, must be on a public road consistent with the SHSP and correct or improve a hazardous road location or feature, or address a highway safety problem. The Arizona VRU Safety Assessment was completed in November 2023.

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	2017	2018	2019	2020	2021	2022	2023
Number of Older Driver and Pedestrian Fatalities	131	170	169	151	152	213	192
Number of Older Driver and Pedestrian Serious Injuries	373	386	362	292	315	365	352

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.

In Arizona the total number of crashes in 2023 is 122,247, this represents a 1.57 percent increase from the years 2022.1307 people died in motor vehicle traffic crashes in Arizona in 2023.This represents a decrease of about 0.98 percent as compared to the 1320 fatalities reported in 2022. The 2023 Arizona Motor Vehicle Crash Facts shows vehicle miles traveled (VMT) in 2023 decreased by about a 0.95 percent from the year 2022. The biggest contribution to the reduction in the 2023 VMT is with urban minor collectors. This is mostly a “correction”. There are likely other minor contributions to the VMT reduction as well but further research would be needed to identify what those are. The annual fatality rate for 2023 was 1.75 fatalities per 100 million VMT. ADOT will continue to analyze the various safety data to identify opportunities under the umbrella of the Safe System Approach.

ADOT will continue to analyze the various data to identify the contributing factors for the increase. Under the Plan Do Check Act (PDCA) program at ADOT, ADOT completed an analysis to increase the number of programmed projects and obligations and updated the HSIP Standard Work.

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

Describe significant program changes that have occurred since the last reporting period.

The HSIP Standard Work was updated for the SFY27 and SFY28 HSIP call for projects to include project scoping/ assessment, review schedule and budget prior to final HSIP approval and inclusion in the ADOT Five-Year Transportation Construction Program. This will be implemented to all HSIP applications submitted by local, Native Nations/Tribal Governments and state agencies.

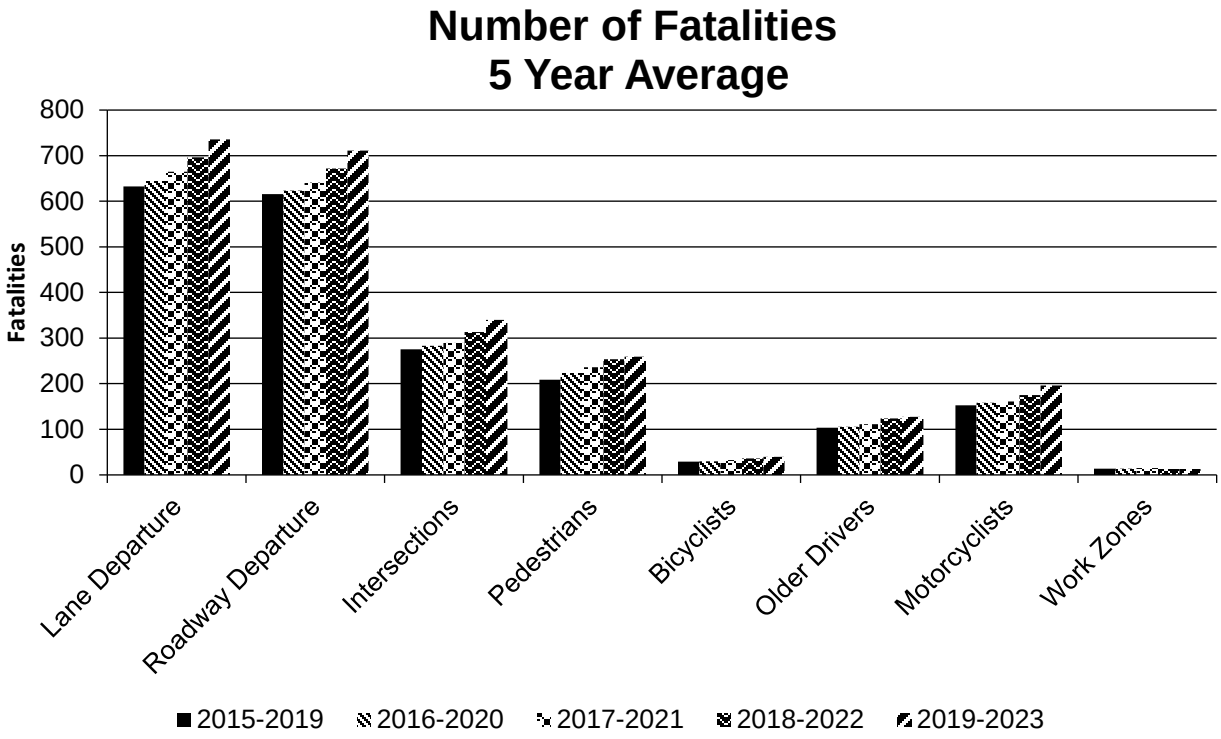
ADOT established the Safety Circuit Rider Program to Provide local, Native Nations/Tribal Governments and state agencies. with resources including technical expertise to identify, diagnose, and treat road safety concerns.

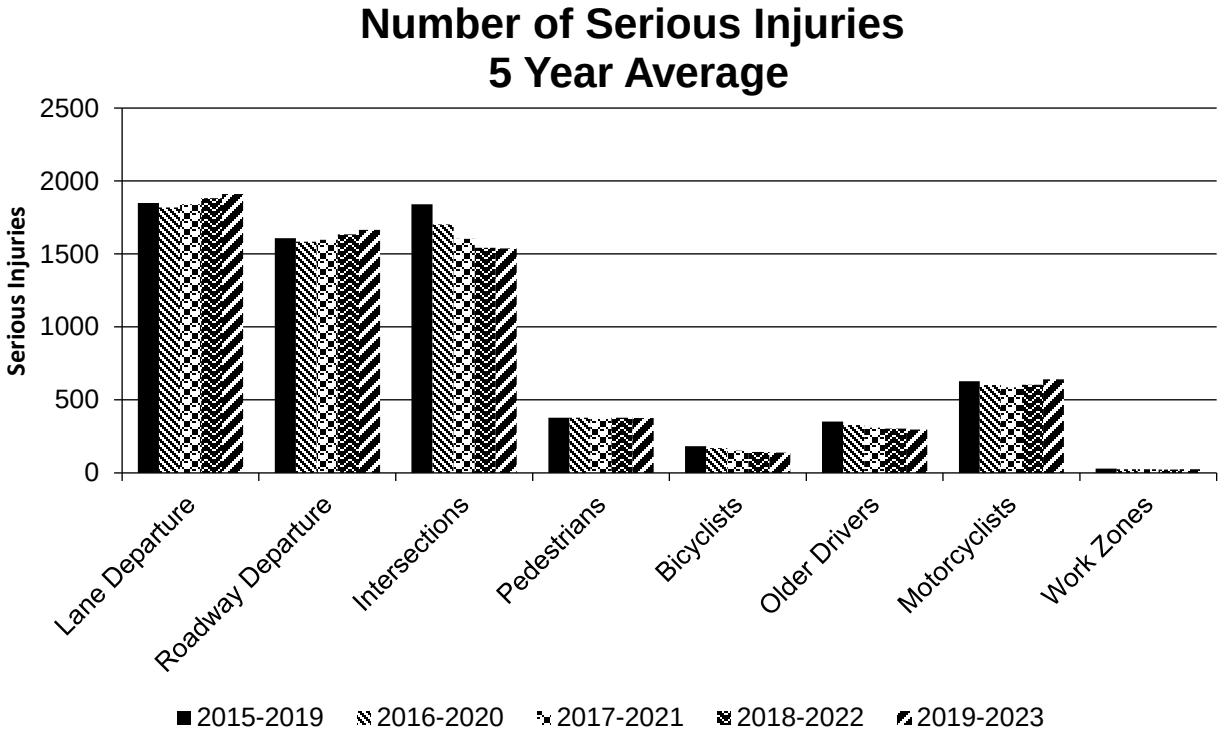
Effectiveness of Groupings or Similar Types of Improvements

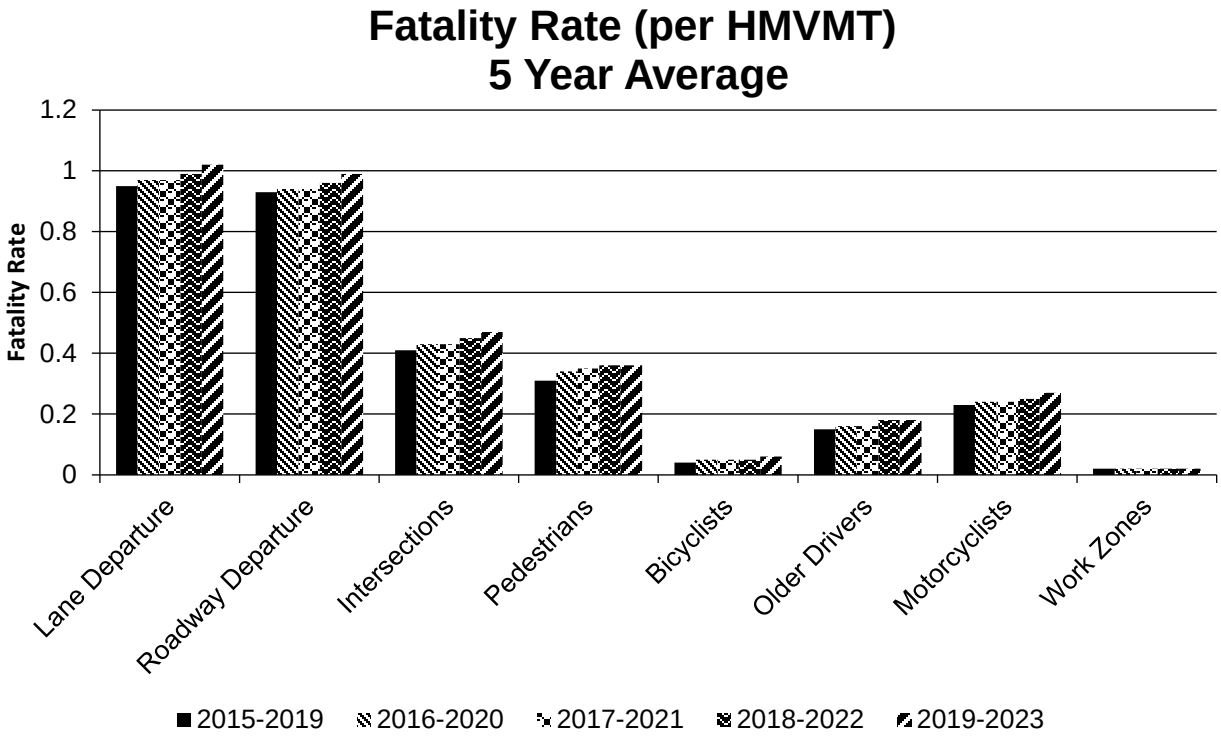
Present and describe trends in SHSP emphasis area performance measures.

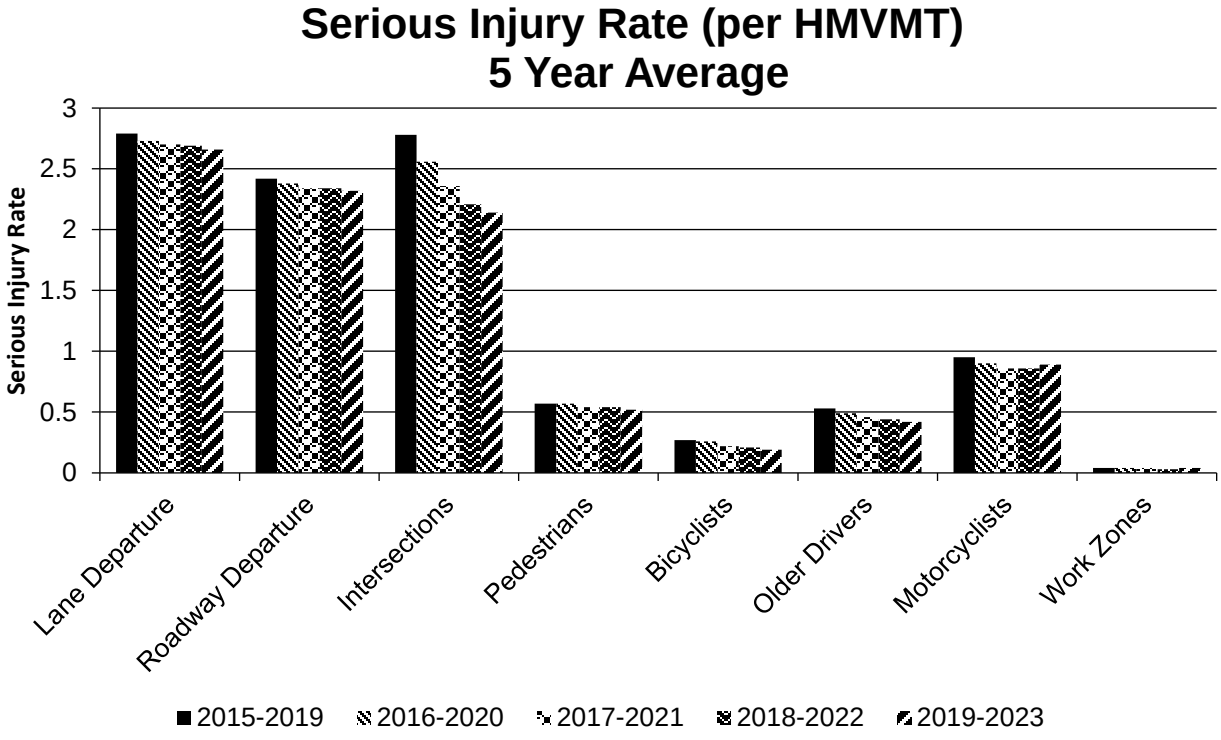
Year 2023

SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Lane Departure		735.8	1,910	1.02	2.66
Roadway Departure		711.4	1,666.2	0.99	2.32
Intersections		339.8	1,537.6	0.47	2.14
Pedestrians		259.4	377	0.36	0.52
Bicyclists		39.8	139.4	0.06	0.19
Older Drivers		127.2	297.6	0.18	0.42
Motorcyclists		196	641.6	0.27	0.89
Work Zones		13.2	25	0.02	0.04


Number of Fatalities
5 Year Average
Fatalities
800
700
600
500
400
300
200
100
0
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023


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
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023


Fatality Rate (per HMVMT)
5 Year Average
Fatality Rate
1.2
1
0.8
0.6
0.4
0.2
0
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023


Serious Injury Rate (per HMVMT)
5 Year Average
Serious Injury Rate
3
2.5
2
1.5
1
0.5
0
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023

Project Effectiveness

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

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 its next SHSP update?

2024

The Arizona Strategic Highway Safety Plan is currently being updated and is expected to be approved and published in October 2024. Arizona first Active Transportation Action Plan (ATSAP) is being developed in close coordination with the SHSP and under the umbrella of the Safe System Approach.

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]	1	1					1	0.9	1	0.9
	Route Number (8) [8]	1	1								
	Route/Street Name (9) [9]	1	1								
	Federal Aid/Route Type (21) [21]	1	1								
	Rural/Urban Designation (20) [20]	1	1					1	1		
	Surface Type (23) [24]	1	0.97					0.6	0.65		
	Begin Point Segment Descriptor (10) [10]	1	0.9					1	0.9	1	0.9
	End Point Segment Descriptor (11) [11]	1	0.9					1	0.9	1	0.9
	Segment Length (13) [13]	1	1								
	Direction of Inventory (18) [18]	1	1								

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
	Functional Class (19) [19]	1	1					1	1	1	1
	Median Type (54) [55]	1	0.6								
	Access Control (22) [23]	1	1								
	One/Two Way Operations (91) [93]	1	1								
	Number of Through Lanes (31) [32]	1	1					1	0.95		
	Average Annual Daily Traffic (79) [81]	1	0.25					1	0.25		
	AADT Year (80) [82]	1	0.25								
	Type of Governmental Ownership (4) [4]	1	0.8					1	0.8	1	0.8
INTERSECTION	Unique Junction Identifier (120) [110]			1	1						
	Location Identifier for Road 1 Crossing Point (122) [112]			1	1						
	Location Identifier for Road 2 Crossing Point (123) [113]			1	1						
	Intersection/Junction Geometry (126) [116]			0.8	0.75						
	Intersection/Junction Traffic Control (131) [131]			0.8	0.75						
	AADT for Each Intersecting Road (79) [81]			1	1						
	AADT Year (80) [82]			1	1						
	Unique Approach Identifier (139) [129]			0.8	0.8						
INTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]					1	1				

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
	Location Identifier for Roadway at Beginning of Ramp Terminal (197) [187]					1	0.9				
	Location Identifier for Roadway at Ending Ramp Terminal (201) [191]					1	0.9				
	Ramp Length (187) [177]					1	0.9				
	Roadway Type at Beginning of Ramp Terminal (195) [185]					1	0.6				
	Roadway Type at End Ramp Terminal (199) [189]					1	0.6				
	Interchange Type (182) [172]					1					
	Ramp AADT (191) [181]					1	0.7				
	Year of Ramp AADT (192) [182]					1	0.7				
	Functional Class (19) [19]					1	1				
	Type of Governmental Ownership (4) [4]					1	0.8				
Totals (Average Percent Complete):		**1.00**	**0.87**	**0.93**	**0.91**	**1.00**	**0.74**	**0.96**	**0.82**	**1.00**	**0.90**

*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.

ADOT proposes that, due to the high level of completion of MIRE data and the short time period that a task force is typically associated with, the MIRE task force committee that was proposed in a previous report is no longer appropriate. ADOT proposes the following steps to support meeting the requirement to have complete access to the MIRE fundamental data elements on all public roadways by September 30, 2026 as well as to serve the GIS data governance needs of ADOT at large. Each of the following steps describe necessary actions and completion dates to meet this goal

Step 1. Establish a GIS Data Standing Committee comprising representatives from FHWA, GOHS, 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. Other teams may join as needed.

ADOT has formed a preliminary GIS Data Standing Committee consisting of nine members, three from each division stated above, plus representatives from FHWA and GOHS.

Each division of the GIS Data Standing Committee will work closely to ensure the following steps are completed timely and accurately.

As of June 2023, staff from each division have been identified as key stakeholders to attend the meeting.

Step 2. Establish a charter for the GIS Data Standing Committee. The charter will establish specific goals and timelines for the committee, among which will be to establish roles and responsibilities for GIS data, as well as create a pathway for communicating across teams about GIS data. The charter will be established by July 2022. ADOT parties involved: MPD/ITG/TSMO.

As of June 2023, a draft charter has been written with vision, mission, gaps and goals set with input from MPD, ITG and TSMO members. A draft manual has been started which outlines roles and responsibilities within the committee, and a Google Site has been created to facilitate communication of activities within the committee to other data centric teams within ADOT.

Step 3. Quarterly meetings will be conducted to work towards goals established in the charter. Representatives from FHWA, GOHS and teams outside of the MPD, ITG, and TSMO will join as needed.

As of June 2024, quarterly meetings have not been scheduled and an executive sponsor has not been identified.

Optional Attachments

Program Structure:

2024 HSIP_Appl.xlsx
2023 HSIP Manual.pdf
HSIP Appendix_A (Rev Oct23).pdf
HSIP Appendix_B.pdf
HSIP Appendix_C.pdf
HSIP Appendix_E.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.