CONNECTICUT

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2024 ANNUAL REPORT

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Disclaimer

Protection of Data from Discovery Admission into Evidence

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

23 U.S.C. 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

The reporting period for 2024 is from October 1, 2022 to September 30, 2023. Connecticut's (5-year rolling average) fatalities and fatal crash rates have increased in calendar year 2020, dipped in 2021, increased in 2022 and decreased again in 2023. Both (5-year rolling average) serious injuries and the serious injury crash rate have been decreasing slowly in recent years. Connecticut uses HSIP resources to incorporate safety improvements across a broad range of maintenance, safety and non-infrastructure projects. Innovative methodologies developed and used by CTDOT will continue to identify more locations, on a statewide scale (both on State and local roads), with the greatest potential for crash reduction. Applications of new Highway Safety Manual concepts and systemic approaches are also being integrated into the HSIP program. The SHSP will target goals and devise strategies in each emphasis area to see where improvements can be made in order to support the vision of moving Toward Zero Deaths.

Since CT did not meet its 2022 safety performance targets, an HSIP Implementation Plan was prepared and submitted to the Division Office on July 1, 2024. CTDOT took this opportunity to re-evaluate its HSIP investments and identify gaps and deficiencies to ensure that projects identified, prioritized, and programmed have the best potential for reducing fatality and serious injury crashes. This should also aid CT in meeting its safety performance targets in subsequent years.

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.

CTDOT's Safety Engineering Section, which is located within the Division of Traffic Engineering, Bureau of Engineering and Construction utilizes both the spot improvement approach and systemic approaches to identify, select, and implement HSIP projects. The spot improvement approach results in safety investments at specific locations. The systemic approaches lead to widespread implementation of treatments to reduce the potential for fatalities and/or serious injuries, regardless of if crashes occurred at a given site. Since many of CT's fatal and serious injury crashes are spread out across all public roads, the systemic approach provides an alternate method to identify and implement low-cost safety countermeasures addressing specific risk factors across the entire roadway network. As data becomes available, before/after studies will be used to determine the effectiveness of the spot and systemic improvement projects.

Where is HSIP staff located within the State DOT?

Other-Traffic Engineering

How are HSIP funds allocated in a State?

- SHSP Emphasis Area Data

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

Safety Projects incorporating proven safety countermeasures are developed to be implemented on local roads. Selected projects are based on comprehensive data, SHSP Emphasis Areas, and input from the COGs. In addition, Regional Transportation Safety Plans (RTSP) were prepared for each of the nine regional councils of government (COG), the latest plans of which will be updated in the near future. The RTSPs identify key safety issues for all public roads. The plans utilized are similar to Connecticut’s Strategic Highway Safety Plan (SHSP), but focused instead on the local and regional level needs of the individual communities and region. Since RTSPs include all public roads, communities have been made aware of potential or emerging safety issues on locally owned and maintained roadways and recommendations on how to address them. A program is being developed for the 9 RTSPs to apply for HSIP projects not on the State system. Project sponsors will be encouraged to examine a full range of options starting with low-cost spot and systemic treatments such as signs and pavement markings, to mid-range solutions such as traffic signals, turning lanes or roadway realignment. The applications will be reviewed and evaluated based on factors such as crash analysis, regional or local priority, and benefit/cost analysis.

Tribal roads open to public travel are located in Southeastern CT and are not included in the RTSPs. The Tribal Nations have been invited to participate in the transportation safety planning process under the SHSP on numerous occasions but have not yet been involved. In the past, the Bureau of Indian Affairs has contacted CTDOT to conduct RSAs on Tribal roads and CTDOT has willingly participated. It is acknowledged that tribal roads qualify for HSIP funding. Contact information for CT's State and Federal transportation officials are available under the Transportation Safety for Tribal Governments website.

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

- Districts/Regions
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety

Describe coordination with internal partners.

The Safety Engineering Section within CTDOT's Division of Traffic Engineering conducts network screening on the state system to determine those intersections and segments that have the greatest potential for injury reduction. The lists are forwarded to the Operations Section within Traffic Engineering which reviews locations for possible highway safety improvements and the Highway Division’s Project Development Unit (PDU). All of the units coordinate and collaborate with each other as necessary. The study locations typically originate from internal databases, such as UConn's CRSMS web-based tool, or via appointed and elected officials, town officials, or the public. Depending on the cost and scope of the countermeasure, CTDOT’s Office of Maintenance may be requested to implement low-cost improvements such as traffic signal timing changes, as well as installation of signs and pavement markings. In those situations where the scope of work is beyond the resources of the DOT’s Division of Maintenance, the Operations Section recommends a project for inclusion in the CTDOT’s Capital Improvement Plan. These safety projects are further developed, and plans, specifications, and estimates are taken on by CTDOT's Division of Highway Design.

Identify which external partners are involved with HSIP planning.

- FHWA
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
- Other-Safety Circuit Rider Program

Describe coordination with external partners.

CTDOT's Traffic Safety Engineering group works in partnership with CT's Safety Circuit Rider Program (CT SCR), which provides safety-related information, training, and technical assistance to local agencies. Some of the initiatives include coordination of Road Safety Assessments (RSA), collection and analysis of traffic volume data, identification of low-cost safety improvements, assistance in the development of Local Road Safety Plans, development of a Connecticut Toolbox of Safety Resources, development of a series of Roadway Safety Briefs, and delivery of Local Road Safety Training. The CT SCR program also provides assistance to local agencies in understanding the capabilities of the new CT Crash Data Repository at the University of Connecticut (UCONN) and provides accurate information to local practitioners to make informed roadway safety decisions. The SCRs have also provided equipment, such as "Your Speed" signs to municipalities, along with training, at no cost to the towns.

We also work with the COGS for input on the HSIP Implementation Plan, where they provide strategies as well as project ideas. CTDOT participates in quarterly COG meetings to share the latest safety information and answer any questions, as well as present on the annual safety performance measures.

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

Projects can qualify for the Department's HSIP funds and placement on the HSIP Safety Project Plan when they are initiated from the following sources:
- High Frequency Crash Locations (HFCL)
- Railway-Highway Grade Crossing Program (RHGCP)
- Projects supporting SHSP Emphasis Areas
- High Risk Rural Roads (HRRR)
- Regional Transportation Safety Plans (RTSPs)
- HSIP Implementation Plan

Program Methodology

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

Yes

See attached file. Updates to the guide to reflect change in personnel as well as additions/revisions in the Federal IIJA Legislation have progressed in draft format.

Select the programs that are administered under the HSIP.

- Horizontal Curve
- HRRR
- Intersection
- Pedestrian Safety
- Roadway Departure
- Vulnerable Road Users
- Wrong Way Driving
- Other-spot improvements (HFCL)

Program: Horizontal Curve

Date of Program Methodology:7/1/2015

What is the justification for this program?

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

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• All crashes	• Traffic	• Horizontal curvature • Functional classification • Roadside features

What project identification methodology was used for this program?

- Probability of specific crash types

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

Yes

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

No

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

Horizontal curves projects on local roads are based on risk factors as well as input from the municipality.

How are projects under this program advanced for implementation?

- selection committee

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

Rank of Priority Consideration

Available funding:100

Program: HRRR

Date of Program Methodology:7/1/2023

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway

- Fatal and serious injury crashes only
- Traffic
- Functional classification
- Roadside features

What project identification methodology was used for this program?

- Probability of specific crash types

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

Yes

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

Yes

How are projects under this program advanced for implementation?

- selection committee

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

Rank of Priority Consideration

Available funding:100

Program: Intersection

Date of Program Methodology:9/1/2020

What is the justification for this program?

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

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

- Fatal and serious injury crashes only

Exposure

- Traffic
- Volume

Roadway

- Functional classification
- Roadside features

What project identification methodology was used for this program?

- Probability of specific crash types

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

Yes

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

Yes

How are projects under this program advanced for implementation?

- selection committee

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

Rank of Priority Consideration

Available funding:100

Program: Pedestrian Safety

Date of Program Methodology:9/1/2014

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• All crashes		

What project identification methodology was used for this program?

- Crash frequency
- Probability of specific crash types

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

Yes

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

How are projects under this program advanced for implementation?

- selection committee

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

Rank of Priority Consideration
Available funding:100

Program: Roadway Departure

Date of Program Methodology:7/1/2015

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?
Competes with all projects

What data types were used in the program methodology?

Crashes
- All crashes

Exposure
- Traffic

Roadway
- Horizontal curvature

What project identification methodology was used for this program?

- Probability of specific crash types

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

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

How are projects under this program advanced for implementation?

- selection committee

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

Rank of Priority Consideration

Available funding:100

Program: Vulnerable Road Users

Date of Program Methodology:7/1/2023

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• Fatal and serious injury crashes only	• Traffic • Population	• Functional classification • Roadside features

What project identification methodology was used for this program?

- Probability of specific crash types

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

Yes

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

Yes

How are projects under this program advanced for implementation?

- selection committee

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

Rank of Priority Consideration
Available funding:100

Program: Wrong Way Driving

Date of Program Methodology:7/1/2019

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
• All crashes	• Traffic	• Functional classification • Roadside features • Other-Interchange Geometry

What project identification methodology was used for this program?

- Probability of specific crash types

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

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

How are projects under this program advanced for implementation?

- selection committee

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

Rank of Priority Consideration
Available funding:100

Program: Other-spot improvements (HFCL)

Date of Program Methodology:7/1/2018

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• Fatal and serious injury crashes only	• Traffic	

What project identification methodology was used for this program?

- Crash frequency
- Probability of specific crash types

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

No

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

How are projects under this program advanced for implementation?

- selection committee

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

Rank of Priority Consideration

Cost Effectiveness:1.0

What percentage of HSIP funds address systemic improvements?

60.7

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

- Add/Upgrade/Modify/Remove Traffic Signal
- High friction surface treatment
- Horizontal curve signs
- Install/Improve Lighting
- Install/Improve Pavement Marking and/or Delineation
- Install/Improve Signing
- 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
- Other-CT Roadway Safety Management System

Does the State HSIP consider connected vehicles and ITS technologies?

No

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.

CTDOT, in partnership with UCONN, is currently updating the agency's safety analysis tools and methods to match the six-step safety management process as described in the HSM. CT's Roadway Safety Management System (CRSMS) has a network screening module which is used to identify and rank sites with a higher than predicted crash frequency for specific roadway types, crash types, or the presence of a specific traffic control device. In the diagnosis module, users can create collision diagrams and crash trees as well as conduct a test of proportions. Condition diagrams are also available to provide a visual site overview and can be used in coordination with the collision diagram. The CRSMS is constantly being updated and has updated Vulnerable Road Users (VRU) Safety Analysis tool with new features and added Town maintained intersections and Ramp terminals to the Network Screening module. CTDOT is also using IHSDM in the safety planning process to evaluate and compare design alternatives.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

Federal 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)	$22,008,834	$23,758,106	107.95%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$1,502,890	$1,502,890	100%
VRU Safety Special Rule (23 U.S.C. 148(g)(3))	$5,664,194	$5,873,781	103.7%
Penalty Funds (23 U.S.C. 154)	$9,484,162	$10,338,197	109%
Penalty Funds (23 U.S.C. 164)	$0	$0	0%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	$1,637,750	$2,223,293	135.75%
Other Federal-aid Funds (i.e. STBG, NHPP)	$0	$0	0%
State and Local Funds	$0	$0	0%
Totals	$40,297,830	$43,696,267	108.43%

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

$2,873,050

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

$1,665,320

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

$13,836,106

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

$14,211,106

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?

$15,000,000

It's a mechanism to move funds within CTDOT's capital plan to ensure that safety projects have available funding at the appropriate time.

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

None.

Per question 26, transferring HSIP monies is a mechanism to move funds within CTDOT's capital plan to ensure that safety projects have available funding at the appropriate time.

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
0011-0155	Intersection traffic control	Modify traffic signal – modernization/replacement	1	Intersections	$63000	$70000	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0049-0111	Intersection traffic control	Modify traffic signal – modernization/replacement	1	Intersections	$51300	$57000	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0049-0111	Intersection traffic control	Modify traffic signal – modernization/replacement	1	Intersections	$22500	$25000	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0092-0681	Intersection traffic control	Modify traffic signal – modernization/replacement	1	Intersections	$135000	$150000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0093-0241	Miscellaneous	Data analysis	1	Plan	$2045582	$2045582	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		Not Applicable	Not Applicable	Safety Plan	Records
0093-0242	Miscellaneous	Transportation safety planning	1	Plan	$928338	$928338	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		Not Applicable	Not Applicable	Safety Plan	Records
0099-0114	Intersection traffic control	Modify traffic signal – modernization/replacement	1	Intersections	$75000	$83333	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0099-0114	Intersection traffic control	Modify traffic signal – modernization/replacement	1	Intersections	$70386	$78207	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0102-0364	Intersection traffic control	Modify traffic signal – modernization/replacement	7	Intersections	$493870	$493870	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	0		City or Municipal Highway Agency	Spot	Intersections	Reduce Conflicts
0102-0364	Intersection traffic control	Modify traffic signal – modernization/replacement	7	Intersections	$390604	$434005	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	0		City or Municipal Highway Agency	Spot	Intersections	Reduce Conflicts

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
0126-0173	Intersection geometry	Splitter island – remove from one or more approaches	1	Intersections	$14400	$16000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0		City or Municipal Highway Agency	Spot	Intersections	Reduce Conflicts
0134-0152	Intersection traffic control	Modify traffic signal – modernization/replacement	1	Intersections	$447543	$497270	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Local Road or Street	0		City or Municipal Highway Agency	Spot	Intersections	Reduce Conflicts
0134-0152	Intersection traffic control	Modify traffic signal – modernization/replacement	1	Intersections	$808950	$808950	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Local Road or Street	0		City or Municipal Highway Agency	Spot	Intersections	Reduce Conflicts
0156-0183	Intersection traffic control	Modify traffic signal – modernization/replacement	1	Intersections	$25000	$25000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0156-0183	Intersection traffic control	Modify traffic signal – modernization/replacement	1	Intersections	$37000	$37000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0170-3490	Intersection traffic control	Modify traffic signal – modernization/replacement	8	Intersections	$415000	$415000	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0170-3490	Intersection traffic control	Modify traffic signal – modernization/replacement	8	Intersections	$340000	$340000	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0170-3490	Intersection traffic control	Modify traffic signal – modernization/replacement	8	Intersections	$1000000	$1000000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0170-3490	Intersection traffic control	Modify traffic signal – modernization/replacement	8	Intersections	$500000	$500000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0170-3490	Intersection traffic control	Modify traffic signal – modernization/replacement	8	Intersections	$1518153	$1518153	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0170-3490	Intersection traffic control	Modify traffic signal – modernization/replacement	8	Intersections	$619643	$619643	Penalty Funds (23 U.S.C. 154)	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Reduce Conflicts

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
0170-3621	Miscellaneous	Transportation safety planning	1	HSIP Implementation Plan	$375000	$375000	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	N/A	0		Not Applicable	Not Applicable	Safety Plan	Records
0170-3628	Miscellaneous	Miscellaneous - other	1	Highway Operations Trucks	$2300000	$2555556	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Safety Patrol	Other
0170-3628	Miscellaneous	Miscellaneous - other	1	Highway Operations Trucks	$2151742	$2390824	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Safety Patrol	Other
0170-3631	Miscellaneous	Miscellaneous - other	1	Safety Circuit Rider	$504000	$504000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Not Applicable	Safety Program	Safety Circuit Rider
0170-3646	Miscellaneous	Miscellaneous - other	1	Wrong Way Driving PSA	$450000	$500000	HSIP (23 U.S.C. 148)	Multiple/Varies	N/A	0		State Highway Agency	Not Applicable	Safety Program	Other
0170-3686	Miscellaneous	Miscellaneous - other	1	Work Zone Safety Educational Public Outreach Program	$990000	$1100000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Not Applicable	Work Zones	Other
0170-3695	Lighting	Pedestrian crosswalk lighting	1	Improvement Locations Plan	$600000	$800000	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Not Applicable	Pedestrians	Pedestrian Improvements
0170-3695	Lighting	Pedestrian crosswalk lighting	1	Improvement Locations Plan	$908554	$908554	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Not Applicable	Pedestrians	Pedestrian Improvements
0170-3696	Intersection traffic control	Intersection signing –other	1	NTOR Policy Report	$150000	$200000	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Not Applicable	Intersections	Reduce Conflicts
0170-3696	Intersection traffic control	Intersection signing –other	1	NTOR Policy Report	$300000	$300000	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Not Applicable	Intersections	Reduce Conflicts
0170-3697	Roadway delineation	Longitudinal pavement markings – new	1	Improvement Locations	$100000	$150000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		City or Municipal Highway Agency	Not Applicable	Roadway Departure	Keep Vehicles on Road

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
0170-3698	Pedestrians and bicyclists	Pedestrians and bicyclists – other	1	Improvement Locations	$135000	$150000	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Not Applicable	Pedestrians	Pedestrian Improvements
0170-3699	Pedestrians and bicyclists	Pedestrians and bicyclists – other	1	Improvement Locations	$270000	$300000	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Not Applicable	Pedestrians	Pedestrian Improvements
0170-3700	Speed management	Speed management - other	1	Enforcement and Education	$1502890	$1802890	HRRR Special Rule (23 U.S.C. 148(g)(1))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Not Applicable	Roadway Departure	Reduce Conflicts
0170-3702	Miscellaneous	Data analysis	1	SHSP 2022-2026	$500000	$720000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Not Applicable	Data	Other
0171-0434	Intersection traffic control	Modify traffic signal – modernization/replacement	5	Intersections	$44432	$44432	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot	Intersections	Reduce Conflicts
0171-0462	Intersection traffic control	Systemic improvements – signal-controlled	34	Intersections	$790500	$790500	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0171-0470	Intersection traffic control	Systemic improvements – stop-controlled	871	Intersections	$130000	$130000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0171-0470	Intersection traffic control	Systemic improvements – stop-controlled	841	Intersections	$100000	$100000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0171-0472	Roadway signs and traffic control	Curve-related warning signs and flashers	380	Curves	$150000	$150000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		City or Municipal Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0171-0472	Roadway signs and traffic control	Curve-related warning signs and flashers	380	Curves	$162500	$162500	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		City or Municipal Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0171-0473	Pedestrians and bicyclists	Pedestrian signal - other	14	Intersections	$394040	$394040	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Pedestrians	Pedestrian Improvements
0171-0489	Roadway	Pavement surface – high friction surface	14	Curves	$67500	$75000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road

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0171-0489	Roadway	Pavement surface – high friction surface	14	Curves	$250000	$707678	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0172-0477	Roadway signs and traffic control	Curve-related warning signs and flashers	6800	Signs	$1000000	$1000000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0172-0477	Roadway signs and traffic control	Curve-related warning signs and flashers	6800	Signs	$131776	$131776	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0172-0477	Roadway signs and traffic control	Curve-related warning signs and flashers	6800	Signs	$1468171	$1468171	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0172-0507	Pedestrians and bicyclists	Modify existing crosswalk	38	Locations	$144981	$144981	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0172-0507	Pedestrians and bicyclists	Modify existing crosswalk	38	Locations	$599800	$599800	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0172-0508	Roadway signs and traffic control	Curve-related warning signs and flashers	280	Curves	$150000	$150000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		City or Municipal Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0172-0508	Roadway signs and traffic control	Curve-related warning signs and flashers	280	Curves	$100000	$100000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		City or Municipal Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0172-0509	Pedestrians and bicyclists	Pedestrian signal - other	24	Intersections	$100000	$100000	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Pedestrians	Pedestrian Improvements
0172-0509	Pedestrians and bicyclists	Pedestrian signal - other	24	Intersections	$35013	$35013	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Pedestrians	Pedestrian Improvements
0172-0509	Pedestrians and bicyclists	Pedestrian signal - other	24	Intersections	$517280	$517280	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Pedestrians	Pedestrian Improvements
0172-0509	Pedestrians and bicyclists	Pedestrian signal - other	24	Intersections	$68068	$68068	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Pedestrians	Pedestrian Improvements

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0173-0500	Intersection traffic control	Systemic improvements – signal-controlled	29	Intersections	$1000000	$1000000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0173-0500	Intersection traffic control	Systemic improvements – signal-controlled	29	Intersections	$1646117	$1646117	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0173-0500	Intersection traffic control	Systemic improvements – signal-controlled	29	Intersections	$182902	$182902	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0173-0501	Intersection traffic control	Systemic improvements – signal-controlled	37	Intersections	$999999	$1000000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0173-0501	Intersection traffic control	Systemic improvements – signal-controlled	37	Intersections	$1000001	$1000000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0173-0501	Intersection traffic control	Systemic improvements – signal-controlled	37	Intersections	$161310	$161310	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0173-0501	Intersection traffic control	Systemic improvements – signal-controlled	37	Intersections	$1451792	$1451792	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0173-0507	Pedestrians and bicyclists	Rapid Rectangular Flashing Beacons (RRFB)	14	Locations	$55183	$61314	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		City or Municipal Highway Agency	Systemic	Pedestrians	Pedestrian Improvements
0173-0517	Intersection traffic control	Systemic improvements – stop-controlled	248	Intersections	$45000	$45000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0173-0517	Intersection traffic control	Systemic improvements – stop-controlled	248	Intersections	$100000	$100000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0173-0518	Roadway	Pavement surface – high friction surface	13	Curves	$1000000	$1000000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0173-0518	Roadway	Pavement surface – high friction surface	13	Curves	$1090398	$1090398	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0173-0521	Pedestrians and bicyclists	Pedestrian signal - other	61	Intersections	$1537000	$1537000	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Pedestrians	Pedestrian Improvements

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0174-0405	Intersection traffic control	Modify traffic signal – modernization/replacement	15	Intersections	$255667	$255667	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Pedestrian Improvements
0174-0435	Intersection traffic control	Modify traffic signal – modernization/replacement	48	Intersections	$100000	$100000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0174-0436	Intersection traffic control	Modify traffic signal – modernization/replacement	27	Intersections	$435000	$435000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0174-0436	Intersection traffic control	Modify traffic signal – modernization/replacement	27	Intersections	$100000	$100000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce Conflicts
0174-0449	Roadway signs and traffic control	Roadway signs and traffic control - other	137	Intersections	$222026	$222026	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce conflicts
0174-0449	Roadway signs and traffic control	Roadway signs and traffic control - other	137	Intersections	$979480	$979480	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Reduce conflicts
0174-0450	Roadway	Pavement surface – high friction surface	14	Curves	$1000000	$1000000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0174-0450	Roadway	Pavement surface – high friction surface	14	Curves	$500000	$500000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0174-0450	Roadway	Pavement surface – high friction surface	14	Curves	$134823	$134823	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0174-0450	Roadway	Pavement surface – high friction surface	14	Curves	$1213410	$1213410	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	Keep Vehicles on Road
0174-0452	Pedestrians and bicyclists	Pedestrian signal - other	24	Intersections	$40000	$40000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Pedestrians	Pedestrian Improvements
0174-0452	Pedestrians and bicyclists	Pedestrian signal - other	24	Intersections	$49500	$49500	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Pedestrians	Pedestrian Improvements
0174-0452	Pedestrians and bicyclists	Pedestrian signal - other	24	Intersections	$702820	$702820	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Pedestrians	Pedestrian Improvements

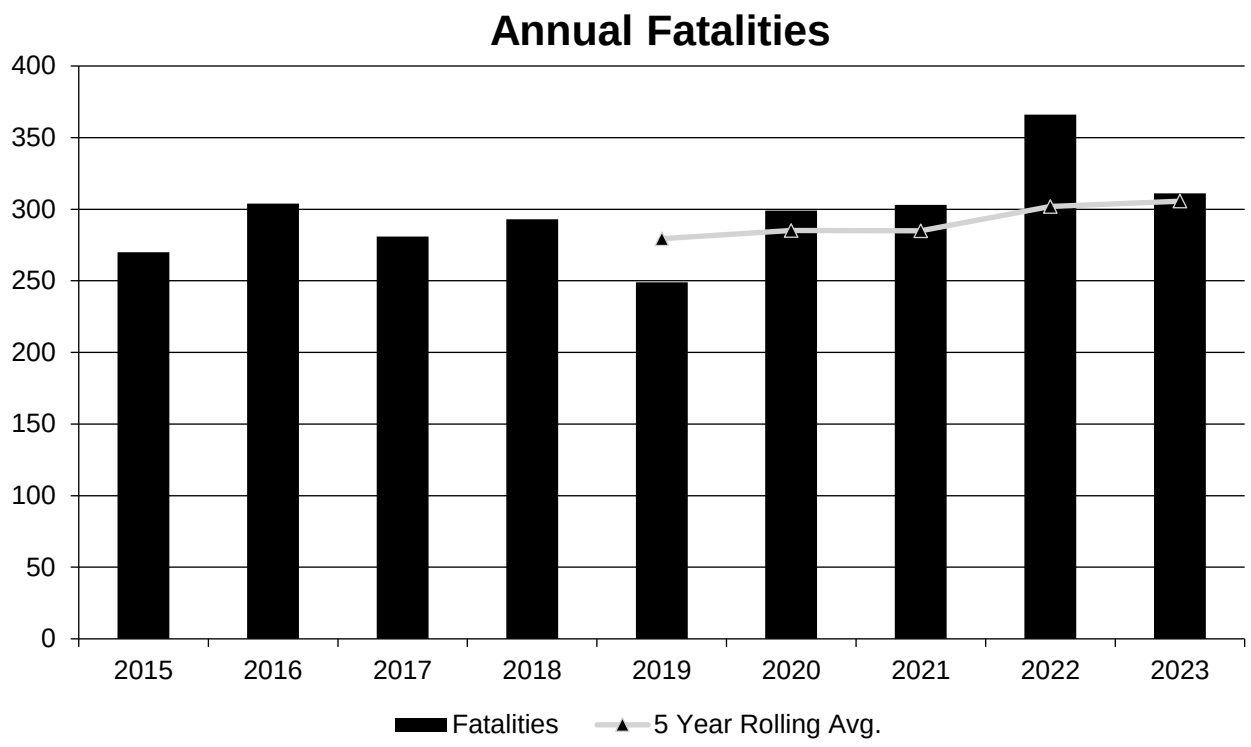
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
0174-0452	Pedestrians and bicyclists	Pedestrian signal - other	24	Intersections	$10000	$10000	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Pedestrians	Pedestrian Improvements
0174-0452	Pedestrians and bicyclists	Pedestrian signal - other	24	Intersections	$41323	$41323	VRU Safety Special Rule (23 U.S.C. 148(g)(3))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Pedestrians	Pedestrian Improvements

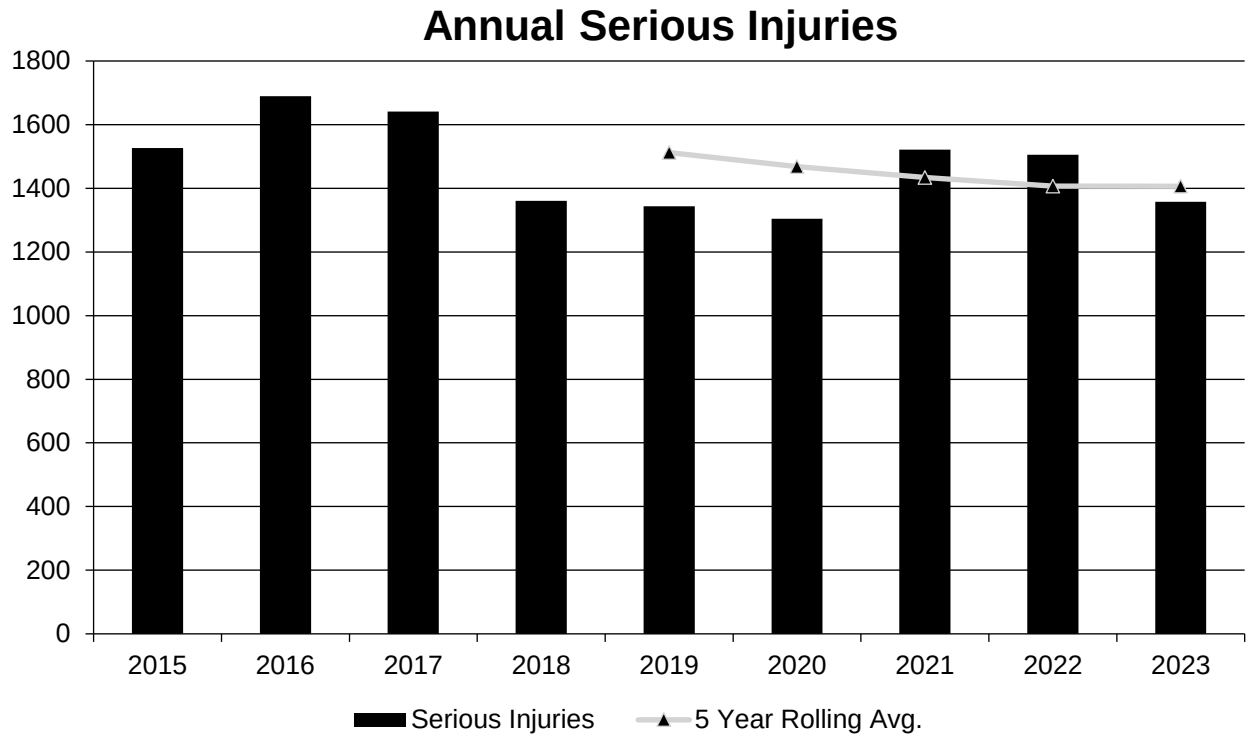
Safety Performance

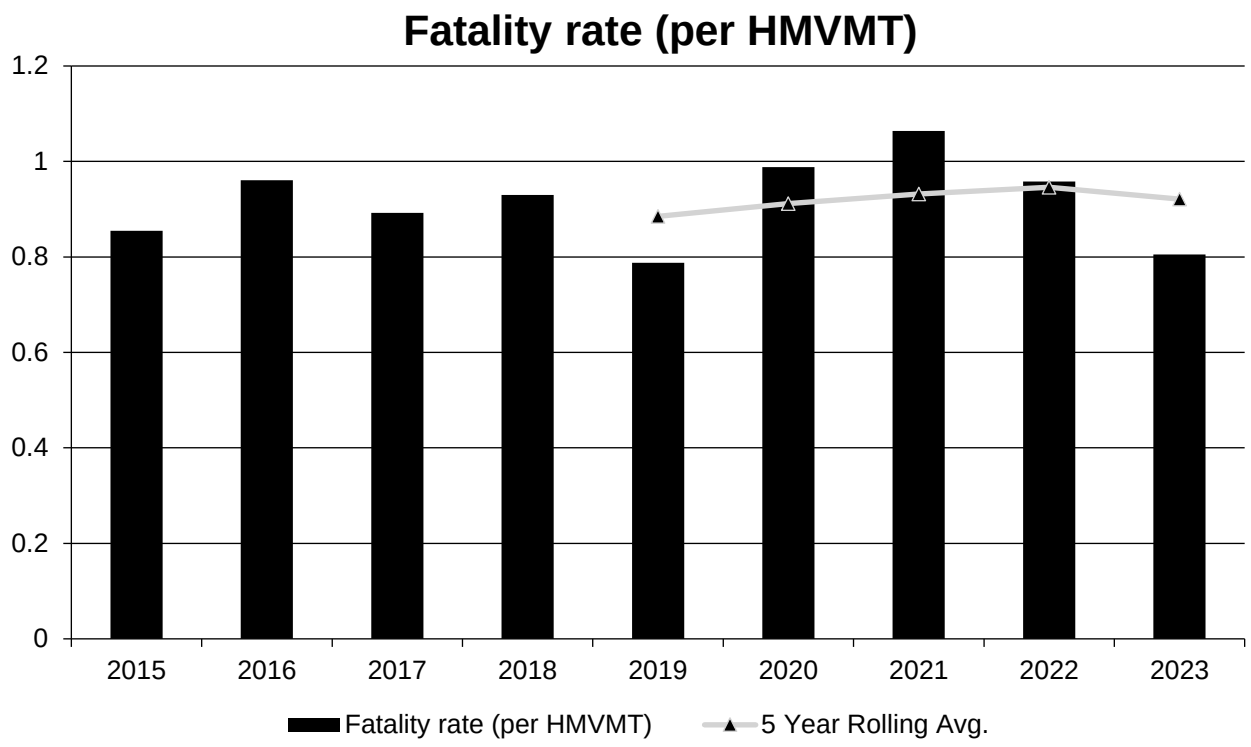
General Highway Safety Trends

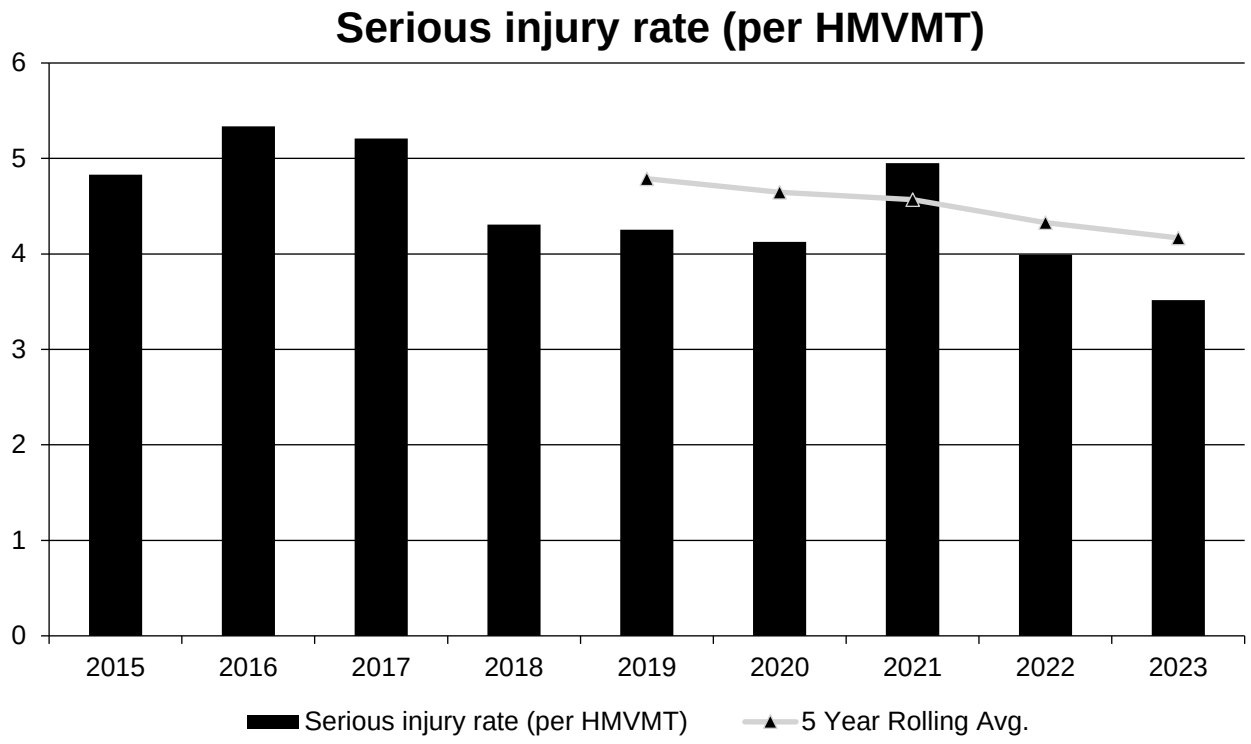
Present data showing the general highway safety trends in the State for the past five years.

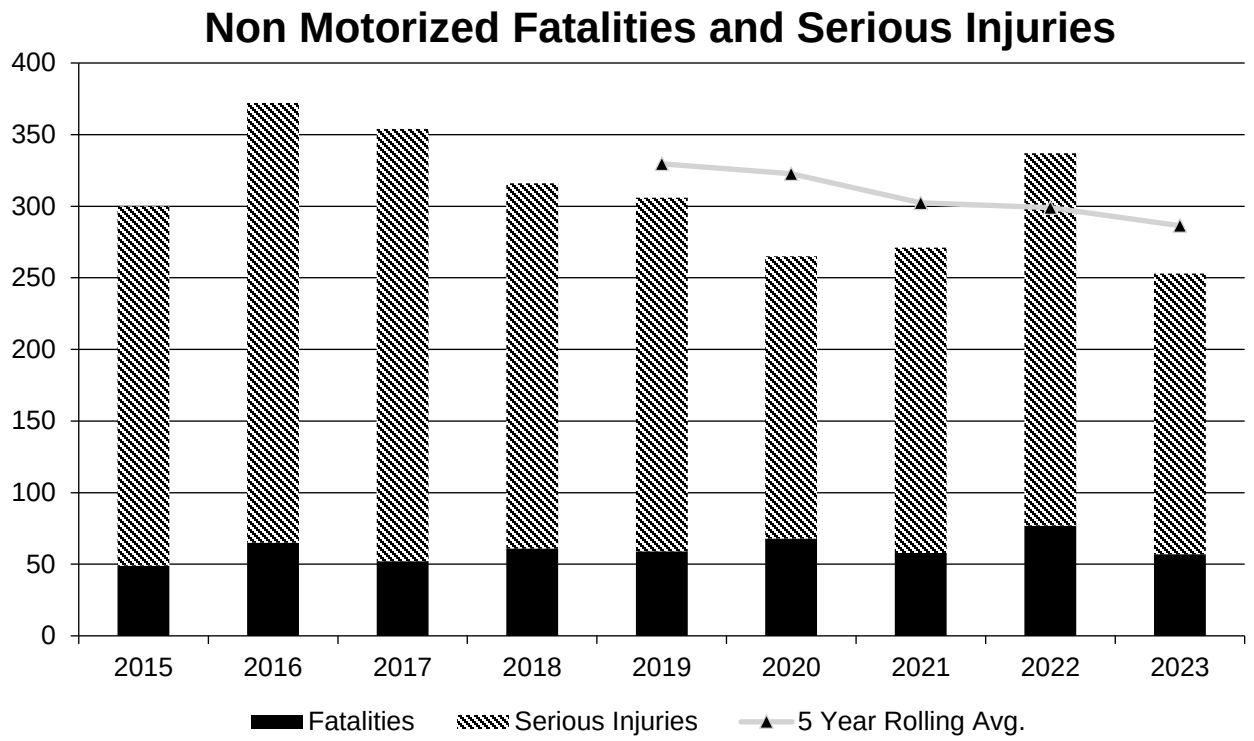
PERFORMANCE MEASURES	2015	2016	2017	2018	2019	2020	2021	2022	2023
Fatalities	270	304	281	293	249	299	303	366	311
Serious Injuries	1,526	1,689	1,641	1,361	1,344	1,304	1,521	1,505	1,358
Fatality rate (per HMVMT)	0.855	0.961	0.892	0.930	0.788	0.988	1.064	0.958	0.805
Serious injury rate (per HMVMT)	4.830	5.338	5.210	4.308	4.253	4.127	4.951	3.992	3.518
Number non-motorized fatalities	49	65	52	61	59	68	58	77	57
Number of non-motorized serious injuries	251	307	302	255	247	197	213	260	196


Annual Fatalities
400
350
300
250
200
150
100
50
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
1800
1600
1400
1200
1000
800
600
400
200
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
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)
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 2022

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	2.4		0.5	
Rural Principal Arterial (RPA) - Other Freeways and Expressways				
Rural Principal Arterial (RPA) - Other				
Rural Minor Arterial				
Rural Minor Collector				
Rural Major Collector				

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				
Urban Principal Arterial (UPA) - Interstate	55.6		0.58	
Urban Principal Arterial (UPA) - Other Freeways and Expressways	27.8		0.66	
Urban Principal Arterial (UPA) - Other	59.8		1.73	
Urban Minor Arterial	84.2		1.73	
Urban Minor Collector				
Urban Major Collector	32.4		1.31	
Urban Local Road or Street	20.2		0.86	

Year 2022

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	177.4			
County Highway Agency				
Town or Township Highway Agency				
City or Municipal Highway Agency				
State Park, Forest, or Reservation Agency				
Local Park, Forest or Reservation Agency				
Other State Agency				
Other Local Agency				
Private (Other than Railroad)				
Railroad				
State Toll Authority				
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation				

2023 FARS data not yet available.

Safety Performance Targets

Safety Performance Targets

Calendar Year 2025 Targets *

Number of Fatalities:270.0

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

CTDOT is choosing to maintain a 2025 fatality target of **270.0**. The selection is based on careful consideration of the following:

CTDOT has chosen to set an aggressive target that will move the state back toward fatality levels experienced in 2014-2015 and 2019, before the impact of the COVID-19 pandemic.

Prior to the COVID-19 pandemic, there had been a decreasing trend in the number of fatalities by implementing safety related infrastructure projects as well as enforcement and educational campaigns. CTDOT recognizes that 2020-2022 were unusual years with the COVID-19 pandemic which resulted in higher-than-expected traffic fatalities. This was an unexpected consequence observed in several states in the country.

Number of Serious Injuries:1300.0

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

CTDOT is choosing to maintain a 2025 target of **1300.0** serious injuries. The selection is based on careful consideration of the following:

The trendlines graph suggest the actual value may fall between 1,359-1,380.

CTDOT wants to set an aggressive target that will move the state back toward serious injury levels experienced in 2020 and lower.

Fatality Rate:0.850

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

CTDOT is choosing to maintain an aggressive target of **0.850** in 2025. The selection is based on careful consideration of the following:

The two trendlines in the graph suggest the actual value may be between 1.074 and 1.159.

CTDOT wants to set an aggressive target that will move the state back toward fatality rate levels experienced in 2014-2015 and 2019 time periods before the impact of the COVID-19 pandemic.

CTDOT recognizes that 2020-2022 were unusual years with the COVID-19 pandemic when Connecticut saw an increase in traffic fatalities even though the traffic volume dropped. This resulted in a higher fatality rate in 2020 and the increase in fatalities has continued into 2021 and 2020 which will likely push the fatality rate even higher. Connecticut also had a significant spike in wrong-way fatalities in 2022.

In 2022, in the ongoing aftermath of the COVID-19 pandemic, Connecticut's fatality rate increased to 1.210. Early estimates from NHTSA suggest a national fatality rate of 1.33 in 2022, which is 10 percent higher than Connecticut. Connecticut is choosing to strive for a lower rate by setting the target at 0.850 for 2025. The desired outcome is to return to pre-COVID-19 pandemic levels with the ultimate goal of zero traffic fatalities.

Serious Injury Rate:4.300

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

CTDOT is choosing to maintain a 2025 target of **4.300** serious injuries/100 million VMT. The selection is based on careful consideration of the following:

The trendlines suggest the actual value may fall between 4.658-4.858, but CTDOT wants to set an aggressive target that will move the state back toward fatality rate levels experienced in 2018 and lower.

CTDOT recognizes that 2020 through 2022 were unusual years with the COVID-19 pandemic. There was a decrease in the number of serious injuries likely due to a reduction in traffic volume in 2020, whereas 2021 and 2022 saw in increase in the number of serious injuries. In 2023, preliminary data suggest serious injuries once again began a downward trend.

Total Number of Non-Motorized Fatalities and Serious Injuries:280.0

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

CTDOT is choosing to maintain a 2025 target of **280.0** non-motorist fatalities and serious injuries. The selection is based on careful consideration of the following:

High Priority for Pedestrian Safety. The safety of pedestrians became a heightened concern in Connecticut when pedestrian fatalities increased significantly in 2014. While it was part of a larger national trend, it raised concern in heavily urbanized areas, where walking and bicycling are more common. These forms of active transportation are also increasingly popular forms of physical exercise. CTDOT adopted pedestrian safety as a high priority and has a program to improve safety. Several safety-related infrastructure projects were undertaken from 2015 to the present day to improve the conspicuity of traffic control devices for non-motorized road users including, but not limited to marked crosswalk enhancements, pedestrian facility upgrades, and pedestrian signing. Additional studies have commenced as well, including illumination at crosswalks and intersections, ranking pedestrian crash locations and proposing countermeasures, reviewing eligibility of locations for raised crosswalks and intersections, and pursuing additional rectangular rapid flashing beacons (RRFB) on both state and municipal roadways. Connecticut remains committed to these goals. The SHSO now also has an addendum specifically dedicated to Vulnerable Road Users (VRUs).

In addition, there were several changes to the non-motorist Safety Laws in Connecticut in 2021 with the *Connecticut House Bill No. 5429,* which included the following:

Pedestrian Law - S 1 - YIELDING TO PEDESTRIANS AT CROSSWALKS: Expands the circumstances under which drivers must yield to pedestrians at uncontrolled crosswalks

Dooring Law - S 4 - DOORING: Prohibits causing physical contact with moving traffic by (1) opening a vehicle door or (2) leaving it open longer than necessary to load or unload passengers

Speed Limit Law - SS 6-12 - LOCAL ROAD SPEED LIMITS AND PEDESTRIAN SAFETY ZONES: Allows municipalities to establish speed limits on local roads without OSTA approval and allows for the establishment

of pedestrian safety zones with speed limits as low as 20 mph in downtown districts, community centers, and areas around hospitals

Aggressive Target. CTDOT wants to set an aggressive target that will move the state back toward fatality rate levels experienced in 2014 and lower.

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

Internal coordination between the Highway Safety Office (HSO) and Traffic Engineering began in the Spring of 2023. The HSO's contractor prepared initial targets for each of the safety performance targets for discussion. Once the draft targets were approved at the staff level, they were forwarded to CTDOT management for discussion and approval. After the targets were approved, CTDOT hosted a meeting with the MPOs to discuss the safety performance targets. During the meeting, there was a presentation and discussion on Federal reporting requirements, deadlines, and an assessment on past and current trends.

Does the State want to report additional optional targets?

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	270.0	305.6
Number of Serious Injuries	1300.0	1406.4
Fatality Rate	0.850	0.921
Serious Injury Rate	4.300	4.168
Non-Motorized Fatalities and Serious Injuries	280.0	286.4

Number of Fatalities: Preliminary data suggests that target will not be achieved and is slightly worse than baseline.

Number of Serious Injuries: Preliminary data suggests that target will not be achieved and is slightly worse than baseline.

Fatality Rate (per HMVMT): Preliminary data suggests that target will not be achieved and is slightly worse than baseline.

Serious Injury Rate (per HMVMT): Preliminary data suggests that target will be achieved and is slightly better than baseline.

Number of Non-Motorized Fatalities and Serious Injuries: Preliminary data suggests that target will not be achieved and is slightly worse than baseline.

Applicability of Special Rules

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

Yes

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

Yes

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	55	44	55	42	38	55	47
Number of Older Driver and Pedestrian Serious Injuries	135	126	137	138	134	148	121

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.

During the COVID pandemic, traffic volume decreased by almost 50% and a shift in driver behavior was noticed. As a result, there continues to be an increase in speeding and aggressive driving behavior even as the traffic volumes have returned to pre-pandemic levels. Overall driver behavior has continued to remain aggressive. The safety effectiveness evaluation module within the CT Roadway Safety Management System (CRSMS) will allow users to evaluate individual project(s).

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

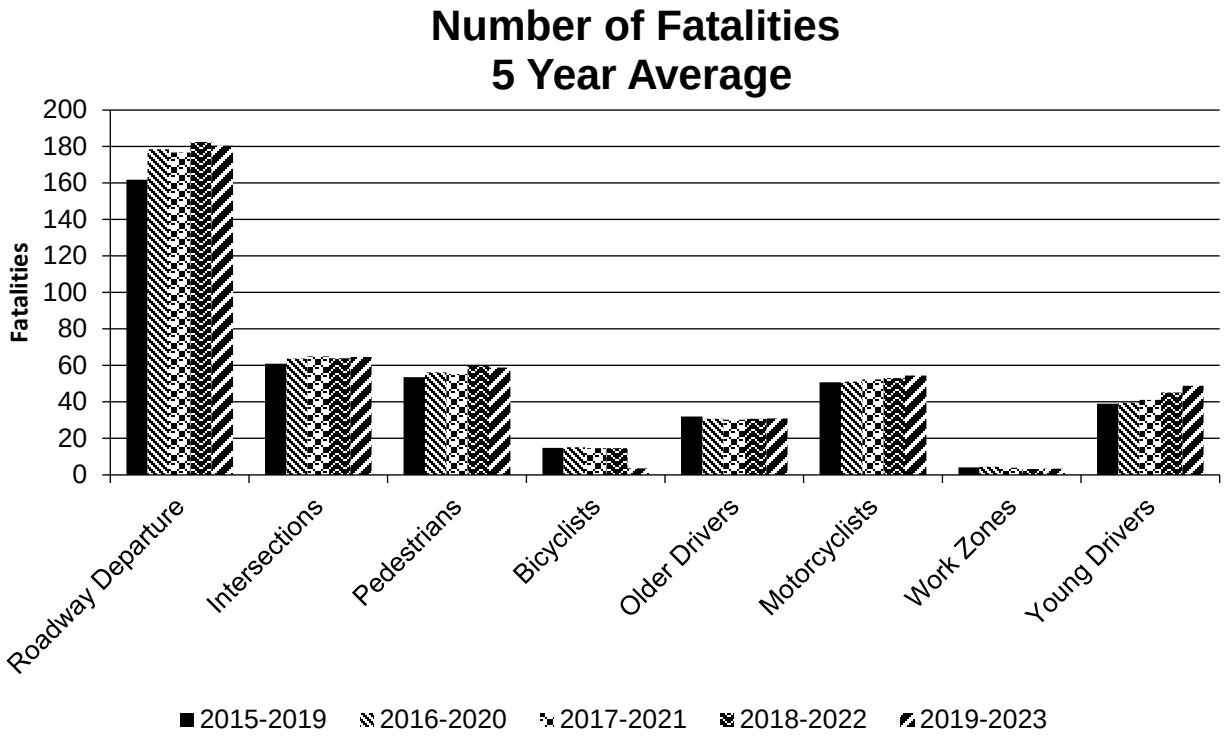
- HSIP Obligations
- Increased awareness of safety and data-driven process
- Increased focus on local road safety
- More systemic programs
- Policy change

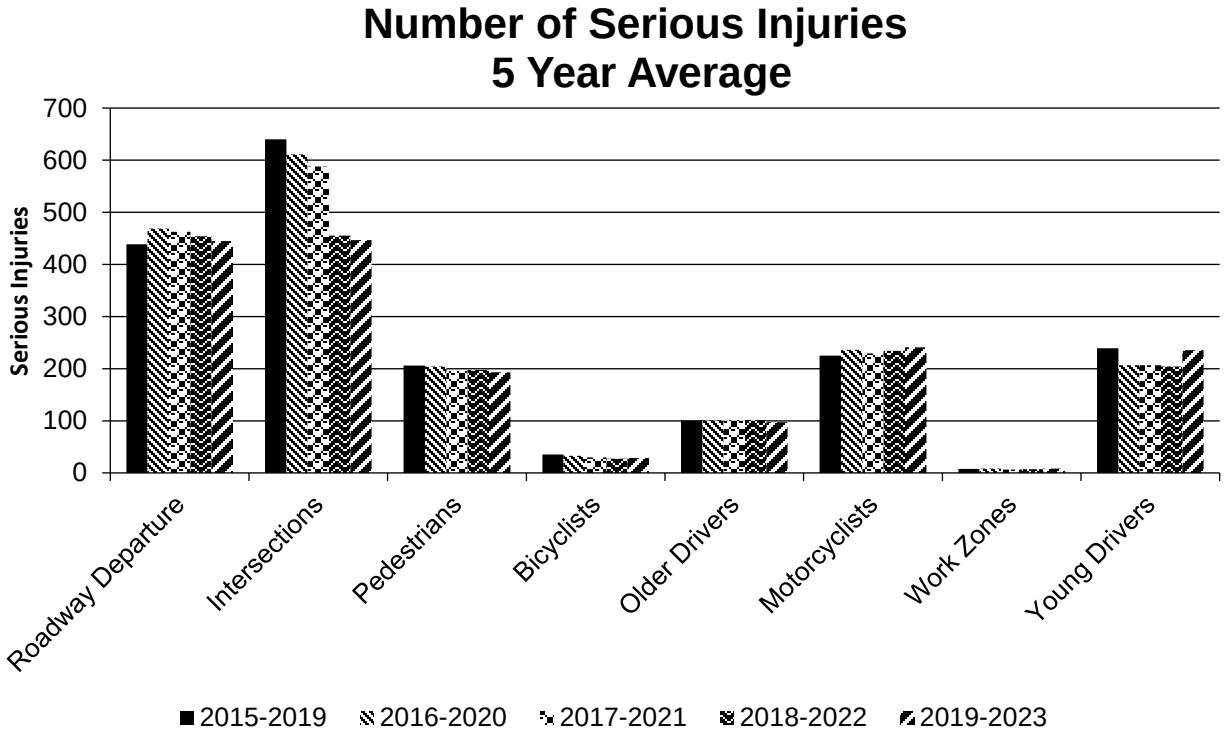
Effectiveness of Groupings or Similar Types of Improvements

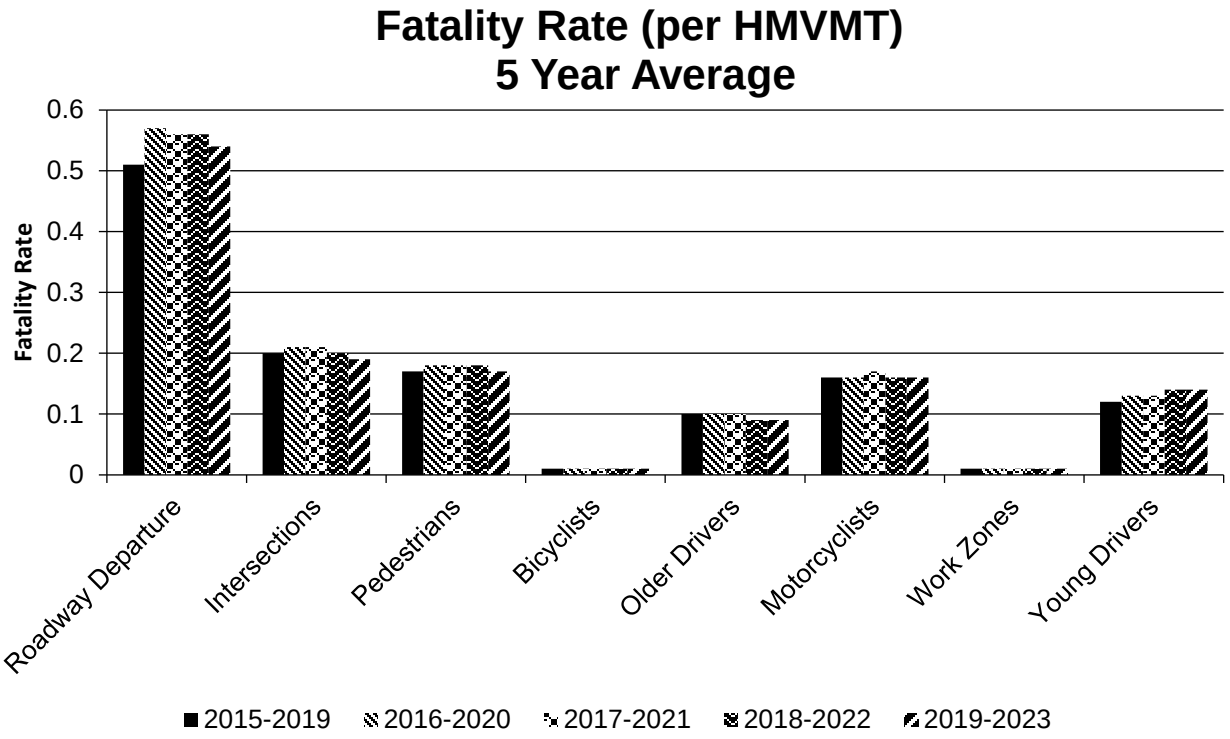
Present and describe trends in SHSP emphasis area performance measures.

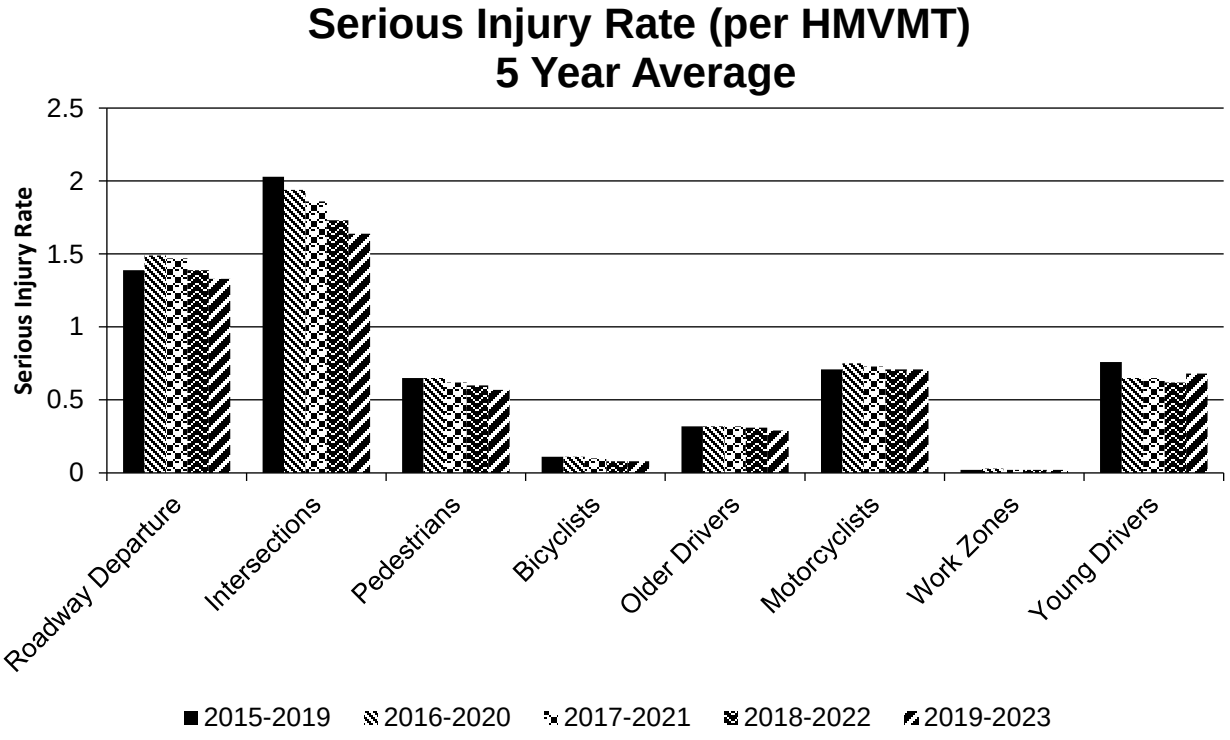
Year 2023

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)
Roadway Departure		180.4	445	0.54	1.33
Intersections		64.6	446.4	0.19	1.64
Pedestrians		58.8	193.2	0.17	0.57
Bicyclists		3.6	28.6	0.01	0.08
Older Drivers		31	97.6	0.09	0.29
Motorcyclists		54.4	241.2	0.16	0.71
Work Zones		3.4	8.2	0.01	0.02
Young Drivers		48.8	235.4	0.14	0.68


Number of Fatalities
5 Year Average
Fatalities
200
180
160
140
120
100
80
60
40
20
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Young Drivers
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023


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


Fatality Rate (per HMVMT)
5 Year Average
Fatality Rate
0.6
0.5
0.4
0.3
0.2
0.1
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Young Drivers
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023


Serious Injury Rate (per HMVMT)
5 Year Average
Serious Injury Rate
2.5
2
1.5
1
0.5
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Young Drivers
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.

Project 0170-3596 Evaluation of HSIP Project Effectiveness (Before/After studies) was completed to review the effectiveness for 5 project pilot studies. The project developed technical memos on the safety effectiveness of each countermeasure. The project completed after reviewing the 5 pilot projects as it was determined additional projects for evaluation did not have sufficient data in the "after" condition to provide analysis at this time.

The CRSMS Safety Effectiveness Module, developed by UCONN, is undergoing continued improvement. Expected updates to available AADT data and Network Screening Safety Performance Functions (SPFs) are expected to improve the module. UCONN is also working on developing CT specific Crash Modification Factors (CMFs) which will provide additional resources to determine the effect and expected effect on CT roadways.

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

Project 0170-3596 Evaluation of HSIP Project Effectiveness (Before/After studies) was completed to review the effectiveness for 5 project pilot studies. The project developed technical memos on the safety effectiveness of each countermeasure. The project completed after reviewing the 5 pilot projects as it was determined additional projects for evaluation did not have sufficient data in the "after" condition to provide analysis at this time.

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Compliance Assessment

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

05/01/2022

What are the years being covered by the current SHSP?

From: 2022 To: 2026

When does the State anticipate completing its next SHSP update?

2026

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	100	100	100
	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
	Median Type (54) [55]	100	100								

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Access Control (22) [23]	100	100								
	One/Two Way Operations (91) [93]	100	100								
	Number of Through Lanes (31) [32]	100	100					100	100		
	Average Annual Daily Traffic (79) [81]	100	100					100	100		
	AADT Year (80) [82]	100	100								
	Type of Governmental Ownership (4) [4]	100	100					100	100	100	100
INTERSECTION	Unique Junction Identifier (120) [110]			100	100						
	Location Identifier for Road 1 Crossing Point (122) [112]			100	100						
	Location Identifier for Road 2 Crossing Point (123) [113]			100	100						
	Intersection/Junction Geometry (126) [116]			100	100						
	Intersection/Junction Traffic Control (131) [131]			100	100						
	AADT for Each Intersecting Road (79) [81]			100	100						
	AADT Year (80) [82]			100	100						
	Unique Approach Identifier (139) [129]			100	100						
INTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]					100	100				
	Location Identifier for Roadway at Beginning of Ramp Terminal (197) [187]					100	100				

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Location Identifier for Roadway at Ending Ramp Terminal (201) [191]					100	100				
	Ramp Length (187) [177]					100	100				
	Roadway Type at Beginning of Ramp Terminal (195) [185]					100	100				
	Roadway Type at End Ramp Terminal (199) [189]					100	100				
	Interchange Type (182) [172]					100	100				
	Ramp AADT (191) [181]					100	100				
	Year of Ramp AADT (192) [182]					100	100				
	Functional Class (19) [19]					100	100				
	Type of Governmental Ownership (4) [4]					100	100				
Totals (Average Percent Complete):		**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

* 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.

Refer to CTDOT's Traffic Records Strategic Plan dated August 1, 2023.

https://portal.ct.gov/-/media/DOT/documents/dhighwaysafety/TRCC/CT_FY24_405c-Traffic-Records-Strategic-Plan.pdf

Section 4.2 Roadway System (page 33) contains information on MIRE Fundamental Data Elements.

Optional Attachments

Program Structure:

CT HSIP guide.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.