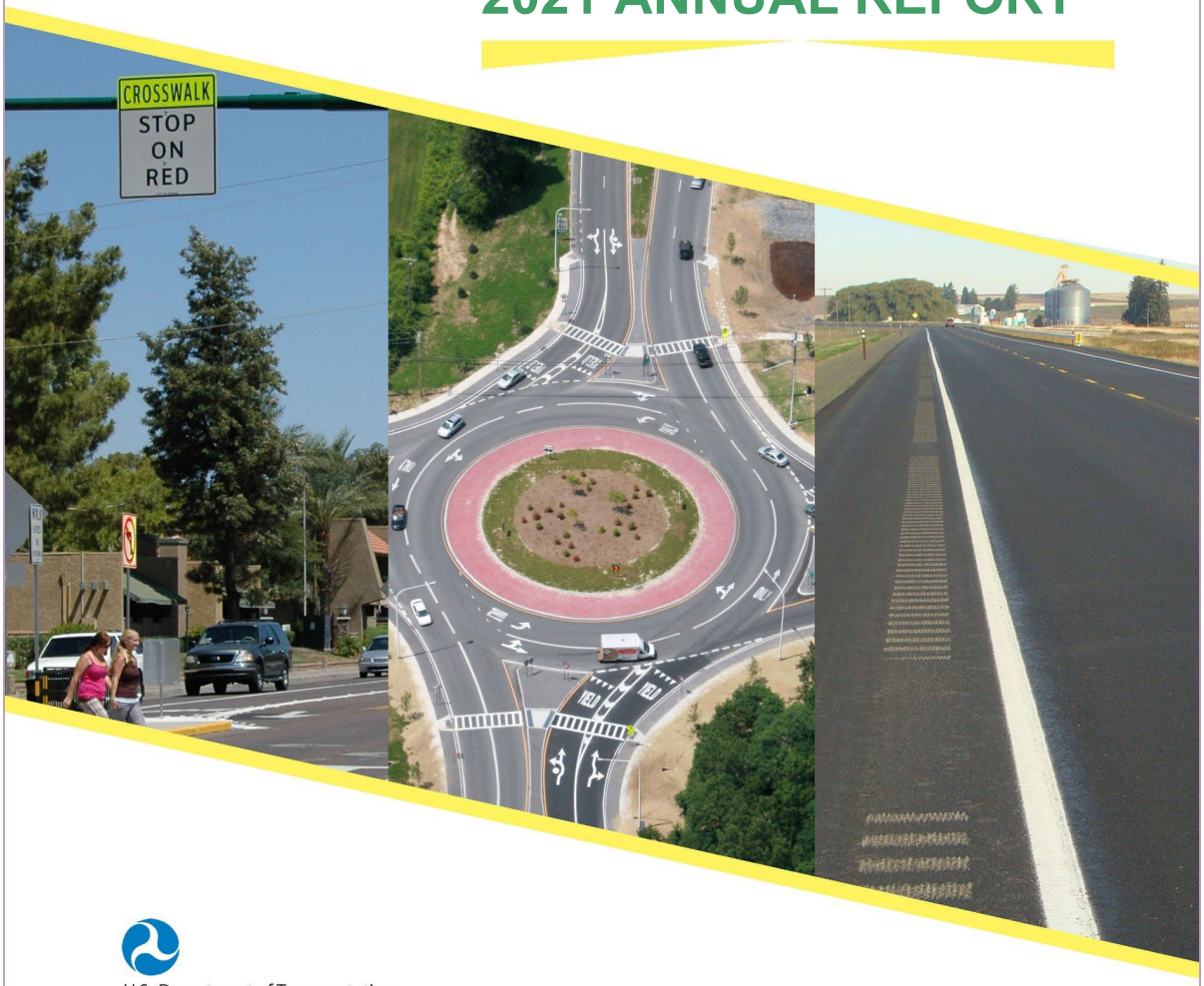
KANSAS

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2021 ANNUAL REPORT



U.S. Department of Transportation
Federal Highway Administration

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

23 U.S.C. 148(h)(4) states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section[HSIP], shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in the reports, surveys, schedules, lists, or other data.23 U.S.C. 409 states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.”

Executive Summary

In Kansas we continue to spend our HSIP dollars in a variety of independently managed sub-programs, including intersections, signing, pavement markings, lighting, highway-rail grade crossing, HRRR, guardrail, and general safety improvements. This is the ninth year HRRR is reported with the HSIP report. Collectively, these programs cover all 140,000 centerline miles of public roads in Kansas while applying a multitude of proven countermeasures designed to reduce fatal and serious injury crashes statewide.

Worth highlighting is the significant increase in serious injuries since 2018. Between 2009 and 2018 serious injuries fell from 1,675 to 1,003. In 2019 Kansas adopted the new definition of "suspected serious injury" for severity A on the KABCO scale, to replace what was called "disabling injury". As expected, serious injuries (A) increased to 1,401 in 2019 and then to 1,586 in 2020 as, presumably, more law enforcement agencies adjusted to the new definition. This created a challenge in generating meaningful safety performance measures for serious injuries.

Since submitting our 2020 HSIP Annual Report, we completed an HSIP Assessment, published our 2020-2024 Strategic Highway Safety Plan, developed an evaluation framework for each HSIP sub-program, and prepared our FFY 2022 HSIP Implementation Plan. It is our goal that each of these documents substantively inform and improve our overall HSIP process.

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.

Our HSIP is managed via eight independent sub-programs, including Intersections, Signing, Pavement Markings, Lighting, Rail-Highway Grade Crossing, High Risk Rural Roads (HRRR), Guardrail, and General Safety Improvements. Each of these programs is described in detail within this report.

Where is HSIP staff located within the State DOT?

Other-Planning and Design

The HSIP is administered by the State Highway Safety Engineer in the Bureau of Transportation Safety within the Division of Planning and Development. Seven of the eight sub-programs are now managed within the Division of Engineering and Design: Intersections, Signing, Pavement Markings, and Lighting are managed in the Bureau of Traffic Engineering; HRRR is managed by the Bureau of Local Projects, and Rail-Highway Grade Crossing and Guardrail by the Bureau of Road Design. General Safety Improvements is managed by the Bureau of Transportation Safety. See section below titled "Describe HSIP program administration practices that have changed since the last reporting period" for significant organizational changes within the reporting period.

How are HSIP funds allocated in a State?

- Other-Headquarters

A committee made up of the HSIP Program Manager, FHWA Division Safety Engineer, sub-program managers, and management meet monthly to measure program progress based on planned obligations and to estimate and distribute allocations moving forward. The discussion begins based on historical precedent, but actual distribution is based on anticipated needs over the next two years. As we work to improve our HSIP, we intend to work toward a more data-driven distribution of dollars to each sub-program.

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

Our HSIP program is made up of eight sub-programs: Lighting, Pavement Markings, Signing, Rail-Highway Grade Crossing, Intersections, HRRR, Guardrail and General Safety Improvements. Lighting, Pavement Markings, Signing, and Guardrail are exclusive to the State Highway System, although projects may impact intersecting non-state roads. Intersections, General Safety Improvements and Rail-Highway Grade Crossing projects may include local roads, that is, public roads not a part of the State Highway System. HRRR is exclusive to local roads, not a part of he State Highway System.

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

- Design
- Districts/Regions
- Local Aid Programs Office/Division
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety

Describe coordination with internal partners.

Lighting sub-program: Projects are selected with input from the structural engineer in our State Bridge Office responsible for foundations for lighting, as well as field information from our Area Offices, and road safety audits performed by our Bureau of Traffic Engineering.

Signing sub-program: This blanket replacement program was originally programmed to cover the entire state highway system in ten years. We are currently on our second cycle of replacement. Our Area Offices complete a sign inventory for each project. In recent years, projects that are primarily on conventional roads the Area Offices typically installed the new signs and posts; however, due to staffing and other considerations we have moved back to contractor let. Projects that are on urban expressways and freeways have been and will continue to be contractor let. Area Offices then administer the construction engineering duties.

Pavement Marking sub-program: Our pavement marking technician (sub-program manager) works closely with our district maintenance engineers to identify recommended routes based on field experience and retro-reflectivity data. The sub-program manager works with the Bureau of Traffic Engineering to identify locations in need of improved markings for safety.

Intersections sub-program: Projects are identified through solicitation to cities and their recommendations. Additionally, projects may be identified through studies such as Traffic Engineering Assistance Program reports (TEAP) and traffic studies. When the intersection is located on the State Highway System, our District and Area Offices are made part of the discussion as well. Once locations are identified, a competitive process for funding begins using Part B of the Highway Safety Manual and engineering judgment.

HRRR sub-program: The Bureau of Local Projects manages the program and utilizes a scoring rubric to score and rank potential projects. District Offices provide construction oversight.

General Safety Improvements sub-program: The Bureau of Transportation Safety manages the program. Projects are selected and scoped in partnership with other KDOT divisions upon request.

Guardrail 3R: Projects are selected and scoped in partnership with District and Area Offices based on KDOT Road Memorandum 18-03 KDOT 3R Policy. 3R projects are pavement driven. The guardrail is assessed along with other roadway features and alignment.

Guardrail Set-aside: Projects are selected and scoped in partnership with District and Area Offices based on the Guardrail Set-Aside Program MOU dated August 19, 2019. Bridge Management, Coordinating Section (Rail), and Traffic Engineering are also involved.

All sub-programs: The Bureau of Transportation Safety manages and reports on crash data as needed.

Identify which external partners are involved with HSIP planning.

- FHWA
- Local Government Agency
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
- Other-Program Management Consultant

Describe coordination with external partners.

Intersections sub-program: Projects are identified through solicitation to cities and their recommendations. Additionally, projects may be identified through studies such as Traffic Engineering Assistance Program reports (TEAP) and KDOT traffic studies.

HRRR sub-program: Projects are identified through solicitation to counties and their recommendations. Additionally, projects may be identified through studies such as Traffic Engineering Assistance Program reports (TEAP), road safety audits, and Local Road Safety Plans.

Guardrail sub-programs: Due to staffing issues within KDOT, JEO Consulting Group is contracted with KDOT to serve as PMC for the guardrail programs.

All sub-programs: The FHWA is involved in oversight and providing program guidance as needed. The MPOs are involved in the Transportation Improvement Program (TIP) approval process.

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

The former Bureau of Transportation Safety and Technology within the Division of Planning and Development was split into three new bureaus: Transportation Safety (formerly Traffic Safety Section) remained in the Division of Planning and Development. This bureau includes the management of crash data, management of behavioral safety programs, and the State Highway Safety Engineer (SHSE) who administers the HSIP including this annual report, safety performance targets, and (when required) the annual implementation plan. The SHSE also manages the general safety improvements sub-program. The Bureau of Traffic Engineering (formerly Traffic Engineering Section) moved to the Division of Engineering and Design and continues to manage four sub-programs: intersections, signing, pavement markings, and lighting. The third new bureau, Bureau of ITS (formerly ITS Section) also remained in the Division of Planning and Development but is not involved in the HSIP program. Finally, the Bureau of Local Projects, which manages HRRR, and the Bureau of Road Design, which manages guardrail and rail, remains in the Division of Engineering and Design.

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

A total of $25,952,175 ($19,403,402HSIP and $6,548,773 Rail) was apportioned in FFY-2021, distributed to each sub-program as follows:

- Lighting: $500,000
- Pavement Marking: $5,000,000
- Signing: $5,000,000
- HWY/RR Grade Crossing:
    - $803,402 HSIP
    - $6,548,773 Rail

- Intersection Safety: $3,200,000
- General Safety Improvements: $0
- HRRR: $4,900,000
- Guard Rail: $0

A total of $60,224,032.97 ($39,506,427.71 HSIP, $7,893,139.08 Rail and $12,824,466.18 ACHSIP) was obligated in each sub-program as follows:

- Lighting: $3,990,437.72 HSIP
- Pavement Marking: $7,792,647.66 HSIP
- Signing: $10,248,748.74 HSIP
- HWY/RR Grade Crossing: $8,853,528.33:
  - $677,059.16 HSIP
  - $7,893,139.08 Rail
  - $283,330.09 ACHSIP
- Intersection Safety: $2,736,940.06:
  - $1,557,553.06 HSIP
  - $1,179,387.00 ACHSIP
- KDOT Safety: $8,152,183.02:
  - $213,917.93 HSIP
  - $7,938,265.09 ACHSIP
- HRRR: $7,386,794.38 HSIP
- Guard Rail: $11,062,753.06:
  - $7,639,269.06 HSIP
  - $3,423,484 ACHSIP

These dollar figures are provided as supplemental information only. Only the HSIP portion of HWY/RR Grade Crossing is included in this report; the Rail portion is included in the RHCP Report. Projects funded with advanced construction (ACHSIP) are not included in this report but will be reported when funds are converted. For the purpose of this question, apportioned is that dollar amount made available to each subprogram prior to the beginning of the fiscal year; this value--which varies from year to year based on anticipated need--does not include carry-over. Please note that the values for obligations may include adjustment made on projects reported in a previous report or may include PE on projects we will report in a future report and should not be expected to match totals from the project listing table below.

Program Methodology

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

No

KDOT and the FHWA Division Office completed an HSIP Assessment in March 2021. One of three key recommendations from the assessment is based on this observation:*"Currently only the Intersection Program uses a robust data-driven safety approach to select and prioritize projects but still only considers locations submitted for funding. The rating rubric used in the HRRR program indirectly provides a measure that relates to safety performance for submitted projects. Likewise, the use of mobile retro data is an excellent tool to identify routes approaching minimum retro-reflectivity levels but does not relate directly to safety performance."* The recommendation follows: *"Develop program procedures to better reflect data-driven safety performance approaches. This may include the expanded use of HSM techniques or systemic approaches tied to proven countermeasures. This would provide the basis for performing evaluations discussed above. It is recognized that this may require improved processes for advancing KDOT's capabilities for safety data collection and analysis."* Or, as noted in the conclusion, ***"Develop program procedures to better reflect data-driven safety performance approaches, and document in a program manual."***

Select the programs that are administered under the HSIP.

- Intersection
- Local Safety
- Sign Replacement And Improvement
- Other-Pavement Marking
- Other-Lighting
- Other-General Safety Improvements
- Other-Guardrail
- Other-Rail

Our HRRR Program may also be referred to as Local Safety since it applies exclusively to locally-owned roads.

Program: Intersection

Date of Program Methodology:8/25/2016

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Other-Must satisfy a need based on the HSM, address crashes, and have a B/C>1.

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• All crashes • Other-Fatal and SI crashes	• Traffic • Volume • Population • Lane miles	• Functional classification • Other-Turn lanes

What project identification methodology was used for this program?

- Crash frequency
- Expected crash frequency with EB adjustment
- Other-B/C ratio
- Other-Observed crashes and patterns

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.

Process is same except local road projects include a periodic solicitation letter to all cities with population of 5,000 or greater requesting project proposals.

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:2
Available funding:3
Other-Crash patterns:1
This program is increasingly focused on low-cost safety improvements as well as higher-cost that addresses observed crash patterns. Additionally, HSM tools such as Safety Analyst help us rank and quantify the countermeasures to address intersections with the greatest potential to improve safety.

Program: Local Safety

Date of Program Methodology:2/11/2011

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	• Traffic • Volume • Population • Lane miles	• Horizontal curvature • Functional classification • Roadside features • Other-Shoulder width, sign sheeting type, past projects, cost, RSA, county priority, and LRSP

What project identification methodology was used for this program?

- Crash frequency
- Crash rate
- Excess proportions of specific crash types
- 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.

This program applies only to local roads (non-state owned and operated.)

How are projects under this program advanced for implementation?

- Competitive application process
- Other-Scoring rubric
- 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:2
Other-Scoring rubric:1

Program: Sign Replacement And Improvement

Date of Program Methodology:7/1/2006

What is the justification for this program?

- Addresses SHSP priority or emphasis area
- Other-10 year sign replacement for retro-reflectivity per the MUTCD

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
		• Other-Sign inventory • Other-Sign tracking

What project identification methodology was used for this program?

- Other-Projects are programmed based on a blanket replacement program

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

No

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

How are projects under this program advanced for implementation?

- Other-Projects are programmed based on a blanket replacement program.

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

Rank of Priority Consideration

Other-Per established cyclical program:1

This program was established in 1996 to address necessary sign replacements on the State Highway System due to pending (now final) federal requirements for minimum retro-reflectivity of highway signs. This program schedules sign replacements based upon highway route-mileage statewide and the total mileage of all the routes in each District Sub-Area with multiple Sub-Areas in each District being addressed each year. This program excludes signs on any other state project that include sign replacement for that highway route in the same year. This program also excludes any signs that were replaced within seven years of the scheduled date of the replacement project. This is the 15th year KDOT has used HSIP funds to improve permanent signing. The projects in the program are administered using two separate methods. Sub-Areas comprised primarily of routes classified as freeways and expressways with interchanges are let to contract via normal letting procedures. Sub-Areas with routes that are classified as expressways and conventional roads were administered by releasing contracts to purchase the signs and posts with installation performed by KDOT maintenance crews. However, due to KDOT maintenance work-force reductions, the program will rely on contractors to install the signs regardless of route classification moving forward.

Program: Other-Pavement Marking

Date of Program Methodology:7/1/2006

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

- All crashes

Exposure

- Volume
- Population

Roadway

- Other-Retro-reflectivity.

- Other-If we considered only traffic volumes, only high volume districts (1 and 5) would get funded, thus population is taken into account. At the district level, we then consider higher volume routes first and take into account retro-readings.

What project identification methodology was used for this program?

- Crash frequency
- Other-Mobile retro-reflectivity data

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

No

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

How are projects under this program advanced for implementation?

- Other-Pavement Marking Specialist works closely with district maintenance engineers to select projects.

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

Rank of Priority Consideration

Available funding:1

This set-aside program was established in FY 1996 to address pavement marking necessary due to pending new federal requirements for minimum retro-reflectivity of pavement markings. Improvements in this category utilize high-performance, long-life pavement marking materials. Efforts are also made to identify those marking materials with wet-weather retro-reflectivity. This program is limited to projects that do not have high performance markings included under any other KDOT program. Projects are selected by the Bureau of Traffic Engineering based on a roadway's traffic volumes, past performance of marking material, geometry, surface condition, surface
type, crash history, and, in the case of new marking materials, the research benefit. We are also expanding our use of mobile retro-reflectivity data to identify potential projects. This is the 16th year KDOT has used HSIP funds to improve pavement markings.

Program: Other-Lighting

Date of Program Methodology:7/1/2006

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• Other-Night-time unlit crashes	• Volume	• Other-Road type: Interchanges

What project identification methodology was used for this program?

- Other-Locations are identified by District Engineers and public

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

No

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

How are projects under this program advanced for implementation?

- Other-Lighting Unit

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

Rank of Priority Consideration

Available funding:1

Because lighting is beneficial to the safety and operation of the highway system, this set-aside program was established in FY 2000. Projects are selected by the Bureau of Traffic Engineering based on the roadway's volume and the potential for night-time crash history. This program is limited to
projects which are not included under any other KDOT program. Projects are scheduled until the available lighting funds are exhausted. This is the 16th year KDOT has used HSIP funds to improve lighting.

Program: Other-General Safety Improvements

Date of Program Methodology:7/1/2020

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Other-As needed

What data types were used in the program methodology?

Crashes	Exposure	Roadway

What project identification methodology was used for this program?

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?

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).

Rank of Priority Consideration

Other-As needed:1

The original General Safety Improvement Program is being reinvented as a state-funded safety program focused on passing lanes, intersections, and segments. This funding category continues to exist for special projects as needed or when consistent with our Strategic Highway Safety Plan.

Program: Other-Guardrail

Date of Program Methodology:8/19/2019

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
	• Traffic • Volume	• Roadside features

- Other-Speed
- Other-NHS

What project identification methodology was used for this program?

- Other-Tiered approach based on AADT and posted speed, then strategically bundled by geography

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

No

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

How are projects under this program advanced for implementation?

- Other-Memorandum of Understanding

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

Rank of Priority Consideration

Available funding:1

The information above is specific to the blunt-end set-aside program. No set-aside projects are listed in the project listing because--while projects were programmed--the dollars were obligated using advanced construction (AC). The projects will be listed in fiscal year the funds are converted. The set-aside is based on a Memorandum of Understanding dated August 19,2019 and includes the following program criteria:

- Projects will focus on removal and replacement of blunt ends on the mainline lanes along the NHS routes.
- Where existing guardrail installations are entirely replaced, the replacement will be consistent with KDOT’s Roadside Safety Hardware Eligibility Process.
- Each blunt end guardrail location will be evaluated for the appropriate treatment but will focus on the blunt end terminal.
- Some set-aside projects may require right-of-way (ROW) acquisition. Where ROW is required the project schedule will be such to allow adequate time for environmental reviews and ROW acquisition to take place.
- The set-aside projects are expected to be categorical exclusion environmental classification.

The three guardrail projects in this year's project listing are from the 3R program consistent with KDOT Road Memorandum 18-03 KDOT 3R Policy. 3R projects are pavement driven. The entire guardrail is assessed along with other roadway features and alignment and replaced as necessary.

Program: Other-Rail

Date of Program Methodology:9/24/2021

What is the justification for this program?

- Other-Originated under Section 130 of the 1973 Federal-Aid Highway Act

What is the funding approach for this program?

What data types were used in the program methodology?

Crashes	Exposure	Roadway
	• Traffic • Other-Train traffic	• Other-Warning devices

What project identification methodology was used for this program?

- Other-Priority formula hazard index (see below)

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

Yes

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

Yes

How are projects under this program advanced for implementation?

- Other-Prioritization 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

Available funding:1
Other-Priority formula:2
When Rail projects are funded with HSIP dollars, the projects are selected consistent with our Section 130 program. Please reference the RHCP report for more information. In SFY 2021, we obligated two PE only projects using HSIP funds. Please see the project listing for details.

The priority formula “Hazard Index” is used to rate the relative hazard potential for all crossings and is based on highway traffic, train traffic, and a warning device factor. The formula is described below:

Priority Formula for Railroad Crossings

Hazard Index = AADT * T * W
AADT = Average Annual Daily Traffic
T = Average Number of Trains Per Day
W = 0.1 for Gates
W = 0.6 for Flashing Lights
W = 1.0 for Cross Bucks

What percentage of HSIP funds address systemic improvements?

87

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

- Clear Zone Improvements
- Horizontal curve signs
- Install/Improve Pavement Marking and/or Delineation
- Install/Improve Signing
- Other-Active grade crossings
- Pavement/Shoulder Widening
- Upgrade Guard Rails

For HSIP reporting purposes, a systemic improvement means an improvement that is widely implemented based on high-risk roadway features that are correlated with particular severe crash types. This does not include system wide projects where a safety treatment is applied to the entire system without data considerations. Based on this definition, the following programs are being reported as systemic based on risk factors noted:

- Pavement Marking: Retro-reflectivity
- Signing: Sign age
- Guard Rail: Speed and traffic volume
- Rail: Train and traffic volumes
- HRRR: Markings and signing

Percentage reported above is based exclusively on HSIP project costs in the project listing below.

What process is used to identify potential countermeasures?

- Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)
- Engineering Study
- Road Safety Assessment
- SHSP/Local road safety plan
- Other-10-year replacement cycle
- Other-Risk factors for systemic programs

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.

The intersection program uses the Highway Safety Manual Part B along with Part C for the expected, predicted and observed crash frequency. We also use the Level of Service of Safety along with crash patterns and Benefit/Cost to determine a qualifying project for funding.

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

Yes. In summer of 2021, Kansas established a CMF task force which will be guided by a project consultant. The outcome of this work will provide KDOT with approved crash modification factors (CMF) to be applied to projects across the state for both estimating expected changes in crashes and for use in benefit-cost analyses. A compilation of approved CMFs allows for consistency in projects across the state. The consistency in application of CMFs will allow the state to streamline the review of safety projects in addition to communicating the expected benefits of safety countermeasures to stakeholders.

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)	$19,403,402	$39,506,428	203.61%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$0	$0	0%
Penalty Funds (23 U.S.C. 154)	$0	$0	0%
Penalty Funds (23 U.S.C. 164)	$0	$0	0%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	$0	$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	$0	$0	0%
State and Local Funds	$2,383,165	$2,105,007	88.33%
Totals	$21,786,567	$41,611,435	191%

HSIP values were provided by our Management Systems Analyst; State and Local values were provided by our WinCPMS Administrator. Both persons in our Division of Program and Project Management. State and Local values are based on programmed original estimates and obligations that occurred between 07/01/2020 and 06/30/2021.

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

$8,100,000

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

$7,836,794

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

$2,485,580

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

$2,485,580

Non-infrastructure funding goes toward Local Road Safety Plans, Traffic Engineering Assistance Program, State Highway-Rail Grade Crossing Action Plan, and collection of pavement marking retro-reflectivity data.

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

0%

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

0%

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

Lighting sub-program: Two distinct issues have caused delays in this program. First, a one-million dollar project in the Kansas City Metro Area (I-70 and I-670) has been delayed by coordinating efforts with UPRR. The original project was created end of 2019. This portion was broken out into a stage two project mid 2020 because of railroad coordination, and has been delayed several times. The current letting is scheduled for January 2022. Second, a fluid dynamic study being performed by the University of Kansas to evaluate how the existing High Mast Light Towers react to the new LED luminaire profile, which is more aerodynamic. Until this study concludes, structural engineers in KDOT are advising against upgrading any existing pole to LED lights.

General Listing of Projects

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

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
KA-6009-01	Lighting	Interchange lighting	1	Interchanges	$203731	$203759	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	14,800	65	State Highway Agency	Spot	Intersections	
KA-6010-01	Lighting	Interchange lighting	1	Interchanges	$323426	$323465	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	19,200	75	State Highway Agency	Spot	Intersections	
KA-6011-01	Lighting	Lighting - other	2	1 Interchange/1 Intersection	$222069	$222096	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	14,000		State Highway Agency	Spot	Intersections	
KA-6012-01	Lighting	Interchange lighting	1	Interchanges	$170729	$170757	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	13,500	75	State Highway Agency	Spot	Intersections	
KA-6013-01	Lighting	Interchange lighting	1	Interchanges	$183498	$183571	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	12,300	75	State Highway Agency	Spot	Intersections	
KA-6014-01	Lighting	Interchange lighting	1	Interchanges	$179444	$179471	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	13,300	75	State Highway Agency	Spot	Intersections	
KA-4744-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	9.693	Miles	$593260	$593721	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
KA-4744-03	Roadway signs and traffic control	Roadway signs (including post) - new or updated	11.36	Miles	$155288	$155288	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
KA-4744-04	Roadway signs and traffic control	Roadway signs (including post) - new or updated	50.809	Miles	$5190796	$5190820	HSIP (23 U.S.C. 148)	Multiple/Varies	Principal Arterial-Interstate	0		State Highway Agency	Systemic	Roadway Departure	
KA-4745-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	128.982	Miles	$692878	$693025	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
KA-4745-02	Roadway signs and traffic control	Roadway signs (including post) - new or updated	54.551	Miles	$365923	$366004	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
KA-4746-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	31.612	Miles	$130488	$130488	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		State Highway Agency	Systemic	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	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
KA-4746-04	Roadway signs and traffic control	Roadway signs (including post) - new or updated	205.011	Miles	$1369227	$1369518	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	0		State Highway Agency	Systemic	Roadway Departure	
KA-4747-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	85.555	Miles	$434431	$434539	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
KA-4748-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	36.651	Miles	$228520	$228520	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
KA-4748-02	Roadway signs and traffic control	Roadway signs (including post) - new or updated	49.231	Miles	$237562	$237562	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
KA-4748-03	Roadway signs and traffic control	Roadway signs (including post) - new or updated	66.939	Miles	$790124	$790290	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
KA-4749-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	57.451	Miles	$356777	$356878	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
KA-4749-02	Roadway signs and traffic control	Roadway signs (including post) - new or updated	56.82	Miles	$658983	$659716	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
KA-5893-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	91.617	Miles	$162613	$162679	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
KA-4746-02	Roadway signs and traffic control	Roadway signs (including post) - new or updated	62.011	Miles	$332676	$333610	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
U-2362-01	Intersection traffic control	Intersection traffic control - other	1	Intersections	$450000	$563000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	9,947	35	City or Municipal Highway Agency	Spot	Intersections	
KA-5176-01	Intersection geometry	Intersection geometry - other	1	Intersections	$1348000	$1748000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	5,015	65	State Highway Agency	Spot	Intersections	
C-4683-01	Roadside	Roadside grading	1.1	Miles	$79993	$668553	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Roadway Departure	
C-4790-04	Miscellaneous	Local road safety plans	19	Counties	$950580	$950580	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	Local Road Safety Plans
C-4855-21	Miscellaneous	Miscellaneous - other	10	Studies	$200000	$200000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		Other Local Agency	Committee selection	Local Roads	Traffic Engineering

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
															Assistance Program
C-4928-01	Alignment	Horizontal curve realignment	0.4	Miles	$248174	$273835	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Roadway Departure	
C-4938-01	Roadside	Increase clear zone – outside of curve	0.2	Miles	$508164	$520518	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Roadway Departure	
C-4964-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	50	Miles	$100987	$100987	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		County Highway Agency	Systemic	Local Roads	
C-4965-01	Intersection traffic control	Intersection signing –other	0.5	Miles	$389304	$510393	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Spot	Intersections	
C-4967-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	53	Miles	$150831	$150831	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4968-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	48	Miles	$74709	$74709	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4969-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	71	Miles	$150834	$150834	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4971-01	Roadway delineation	Longitudinal pavement markings – new	200	Miles	$518873	$519128	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		County Highway Agency	Systemic	Roadway Departure	
C-4972-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	75	Miles	$383689	$383689	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4973-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	120	Miles	$333634	$333634	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4974-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	63	Miles	$168159	$168159	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4975-01	Roadway	Roadway widening - add lane(s) along segment	1.7	Miles	$611734	$679749	HSIP (23 U.S.C. 148)	Rural	Minor Collector	0		County Highway Agency	Spot	Intersections	
C-4976-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	101	Miles	$325784	$325784	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
C-4977-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	238	Miles	$441024	$441024	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4978-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	138	Miles	$155101	$155101	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4979-01	Roadway delineation	Longitudinal pavement markings – new	53	Miles	$211635	$211635	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Roadway Departure	
C-4981-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	39	Miles	$38189	$38189	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4982-01	Roadway delineation	Longitudinal pavement markings – new	46	Miles	$227831	$227831	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Roadway Departure	
C-4984-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	55	Miles	$125975	$125975	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4985-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	53	Miles	$207707	$207707	HSIP (23 U.S.C. 148)	Rural	Minor Collector	0		County Highway Agency	Systemic	Local Roads	
C-4987-01	Roadway delineation	Longitudinal pavement markings – new	170	Miles	$594031	$594031	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Roadway Departure	
C-4993-01	Roadway delineation	Longitudinal pavement markings – new	53	Miles	$418328	$418328	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Roadway Departure	
C-4994-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	50	Miles	$105873	$105873	HSIP (23 U.S.C. 148)	Rural	Minor Collector	0		County Highway Agency	Systemic	Local Roads	
C-4995-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	120	Miles	$293006	$293006	HSIP (23 U.S.C. 148)	Rural	Minor Collector	0		County Highway Agency	Systemic	Local Roads	
C-4996-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	210	Miles	$395540	$395540	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-5058-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	19.2	Miles	$131432	$131432	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
KA-5510-02	Roadside	Barrier- metal	12	Locations	$1365000	$1420646	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	0		State Highway Agency	Systemic	Roadway Departure	EDC5-Barrier

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
KA-5606-02	Roadside	Barrier- metal	26	Locations	$1591692	$1591692	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	0		State Highway Agency	Systemic	Roadway Departure	EDC5-Barrier
KA-5889-01	Roadside	Barrier- metal	8	Locations	$849739.65	$849739.65	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Systemic	Roadway Departure	EDC5-Barrier
X-2216-22	Railroad grade crossings	Railroad grade crossings - other	1	PE project	$200000	$200000	HSIP (23 U.S.C. 148)	N/A	N/A	0			Systemic		
X-3122-01	Railroad grade crossings	Railroad grade crossings - other	1	Plan	$585000	$585000	HSIP (23 U.S.C. 148)	N/A	N/A	0			Required plan		
KA-5671-01	Roadway delineation	Improve retroreflectivity	8.158	Miles	$387841.88	$387841.88	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	65	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-5672-01	Roadway delineation	Improve retroreflectivity	4.836	Miles	$104879.45	$107879.45	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	65	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-5919-01	Roadway delineation	Improve retroreflectivity	5.97	Miles	$635606.41	$635606.41	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	15,802	75	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-5920-01	Roadway delineation	Improve retroreflectivity	19.411	Miles	$2011845.13	$2011845.13	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	18,450	75	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-5993-01	Roadway delineation	Improve retroreflectivity	2.38	Miles	$134364.2	$134364.2	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other Freeways & Expressways	7,222	70	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6004-01	Roadway delineation	Improve retroreflectivity	27.91	Miles	$7519.9	$7519.9	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	13,538	65	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6005-01	Roadway delineation	Improve retroreflectivity	24.305	Miles	$393478.19	$393478.19	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	2,918	65	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6032-01	Roadway delineation	Improve retroreflectivity	11.064	Miles	$325200.52	$325200.52	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	3,590	65	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6051-01	Roadway delineation	Improve retroreflectivity	7.524	Miles	$713286.53	$713286.53	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	103,809	65	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6052-01	Roadway delineation	Improve retroreflectivity	3.998	Miles	$393617.29	$393617.29	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	73,924	60	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings

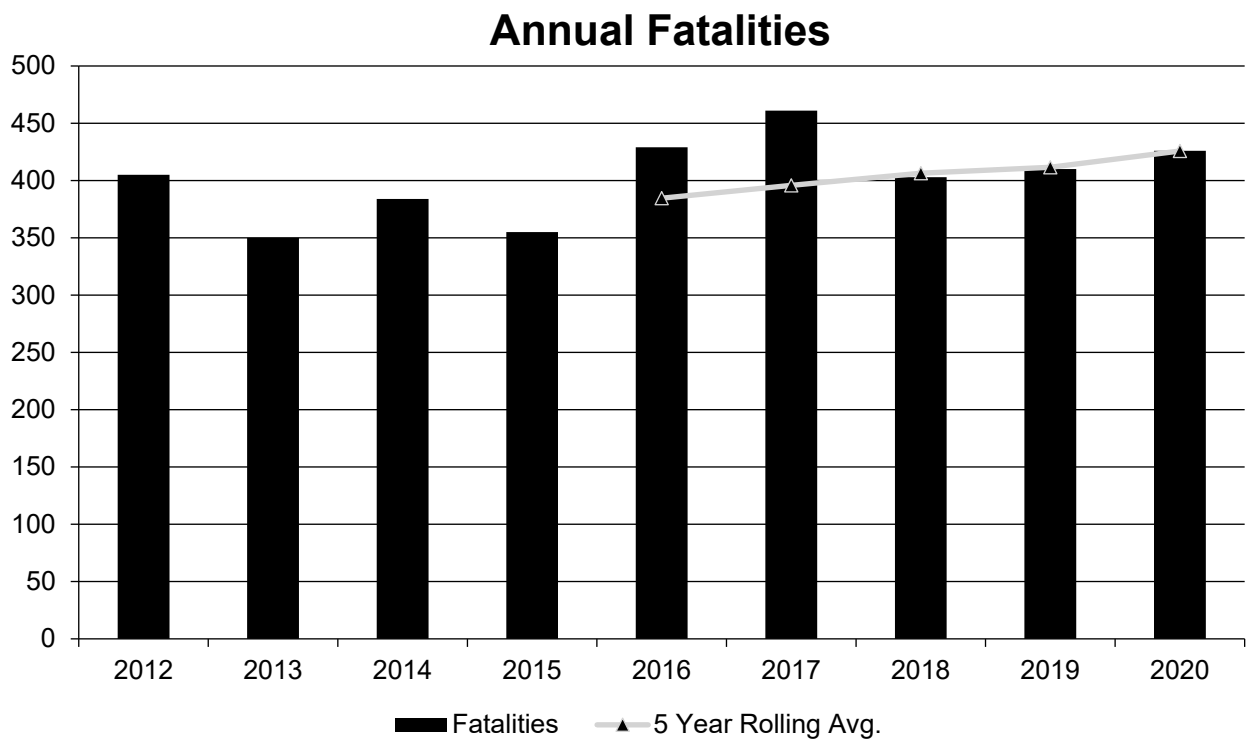
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
KA-6081-21	Roadway delineation	Improve retroreflectivity			$200000	$200000	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6147-01	Roadway delineation	Improve retroreflectivity	3.943	Miles	$781627.16	$781627.16	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	58,982	70	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6160-01	Roadway delineation	Improve retroreflectivity	8.486	Miles	$857959.91	$857959.91	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other Freeways & Expressways	17,820	70	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6188-01	Roadway delineation	Improve retroreflectivity	9.574	Miles	$227900	$227900	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other Freeways & Expressways	19,722	65	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6189-01	Roadway delineation	Improve retroreflectivity	0.421	Miles	$38915	$38915	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	11,672	30	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6190-01	Roadway delineation	Improve retroreflectivity	6.416	Miles	$166625	$166625	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	5,711	55	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6191-01	Roadway delineation	Improve retroreflectivity	4.36	Miles	$110725	$110725	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	3,321	55	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6192-01	Roadway delineation	Improve retroreflectivity	10.63	Miles	$218870	$218870	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	2,744	65	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6194-01	Roadway delineation	Improve retroreflectivity	9.49	Miles	$252625	$252625	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	2,916	65	State Highway Agency	Systemic	Roadway Departure	EDC5-Pavement Markings
KA-6077-01	Roadway delineation	Improve retroreflectivity			$750000	$750000	HSIP (23 U.S.C. 148)			0			Systemic	Data	Collect and inventory roadway data

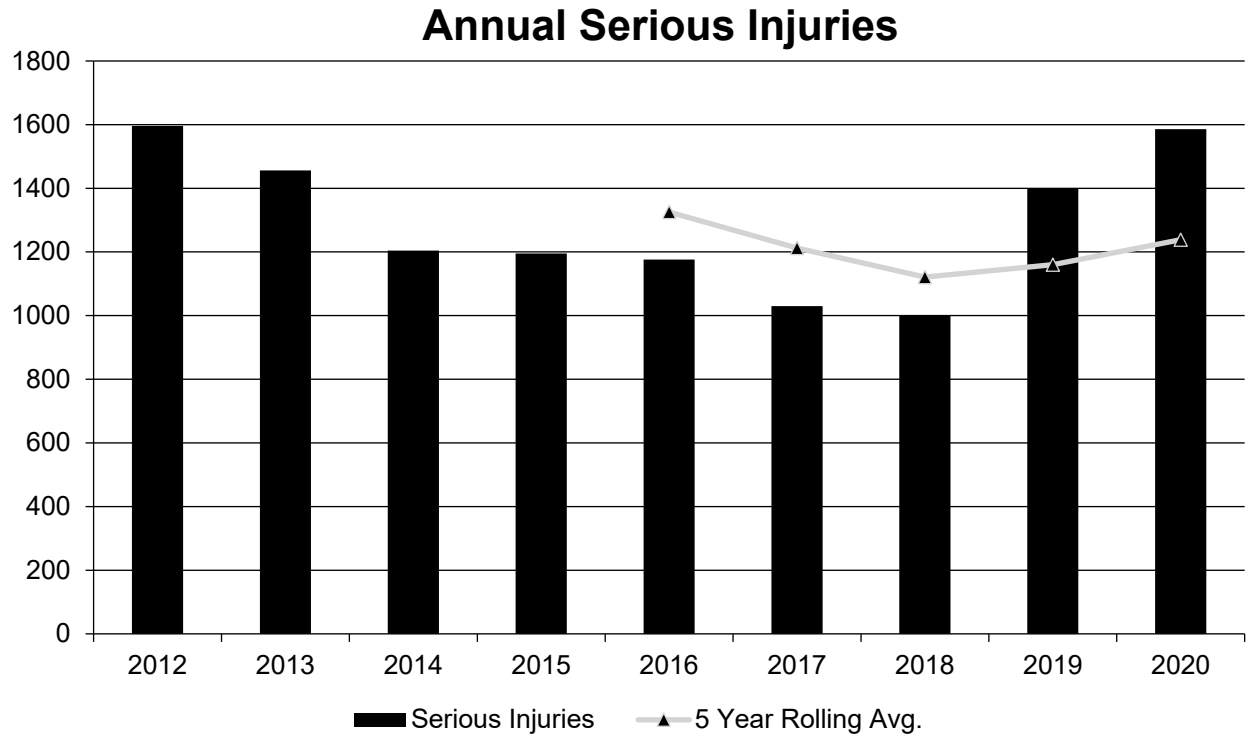
Safety Performance

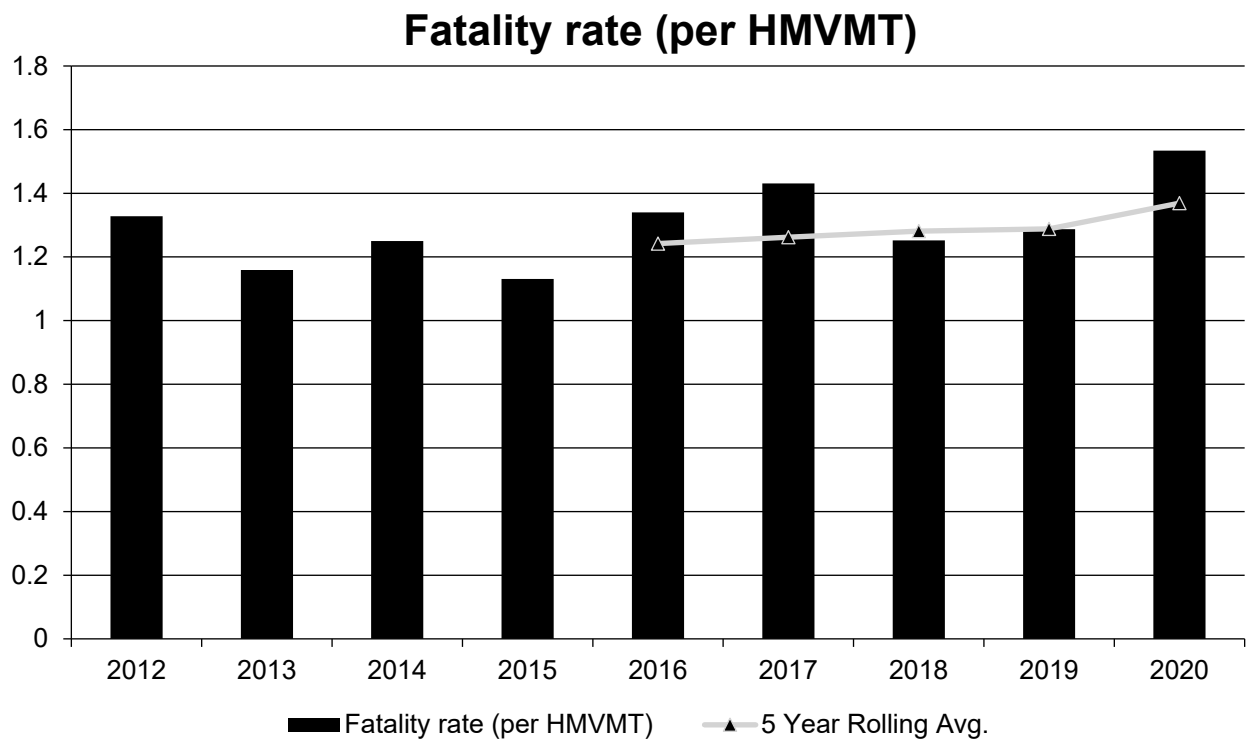
General Highway Safety Trends

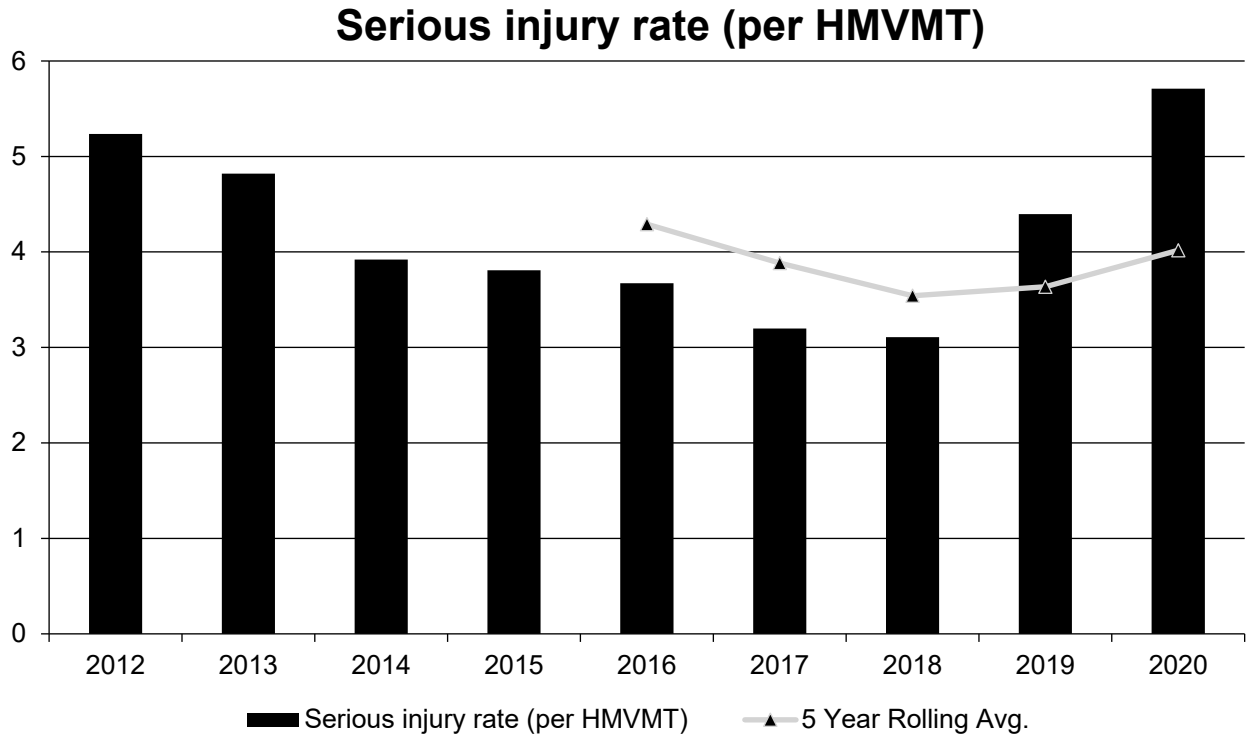
Present data showing the general highway safety trends in the State for the past five years.

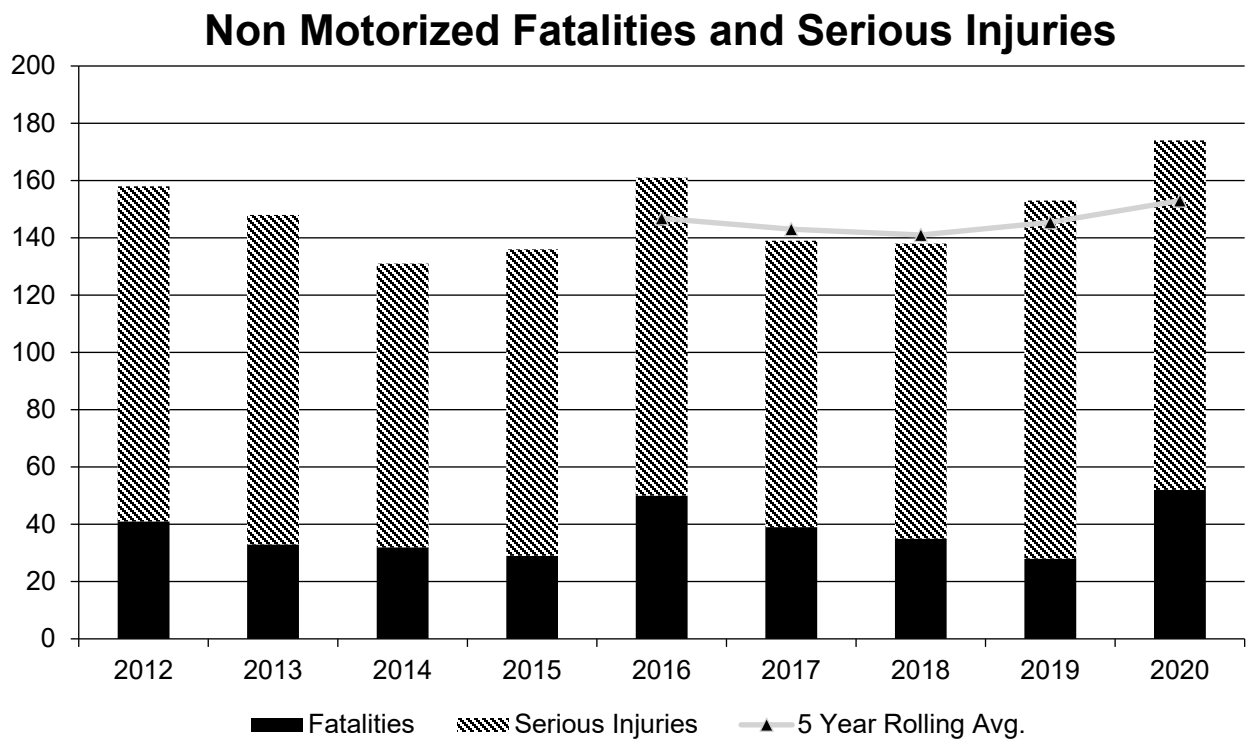
PERFORMANCE MEASURES	2012	2013	2014	2015	2016	2017	2018	2019	2020
Fatalities	405	350	384	355	429	461	403	410	426
Serious Injuries	1,596	1,456	1,204	1,195	1,176	1,030	1,000	1,400	1,586
Fatality rate (per HMVMT)	1.328	1.159	1.250	1.131	1.340	1.431	1.252	1.287	1.534
Serious injury rate (per HMVMT)	5.235	4.820	3.921	3.808	3.673	3.198	3.107	4.396	5.710
Number non-motorized fatalities	41	33	32	29	50	39	35	28	52
Number of non-motorized serious injuries	117	115	99	107	111	100	103	125	122


Annual Fatalities
500
450
400
350
300
250
200
150
100
50
0
2012
2013
2014
2015
2016
2017
2018
2019
2020
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
1800
1600
1400
1200
1000
800
600
400
200
0
2012
2013
2014
2015
2016
2017
2018
2019
2020
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2012
2013
2014
2015
2016
2017
2018
2019
2020
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
6
5
4
3
2
1
0
2012
2013
2014
2015
2016
2017
2018
2019
2020
Serious injury rate (per HMVMT)
5 Year Rolling Avg.



Describe fatality data source.

State Motor Vehicle Crash Database

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

Year 2020

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial (RPA) - Interstate	29.6	57.8	0.09	0.19
Rural Principal Arterial (RPA) - Other Freeways and Expressways	12.2	29	0.04	0.09
Rural Principal Arterial (RPA) - Other	68	115.2	0.22	0.37
Rural Minor Arterial	50.2	102.2	0.16	0.33
Rural Minor Collector	10.8	19	0.04	0.06
Rural Major Collector	41.8	114.6	0.13	0.37

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	47	104.4	0.15	0.33
Urban Principal Arterial (UPA) - Interstate	25.8	77.2	0.08	0.25
Urban Principal Arterial (UPA) - Other Freeways and Expressways	15.4	43.8	0.05	0.14
Urban Principal Arterial (UPA) - Other	26.4	81.6	0.09	0.26
Urban Minor Arterial	23.2	149.8	0.07	0.48
Urban Minor Collector	2.4	19.4	0.01	0.06
Urban Major Collector	14.8	88.2	0.05	0.29
Urban Local Road or Street	47.6	122.6	0.15	0.39

Year 2020

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	211.6	449.4	0.68	1.45
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	200.8	749.4	1.37	4.02
Private (Other than Railroad)				
Railroad				
State Toll Authority	13.4	38.2	0.04	0.12
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation				

Safety Performance Targets

Safety Performance Targets

Calendar Year 2022 Targets *

Number of Fatalities:407.0

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

The 2022 five-year moving average projection based upon the trendline indicates 444 fatalities. An eight percent reduction would derive our goal of 407 fatalities in 2022. Based upon recent history, the trendline of the target, the eight percent reduction goal is realistic and attainable. The 2022 HSP and 2022 HSIP five-year moving average targets are equal.

Number of Serious Injuries:1164.0

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

The 2022 five-year moving average projection based upon the trend line indicates 1,265 serious injuries. An eight percent reduction in this projection would derive our target of 1,164 serious injuries in 2022. With the change in definition to suspected serious injury, there was a sharp increase in crashes meeting the definition. This is an artificial increase, not an actual degradation of safety. In order to re-establish a trendline for this category, it was determined to "back-cast" how many suspected serious injuries would have occurred in past years with the new definition. We used a conversion factor to inflate previous years' crashes by 1.46 (46% increase). This allows for a steady, downward trend that we predict would have occurred apart from the definition change. 2020 defied that trend with a rise in suspected serious injuries, but we do not expect that to continue, that suspected serious injuries will resume falling. It is this trend upon which we based our suspected serious injury target. Based upon recent history, the trendline of the target, the eight percent reduction goal is realistic and attainable. The 2022 HSP and 2022 HSIP five-year moving average targets are equal.

The data reflects serious injuries as defined by the NHTSA/FHWA conversion table. In Kansas, that equates to the number of disabling injuries as recorded in our state crash database. In 2019 the definition of serious injury changed to meet current federal guidelines. The name also changed from disabling injury to suspected serious injury in the states crash database.

Fatality Rate:1.280

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

The 2022 five-year moving average projection based upon the trendline indicates a fatality rate of 1.38. A seven percent reduction in this projection would derive our goal of 1.28 fatality rate in 2022. Based upon recent history, the trendline of the target, the seven percent reduction goal is realistic and attainable. The 2022 HSP and 2022 HSIP five-year moving average targets are equal.

Serious Injury Rate:3.576

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

The 2022 five-year moving average projection based upon the curvilinear trendline indicates 3.887 serious injury rate per 100 million VMT. An eight percent reduction in this projection would lead to our goal of 3.576 serious injury rate per 100 million VMT in 2022. With the change in definition to suspected serious injury, there was a sharp increase in crashes meeting the definition. This is an artificial increase, not an actual degradation of safety. In order to re-establish a trendline for this category, it was determined to "back-cast" how many suspected serious injuries would have occurred in past years with the new definition. We used a conversion factor to inflate previous years' crashes by 1.46 (46% increase). This allows for a steady, downward trend that we predict would have occurred apart from the definition change. 2020 defied that trend with a rise in suspected serious injuries, but we do not expect that to continue, that suspected serious injuries will resume falling. It is this trend upon which we based our suspected serious injury target. Based upon recent history, the trendline of the target, the eight percent reduction goal is realistic and attainable. The 2022 HSP and 2022 HSIP five-year moving average targets are equal.

The data in this table reflect serious injuries as defined by the NHTSA/FHWA conversion table. In Kansas, that equates to the number of disabling injuries as recorded in our state crash database. In 2019 the definition of serious injury changed to meet current federal guidelines. The name also changed from disabling injury to suspected serious injury in the states crash database.

Total Number of Non-Motorized Fatalities and Serious Injuries:157.0

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

With the change in definition to suspected serious injury, there was a sharp increase in crashes meeting the definition. This is an artificial increase, not an actual degradation of safety. In order to re-establish a trendline for this category, it was determined to "back-cast" how many suspected serious injuries would have occurred in past years with the new definition. We used a conversion factor to inflate previous years' crashes by 1.46 (46% increase). This allows for a steady, downward trend that we predict would have occurred apart from the definition change. Back-casting serious injuries for non-motorized leads to a descending trend (as opposed to the ascent in the raw data). From there, and including fatalities the projected point for 2022 is 171. To be consistent with our target for fatalities and serious injuries, the target was set 8% below projection at 157.

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

The state of Kansas is fortunate in that both the SHSP and HSP administrators are in the KDOT Bureau of Transportation Safety, making coordination simple. Both plans rely heavily on the same data sources to establish strategies and goals. These data sources include, but are not limited to: FARS, the statewide crash database, and observational surveys. The three identified performance measures – fatalities, fatality rate, and serious injuries – have the same definition and goals. We have been and will continue to provide each MPO with the data necessary to calculate their 2022 targets. At present, we are not certain whether individual MPOs will adopt the state targets or their own.

Does the State want to report additional optional targets?

No

Describe progress toward meeting the State's 2020 Safety Performance Targets (based on data available at the time of reporting). For each target, include a discussion of any reasons for differences in the actual outcomes and targets.

PERFORMANCE MEASURES	TARGETS	ACTUALS
Number of Fatalities	411.0	425.8
Number of Serious Injuries	907.0	1238.4
Fatality Rate	1.250	1.369
Serious Injury Rate	2.750	4.017
Non-Motorized Fatalities and Serious Injuries	131.0	153.0

Despite an upward trend in fatal and serious injury crashes Kansas has chosen to set targets with the goal of a decreasing trend.

Applicability of Special Rules

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

No

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

PERFORMANCE MEASURES	2014	2015	2016	2017	2018	2019	2020
Number of Older Driver and Pedestrian Fatalities	63	50	78	74	64	75	79
Number of Older Driver and Pedestrian Serious Injuries	88	93	106	108	94	135	151

As noted elsewhere, our definition of serious injury changed in 2019 leading to a significant increase in injuries coded as "suspected serious injury" across the board.

The numbers above reflect our interpretation of the older driver rule. Specifically, these are only older drivers and pedestrians who have died or been seriously injured. These numbers do NOT include older passengers, or, for example, fatal crashes where an older driver was involved but did not have serious injuries.

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

- Other-HSIP sub-program evaluations

During the reporting period, KDOT worked with the FHWA Division Office to complete an HSIP Assessment. The assessment recommended program level evaluation and included an appendix detailing how each of the sub-programs could be meaningfully evaluated. A one-size fits all approach was not an option since each of the programs are unique. For this report, we have completed an evaluation for the Pavement Marking sub-program consistent with the methodology recommended in the assessment. It follows.

It is our goal to evaluate the Signing and Lighting sub-programs in preparation for the 2022 HSIP Annual Report.

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

Longitudinal pavement marking (LPM) facilitates the motorist with continuous roadway information which cannot be served by other traffic control devices. LPM delineates the travel lanes and assists the motorists to keep the vehicle in the appropriate lane to improve traffic safety. In Kansas, some of the pavement marking-related programs have been achieved as a part of the Kansas Highway Safety Improvement Program (HSIP) to address roadway departure (RwD) crashes as an emphasis area and improves the roadway delineation. RwD crashes were the leading cause of fatalities in Kansas, and it was the first harmful event in 1,157 fatalities between 2014 and 2018. This report focuses on evaluating the safety effectiveness and estimating the benefit-cost ratio of conducted pavement marking within HSIP on US 160, US 166, and US 169 in 2018 using crashes that occurred one year before (2017) and one year after (2019). It was observed that the number of lane departure crashes that occurred in 2017 and 2019 was not sufficient to make any conclusive statistical decision on the effectiveness of pavement marking in safety and monetary terms. A copy of the Pavement Marking Program evaluation is included with the attachments.

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
- Organizational change

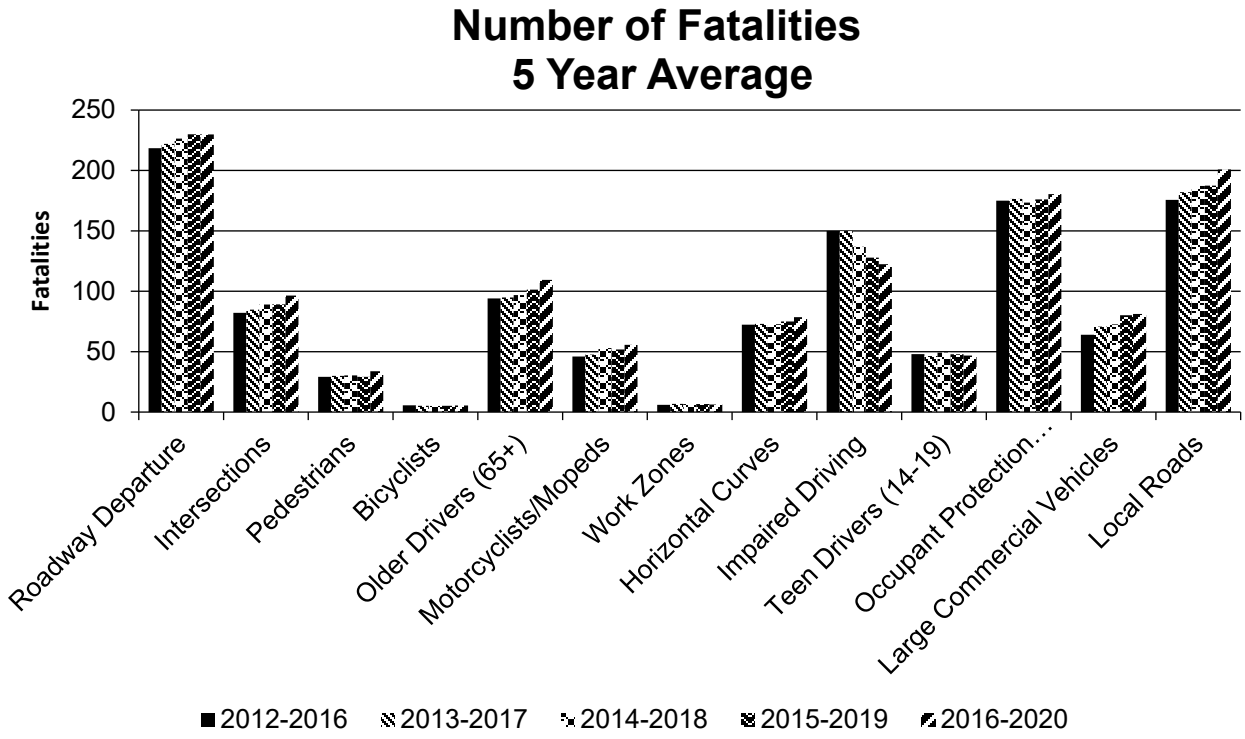
Effectiveness of Groupings or Similar Types of Improvements

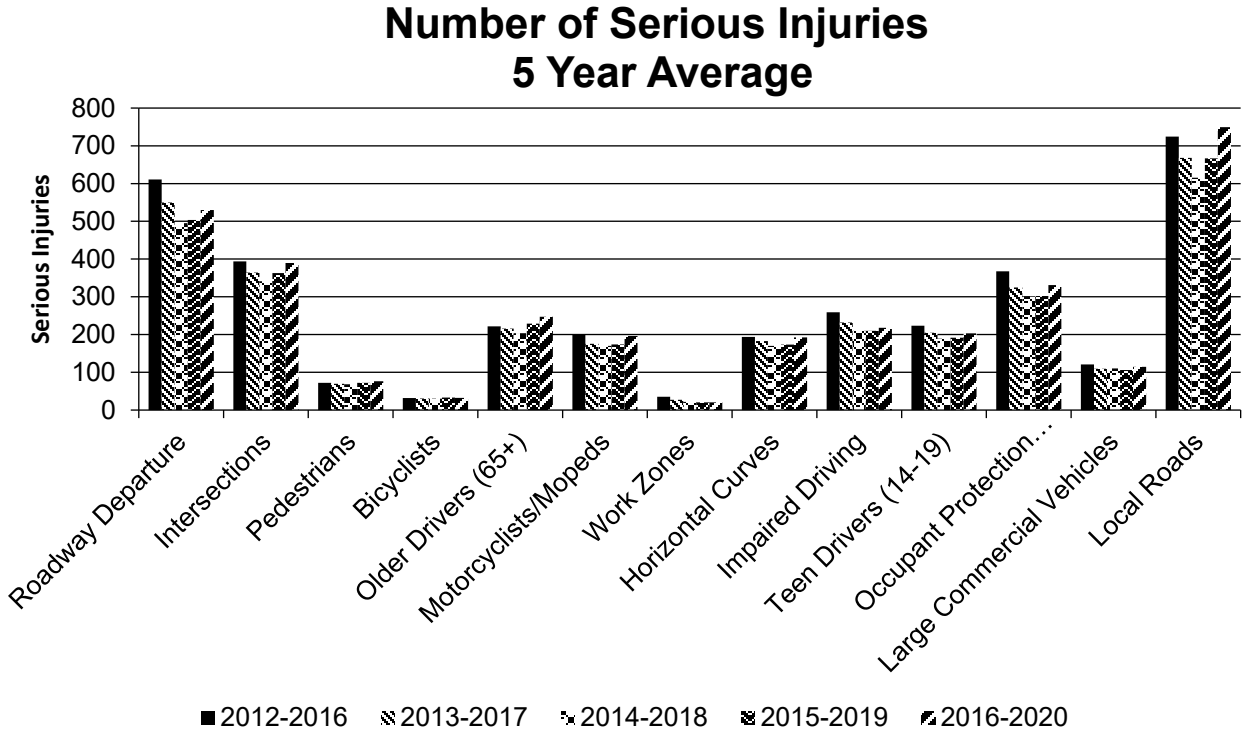
Present and describe trends in SHSP emphasis area performance measures.

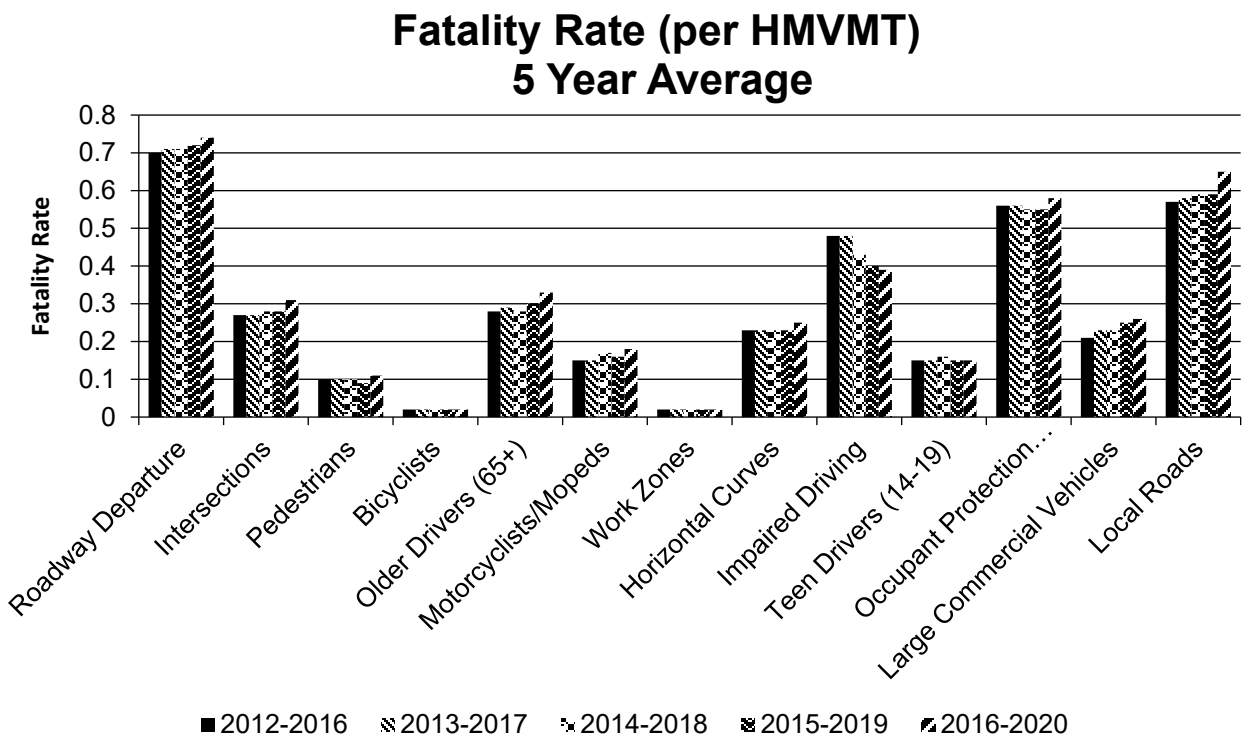
Year 2020

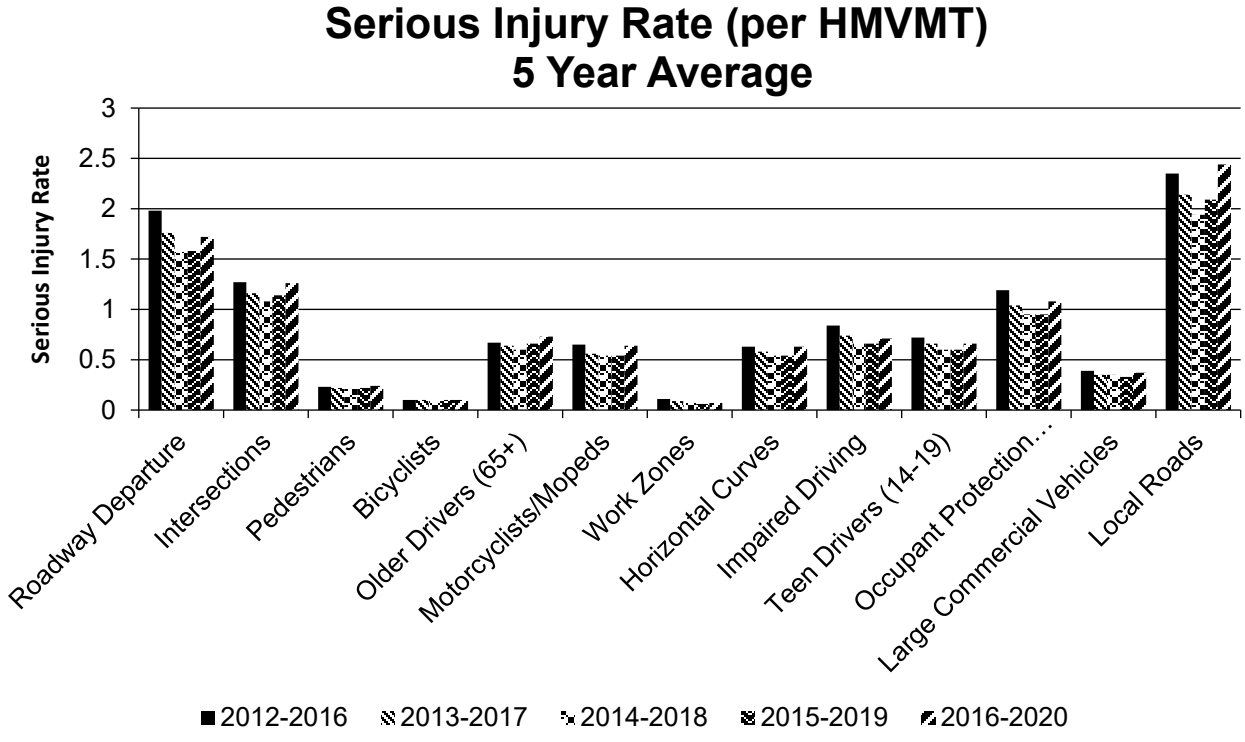
SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Roadway Departure	Accident Location - 11 = Non-Intersection; 15 = Interchange Area; 20 = Shoulder; 21 = Roadsie (not shoulder); 22 = Median, CWOV FHE - 01 = Headon; 04 = Sideswipe; opp dir; 05 = Sideswipe; same dir, Accident Class - 01 = OverT/RollO; 08 = Fixed Obj	229.8	529.8	0.74	1.72
Intersections	Accident Location - 12 = Intersection; 13 = Intersection-Related	96.4	389.4	0.31	1.26
Pedestrians	Pedestrian Type - 21 = Pedestrian	33.8	76.2	0.11	0.24
Bicyclists	Pedestrian Type - 22 = Pedal Cycle	5.4	32.4	0.02	0.1
Older Drivers (65+)	Driver age between 65 and 99; Seat Type - 01 = Driver	109.4	247	0.33	0.73
Motorcyclists/Mopeds	Vehicle Body Type - 02 = Motorcycle; 03 = Motor scooter or Moped	55.6	196.2	0.18	0.64
Work Zones	" On-Road Construction/Maintenance - 01 = Construction Zone; 02 = Maintenance Zone; 03 = Utility Zone"	6.2	20.4	0.02	0.07
Horizontal Curves	" On-Road Surface Characteristics- 04 = Curved & level; 05 = Curved on grade/slope; 06 = Curved on hillcrest"	78.6	192.6	0.25	0.63
Impaired Driving	Alcohol Flag - Driver Cc 02 = Under the influence of alcohol; Substance Use - AC = Alcohol contributed; or a Positive Test Result, Drug Flag - Driver Cc - 01 = Under the influence of illegal drugs; DC = Illegal	122.4	217.8	0.39	0.71

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)
	drugs contributed; or a + drug test res				
Teen Drivers (14-19)	Driver age between 14 and 19; Seat Type - 01 = Driver	46.8	203.2	0.15	0.66
Occupant Protection (unbelted)	All	180.4	331.2	0.58	1.08
Large Commercial Vehicles	Vehicle Body Type - 10 = Single heavy truck >10,000 lbs; 11 = Truck & trailer(s); 12 = Tractor-trailer(s)	81.2	114.4	0.26	0.37
Local Roads	-State System Flag Y = located on the state highways (I = Interstate, U - US Route, K - State Route)	200.8	749.4	0.65	2.44


Number of Fatalities
5 Year Average
Fatalities
250
200
150
100
50
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers (65+)
Motorcyclists/Mopeds
Work Zones
Horizontal Curves
Impaired Driving
Teen Drivers (14-19)
Occupant Protection…
Large Commercial Vehicles
Local Roads
2012-2016
2013-2017
2014-2018
2015-2019
2016-2020


Number of Serious Injuries
5 Year Average
Serious Injuries
800
700
600
500
400
300
200
100
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers (65+)
Motorcyclists/Mopeds
Work Zones
Horizontal Curves
Impaired Driving
Teen Drivers (14-19)
Occupant Protection…
Large Commercial Vehicles
Local Roads
2012-2016
2013-2017
2014-2018
2015-2019
2016-2020





Specific emphasis areas in the current SHSP include Intersections, Pedestrians & Cyclists, Older Drivers, Impaired Driving, Occupant Protection, Roadway Departure, Teen Drivers, and Local Roads. Additionally, a Data Support team is identified in the SHSP.

Project Effectiveness

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

LOCATION	FUNCTIONAL CLASS	IMPROVEMENT CATEGORY	IMPROVEMENT TYPE	PDO BEFORE	PDO AFTER	FATALITY BEFORE	FATALITY AFTER	SERIOUS INJURY BEFORE	SERIOUS INJURY AFTER	ALL OTHER INJURY BEFORE	ALL OTHER INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
Nothing to report at this time														

Compliance Assessment

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

07/26/2017

What are the years being covered by the current SHSP?

From: 2015 To: 2019

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

2022

On October 1, 2020 Kansas published and posted online its 2020-2024 Strategic Highway Safety Plan. While the plan is the current working version of safety efforts in Kansas, it has not yet been officially approved so the approval date and years of coverage are unchanged. Following some minor modifications to the current plan we anticipate approval during the next reporting period.

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	99								
	Federal Aid/Route Type (21) [21]	100	100								
	Rural/Urban Designation (20) [20]	100	99					100	100		
	Surface Type (23) [24]	100	50					100	50		
	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]	99	98								

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]	100	100					100	100	100	100
	Median Type (54) [55]	99	50								
	Access Control (22) [23]	100	95								
	One/Two Way Operations (91) [93]	99	99								
	Number of Through Lanes (31) [32]	99	99					90	90		
	Average Annual Daily Traffic (79) [81]	98	98					90	90		
	AADT Year (80) [82]	100	100								
	Type of Governmental Ownership (4) [4]	100	98					80	80	80	80
INTERSECTION	Unique Junction Identifier (120) [110]			97	97						
	Location Identifier for Road 1 Crossing Point (122) [112]			97	97						
	Location Identifier for Road 2 Crossing Point (123) [113]			97	97						
	Intersection/Junction Geometry (126) [116]			70	60						
	Intersection/Junction Traffic Control (131) [131]			50	20						
	AADT for Each Intersecting Road (79) [81]			100	90						
	AADT Year (80) [82]			100	90						
	Unique Approach Identifier (139) [129]			97	97						
INTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]					99	99				

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]					99	99				
	Location Identifier for Roadway at Ending Ramp Terminal (201) [191]					99	99				
	Ramp Length (187) [177]					99	99				
	Roadway Type at Beginning of Ramp Terminal (195) [185]					99	99				
	Roadway Type at End Ramp Terminal (199) [189]					99	99				
	Interchange Type (182) [172]					20	20				
	Ramp AADT (191) [181]					50	50				
	Year of Ramp AADT (192) [182]					50	50				
	Functional Class (19) [19]					100	100				
	Type of Governmental Ownership (4) [4]					85	85				
Totals (Average Percent Complete):		**99.67**	**93.61**	**88.50**	**81.00**	**81.73**	**81.73**	**95.56**	**90.00**	**96.00**	**96.00**

*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.

K-Hub is KDOT's new Linear Referencing and Transportation Database System, and it is in production and contains all 140,000 public road miles in Kansas. It was set up to have the event data items for MIRE FDE.

KDOT has a LiDAR data collection and extraction project underway that will collect LiDAR data on the State Highway system and extract four Esri geodatabases including intersection data, guardrail data, signs, and roadway shoulder data.

KDOT is participating in the Application of Enterprise GIS for Transportation (AEGIST) Pooled Fund Study which helps States migrate to the enterprise level for creating, maintaining, and governing data related to roadways and their characteristics, elements, and events. It is based on a consensus best practices approach to the management of technology, data, and transportation system assets.

KDOT staff attends webinars on MIRE data collection, to learn what other States are doing.

Optional Attachments

Program Structure:

Project Implementation:

Safety Performance:

Evaluation:

KDOT HSIP Subprogram Evaluation_Evaluation of the Pavement Marking Program in Kansas.docx
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.