



KANSAS

HIGHWAY SAFETY IMPROVEMENT PROGRAM 2020 ANNUAL REPORT



U.S. Department of Transportation
Federal Highway Administration

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Disclaimer

Protection of Data from Discovery Admission into Evidence

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

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

Executive Summary

In Kansas we continue to spend our HSIP dollars in a variety of independently managed sub-programs, including intersections, signing, pavement markings, lighting, rail, HRRR, guardrail and general safety improvements. The rail program is reported with the RHGCP report. This is the eighth 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.

Concurrent with this annual report, we are developing our FFY 2021 HSIP Implementation Plan, completing an HSIP Assessment, publishing our 2020-2024 Strategic Highway Safety Plan, and preparing to apply a new HSIP Evaluation Framework based on the sub-programs in this report. We anticipate each of these projects will contribute in a substantive way to improvements in our 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, HRRR, guardrail and general safety improvements. Each of these programs, with the exception of rail, is described in detail within this report.

Where is HSIP staff located within the State DOT?

Other-Planning and Design

Intersections, signing, pavement markings, lighting, and general safety improvements are managed in the Bureau of Transportation Safety and Technology within the Division of Planning and Development. HRRR is managed by the Bureau of Local Projects, and rail and guardrail by the Bureau of Road Design, both within the Division of Engineering and Design.

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 marking, signing, rail, intersections, HRRR, guardrail and general safety improvements. Lighting, pavement marking, signing, guardrail and general safety improvement projects are exclusive to the State Highway System, although projects may impact intersecting non-state roads. Intersections and rail projects may include local roads, that is, public roads not a part of the State Highway System. HRRR is exclusive to local roads. The rail program is addressed in the Rail-Highway Grade Crossing Program report.

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 Traffic Engineering Section.

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 are moving 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 works closely with our district maintenance engineers to identify recommended routes based on field experience and retro-reflectivity data. Works also with Traffic Engineering Section 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: District Offices provide construction oversight. The Bureau of Local Projects manages the program and utilizes a scoring rubric to score and rank potential projects.

General Safety Improvements sub-program: Projects are selected and scoped in partnership with District and Area Offices.

Guardrail: Projects are selected and scoped in partnership with District and Area Offices.

All sub-programs: The Traffic Safety Section in our Bureau of Transportation Safety & Technology manage and report 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-Kansas Association of Counties
- Other-Local Roads Emphasis Area Team (SHSP)

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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.

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

As noted last year, the semi-annual meetings with sub-program managers have moved to monthly. This change was intended to improve communication, discuss challenges, find solutions, and ultimately increase the obligation rate. Also, we officially added guardrail as a sub-program; although, we have been funding projects for a couple of years with the genesis to address safety on our resurfacing (1R) program once we found ourselves in the position of having to use federal funds.

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

A total of \$26,113,822 in safety funds (HSIP and Rail) was apportioned for FFY 2020, distributed to each sub-program as follows:

Lighting: \$0

Pavement Marking: \$6,000,000

Signing: \$2,000,000

HWY/RR Gr Xing: \$0.00 HSIP and \$6,509,648 Rail

Intersections: \$6,604,174

GSIP: \$500,000

HRRR: \$4,500,000

Guardrail: \$0

The following dollars were obligated for SFY 2020 in each program:

SFY-2020 Obligated: \$25,690,994.95 (\$18,543,062.92 HSIP, 799,375.36 HRRR, \$4,008,729.97 Rail and \$2,339,835.70 ACHSIP)

Lighting: \$734,458.92 HSIP

Pavement Marking: \$5,336,762.96 HSIP

Signing: \$2,192,648.10

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HWY/RR Gr Xing: \$4,995,642.25: \$32,945.58 HSIP, \$4,008,720.97 Rail and \$953,975.70 ACHSIP

Intersections: \$3,060,266.34 HSIP

GSIP: \$200,000 HSIP

HRRR: \$4,495,943.90: \$3,696,568.54 HSIP and \$799,375.36 HRRR

Guardrail: \$4,675,272.48: \$3,289,412.48 HSIP and \$1,385,860 ACHSIP

Each of the programs discussed further in this report are consistent with our SHSP. It is our intent that strategies identified or developed as part of the SHSP process will contribute to the continued success of these programs. A portion of our HSIP funding is programmed as part of our RHGCP. See RHGCP report for more information. For the purpose of this question, "apportioned" is that dollar amount made available to each sub-program 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: In future reports we will exclude reference to AC-advanced construction. These projects and related dollars will not be reported until converted.)

Program Methodology

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

No

This will be a recommendation of the aforementioned HSIP Assessment.

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

- All crashes

Exposure

- Traffic
- Volume

Roadway

- Functional classification

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- Other-Fatal and SI crashes
- Population
- Other-Turn lanes
- Lane miles

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 5000 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
<ul style="list-style-type: none">All crashes	<ul style="list-style-type: none">TrafficVolumePopulationLane miles	<ul style="list-style-type: none">Horizontal curvatureFunctional classificationRoadside featuresOther-Shoulder width, sign sheeting type, percent in district, past projects, cost, road safety audit, county priority

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

Other-Geographical distribution:3

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

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

What project identification methodology was used for this program?

- Other-Pre-programmed 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 were pre-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 14th 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

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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	Exposure	Roadway
<ul style="list-style-type: none">• All crashes	<ul style="list-style-type: none">• Volume• Population• 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.	<ul style="list-style-type: none">• Other-Retro-reflectivity.

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 BTS&T based upon 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 15th 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

- Other-Night-time unlit crashes

Exposure

- Volume

Roadway

- 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?

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- 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 Transportation Safety & Technology (BTS&T) 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 15th year KDOT has used HSIP funds to improve lighting.

Program: Other-General Safety Improvements

Date of Program Methodology:2/10/2012

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

- Fatal and serious injury crashes only

Exposure

- Volume
- Population
- Lane miles

Roadway

- Median width
- Horizontal curvature
- Functional classification
- Roadside features

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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

Available funding:2

Cost Effectiveness:1

Please note: This program is being phased out.

Program: Other-Guardrail

Date of Program Methodology:7/1/2019

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

- Roadside features

What project identification methodology was used for this 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-Bureau of Road Design

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 program was started in 2019 with the proposal to eventually address all remaining blunt end guardrail terminals on the NHS. KDOT has a MOU dated October 22, 2019 with the Division Office that describes the goals of the program. The program is managed by the Bureau of Road Design. Guardrail set-aside program criteria is detailed in the MOU. This countermeasure is included in strategy two under Roadway Departure in our 2020-2024 SHSP.

Program: Other-Rail

Date of Program Methodology:7/1/2019

What is the justification for this program?

What is the funding approach for this program?

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?

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).

Please reference the RHGC report for more information.

What percentage of HSIP funds address systemic improvements?

59

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

- Install/Improve Lighting

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- Install/Improve Pavement Marking and/or Delineation
- Install/Improve Signing
- Upgrade Guard Rails

Percent was calculated by summing amounts apportioned for Lighting, Pavement Marking, Signing, Guardrail and 80% of HRRR, and then dividing by the total HSIP apportioned.

What process is used to identify potential countermeasures?

- Engineering Study
- Road Safety Assessment
- SHSP/Local road safety plan
- Other-Highway Safety Manual and CMF Clearinghouse
- Other-Crash data analysis to identify systematic countermeasures

Does the State HSIP consider connected vehicles and ITS technologies?

Yes

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

The State of Kansas has formed an autonomous vehicle (AV) task force to consider the impacts of this emerging technology on everything from state statutes to infrastructure safety expenditures.

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.

Our intersections sub-program is working to integrate Part B (Roadway Safety Management Process) and Part D (Crash Modification Factors) into the program methodology.

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

Guardrail was added as a new sub-program in this year's report.

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

Guardrail was added as a new sub-program with this year's report.

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)	\$19,604,174	\$18,543,063	94.59%
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	\$4,438,411	\$5,198,354	117.12%
Totals	\$24,042,585	\$23,741,417	98.75%

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 original estimates and obligations that occurred between 07/01/2019 and 06/30/2020.

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

57%

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

\$6,676,621

Programmed is the total apportionment (that is, available) to those programs that include non-state owned roads in the methodology and may include dollars that get obligated to projects on state-owned roads: \$6,604,174 (intersections) + \$4,500,000 (HRRR) / \$19,604,174 (total) = 57%

Obligated is the total obligated to those programs that include non-state owned roads in the methodology

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excluding projects in the intersections program on state-owned roads. \$2,180,677 (intersection projects on locally-owned roads listed in the project listing) + \$4,495,944 (HRRR) = \$6,676,621.

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

\$0

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

\$1,127,480

No funding is programmed directly to non-infrastructure safety projects. However, each sub-program may have non-infrastructure projects and those obligated in SFY 2020 are included in the total: \$200,000 for C-4855-20 for TEAP, and \$927,480 to C-4790-03 for LRSP.

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.

Nothing to report at this 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	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
N-0644-01	Intersection geometry	Intersection geometry - other		Intersections	\$980676.86	\$4922224.81	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	10,000	45	City or Municipal Highway Agency	Spot	Intersections	
N-0670-01	Intersection geometry	Intersection geometry - other		Intersections	\$1200000	\$1682871.68	HSIP (23 U.S.C. 148)	Urban	Minor Collector	5,005	30	City or Municipal Highway Agency	Spot	Intersections	
KA-4536-01	Intersection geometry	Intersection geometry - other		Intersections	\$4177860.22	\$4262057.52	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	3,085	65	State Highway Agency	Spot	Intersections	
KA-5323-01	Roadway delineation	Improve retroreflectivity	15.359	Miles	\$247826.4	\$247826.4	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,640	55	State Highway Agency		Roadway Departure	Pavement Markings
KA-5324-01	Roadway delineation	Improve retroreflectivity	7.731	Miles	\$118945.51	\$118945.51	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,100	55	State Highway Agency		Roadway Departure	Pavement Markings
KA-5325-01	Roadway delineation	Improve retroreflectivity	8.51	Miles	\$131410.81	\$131410.81	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	1,690	55	State Highway Agency		Roadway Departure	Pavement Markings
KA-5405-01	Roadway delineation	Improve retroreflectivity	8.625	Miles	\$196883.79	\$196883.79	HSIP (23 U.S.C. 148)	Multiple/Varies	Principal Arterial-Other Freeways & Expressways	8,360	70	State Highway Agency		Roadway Departure	Pavement Markings
KA-5406-01	Roadway delineation	Improve retroreflectivity	0.913	Miles	\$159156.77	\$159156.77	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	4,410	40	State Highway Agency		Roadway Departure	Pavement Markings
KA-5407-01	Roadway delineation	Improve retroreflectivity	12.81	Miles	\$769932.3	\$769932.3	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	10,800	75	State Highway Agency		Roadway Departure	Pavement Markings
KA-5408-01	Roadway delineation	Improve retroreflectivity	6.34	Miles	\$114146.62	\$114146.62	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	18,100	75	State Highway Agency		Roadway Departure	Pavement Markings
KA-5409-01	Roadway delineation	Improve retroreflectivity	9.1	Miles	\$124878.77	\$124878.77	HSIP (23 U.S.C. 148)	Multiple/Varies	Principal Arterial-Other	8,440	65	State Highway Agency		Roadway Departure	Pavement Markings
KA-5410-01	Roadway delineation	Improve retroreflectivity	23.46	Miles	\$1019988.81	\$1019988.81	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	18,400	75	State Highway Agency		Roadway Departure	Pavement Markings

2020 Kansas Highway Safety Improvement Program

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
KA-5425-01	Roadway delineation	Improve retroreflectivity	10.18	Miles	\$117711.12	\$117711.12	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	935	65	State Highway Agency		Roadway Departure	Pavement Markings
KA-5426-01	Roadway delineation	Improve retroreflectivity	8.953	Miles	\$106425.56	\$106425.56	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	745	65	State Highway Agency		Roadway Departure	Pavement Markings
KA-5427-01	Roadway delineation	Improve retroreflectivity	1.246	Miles	\$24831.86	\$24831.86	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	1,150	65	State Highway Agency		Roadway Departure	Pavement Markings
KA-5428-01	Roadway delineation	Improve retroreflectivity	10.732	Miles	\$136280.55	\$136280.55	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	2,170	65	State Highway Agency		Roadway Departure	Pavement Markings
KA-5442-01	Roadway delineation	Improve retroreflectivity	24.153	Miles	\$367823.1	\$367823.1	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	3,010	65	State Highway Agency		Roadway Departure	Pavement Markings
KA-5489-01	Roadway delineation	Improve retroreflectivity	2.099	Miles	\$151560.7	\$151560.7	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	5,890	65	State Highway Agency		Roadway Departure	Pavement Markings
KA-5491-01	Roadway delineation	Improve retroreflectivity	2.577	Miles	\$43968.58	\$43968.58	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	5,270	65	State Highway Agency		Roadway Departure	Pavement Markings
KA-5492-01	Roadway delineation	Improve retroreflectivity	14.3	Miles	\$211463.57	\$211463.57	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other Freeways & Expressways	9,280	75	State Highway Agency		Roadway Departure	Pavement Markings
KA-5493-01	Roadway delineation	Improve retroreflectivity	24.199	Miles	\$367202.37	\$367202.37	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	5,050	65	State Highway Agency		Roadway Departure	Pavement Markings
KA-5494-01	Roadway delineation	Improve retroreflectivity	1.065	Miles	\$15427.33	\$15427.33	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	2,880	65	State Highway Agency		Roadway Departure	Pavement Markings
KA-5145-01	Lighting	Site lighting - intersection		Intersections	\$265161.23	\$265161.23	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0		State Highway Agency	Spot	Intersections	
KA-5313-01	Lighting	Site lighting - interchange		Interchanges	\$177043.86	\$177043.86	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	11,775	75	State Highway Agency	Spot	Intersections	
KA-0726-02	Lighting	Site lighting - interchange		Interchanges	\$267446.3	\$267446.3	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	0	75	State Highway Agency	Spot	Intersections	
C-4790-03	Non-infrastructure	Transportation safety planning			\$927479.7	\$1030532.35	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	

2020 Kansas Highway Safety Improvement Program

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
C-4855-20	Non-infrastructure	Transportation safety planning			\$200000	\$220000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		Other Local Agency	Committee selection	Local Roads	
C-4896-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	71	Miles	\$100704.54	\$122044.24	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4898-01	Intersection geometry	Auxiliary lanes - add left-turn lane	0.3	Miles	\$869905.18	\$1114274	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Spot	Local Roads	
C-4929-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	224	Miles	\$186097.23	\$204706.95	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4930-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	165	Miles	\$312754.45	\$344029.9	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4931-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	61	Miles	\$184420.73	\$248078.3	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4932-01	Roadway delineation	Longitudinal pavement markings - remarking	42	Miles	\$201793	\$269797	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4933-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	120	Miles	\$284184	\$277224.71	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4934-01	Roadway signs and traffic control	Roadway signs (including post) - new or updated	100	Miles	\$228809	\$206040.85	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Local Roads	
C-4936-01	Roadway	Roadway - other	0.5	Miles	\$519421.77	\$577242.31	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Spot	Local Roads	
C-4937-01	Intersection traffic control	Intersection traffic control - other	0.3	Miles	\$72903.43	\$80193.77	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Spot	Local Roads	
C-4938-01	Roadway	Roadway - other	0.2	Miles	\$200000	\$388839	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Spot	Local Roads	
KA-4697-02	Roadside	Barrier- metal		Locations	\$0	\$1305015.32	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	0	65	State Highway Agency	Systemic	Roadway Departure	
KA-4812-02	Roadside	Barrier- metal		Locations	\$525153.67	\$532520.32	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Systemic	Roadway Departure	

2020 Kansas Highway Safety Improvement Program

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
KA-5008-02	Roadside	Barrier- metal		Locations	\$721325.94	\$721458.32	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Systemic	Roadway Departure	
KA-5012-02	Roadside	Barrier- metal		Locations	\$187900.65	\$192536.19	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Systemic	Roadway Departure	
KA-5048-02	Roadside	Barrier- metal		Locations	\$364235	\$316235	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Systemic	Roadway Departure	
KA-5092-02	Roadside	Barrier- metal		Locations	\$505674.99	\$505674.99	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Systemic	Roadway Departure	
KA-5121-02	Roadside	Barrier- metal		Locations	\$346608.7	\$346956.13	HSIP (23 U.S.C. 148)	Rural	Principal Interstate	0		State Highway Agency	Systemic	Roadway Departure	
KA-5126-02	Roadside	Barrier- metal		Locations	\$184493.06	\$344084.59	HSIP (23 U.S.C. 148)	Urban	Principal Interstate	0		State Highway Agency	Systemic	Roadway Departure	
KA-5127-02	Roadside	Barrier- metal		Locations	\$171689.7	\$171967.12	HSIP (23 U.S.C. 148)	Rural	Principal Interstate	0		State Highway Agency	Systemic	Roadway Departure	
KA-5128-02	Roadside	Barrier- metal		Locations	\$231000	\$232000	HSIP (23 U.S.C. 148)	Urban	Principal Interstate	0		State Highway Agency	Systemic	Roadway Departure	
KA-5129-02	Roadside	Barrier- metal		Locations	\$103126.95	\$117748.39	HSIP (23 U.S.C. 148)	Urban	Principal Interstate	0		State Highway Agency	Systemic	Roadway Departure	
KA-5130-02	Roadside	Barrier- metal		Locations	\$89250	\$90250	HSIP (23 U.S.C. 148)	Urban	Principal Interstate	0		State Highway Agency	Systemic	Roadway Departure	
KA-5614-01	Roadside	Barrier end treatments (crash cushions, terminals)	5	Locations	\$673800	\$673800	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Systemic	Roadway Departure	
KA-5615-01	Roadside	Barrier end treatments (crash cushions, terminals)	4	Locations	\$146460	\$146460	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	0		State Highway Agency	Systemic	Roadway Departure	
KA-4744-02	Roadway signs and traffic control	Roadway signs (including post) - new or updated	49	Miles	\$1381664	\$1381664	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Roadway Departure	

2020 Kansas Highway Safety Improvement Program

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
KA-4746-03	Roadway signs and traffic control	Roadway signs (including post) - new or updated	205	Miles	\$3125005	\$3125235	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Roadway Departure	

Project no. C-4790-03 is out local road safety plans and only applies to rural major collectors (i.e. county-owned highways.)

The projects listed above represent those with HSIP dollars obligated in state fiscal year 2020 (July 2019 thru June 2020.) For construction projects with multiple work phases, the projects are reported in the year the construction dollars are obligated. We only report projects in this report once. The values shown above are those figures in our project reporting system (WinCPMS) at the time of this report and do not necessarily represent the final project costs. References to total obligation dollars in SFY 2020 represent all activity on all projects during the fiscal year. This may include PE on a construction project or adjustments during closeout. For this reason, obligation totals in this report may not match.

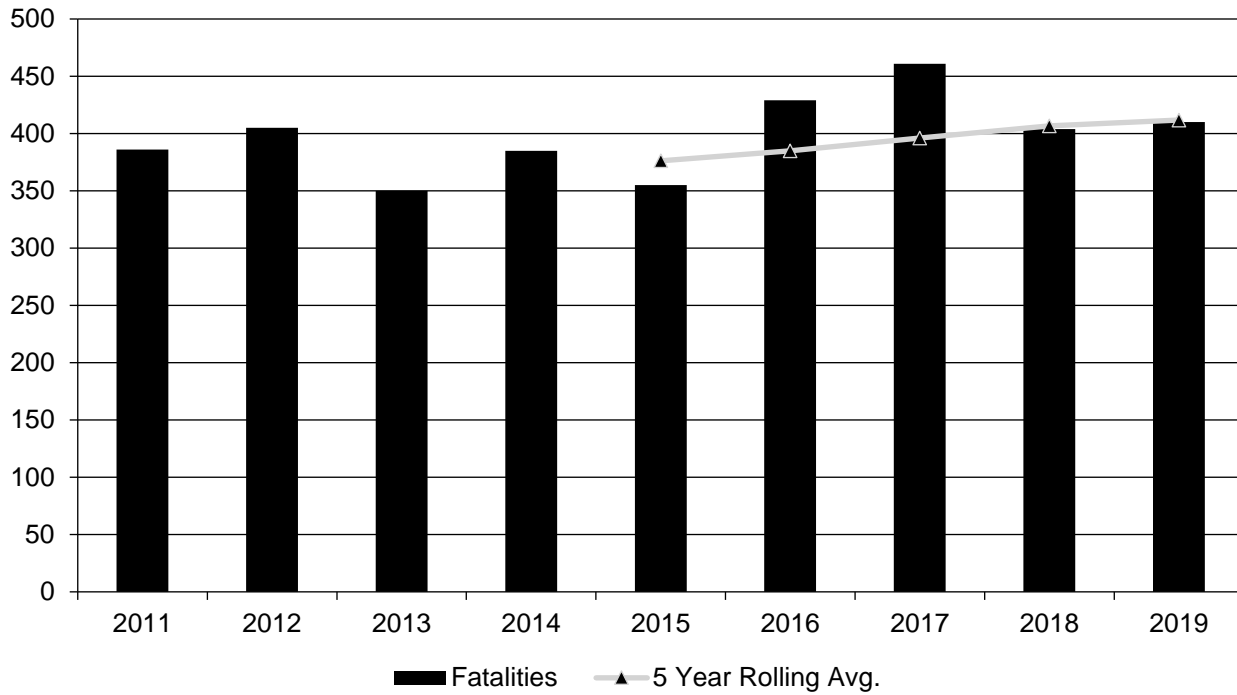
Safety Performance

General Highway Safety Trends

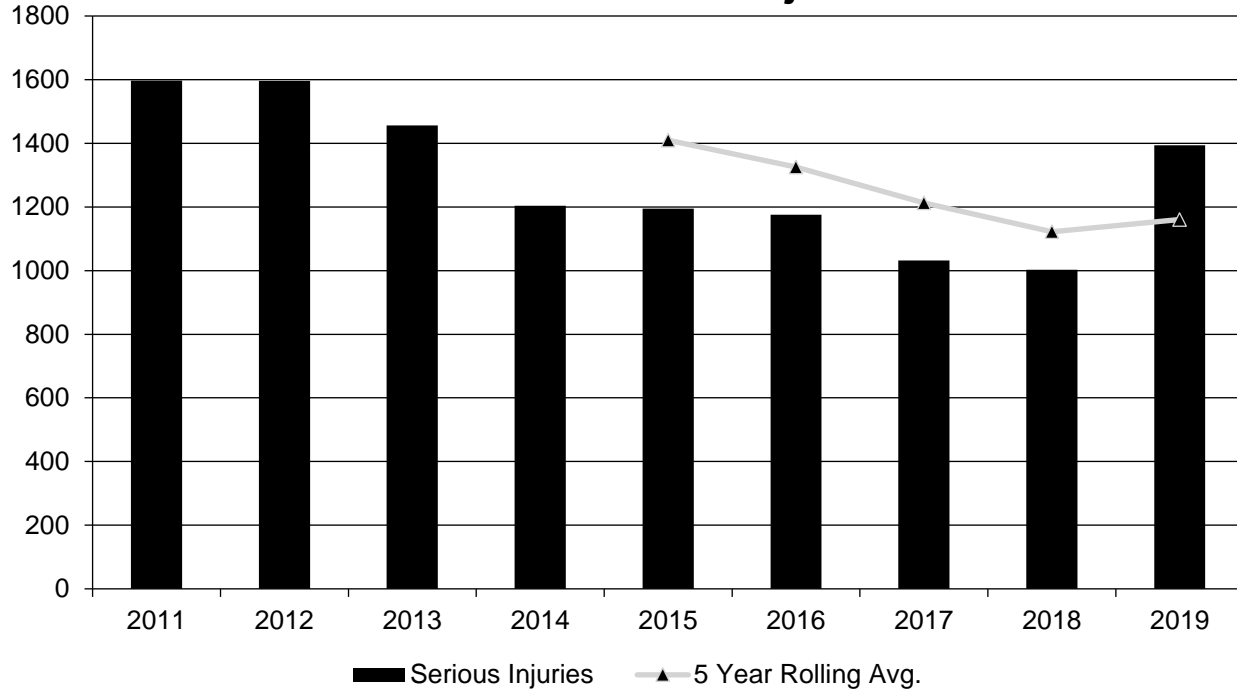
Present data showing the general highway safety trends in the State for the past five years.

PERFORMANCE MEASURES	2011	2012	2013	2014	2015	2016	2017	2018	2019
Fatalities	386	405	350	385	355	429	461	404	410
Serious Injuries	1,597	1,596	1,456	1,204	1,195	1,176	1,032	1,003	1,394
Fatality rate (per HMVMT)	1.290	1.325	1.159	1.250	1.130	1.340	1.430	1.260	1.260
Serious injury rate (per HMVMT)	5.320	5.220	4.820	3.921	3.808	3.673	3.204	3.116	4.291
Number non-motorized fatalities	16	33	31	31	27	46	39	33	25
Number of non-motorized serious injuries	97	106	108	88	101	110	94	99	121

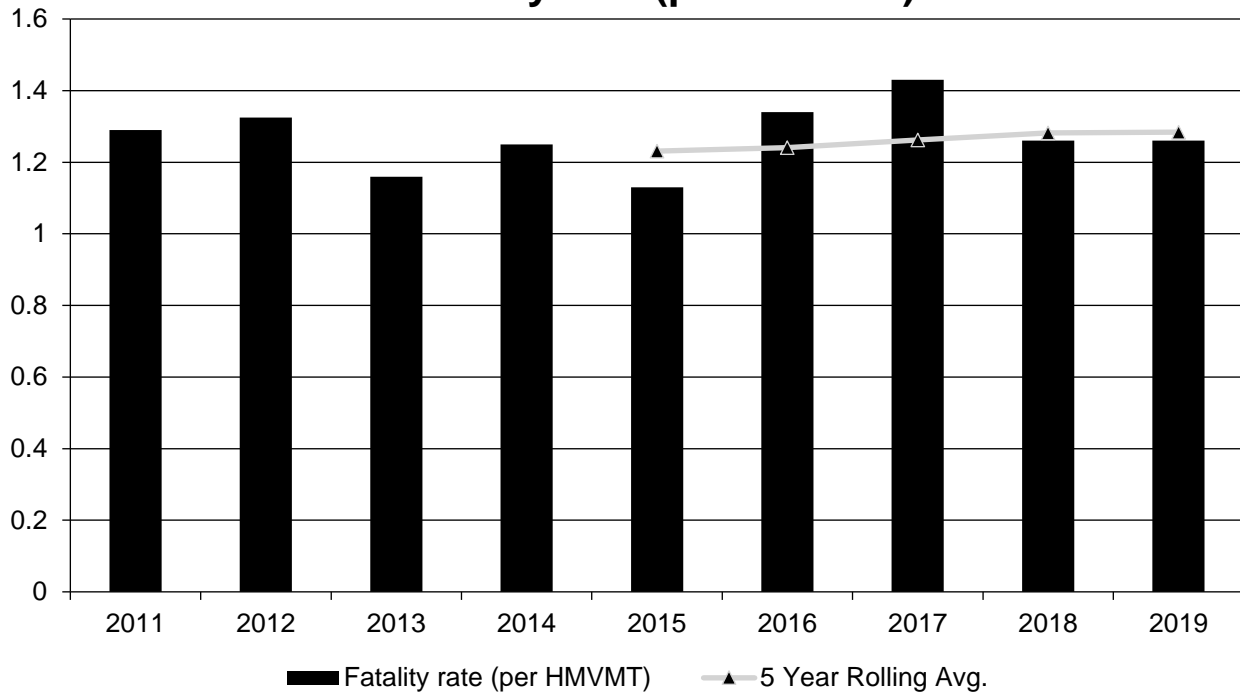
Annual Fatalities



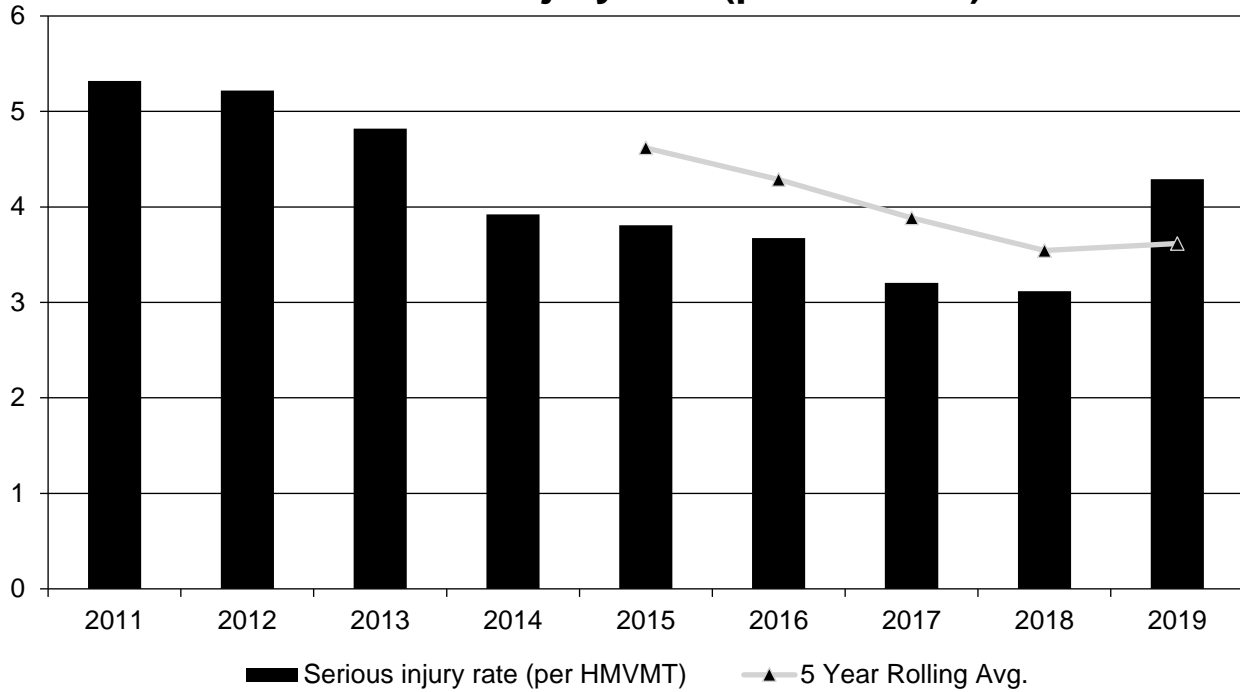
Annual Serious Injuries



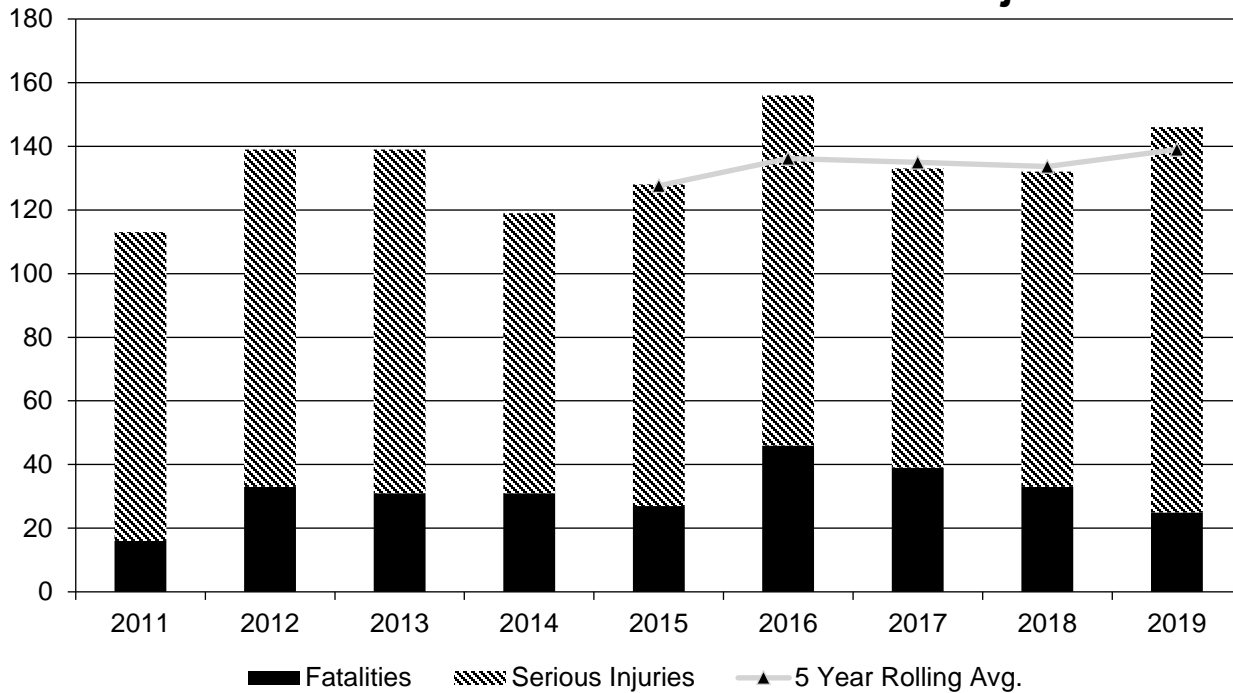
Fatality rate (per HMVMT)



Serious injury rate (per HMVMT)



Non Motorized Fatalities and Serious Injuries



Describe fatality data source.

Other

If Other Please describe

Both FARS and state motor vehicle crash database

Question 30 is answered based on FARS data. This is the same data we use when developing our safety performance targets. Question 32 is answered based on KCARS (state database) data because the required level of detail is not available in FARS.

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

Year 2019

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	28.2	55.8		
Rural Principal Arterial (RPA) - Other Freeways and Expressways	11	26		
Rural Principal Arterial (RPA) - Other	67	112.4		

2020 Kansas Highway Safety Improvement Program

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 Minor Arterial	52.2	99.4		
Rural Minor Collector	6	14.6		
Rural Major Collector	47.2	117.2		
Rural Local Road or Street	79.2	117.2		
Urban Principal Arterial (UPA) - Interstate	25.4	88		
Urban Principal Arterial (UPA) - Other Freeways and Expressways	15.2	43.2		
Urban Principal Arterial (UPA) - Other	26.2	105.8		
Urban Minor Arterial	24.8	144.6		
Urban Minor Collector	0.6	11.6		
Urban Major Collector	9.8	69		
Urban Local Road or Street	16.4	99.8		

2020 Kansas Highway Safety Improvement Program

Year 2019

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	209.2	446.8		
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	188.4	668.8		
Private (Other than Railroad)				
Railroad				
State Toll Authority	13.4	42.4		
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation				
Dept. of Defense	0	1.4		

Fatalities and Serious Injuries are recorded for all functional classifications and years. Fatality Rates and Serious Injury Rates are only recorded for the 2017 FYA, the last year official VMT data is available on the KDOT website.

Safety Performance Targets

Safety Performance Targets

Calendar Year 2021 Targets *

Number of Fatalities:364.0

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

Going back to 2015, the five-year moving average projects to 432 in 2021. Historically, we established our targets at or up to one percent below the projection depending on current trends. The 2019 baseline is 412. Our 2018 target was 364. Going forward, our target will be whichever is less of these three: one percent below projected, baseline, or 2018 target. To hit our target of 364 requires a two-year average of 272.5 in CY 2020 and 2021; to hit the baseline of 412 requires a two-year average of 392.5.

Number of Serious Injuries:1190.0

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

Going back to 2015, the five-year moving average projects to 1231 in 2021 based on a curvilinear trendline to adjust for the change in serious injury definition. Historically, we established our targets at or up to one percent below the projection depending on current trends. The 2019 baseline is 1160. Our 2018 target was 1190. Going forward, our target will be whichever is less of these two: one percent below projected or 2018 target. To hit our target of 1190 requires a two-year average of 1260.5 in CY 2020 and 2021; to hit the baseline of 1160 requires a two-year average of 1185.5. Because of the change in serious injury definition, we will evaluate this approach annually. As a reference, with the new definition the total in 2019 was 1394. The goal in our 2020-2024 SHSP is to be at or below 35 fatal and injury crashes per 100MVM in 2024. But our vision remains the same: Drive to Zero. This target moves us toward our goal but emphasizes our vision.

Fatality Rate:1.160

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

Going back to 2015, the five-year moving average projects to 1.32 in 2021. Historically, we established our targets at or up to one percent below the projection depending on current trends. The 2019 baseline is 1.28. Our 2018 target was 1.16. Going forward, our target will be whichever is less of these three: one percent below projected, baseline, or 2018 target. To hit our target of 1.160 requires a two-year average of 0.925 in CY 2020 and 2021; to hit the baseline of 1.28 requires a two-year average of 1.225.

Serious Injury Rate:3.726

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

Going back to 2015, the five-year moving average projects to 3.764 in 2021 based on a curvilinear trendline to adjust for the change in serious injury definition. Historically, we established our targets at or up to two percent below the projection depending on current trends. The 2019 baseline is 3.619. Our 2018 target was 3.774. Going forward, our target will be whichever is less of these two: one percent below projected or 2018 target. To hit our target of 3.726 requires a two-year average of 4.010 in CY 2020 and 2021; to hit the baseline of 3.619 requires a two-year average of 3.742. Because of the change in serious injury definition, we will evaluate this approach annually. As a reference, with the new definition the rate in 2019 was 4.291.

Total Number of Non-Motorized Fatalities and Serious Injuries:138.0

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

Going back to 2015, the five-year moving average projects to 142 in 2021. Historically, we established our targets at or up to one percent below the projection depending on current trends. The 2019 baseline is 139. Our 2018 target was 138. Going forward, our target will be whichever is less of these three: one percent below projected, baseline, or 2018 target. To hit our target of 138 requires a two-year average of 139.5 in CY 2020 and 2021; to hit the baseline of 139 requires a two-year average of 142. As a reference, with the new definition for the serious injury the total in 2019 was 146.

Establishing targets for 2021 was complicated by two items: the change in serious injury definition that became effective in Kansas January 1, 2019 and the unknown impact of COVID-19. Regarding the former, serious injuries increased by about 40 percent in 2019 compared to 2018. Regarding the latter, much remains unknown; but as of this report, like many states fatalities are up in Kansas while VMT is down.

In our new 2020-2024 SHSP, the overall goal of the five-year plan is to achieve a fatal and injury crash rate of less than 35 crashes per 100 MVM travel by 2024. But our vision remains the same: Drive to Zero. These targets help move us toward our intermediate goal, while placing emphasis on our long-term vision.

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 and Technology. 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.

On February 22, 2017 we hosted a Kansas Safety Target Setting Coordination Training Workshop presented by the FHWA. Most MPOs in the state were represented at this training. On April 17, 2017 we hosted a conference call with all the MPOs to present state targets and discuss next steps. We have been and will continue to provide each MPO with the data necessary to calculate their 2021 targets. At present, we are not certain whether individual MPOs will adopt the state targets or their own. Our SHSO and SHSP/HSIP coordinator are housed in the same section within the Kansas DOT, making coordination simple.

Does the State want to report additional optional targets?

No

Describe progress toward meeting the State’s 2019 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	389.0	411.8
Number of Serious Injuries	980.0	1160.0
Fatality Rate	1.200	1.284
Serious Injury Rate	3.000	3.618
Non-Motorized Fatalities and Serious Injuries	136.0	139.0

2020 Kansas Highway Safety Improvement Program

2019 Safety Performance Target Achievement Determination Summary (estimated)							
Performance Measure	2015-2019 Target	2015-2019 Outcome	2013-2017 Baseline	Met Target?	Better than Baseline?	Discussion	Target relative to trendline
Fatalities	389	412	396	No	No	From 2011 to 2015, we were above 400 only once; since 2016 we have not been below 400.	At
Fatality Rate	1.2	1.28	1.26	No	No	See above.	1% below
Serious Injuries	980	1160	1213	No	Yes	From 2011 to 2018, serious injuries fell by 35 percent; with the new definition in 2019, they increased by 39 percent. For this reason targets including serious injuries will be difficult to set the next few years.	1% below
Serious Injury Rate	3	3.619	3.885	No	Yes	See above.	2% below
Non-motorized Fatalities & SI	136	139	135	No	No	Our 2020-2024 SHSP includes a chapter on pedestrian/cyclists for the first time.	1% below

Applicability of Special Rules

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

No

The HRRR special rule has never applied to Kansas. However, we continue to spend HSIP funding on locally-owned roads thru the HRRR sub-program as described in this report.

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	2013	2014	2015	2016	2017	2018	2019
Number of Older Driver and Pedestrian Fatalities	70	63	50	78	74	64	75

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PERFORMANCE MEASURES	2013	2014	2015	2016	2017	2018	2019
Number of Older Driver and Pedestrian Serious Injuries	117	84	89	102	102	91	128

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-Obligation of HSIP dollars.

We are developing an evaluation framework for each of our sub-programs and hope to have more information to report next year.

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

In FFY 2019 we were apportioned \$19.3 million. In SFY 2019 we obligated \$19.9 million, providing good indication we are spending our HSIP funding. In FFY 2020 we were apportioned \$19.6 million. In SFY 2020 we obligated \$18.5 million. While scheduling and timing often dictate the values of these calendar totals, we have challenged our program managers to spend \$55 million in FFY 2020-2021 (on quality projects within the parameters of each program) in order to reduce our carryover balance into FFY 2022. As of this report, over \$33 million is programmed in FFY 2021.

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

Effectiveness of Groupings or Similar Types of Improvements

Present and describe trends in SHSP emphasis area performance measures.

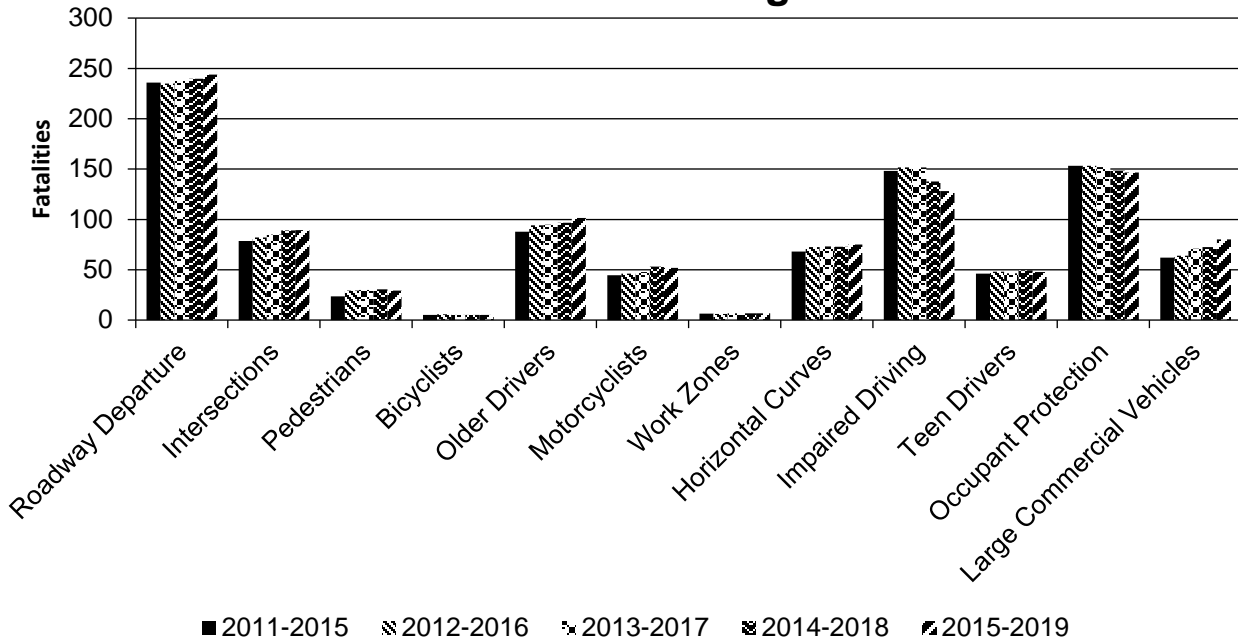
Year 2019

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		243.8	575.6		
Intersections		89.2	363		
Pedestrians		29.2	72		
Bicyclists		5.2	33.2		
Older Drivers		101.4	229.2		
Motorcyclists		51.8	173.8		

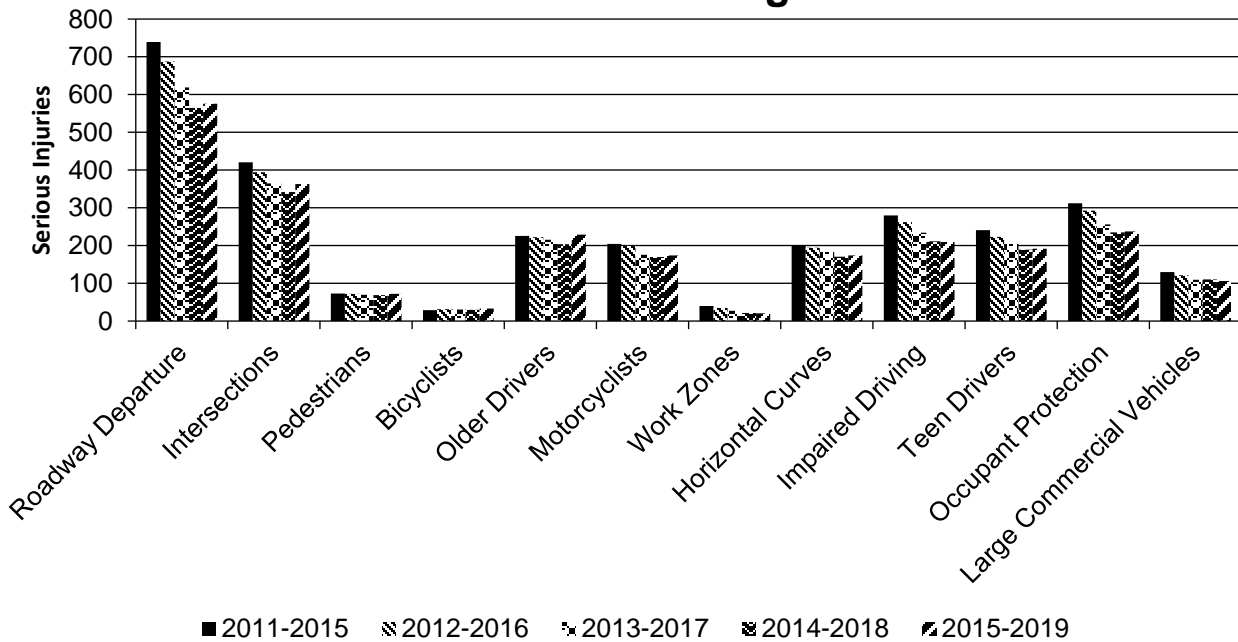
2020 Kansas Highway Safety Improvement Program

SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Work Zones		6.6	20.4		
Horizontal Curves		75	173.6		
Impaired Driving		128.2	209.2		
Teen Drivers		47.8	191.8		
Occupant Protection		146.6	237.4		
Large Commercial Vehicles		80.2	106		

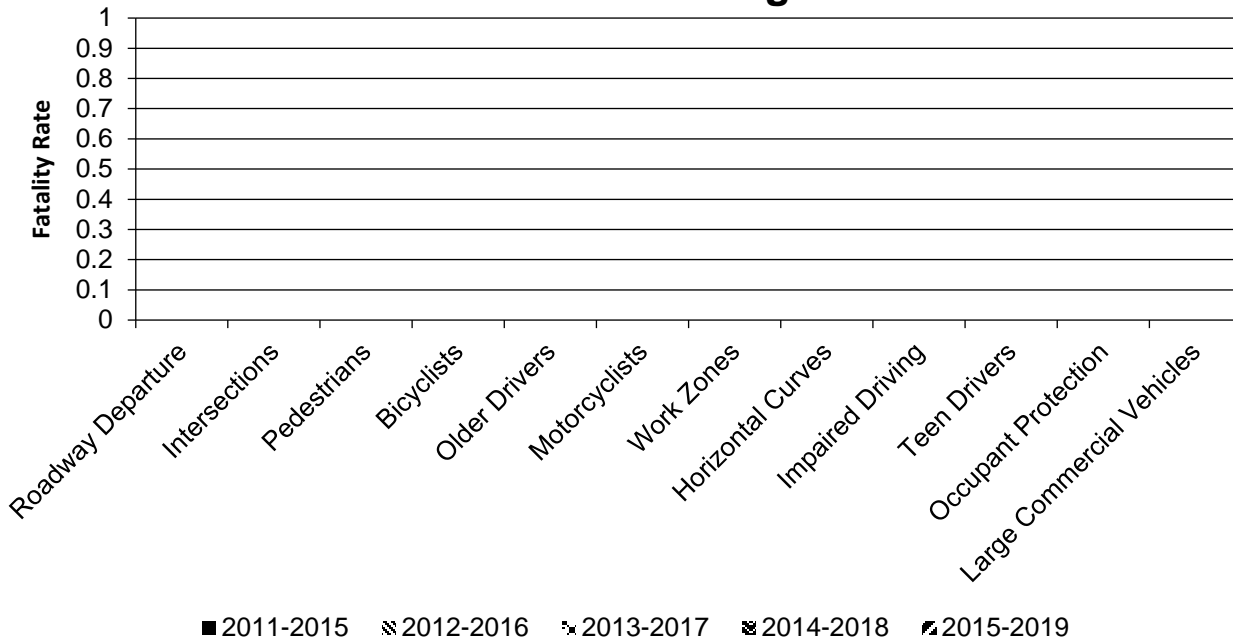
Number of Fatalities 5 Year Average



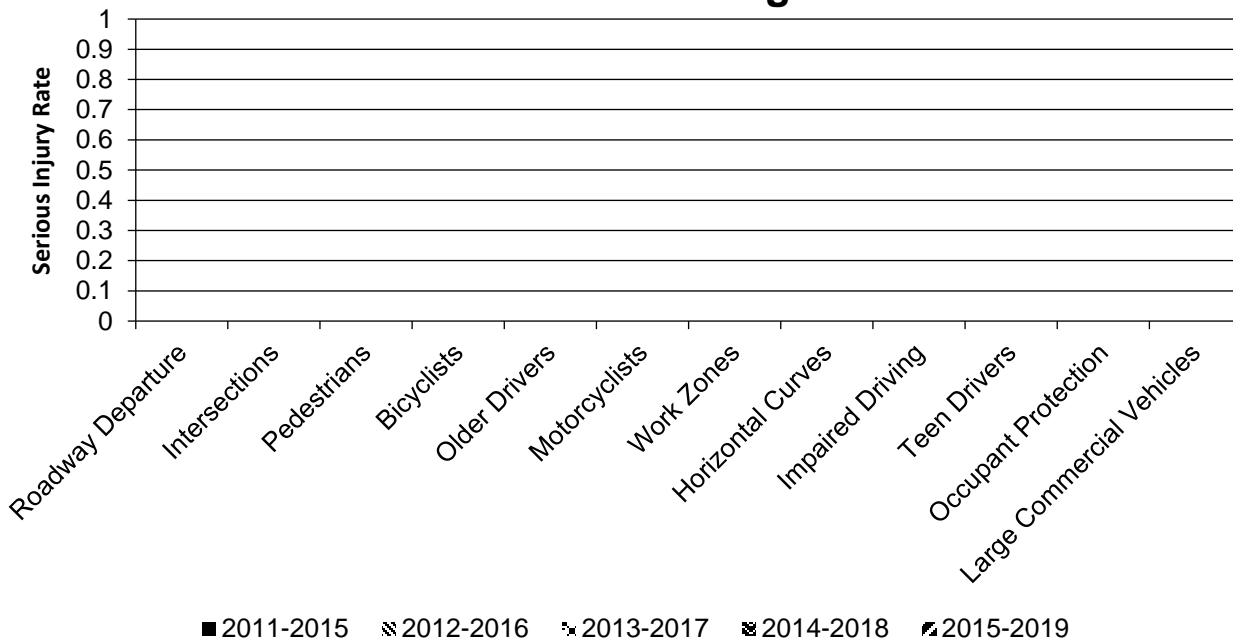
Number of Serious Injuries 5 Year Average



Fatality Rate (per HMVMT) 5 Year Average



Serious Injury Rate (per HMVMT) 5 Year Average



Project Effectiveness

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

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

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?

2019

We are publishing our 2020-2024 SHSP on October 1, 2020. We have worked closely with the FHWA Division Office in Kansas and members of our Executive Safety Council.

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								
Functional Class (19) [19]	100	100					100	100	100	100	

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ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Median Type (54) [55]	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				
	Location Identifier for Roadway at										

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Beginning of Ramp Terminal (197) [187]										
	Location Identifier for Roadway at Ending Ramp Terminal (201) [191]					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	72.73	72.73	95.56	90.00	96.00	96.00

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

We last updated this table in the 2018 annual report. Since then, our roadway database has undergone a significant modernization that allows a much higher level of detail to provide for this report. As a result, in some instances the percentages have gone down. That is only because we have better information with which to access.

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.

Complete access to MIRE FDE on all public roads in Kansas is being accomplished by two projects: K-Hub and work associated with Next Generation 911.

K-Hub is our new Linear Referencing and Transportation Database System (referenced in the previous question) which replaced the CANSYS II database system. K-Hub is an opportunity for KDOT to develop a combined statewide geospatially enabled roadway and transportation data management system that allows KDOT to efficiently meet current and future business requirements. Successful deployment of K-Hub will position KDOT to maintain data on all 140,000 miles of Kansas public roads with the current level of staffing. Bottom line, this has been a colossal IT project that will influence almost every KDOT system.

Primary objectives of the K-Hub project include:

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- Deploy an innovative solution that balances upfront project cost, system lifecycle cost and total cost of ownership to achieve the best value and level of service for KDOT.
- Utilize commercial-off-the-shelf (COTS) software components licensed to KDOT and additional components, as needed, to meet K-Hub System Requirements.
- Innovative approaches to accomplish system functions and data exchanges to support current and future KDOT business processes while minimizing the need for custom components.
- Project planning and execution to ensure successful and timely transition to K-Hub from the existing system.
- Integration of hardware and software components to provide system response performance that consistently meets system benchmarks.
- Flexibility that allows for modification and enhancement by KDOT, the bidder team or third parties.
- User friendly and easily accessible design for enterprise-wide usage.
- Configurable system parameters.
- Position KDOT to maximize its ability to support the system post implementation.

Next Generation 9-1-1 (abbreviated NG9-1-1) refers to an initiative aimed at updating the 9-1-1 service infrastructure in the United States and Canada to improve public emergency communications services in a growingly wireless mobile society.

Optional Attachments

Program Structure:

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.