

HIGHWAY SAFETY IMPROVEMENT PROGRAM IMPLEMENTATION PLAN

Federal Fiscal Year 2023



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Agenda

What this report covers

- 01 Why It Was Required
- 02 5 Essential Considerations
- 03 Current HSIP Program
- 04 Decision Support Framework
- 05 FY2023 HSIP Plan



HIGHWAY SAFETY IMPROVEMENT PROGRAM IMPLEMENTATION REPORT

Federal Fiscal Year 2023

Implementation Plan Requirement

Required by Law

Performance Targets Not Met (requires 4 of 5)

Reassess HSIP Goals and Actions



TN CY 2020 Performance Targets

1. Number of fatalities – **Not Met**
2. Rate of fatalities – **Not Met**
3. Number of serious injuries - **Met**
4. Rate of serious injuries – **Not Met, but better than baseline**
5. Number of non-motorized fatalities and non-motorized serious injuries - **Met**

Essential Considerations



Roadway Features that Constitute a Hazard to Road Users



Highway Safety Improvement Projects Based on Crash Experience, Crash Potential, or Other Data-Supported Means



Planned Allocation of HSIP Funds, Projects, Activities, and Strategies

Anticipated Progress to Be Achieved by Planned Projects

Planned Actions to Meet Safety Performance Targets



Current HSIP Highlights

8 Programs with Datadriven Qualification Criteria

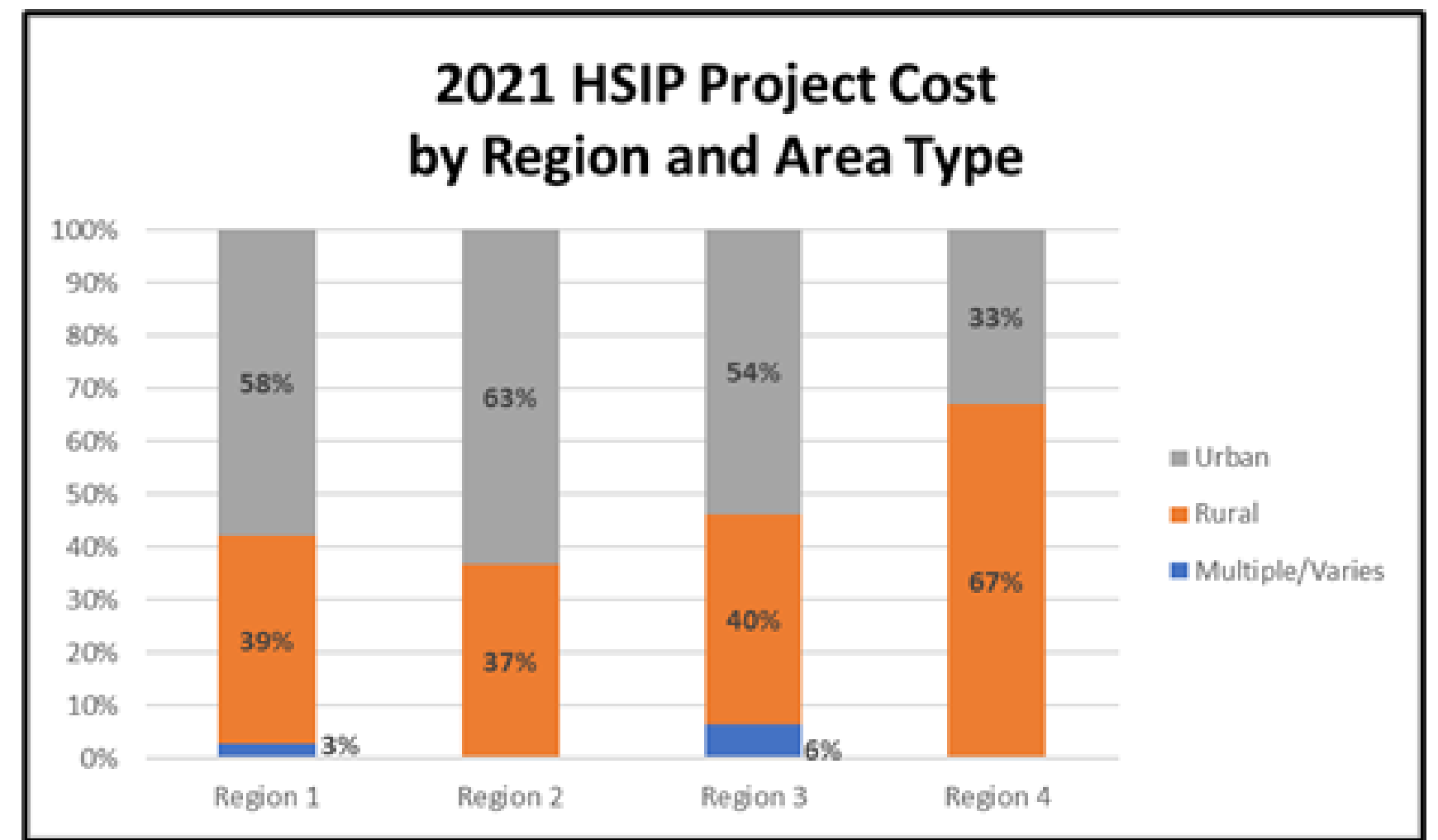
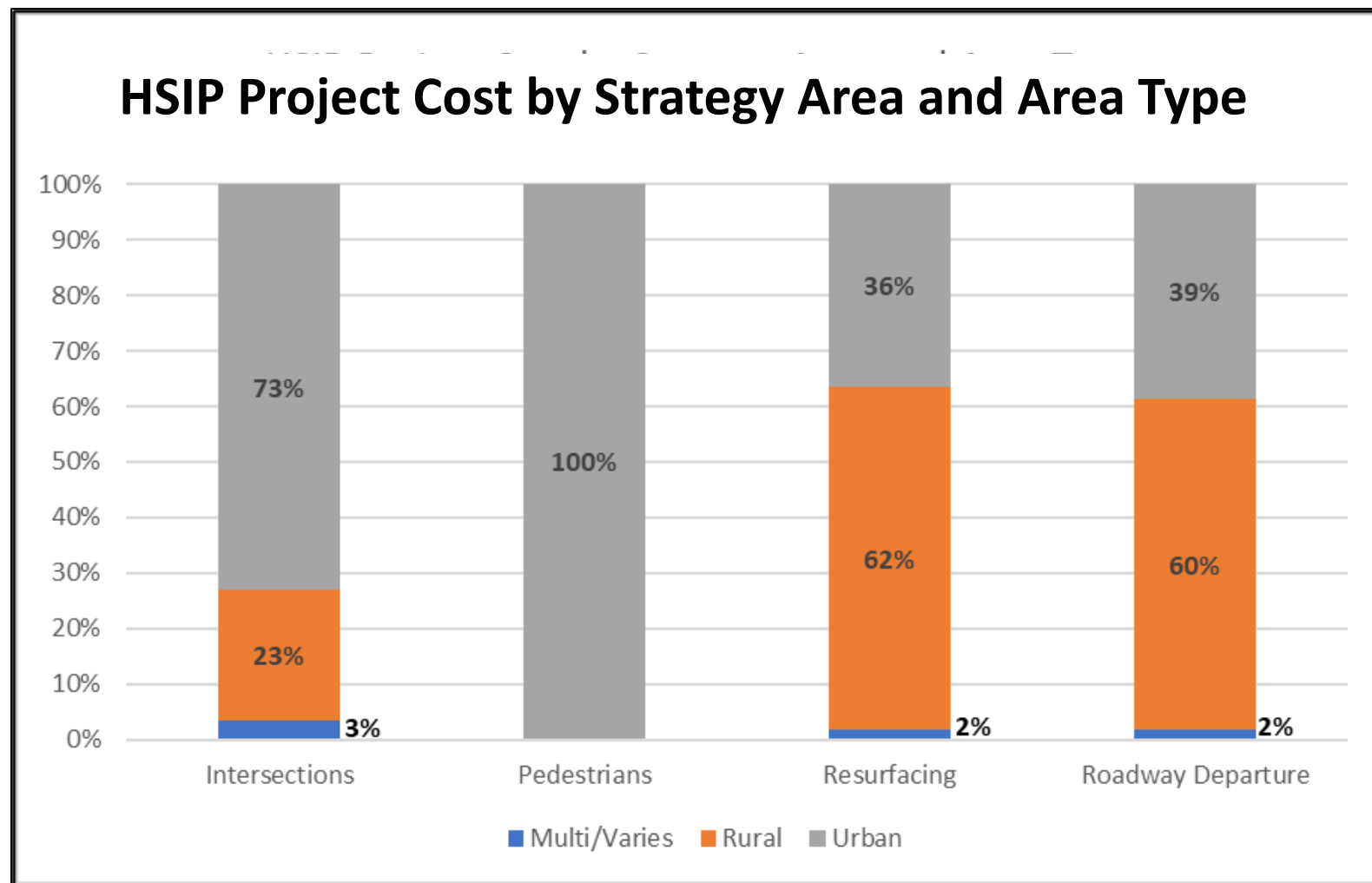
SHSP Infrastructure Emphasis Area

- Road Safety Audits
- Local Road Safety Initiative
- Ramp Queue
- Spot Safety
- Resurfacing
- Cable Rail Installations
- Wrong Way Prevention Technology

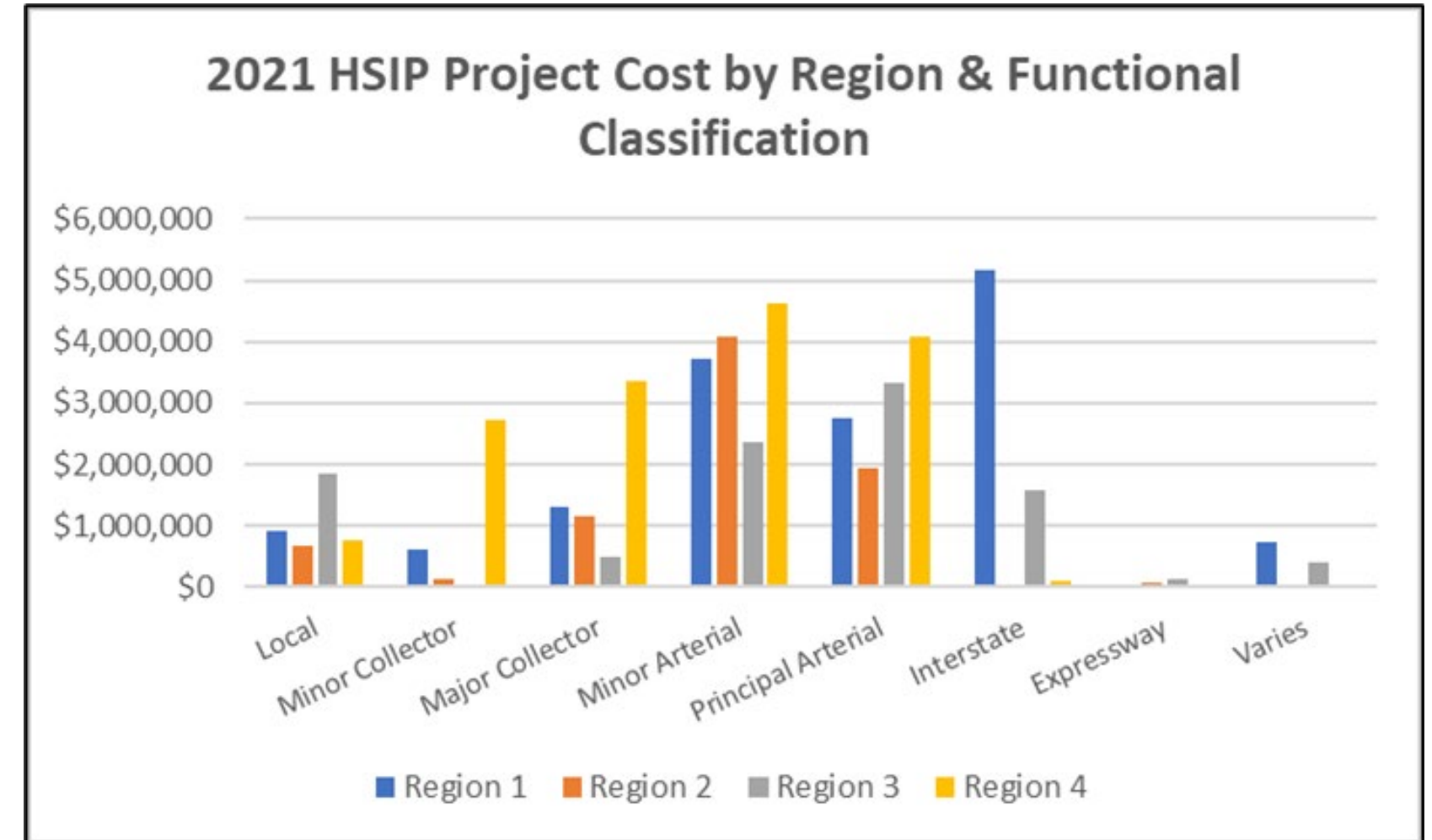
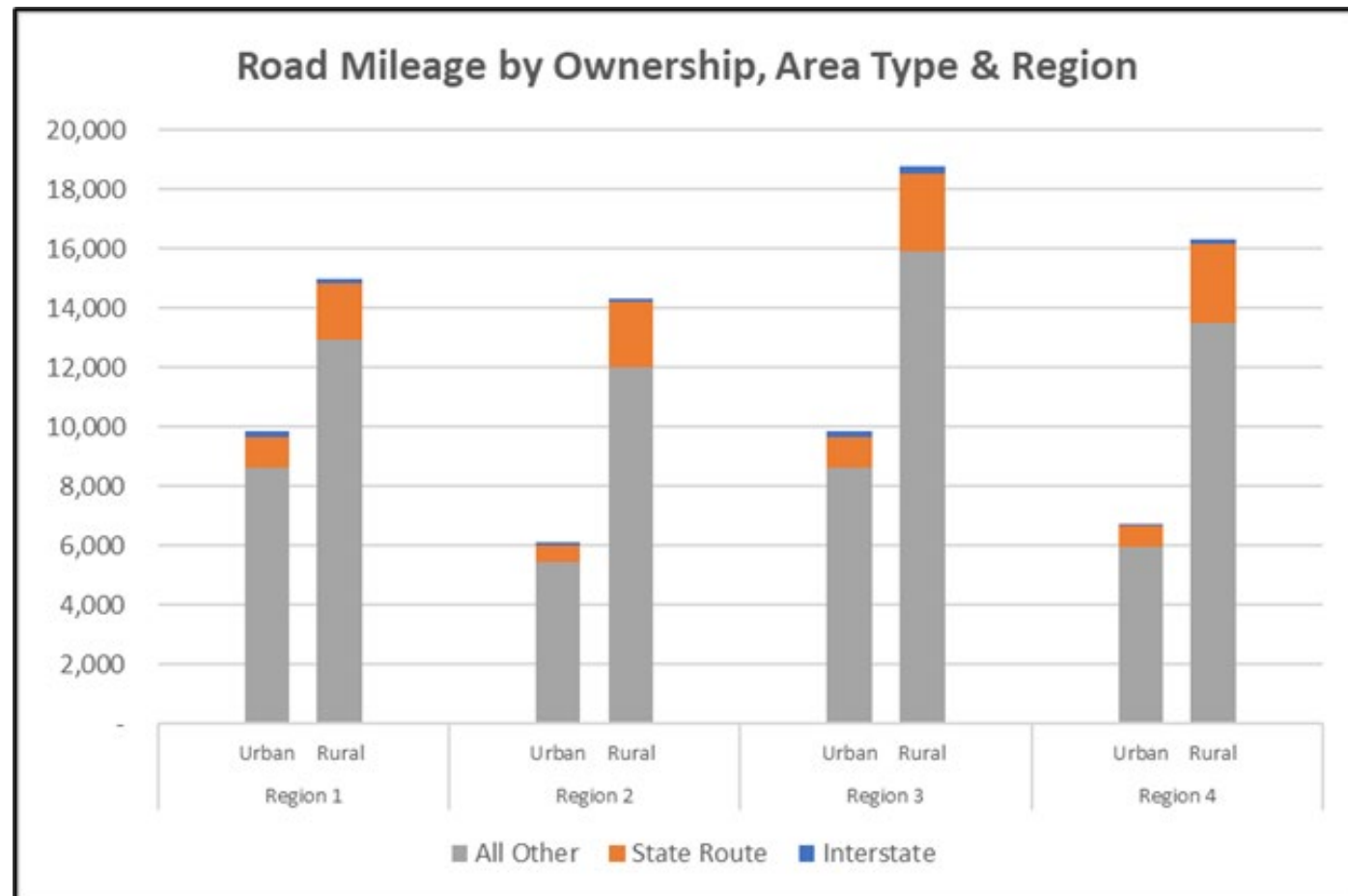
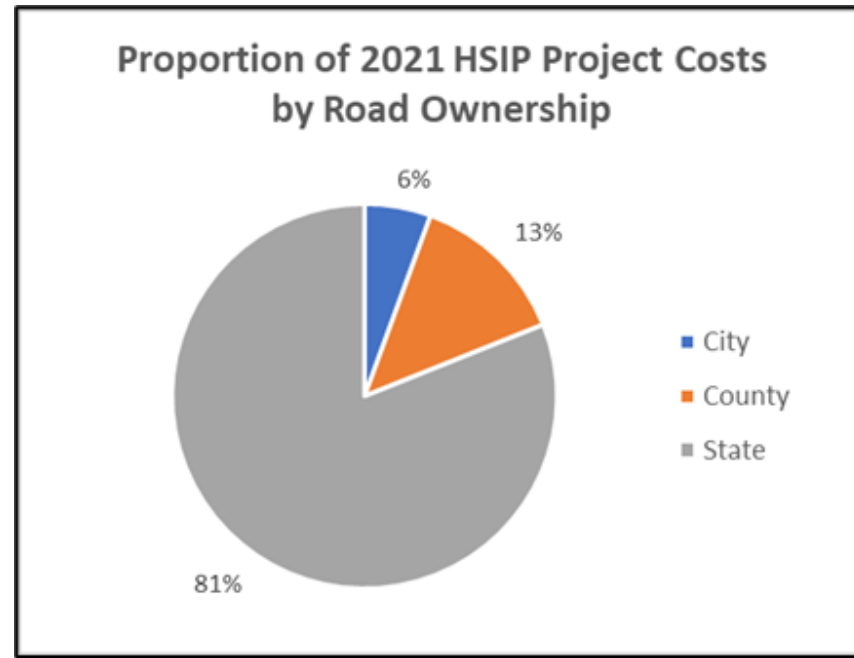
SHSP Vulnerable Road User Emphasis Area

- Pedestrian Road Safety Initiative

Analysis of FY 2021 HSIP Obligations



Analysis of FY 2021 HSIP Obligations





Decision Support Framework



Fatal and Serious Injury Crash Trends

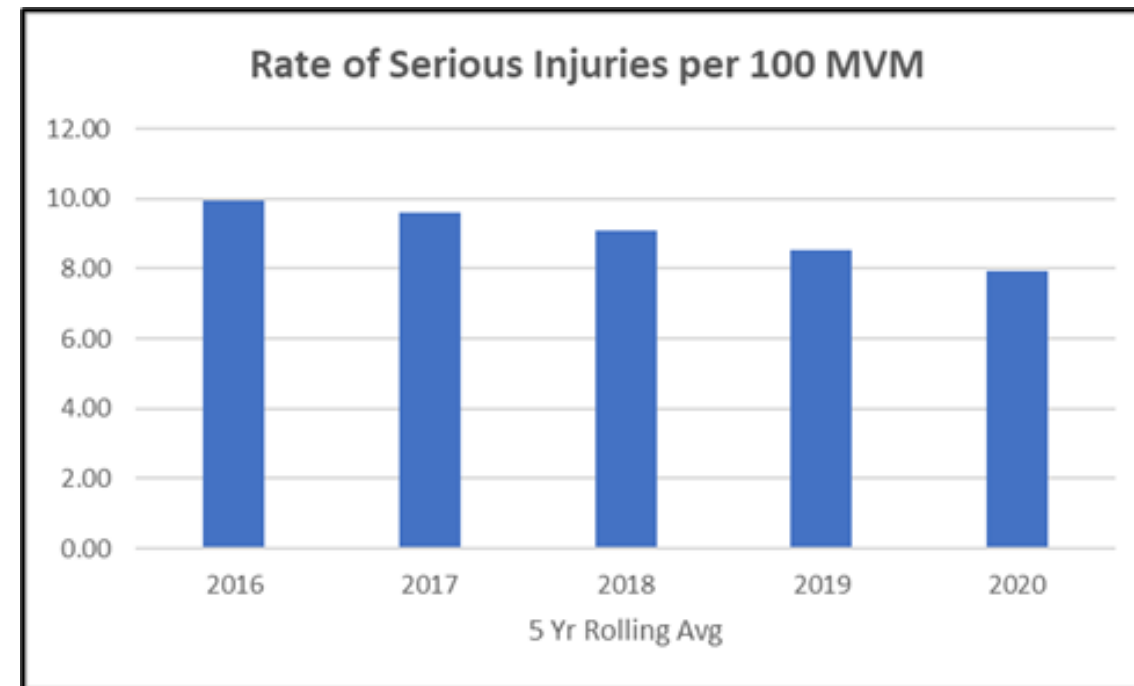
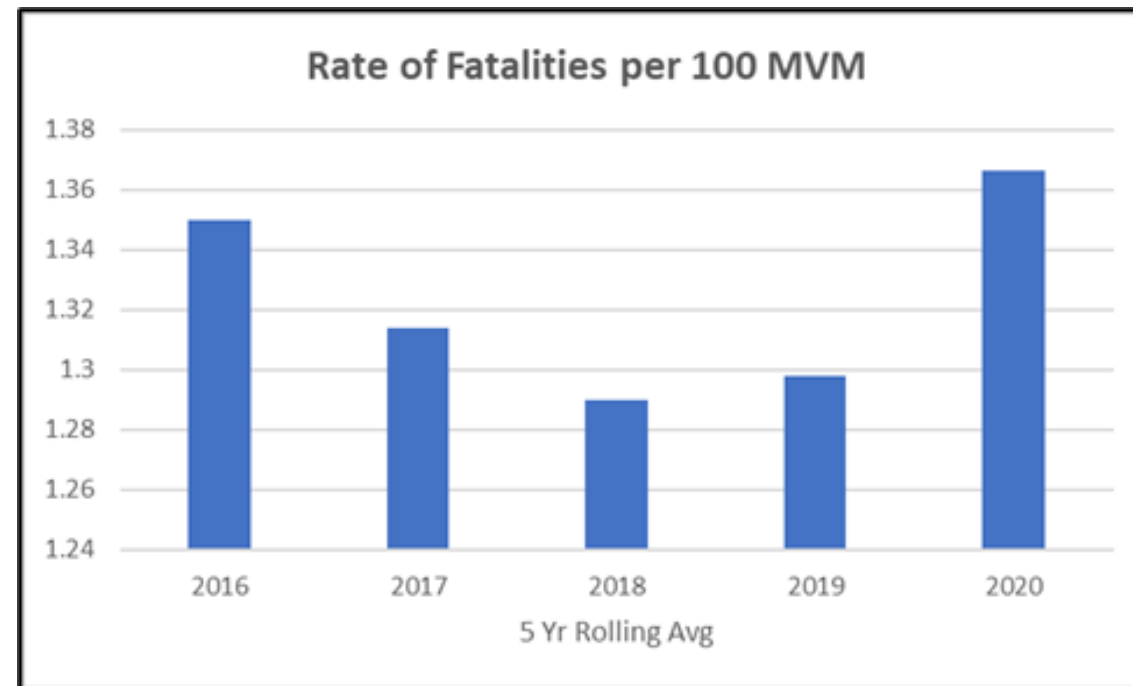
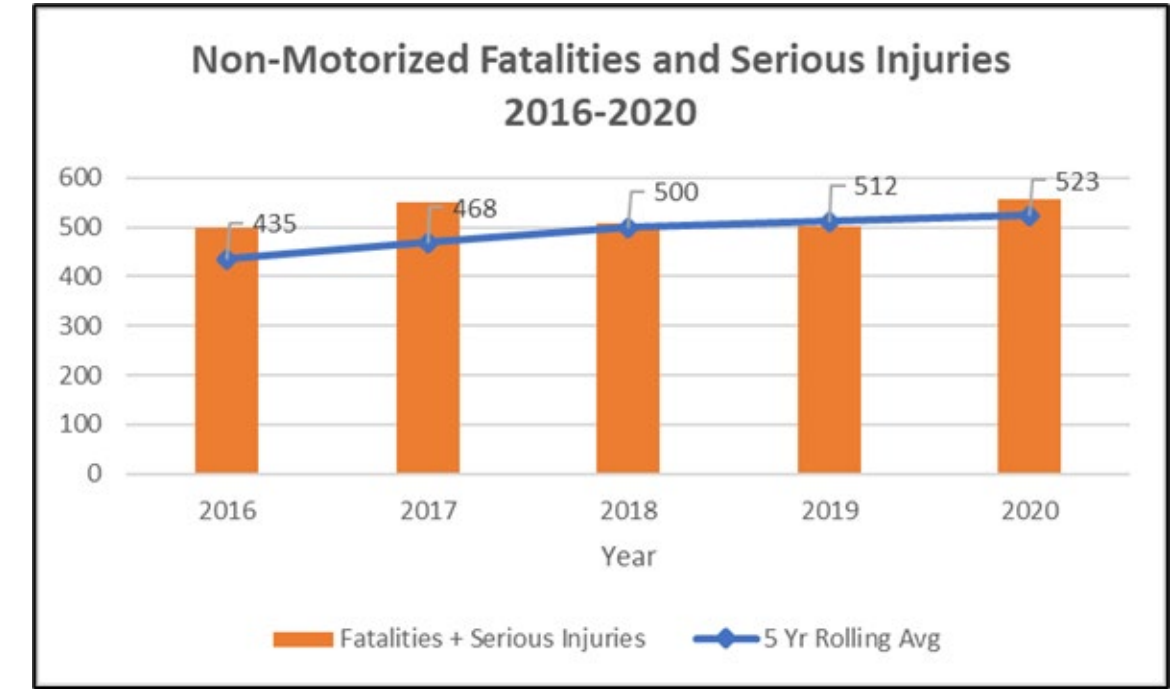
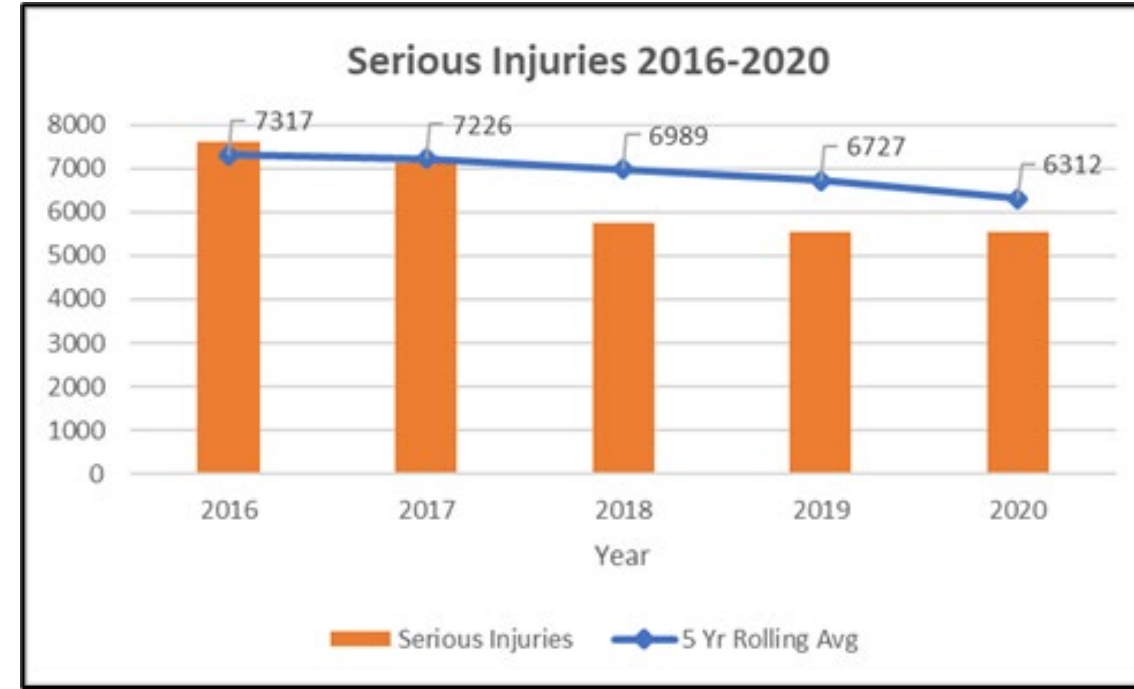
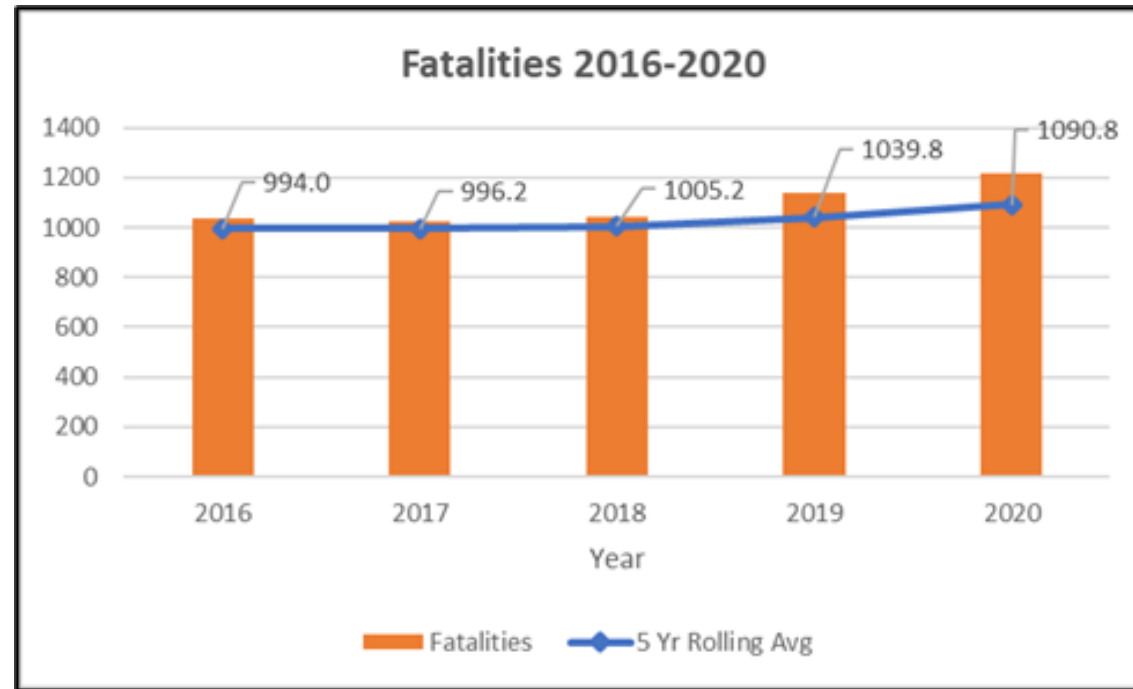


Assessment to Identify Gaps or
Deficiencies



Noteworthy Practices

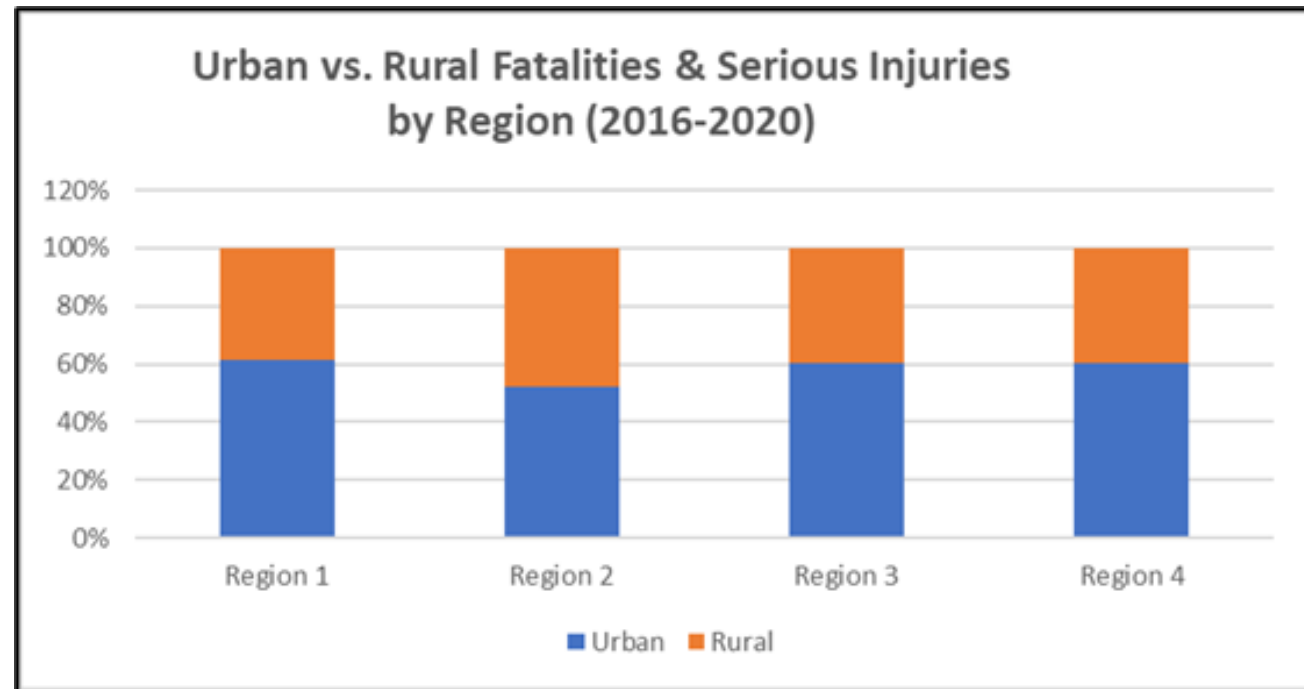
Crash Trends



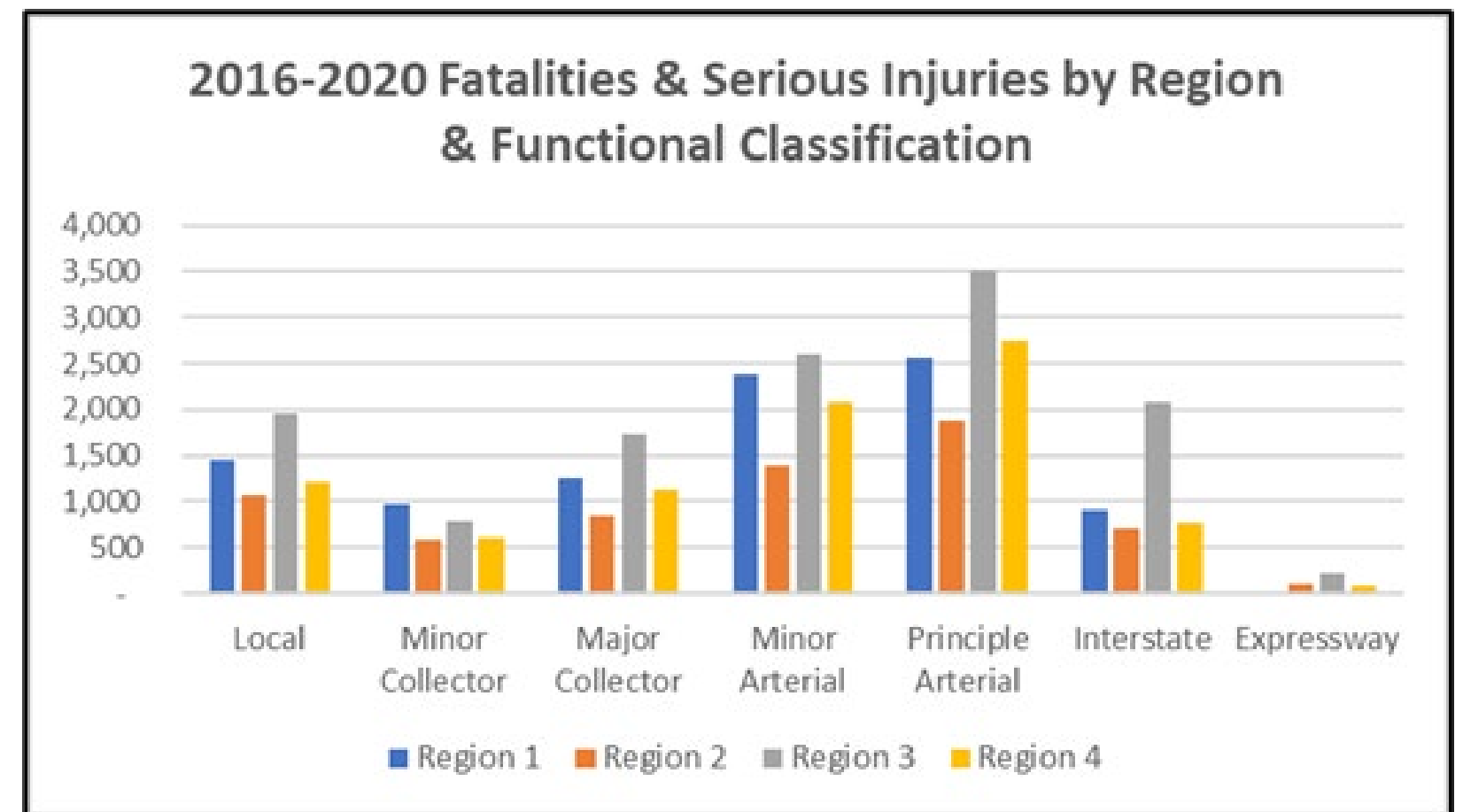
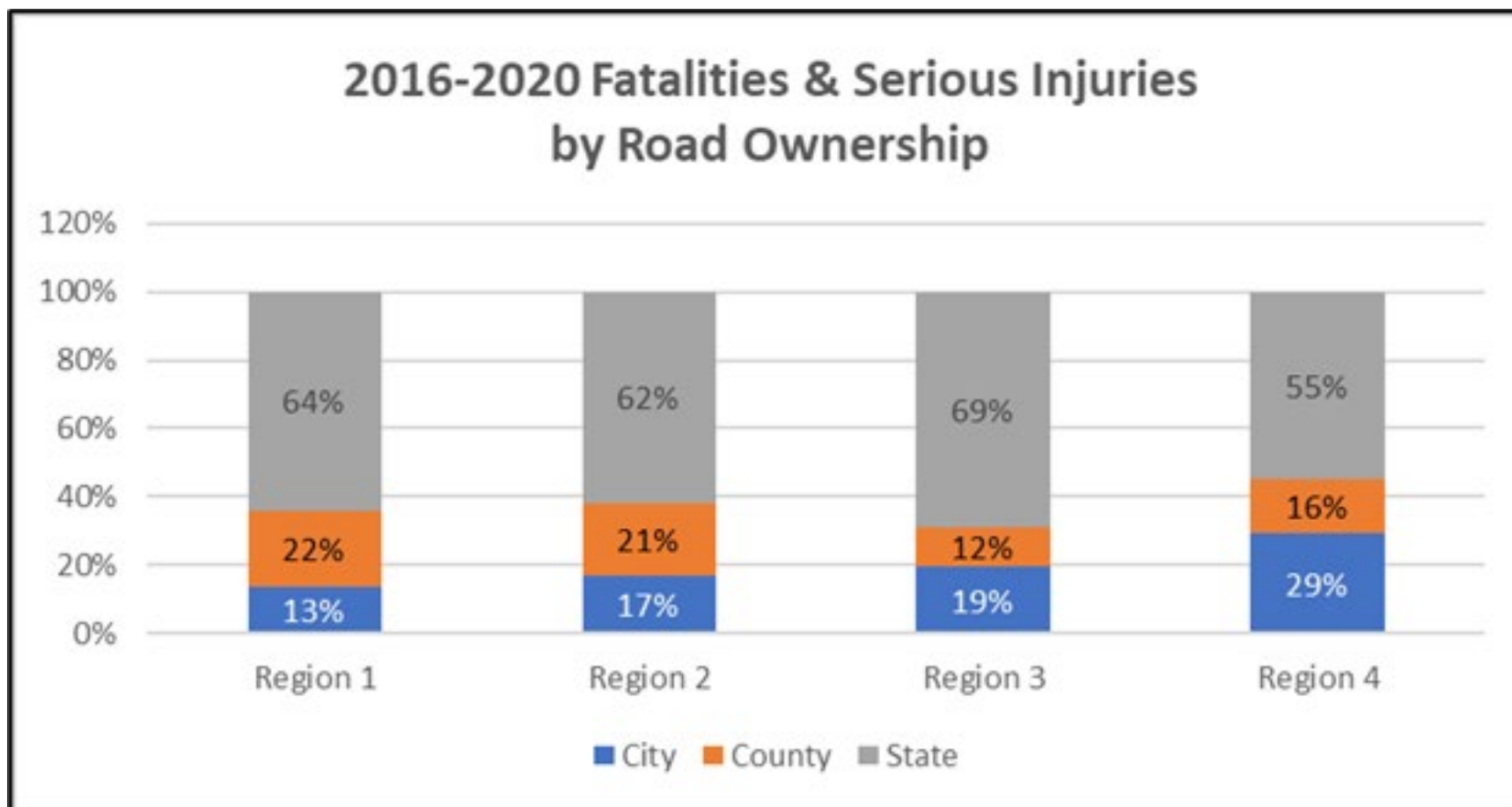
Impact of COVID-19 pandemic in 2020 is noteworthy:

- VMT decreased almost 8% compared to 2019
- Fatalities increased by 7%.

Crash Trends



Considering VMT, rates of fatalities and serious injuries are greater on rural roads.



Lane departures, roadway departures, and intersections are a factor in most fatal and serious injury crashes statewide.

Gaps/ Deficiencies Assessment

Rural & Local Roads



More rural projects than urban → consistent crash data

Higher costs on urban projects → money spent in urban areas

Road Ownership Type	Fatalities & Serious Injuries	FY 2021 # Projects	FY 2021 Project Costs
City	20%	2%	6%
County	17%	12%	13%
State	63%	85%	81%

More emphasis is needed to address local roads, especially city-maintained roads.

Gaps/ Deficiencies Assessment

Vulnerable Road Users

~7% of F & SI statewide (2016-2020) involved a VRU

Only 0.5% of FY 2021 obligated project costs were tagged to bike/ ped safety strategy

VRU crashes most heavily weighted in urban areas (87% of all crashes)

- Shelby and Davidson Counties ~46%

More spending on VRU → more focus on local roads.



Noteworthy Practices – Past & Present

High Friction Surface
Safety Initiative

Intersection Action Plan

TIM Training Facility

Protect the Queue
Campaign

Road Safety Audit
Program

Ramp Queue

Local Road Safety
Initiative

Safety Countermeasures
in Resurfacing

AASHTO Ware Safety /
Numeric

Wrong Way Prevention

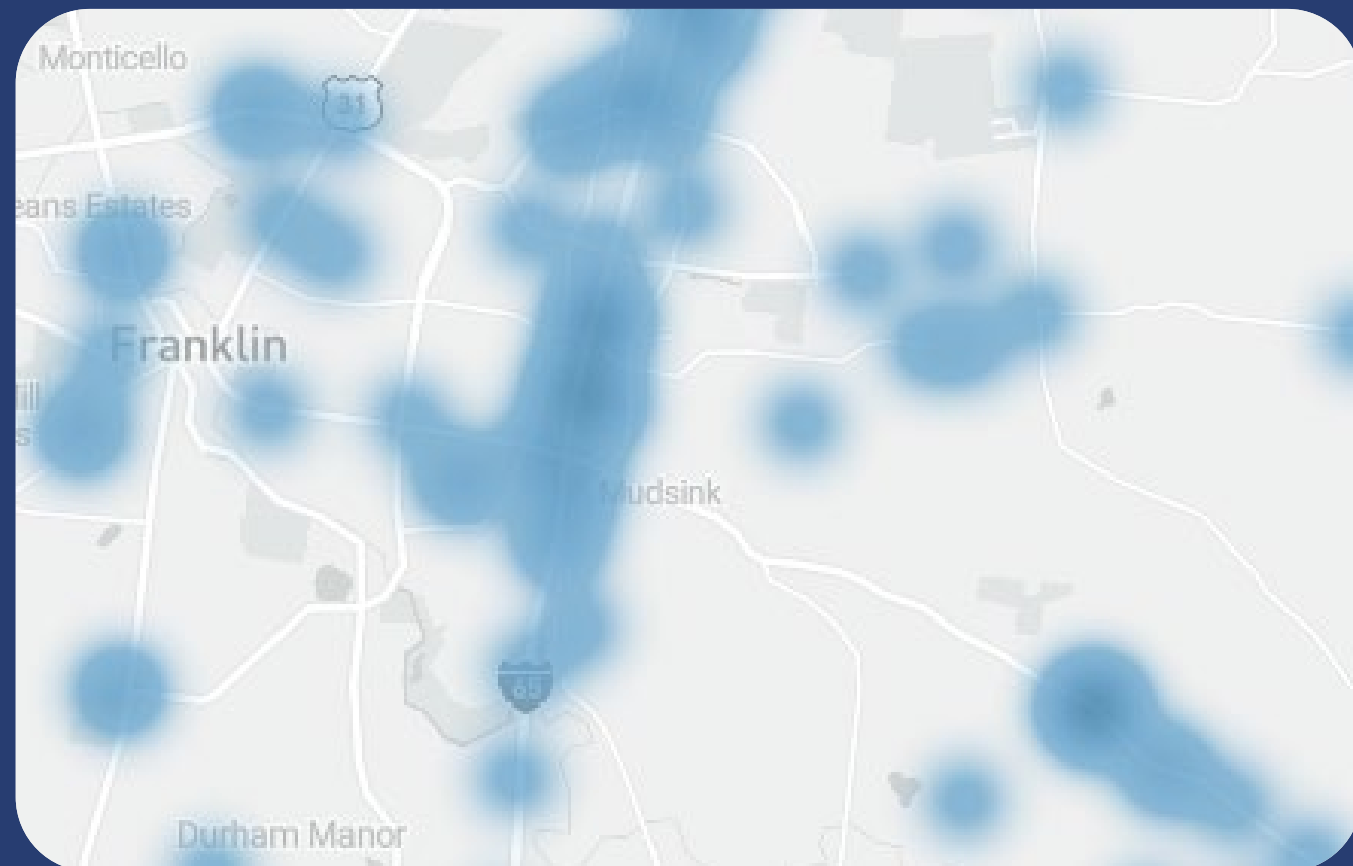
Cable Rail Installations

Action Plan for
Vulnerable Road Users

TN Highway Safety &
Traffic Operations
Conference

FY 2023 HSIP Plan

Planned & Current Actions



DATA DRIVEN ANALYSIS

- Continue Numetric expansion

VULNERABLE ROAD USERS

- Implement a quick-build no-plans pilot program for VRU high-crash locations
- Develop a bike/ped strategic plan with broad stakeholder engagement

FY 2023 HSIP Plan

Planned & Current Actions



INFRASTRUCTURE

- Establish a priority list of locations for median cable rail installation
- Initiate the new Wrong Way Prevention Technology pilot project in Region 4
- Continue activities to support ongoing delivery of projects through the RSA, Spot Safety, and LRSI programs.

Summary of Planned FY 2023 HSIP Expenditures

Program	# Projects by Region					Estimated Funding
	R-1	R-2	R-3	R-4	Total	
Road Safety Audit (design)	3	4	3	7	17	\$25,925,585.58
Road Safety Audit (no plans)	2	5	3	7	17	\$7,570,368.00
Spot Safety (HSIP)	4	0	0	0	4	\$5,882,864.00
Pedestrian Road Safety Initiative	0	1	8	3	12	\$10,327,315.20
Local Road Safety Initiative (HRRR)	10	7	1	9	27	\$6,921,760.00
Subtotals	19	17	15	26	77	\$56,627,892.78
Wrong Way Prevention				4	4	*tbd
Cable Rail Installations	statewide					**\$2,000,000.00
TN Highway Safety & Traffic Operations Conference	statewide					\$10,000.00
					Total	\$58,627,892.78

*This program was recently approved. Construction costs are not yet available.

**This program was recently approved for an annual allocation of \$2M. Locations have not yet been determined.

THANK YOU!

Feel free to reach out if you have any questions.

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