



WALK BIKE ROLL KANSAS



VIRTUAL SERIES

Increasing Safety for Pedestrians

Speakers:

Jay Aber, P.E., PTOE, Transportation and National Future Ready Program
Lead at WSP

Maggie Wilcox, Transportation Safety Planner, KDOT

Becky Crowe, Transportation Specialist, FHWA





Safety Moment



Safer Speeds Save Lives

Risk to pedestrians increases as driver speed increases.

	<p>13%</p>	<p>of pedestrians will die or suffer a severe injury if hit by a vehicle at 20mph</p>
	<p>40%</p>	<p>of pedestrians will die or suffer a severe injury if hit by a vehicle at 30mph</p>
	<p>73%</p>	<p>of pedestrians will die or suffer a severe injury if hit by a vehicle at 40mph</p>

 NHTSA

Webinar Housekeeping

- This meeting is being **recorded**
- Turn on closed captions from the menu bar with the CC icon. Click and drag captions to preferred location on screen.
- Submit questions via the **Q & A function or chat**
- We'll send a follow-up email within the next week with **link to recording and Q & A transcript**
- For more information on the Kansas Active Transportation Enhancement (KATE), access to webinar recordings and other resources, and to sign-up for future sessions, visit:
<https://www.ksdot.gov/KansasATP.asp>



A screenshot of the Kansas Department of Transportation website. The header is blue with the Kansas Department of Transportation logo and navigation links: HOME | NEWS | CONTACT KDOT | CAREER OPPORTUNITIES. Below the header is a search bar and a secondary navigation bar with links: HOME, TRAVELER INFORMATION, DOING BUSINESS, INSIDE KDOT, PROJECTS/PUBLICATIONS, PUBLIC INFORMATION. The main content area features the 'Kansas Active Transportation' logo and a brief description of the plan. Below this are several sections of links: 'Kansas Active Transportation Plan' with sub-links for Plan Appendices (Equipment Summaries, Policy Memo, Crash Analysis Summary, Statewide Economic Impact Analysis Summary); 'Kansas Active Transportation Plan (ATP) Toolkits' with sub-links for Active Transportation Planning Toolkit for Small- and Medium-Sized Communities, Active Tourism, and Pedestrian and Bicycle Accommodations on Bridges - COMING SOON!; 'Walk, Bike, Roll Kansas Virtual Series and Summit - Mark Your Calendar!' with details for Virtual Series #1 through #6 and an 'In-Person Summit - September 20-22, McPherson Community Building'; and 'Other Kansas Active Transportation Plan Resources' with links for Active Transportation Benefit Cost Tool & User Guide, Funding Your Plan, Active Transportation Stories Map, and Active Transportation Plan and Policy Registry & map. On the right side, there is a promotional banner for the 'WALK BIKE ROLL KANSAS ACTIVE TRANSPORTATION SUMMIT' with the text 'Register now! Walk Bike Roll Kansas Active Transportation Summit September 20-22 McPherson, KS' and a 'Click for more information' button.

KDOT Staff Introductions

Matt Messina,
Chief of Multimodal Transportation

Jenny Kramer,
Active Transportation Manager



Walk Bike Roll Virtual Series

2:00 PM, 4th Wednesdays (usually!)



October 25th

Increasing Safety for Pedestrians

December 13th

Mobility and Access for All: New Public Right-of-Way Accessibility Guidelines (PROWAG) under the Americans with Disabilities Act

WALK BIKE ROLL KANSAS

ACTIVE TRANSPORTATION SUMMIT



WALK
BIKE
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KANSAS

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TRANSPORTATION
SUMMIT

Summit Presentations are available

- [Presentation PDFs](#)
- https://tooledesign1.sharepoint.com/:f:/s/WalkBikeRollSummit2023/EsNqRKtMfPxHtNjx3Pc_PwcBE6kA7VGd2Ds_0WaCZa-A2Q?e=bAG3jb
- <https://www.walkbikerollks.com/agenda>
- Or Scan this QR Code!



Our Speakers

Jay Aber

P.E., PTOE, Transportation and National Future Ready Program Lead at WSP

Maggie Wilcox

Transportation Safety Planner, KDOT

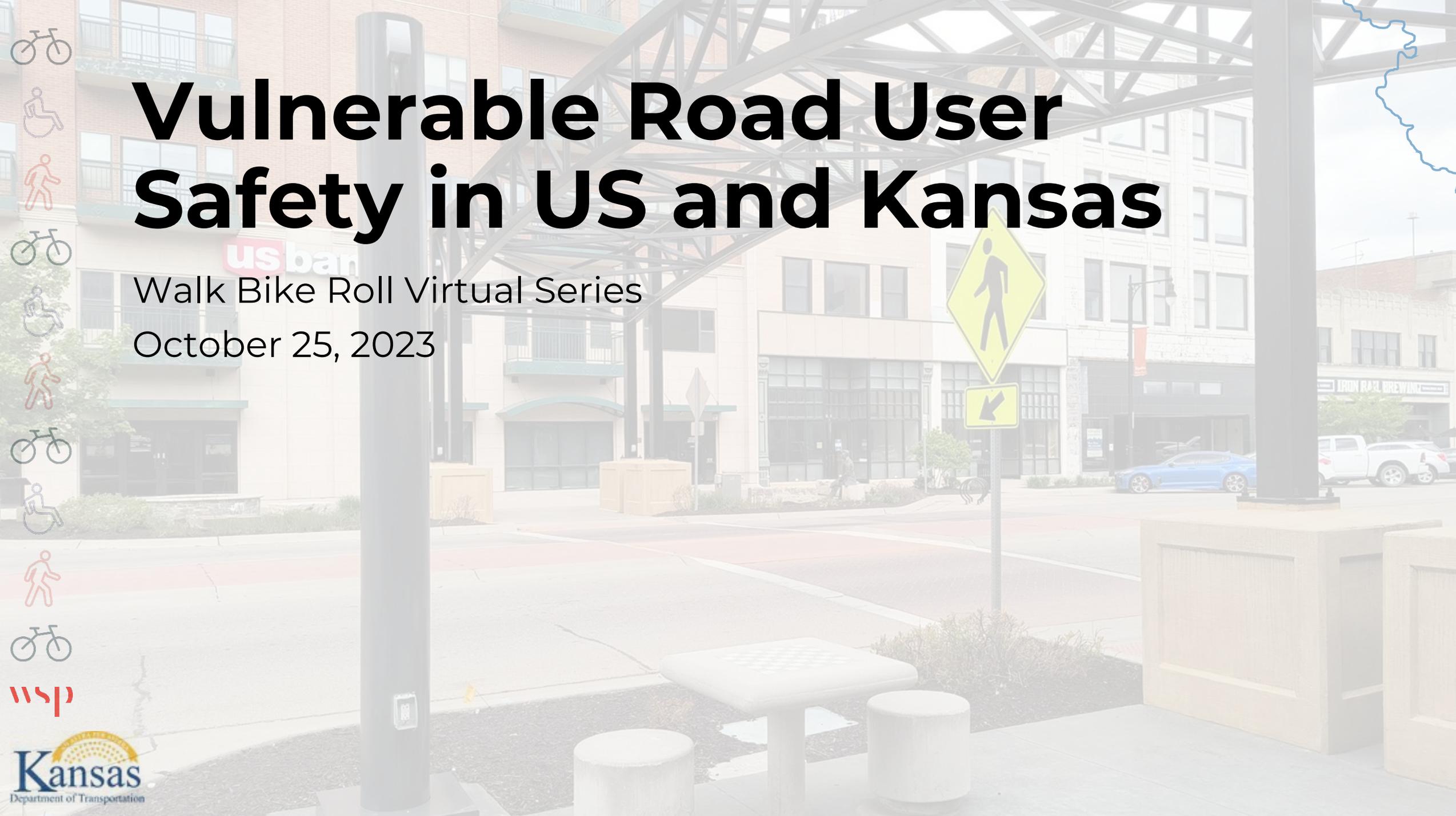
Becky Crowe

Transportation Specialist, FHWA



Vulnerable Road User Safety in US and Kansas

Walk Bike Roll Virtual Series
October 25, 2023





US State of VRU Safety



• Over the past 10 years (2012 – 2021) in the U.S.:



• **67,100 pedestrians and cyclists killed**



• **1,180,000 pedestrians and cyclists injured**



• **\$1.13 Trillion** in crash costs



(Source: NHTSA FARS)

• Over the past 8 years (2014 – 2021) in Kansas:

• **269 pedestrians and cyclists killed**

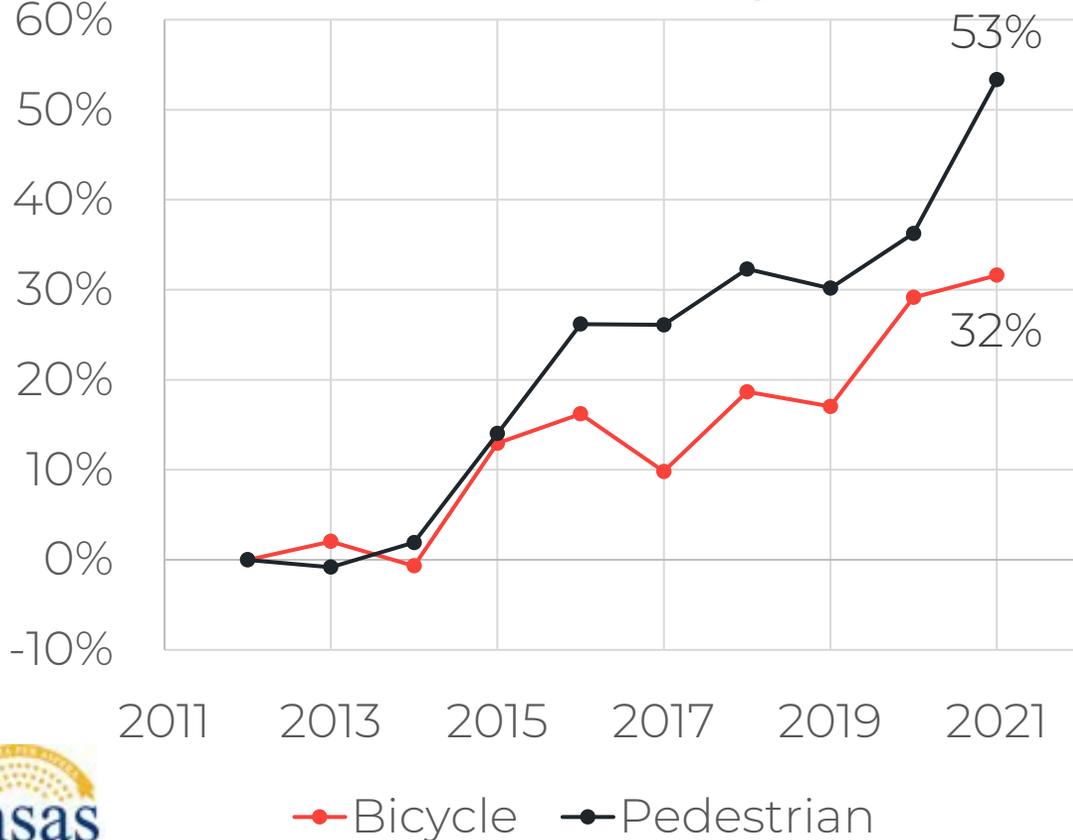
• **790 pedestrians and cyclists injured**

• **\$3.47 Billion** in crash costs

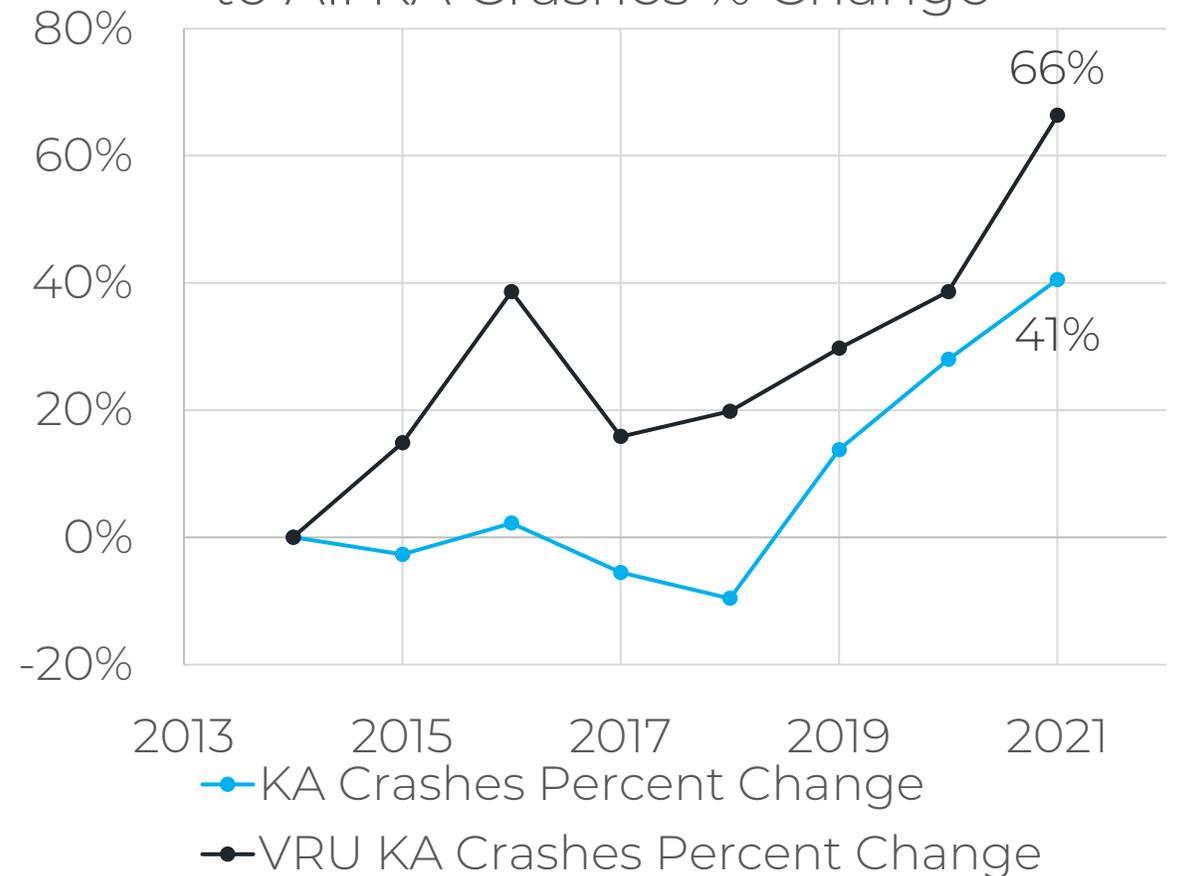
Factors Driving Increase

- 66% increase in VRU fatal and serious injury (KA) crashes compared to 41% increase in all KA crashes

 US Pedestrian and Cyclist Fatal Crash % Change



 Kansas VRU KA Crashes Compared to All KA Crashes % Change

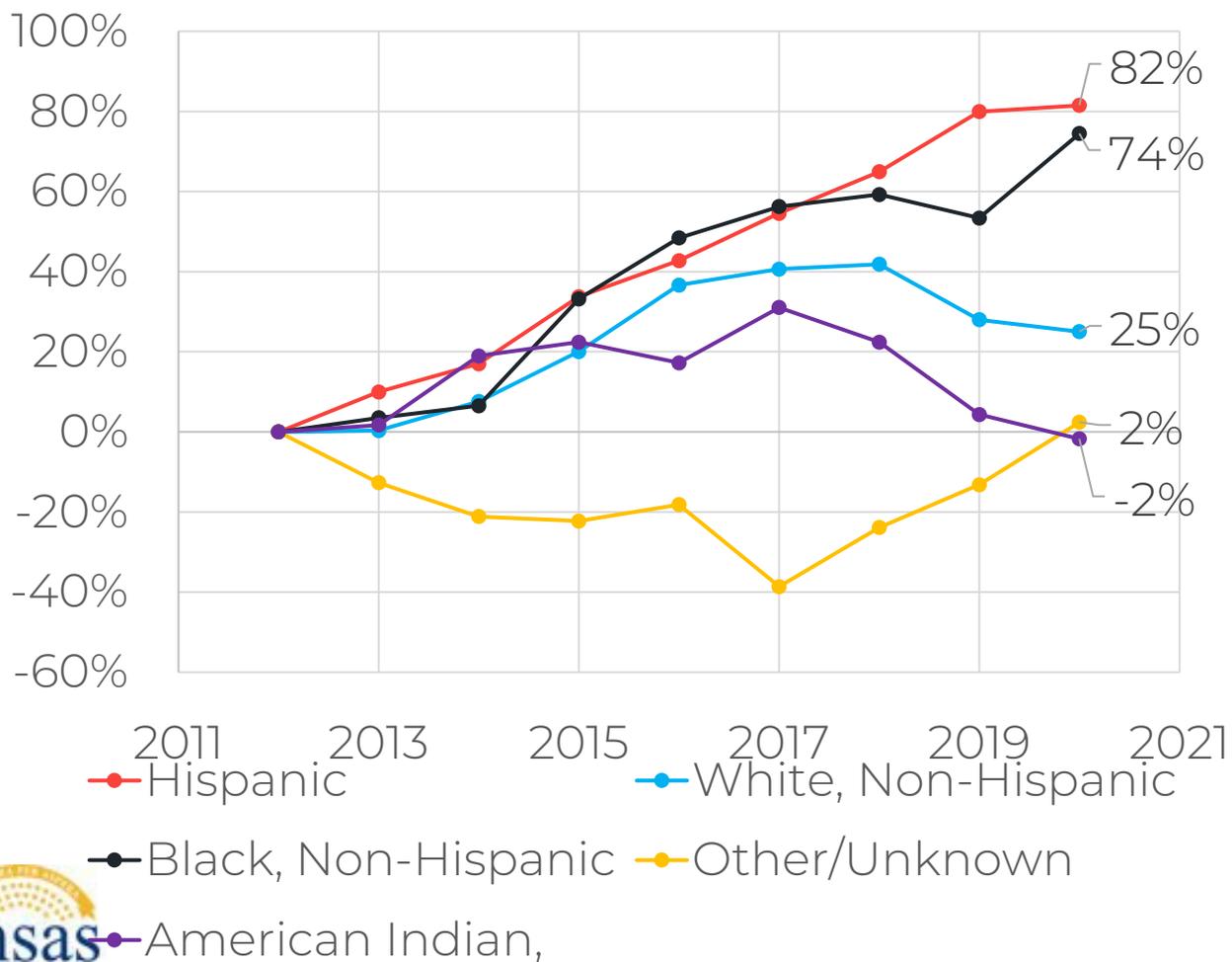




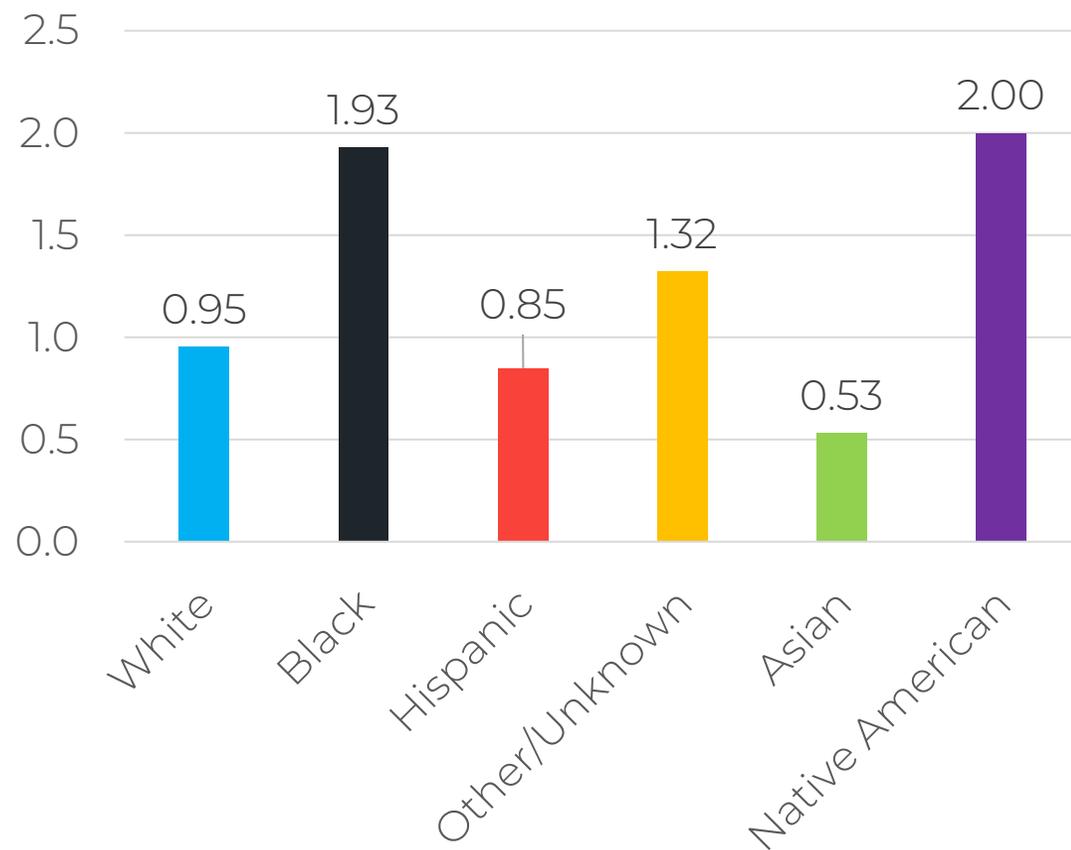
Factors Driving Increase – Race/Ethnicity

- 74% increase in Black & Hispanic VRU deaths nationally

US Pedestrian change by race



Kansas VRU Fatal Crashes by Race/Ethnicity Normalized by Population



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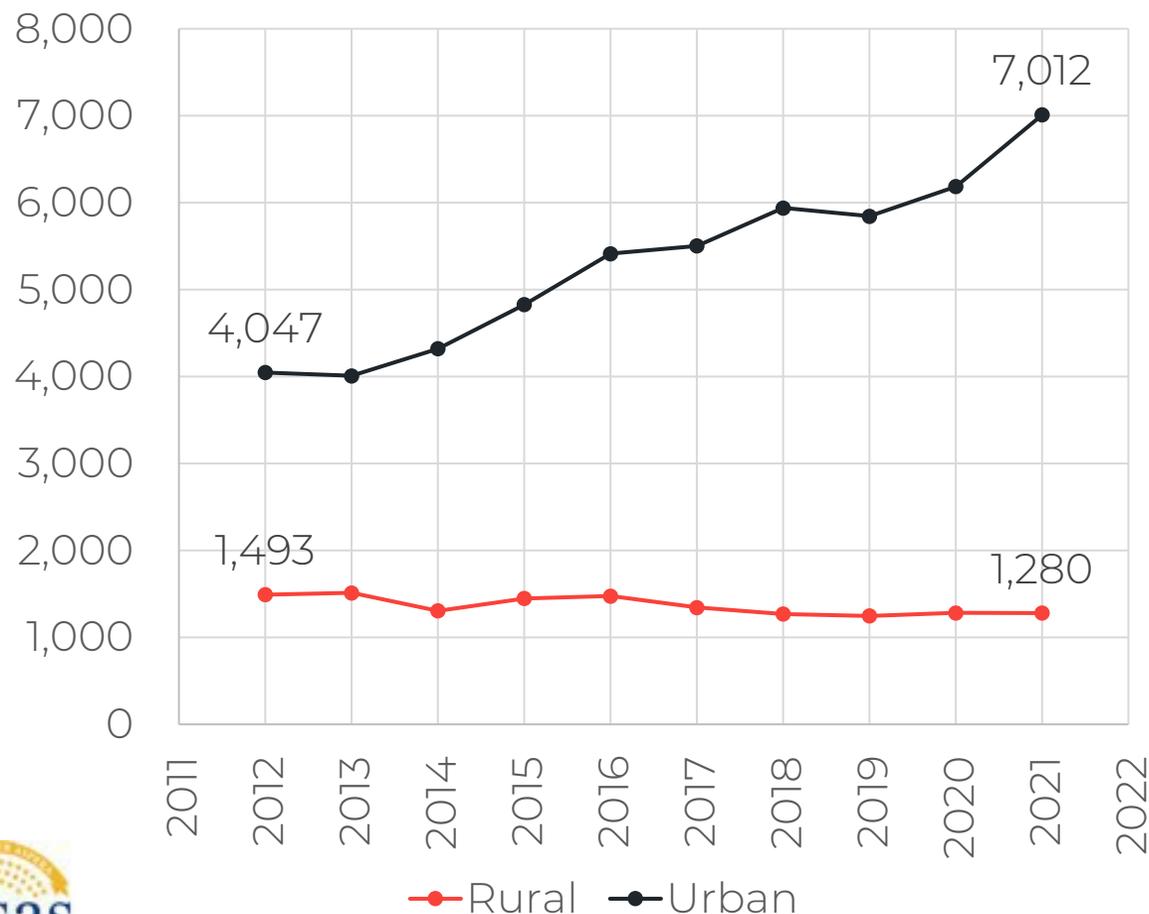




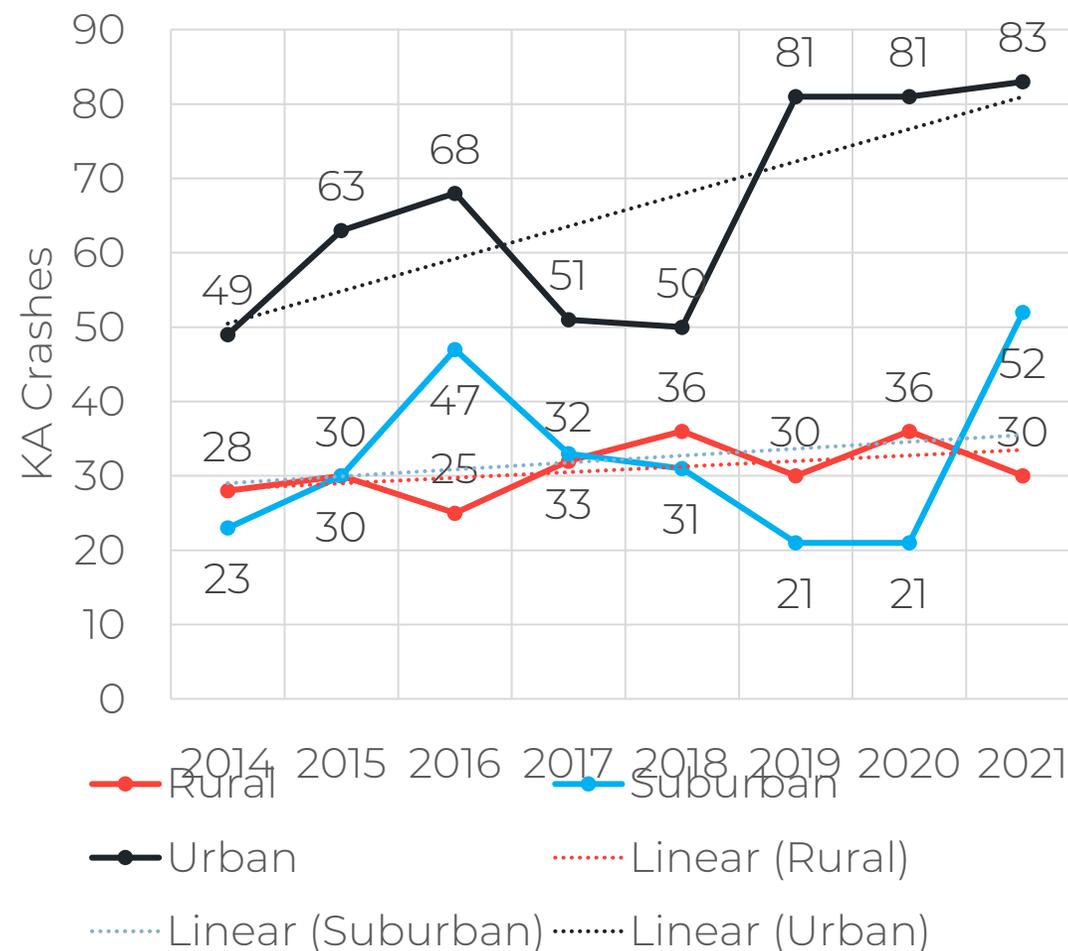
Factors Driving Increase – Location

- 73% increase in US Urban ped/bike deaths

US Pedestrian and Cyclist Deaths by Rural/Urban



Kansas VRU KA Crash Victims by Area Type



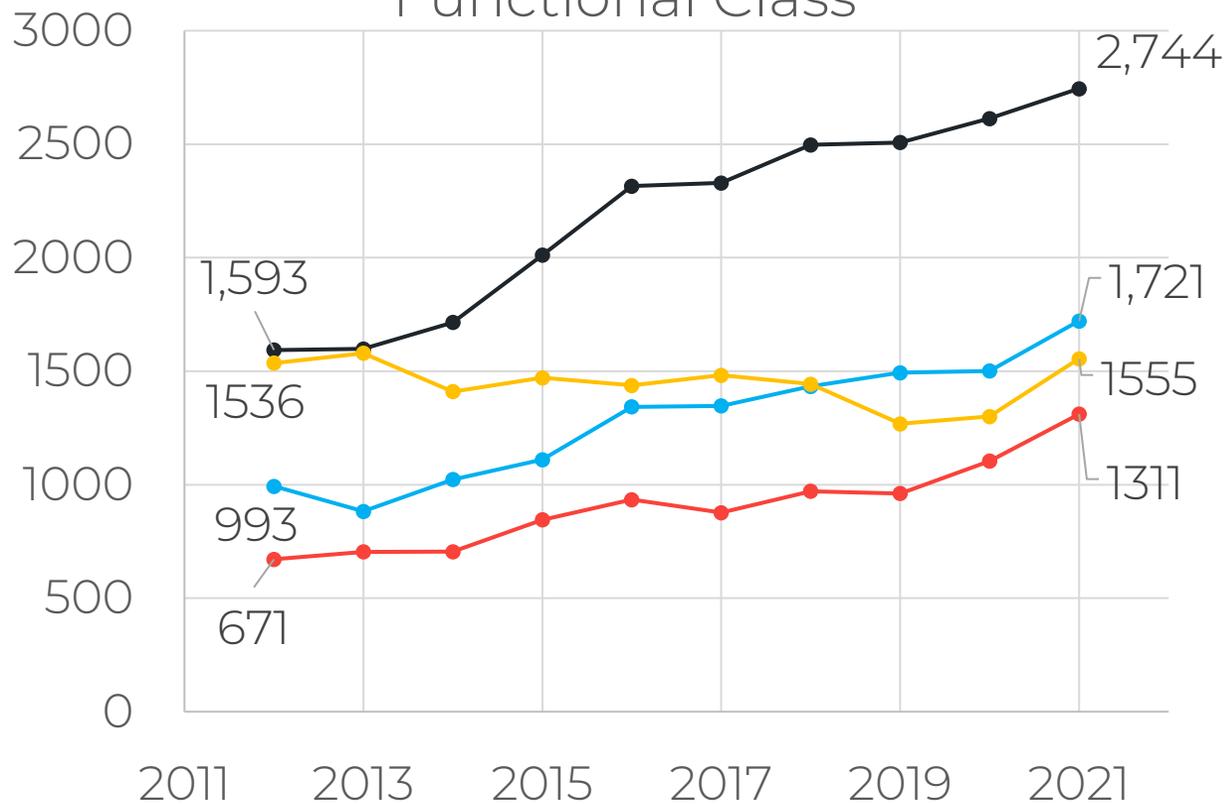
(Source: NHTSA FARS)



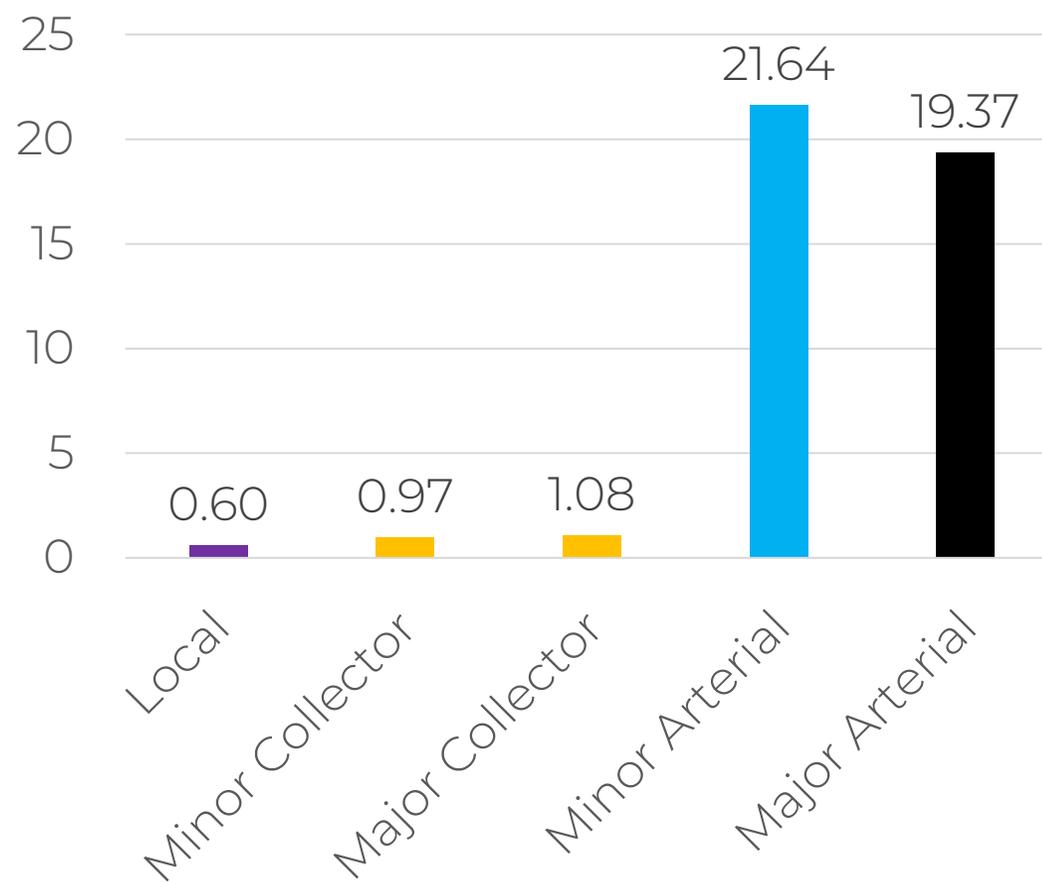
Factors Driving Increase – Functional Class

- 71% increase in US arterial road ped/bike deaths

US Pedestrian Deaths by Functional Class



Kansas Local Road VRU Crash Representation Ratio by Functional Class



● Freeway ● Principal arterial
● Minor arterial ● Collector/Local

(Source: NHTSA FARS)

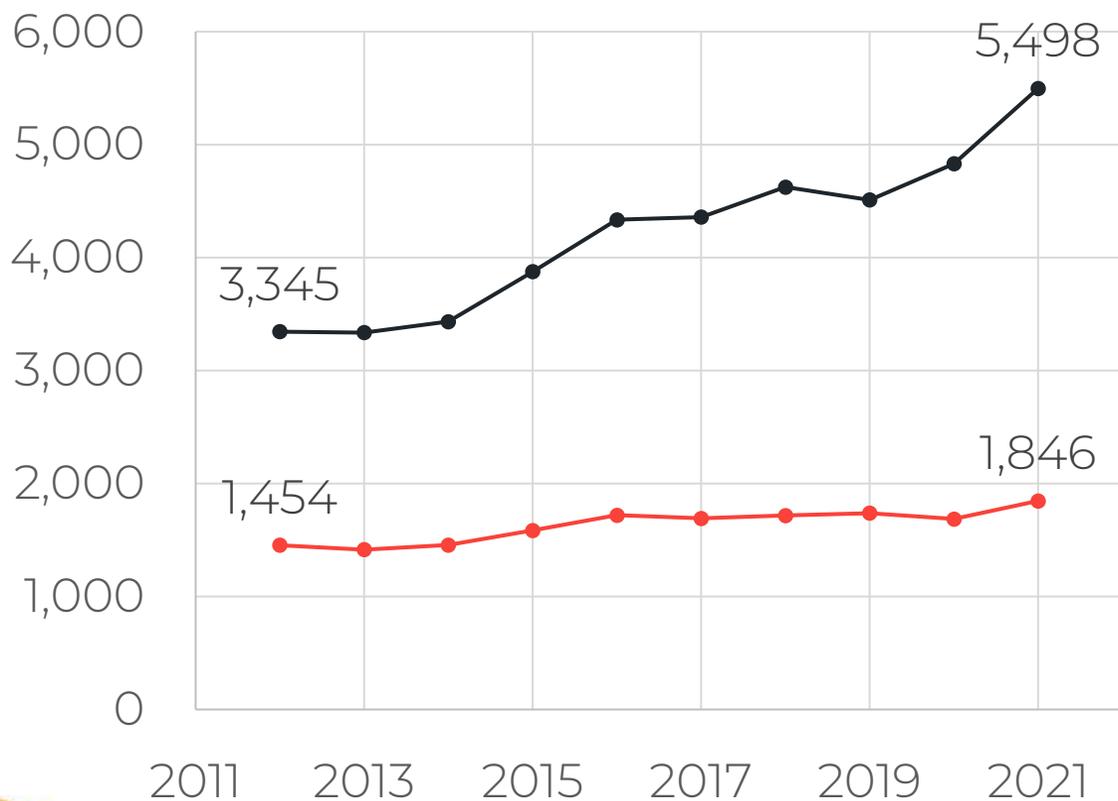




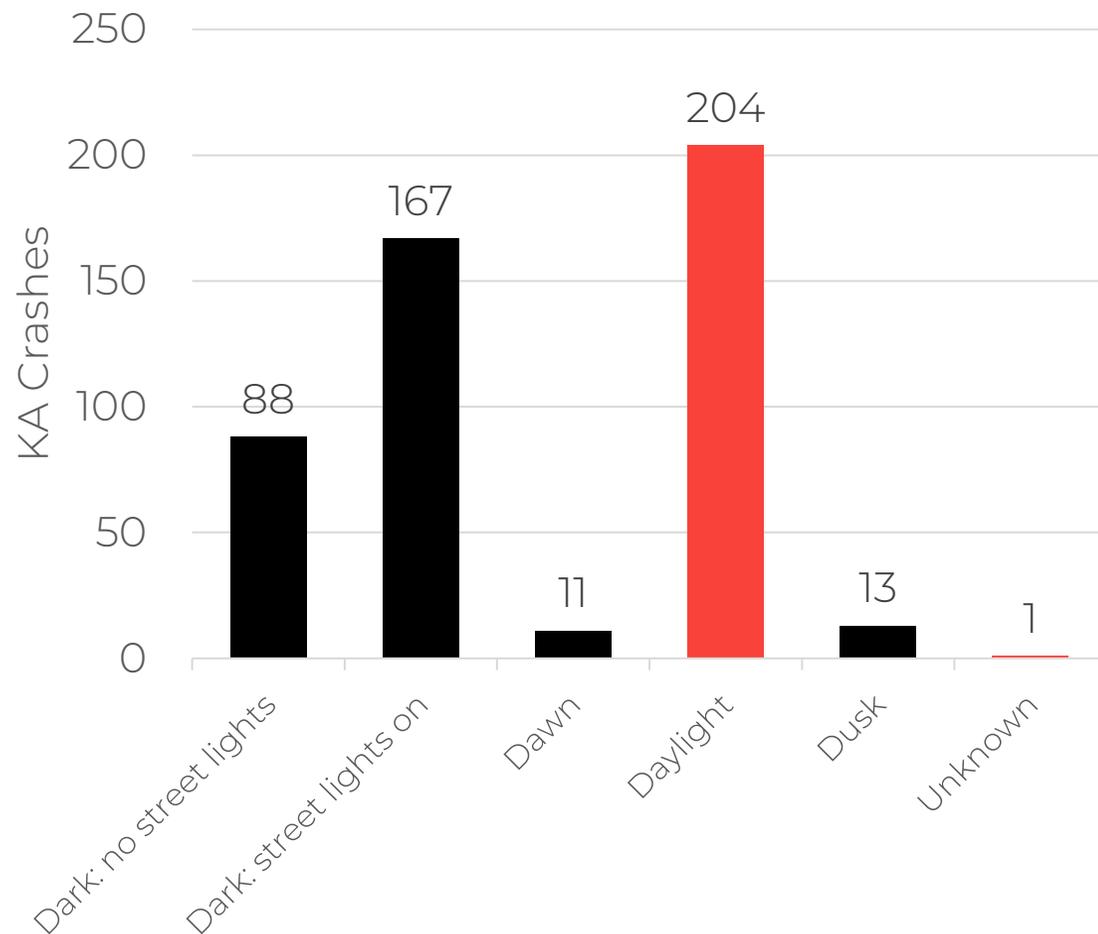
Factors Driving Increase - Light Condition

- 64% increase in nighttime pedestrian deaths

US Pedestrian Deaths by Day/Night



Kansas Pedestrian VRU KSI Crashes by Road Lighting Condition



—● Daytime —● Nighttime

(Source: NHTSA FARS)

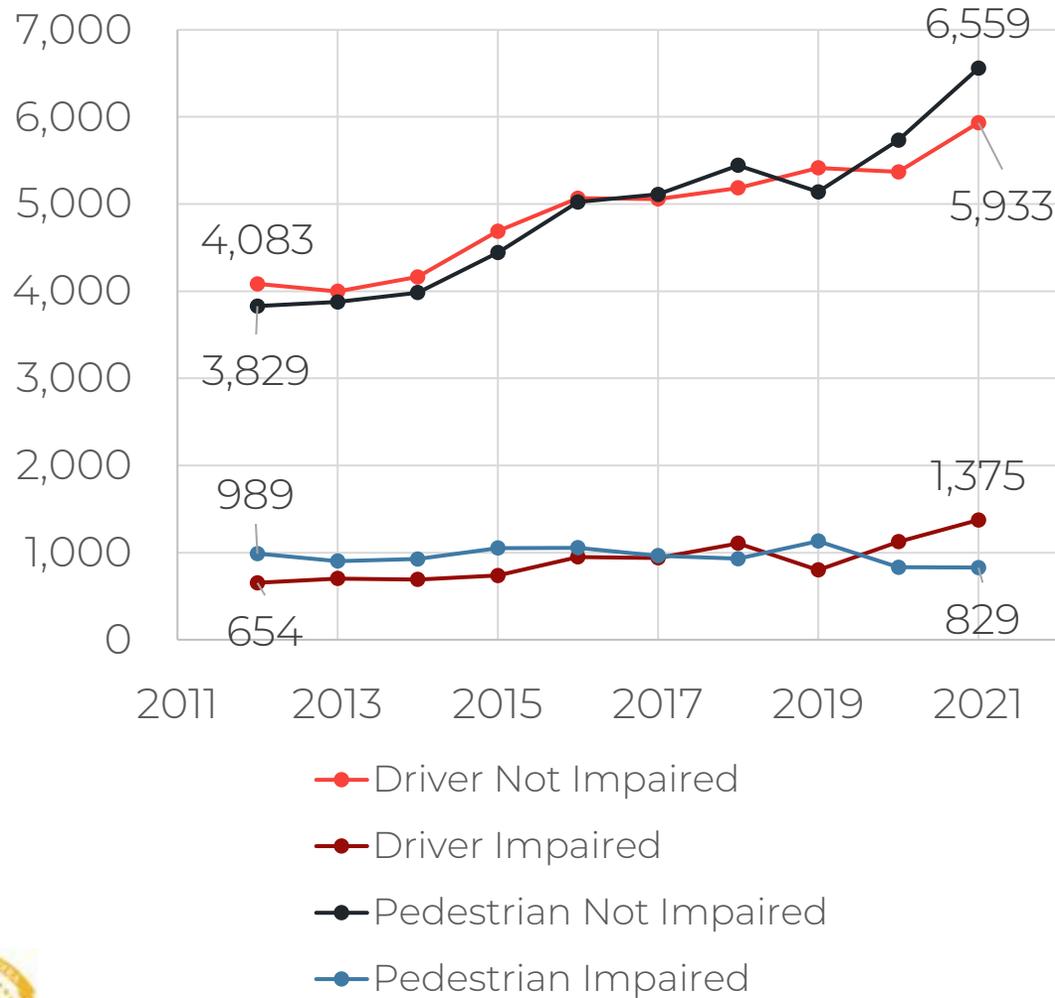
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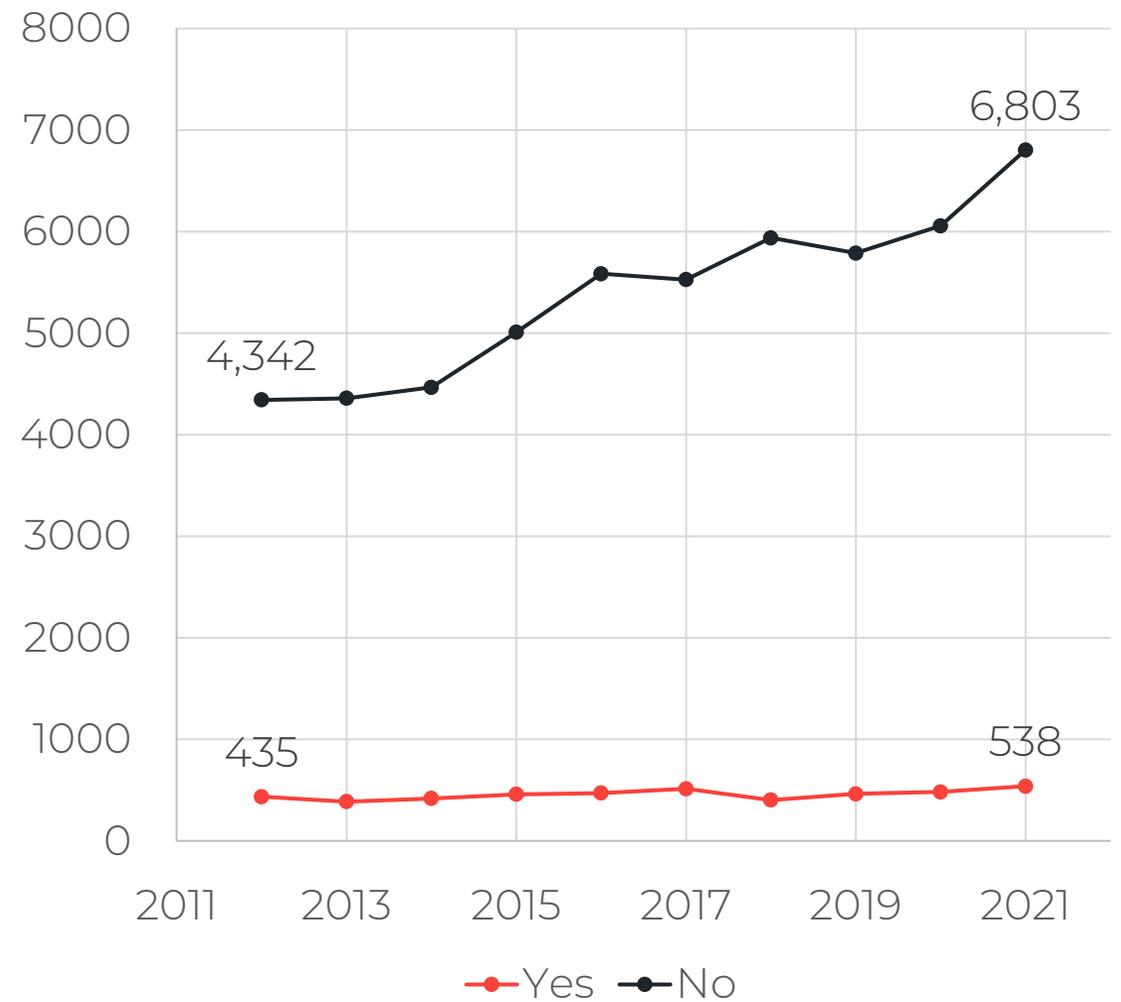


Factors Driving Increase – Distraction & Impairment

US Pedestrian Fatal Crashes by Impairment



US Pedestrian Fatal Crashes Involving Distracted Drivers



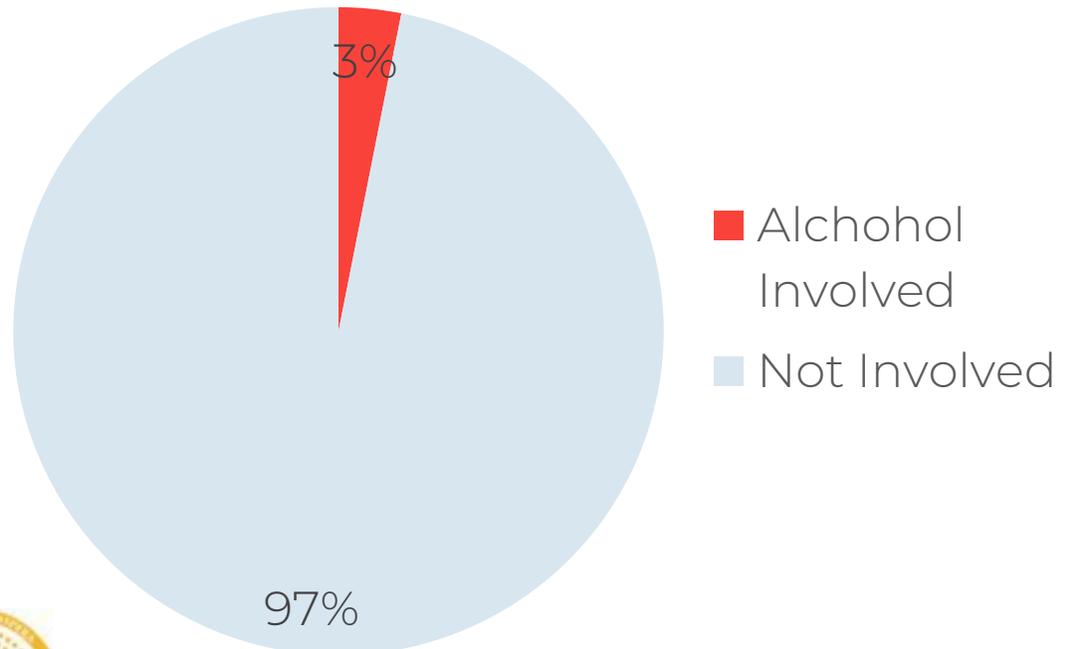
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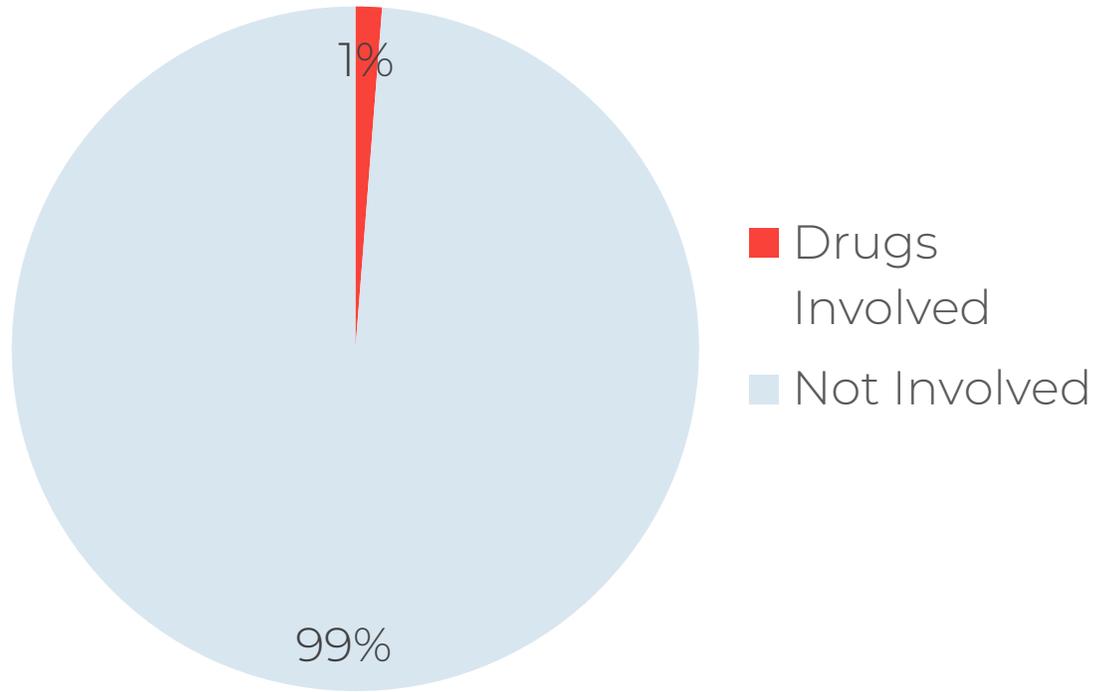
Factors Driving Increase – Impairment & Distraction

- Only ~4% of pedestrians were under the influence of drugs/alcohol
- Only ~6% of pedestrians were distracted

Kansas Pedestrian VRU KSI Crashes by Alcohol Involvement



Kansas Pedestrian VRU KSI Crashes by Drug Involvement





What is the highest risk type of place to walk or bike today?

4-lane undivided arterial street with transit in an urban disadvantaged census tract with a 30 to 35-mph speed limit and moderate traffic.



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Not just numbers



What are we doing about this issue?



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Kansas Strategic Highway Safety Plan



- Strategic Highway Safety Plan



- Includes “Emphasis Area Teams” (EAT)



- First Pedestrian & Cyclist EAT Convened in 2018 for development of 2020 – 2024 SHSP



- 2024 – 2028 SHSP Update process begins in 2023 and will be informed by this study



KANSAS

Strategic Highway Safety Plan

2020-2024





Kansas Active Transportation Plan

- Previous Active Transportation Plan completed in 1995
- The Active Transportation Plan update was finalized in Feb. 2023. Updates include:
 - Planning Toolkit for Small and Medium Sized Communities
 - Active Tourism Toolkit
 - Economic Impact Analysis
 - Active Transportation Benefit-Cost Tool
 - Crash Analysis
- Called for more detailed data-driven analysis of safety





National Roadway Safety Strategy



- USDOT developed National Road Safety Strategy in 2022



- Strategy noted:



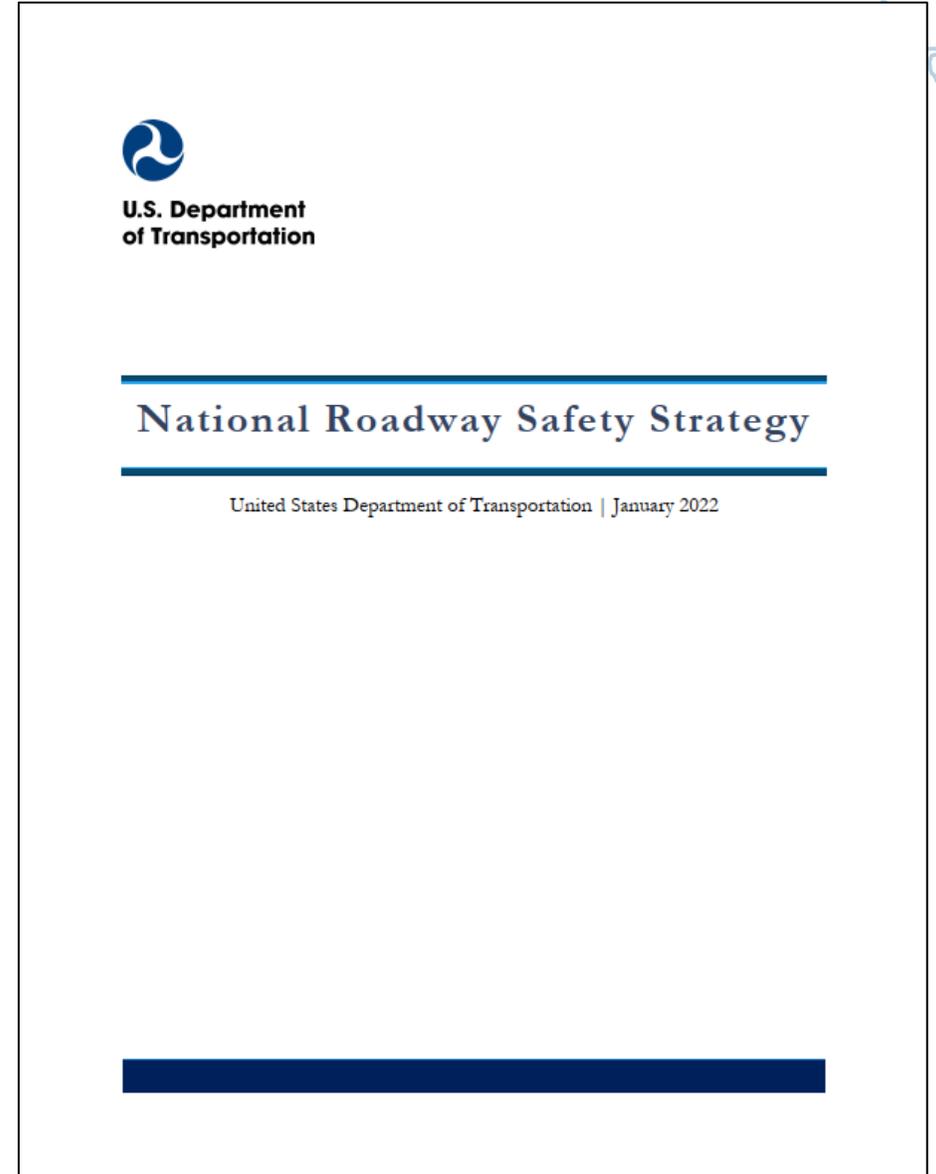
- Roadway fatalities and the fatality rate declined consistently for 30 years, but progress has stalled over the last decade and went in the wrong direction in 2020.



- Fatalities among all users have been increasing. Fatalities among pedestrians and cyclists have been increasing even faster.



- Formalized the support for the Safe System Approach.



Safe System Approach

- Death and serious injury is unacceptable.
- Humans are vulnerable.
- Humans make mistakes.
 - Behaviors are shaped by the system in which the person operates.
- Focus on the system, not on the individual:
 - Shared Responsibility
 - Redundancy is crucial





Bipartisan Infrastructure Law



Vulnerable Road User Safety Assessment described in 23 U.S.C. 148(l), as amended by the Infrastructure Investment and Jobs Act (IIJA) (Pub. L. 117-58, also known as the “Bipartisan Infrastructure Law” (BIL)).



All States are required to develop a Vulnerable Road User Safety Assessment as part of their Highway Safety Improvement Program (HSIP) in accordance with 23 U.S.C. 148(l).

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Memorandum

Subject: **ACTION:** Vulnerable Road User Safety Assessment Guidance (Due date: November 15, 2023)

Date: October 21, 2022

From: Cheryl J. Walker 
Associate Administrator, Office of Safety

In Reply Refer To:
HSSP

To: Division Administrators

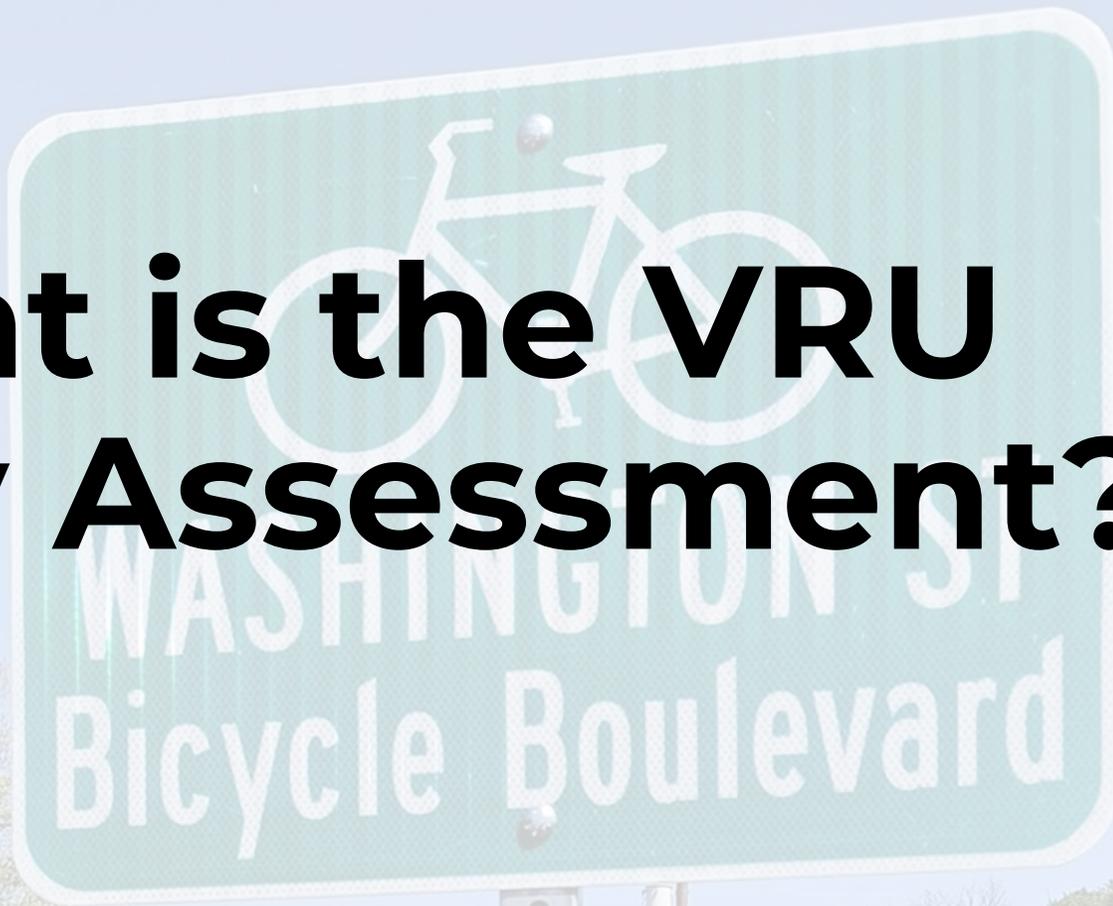
Purpose

The purpose of this memorandum is to provide background and guidance to clarify the requirements for the Vulnerable Road User Safety Assessment as described in 23 U.S.C. 148(l), as amended by the Infrastructure Investment and Jobs Act (IIJA) (Pub. L. 117-58, also known as the “Bipartisan Infrastructure Law” (BIL)). All States are required to develop a Vulnerable Road User Safety Assessment as part of their Highway Safety Improvement Program (HSIP) in accordance with 23 U.S.C. 148(l).

This guidance also incorporates principles consistent with the Federal Highway Administration’s (FHWA) [Policy on Using Bipartisan Infrastructure Law Resources to Build a Better America](#), dated December 16, 2021.

Except for the statutes and regulations cited, the contents of this document do not have the force and effect of law and are not meant to bind the States or the public in any way. This document is intended only to provide information regarding existing requirements under the law or agency policies.

What is the VRU Safety Assessment?



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Engagement - Safety Workshops

- 16 Workshops in two rounds
- 100 cities, counties, and other agencies consulted





Areas with Lower Risk

- 21% - 72% **lower** crash rate per 100k residents and VRU trips than the state average

Cities with Under-representation of KA Crashes	Total KA Crashes	KA Crashes per 100k Residents	KA Crashes per Million VRU Trips
Hays	2	9.5	0.09
Ottawa	2	15.8	0.12
Augusta	2	21.6	0.22
Pittsburg	3	14.5	0.10
Gardner	3	12.9	0.18
Newton	5	26.9	0.21
Statewide	1,005	34.2	0.32





Areas with Lower Risk: Keys to Success



1. Long-Term Commitment to VRU Safety



- Broad community, elected official, and staff buy-in for safety
- Highlight Co-Benefits of Safety Projects



2. Comprehensive Planning



- Pedestrian and Bicycle Master Planning
- Asset Management Inventory
- ADA Transition Planning
- Safe Routes to Schools



3. Implementing the Plans - Focus on Infrastructure

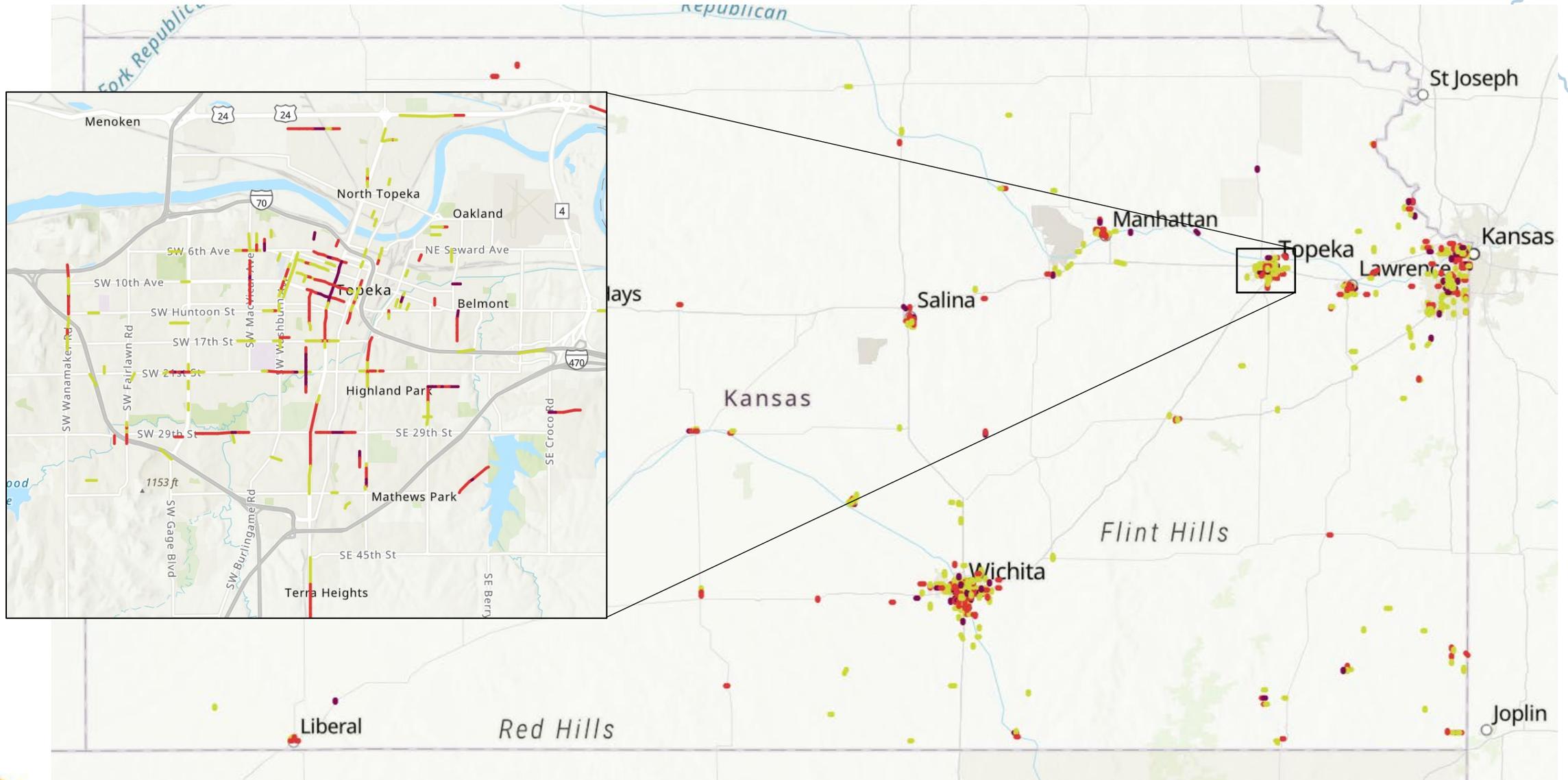


- Road Diets – Reconfiguring 4-lane undivided roads
- Roundabouts
- Street Lighting
- Sidewalks & Trails
- Enhanced Crosswalks (e.g., street lighting, actuated warning beacons like RRFB, HAWK)





Data Analysis - High Injury Network (historical approach)





High Injury Network

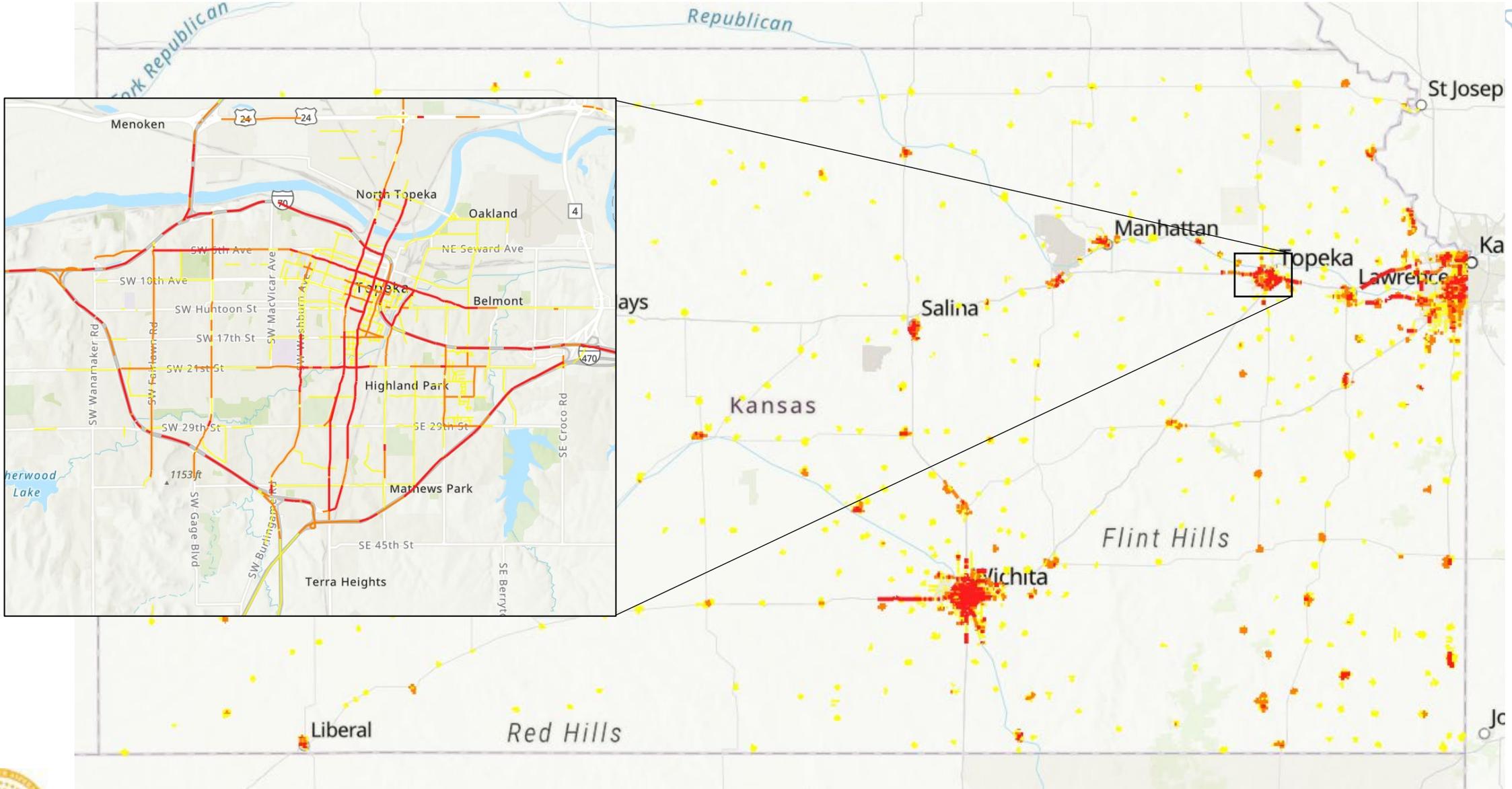
- 72% of all fatal and serious injury VRU crashes happened on 394 miles (0.28%) of Kansas roads.
- HIN segments are 2.9x more likely to be in a disadvantaged area
 - Most disadvantaged areas in KS are based on **Environmental Burdens** like air pollution and **Social Vulnerability** like poverty)

	KA Crashes		Centerline Miles	
	KA Crashes	% of KA Crashes	Total Miles	% of Total Miles
Highest Priority HIN	323	31%	59	0.04%
High Priority HIN	282	27%	138	0.10%
Medium Priority HIN	138	13%	197	0.14%
Entire HIN	743	72%	394	0.28%
Statewide	1,034	100%	141,005	100%

<u>Disadvantaged Areas (DA)</u>	Miles not in DA	Miles in DA	% in DA
Highest Priority HIN	27	32	54%
High Priority HIN	69	69	50%
Medium Priority HIN	116	81	41%
Entire HIN	212	182	46%
Statewide	118,094	22,910	16%



Data Analysis - High Risk Network (predictive approach)





High Risk Network



• Highest risk local urban roads have a crash rate 27x higher than lowest risk roads



• Highest risk local urban roads are 5.4x more likely to be in a disadvantaged area (DA)



• Highest risk roads encompass 317 miles (0.20%) of Kansas roads (181 local system miles, 136 state system miles)



Urban Local Street HRN Statistics



Risk Category	Roadway Miles	% Roadway Miles	% Miles in DA	KA Crashes	KA Crash Per 100 Miles
Lowest	8,375	73%	20%	210	2.5
Lower	2,201	19%	68%	249	11.3
Moderate	550	5%	27%	108	19.7
Higher	238	2%	35%	63	26.4
Highest	139	1%	86%	95	68.2





DRAFT Recommendations – SHSP Update

Consider these recommendations in the next update to the SHSP:

- 1. Safe System Alignment:** The Pedestrians and Cyclists Emphasis Area Team (EAT) should be restructured to focus recommendations and actions to fit within the Safe System Approach.
- 2. Integrated VRU Safety Planning:** VRU safety concerns should be fully integrated within all the other EATs.
- 3. Public Education on VRU Issues:** The Pedestrians and Cyclists EAT should consider the development of a statewide campaign to educate elected officials, city and county staff, law enforcement departments, and the public on the safety issues and solutions to improve VRU safety.
- 4. Conduct Strategy Evaluations:** The Pedestrians and Cyclists EAT should regularly evaluate the effectiveness of SHSP strategies and initiatives.



Recommendations include over 20 additional strategies that the next SHSP team should consider for VRU safety.





DRAFT Recommendations – Program Guidance

- Develop a new VRU safety program
- Proactively identify a program of projects and strategies to reduce the safety risks for VRUs in high-risk areas, specifically on the local roads.
- Program based on a multi-step process, including:
 - Developing a prioritization framework (using HIN and HRN)
 - Proactively identifying projects (prioritized by higher-risk areas and disadvantaged census tracts)
 - Identifying eligible applicants
 - Identifying project eligibility
 - Funding projects
 - Fostering agency coordination
 - Providing communications and outreach about the program
 - Monitoring the performance





U.S. Department
of Transportation

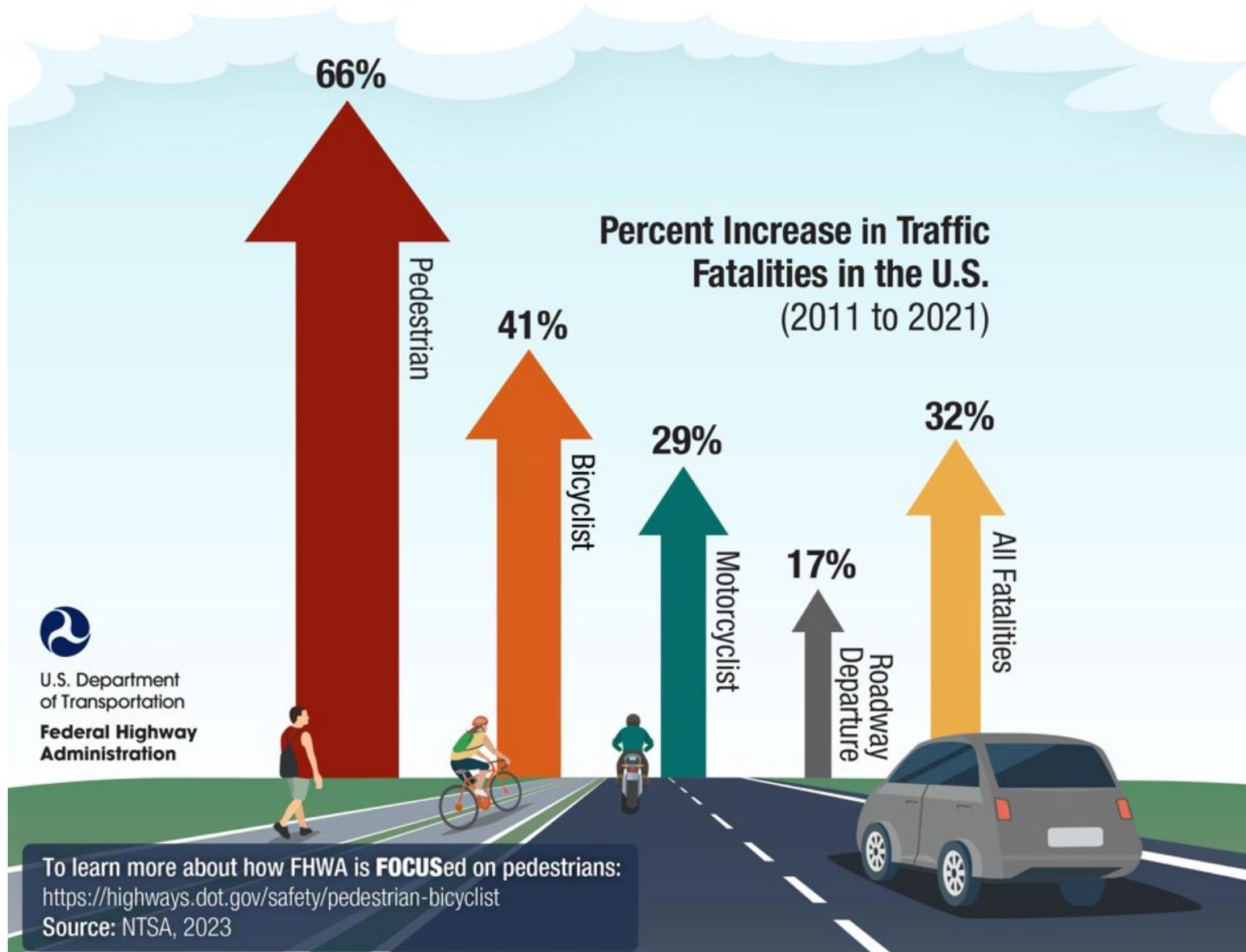
**Federal Highway
Administration**

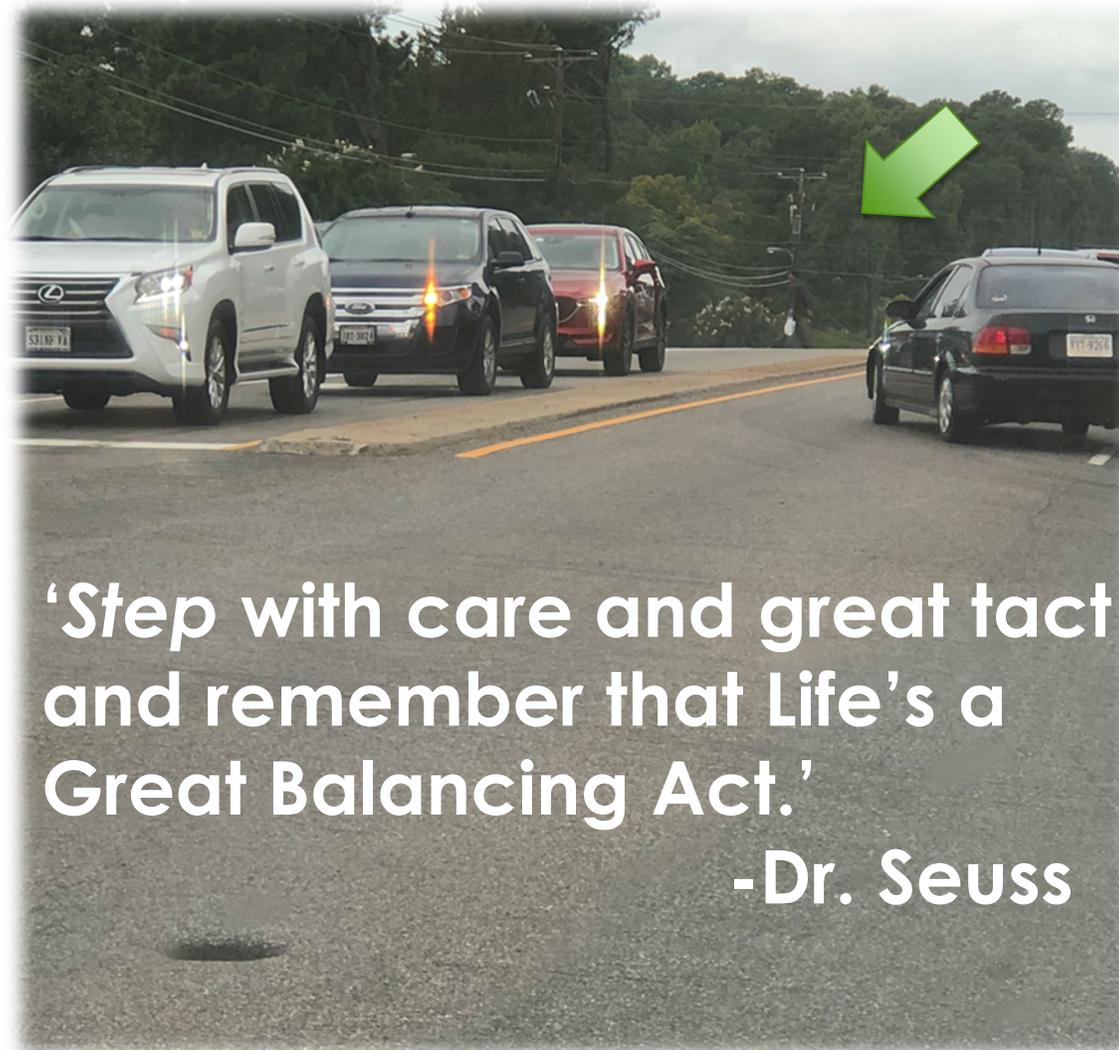


STEP

Safe Transportation for Every Pedestrian







**'Step with care and great tact
and remember that Life's a
Great Balancing Act.'
-Dr. Seuss**

Source: FHWA



'The first step in solving a problem is to recognize it does exist.'

-Zig Zigler

“Every Day Counts” (EDC)

State-based model to identify and rapidly deploy proven, but underutilized innovations

- ✓ shorten the project delivery process
- ✓ **enhance roadway safety**
- ✓ reduce congestion
- ✓ improve environmental sustainability

4th Round (2017-2018)

5th Round (2019-2020)

STEP

Safe Transportation for Every Pedestrian

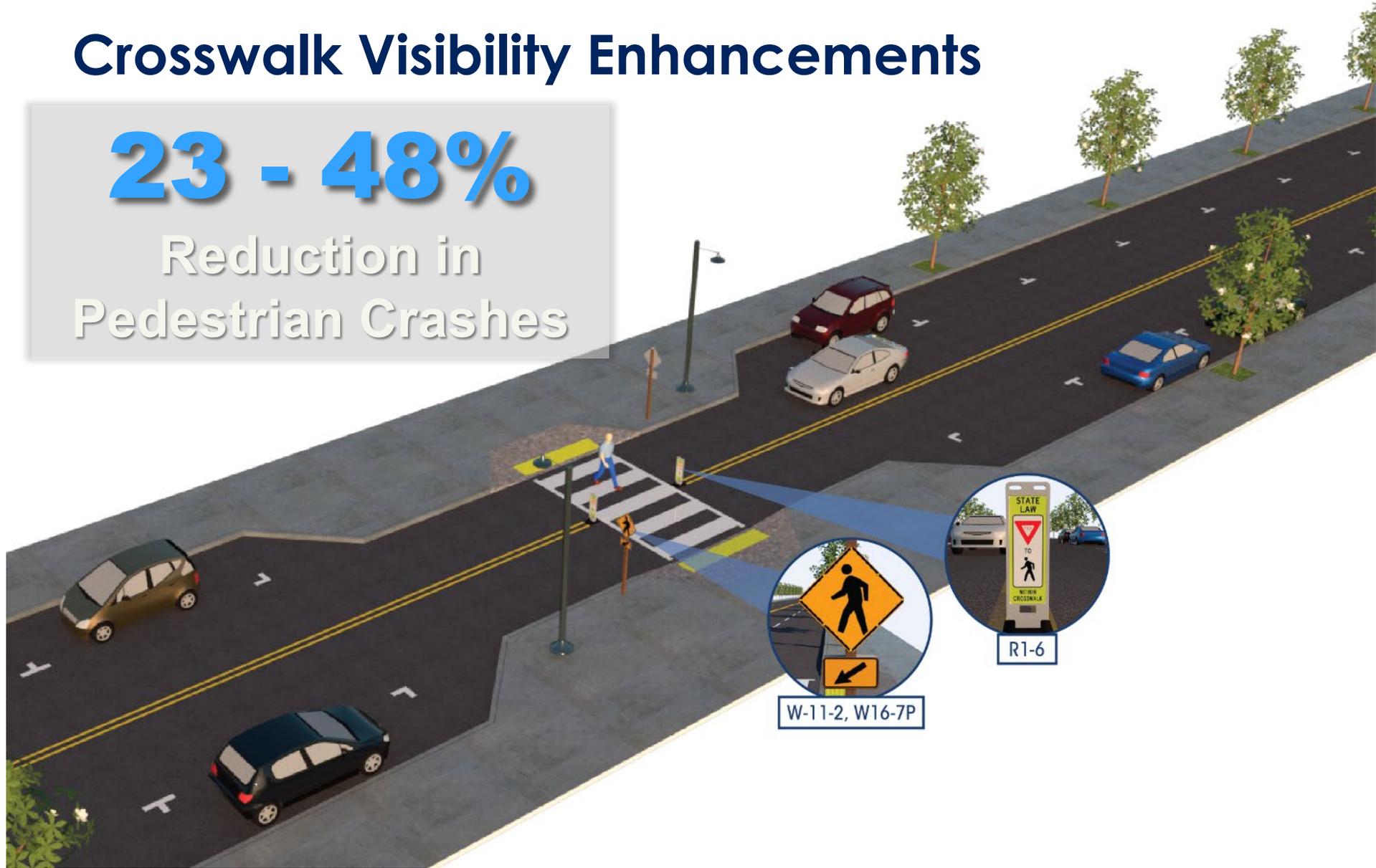


The Spectacular Seven

Crosswalk Visibility Enhancements

23 - 48%

Reduction in
Pedestrian Crashes

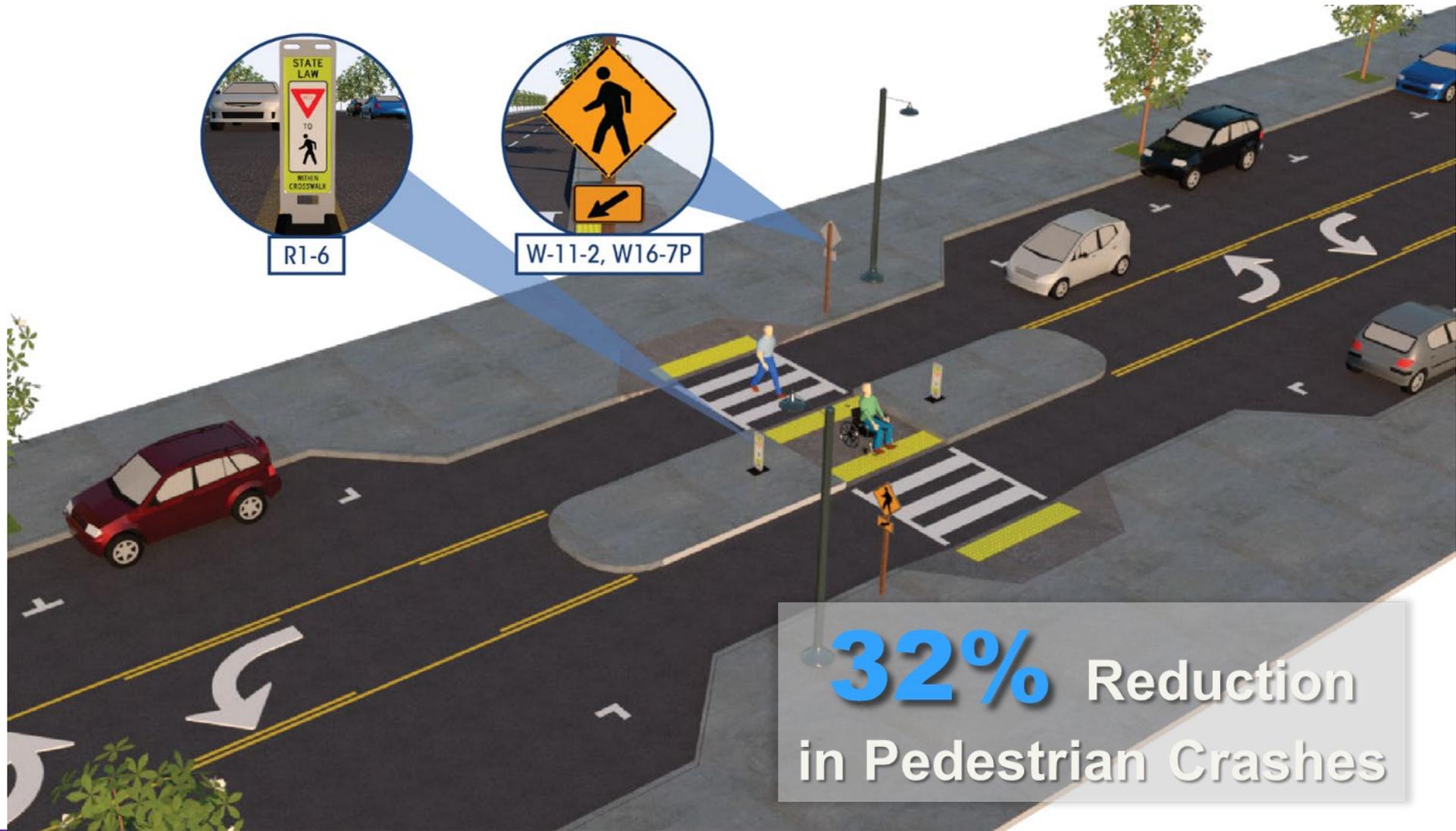


Raised Crosswalks



45% Reduction
in Pedestrian Crashes

Pedestrian Refuge Island



32% Reduction
in Pedestrian Crashes

Rectangular Rapid Flashing Beacon



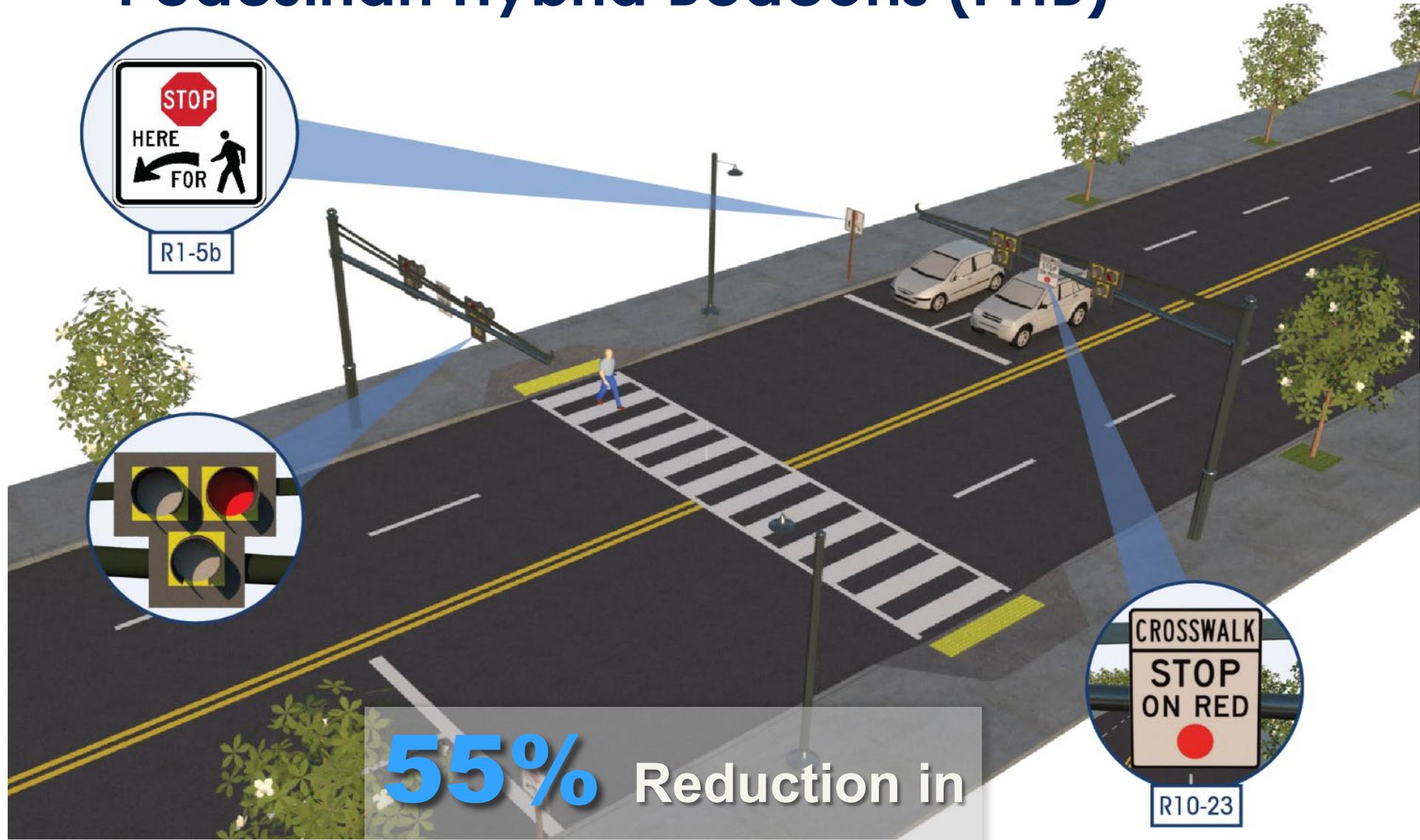
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R1-5

47% Reduction
in Pedestrian Crashes

Pedestrian Hybrid Beacons (PHB)

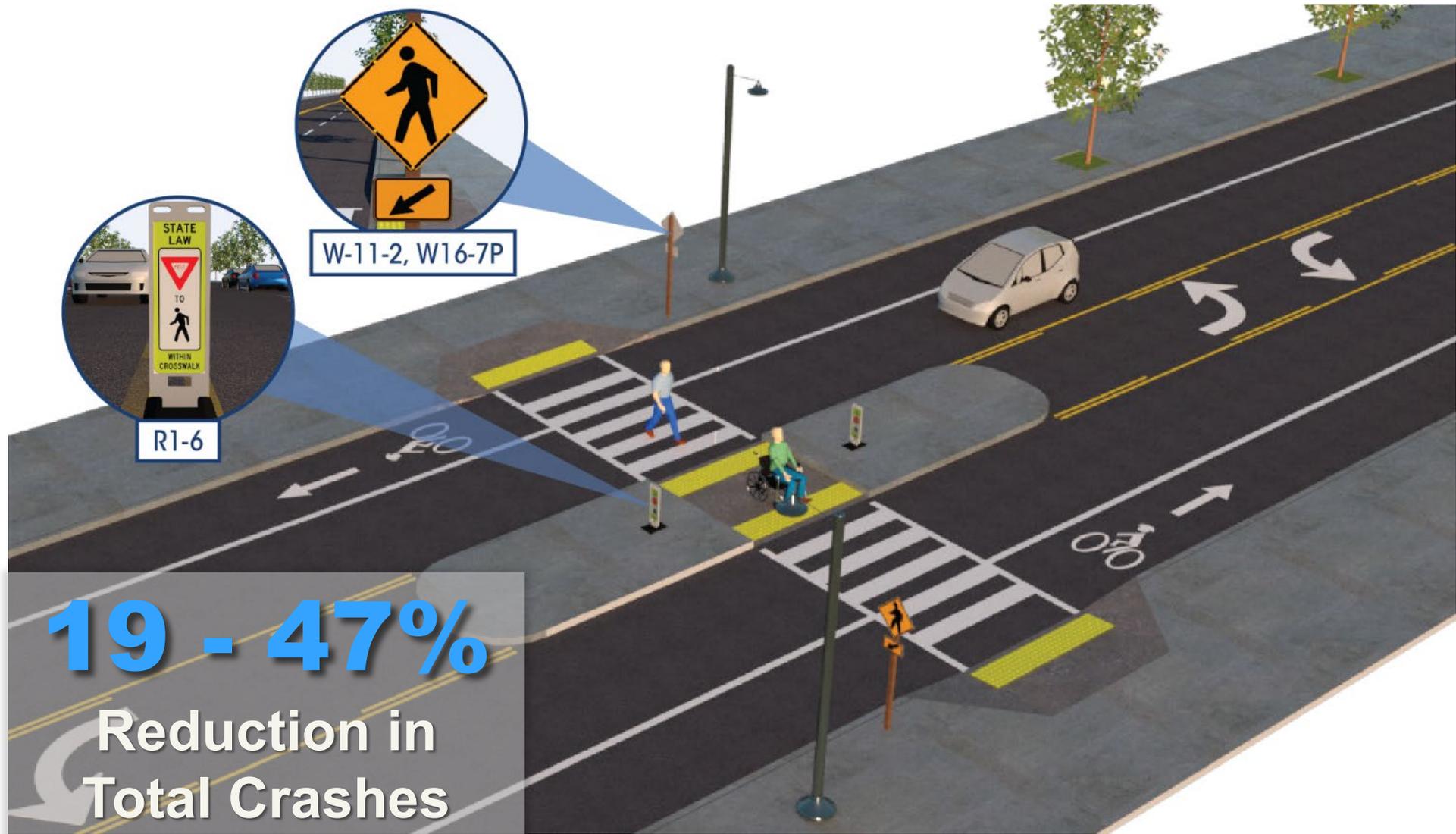


55% Reduction in
Pedestrian Crashes

Road Diet: Before



Road Diet: After



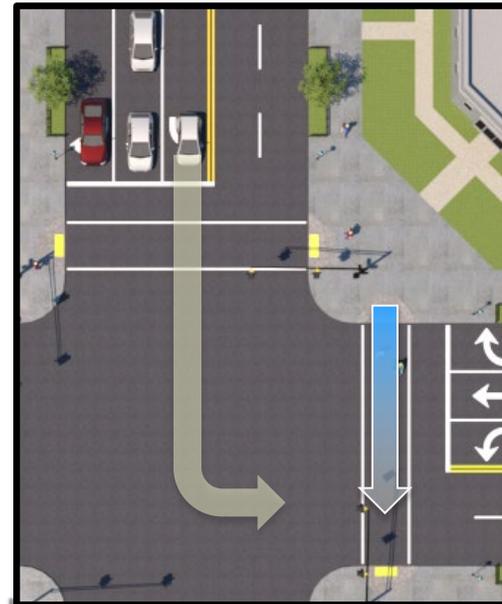
19 - 47%

Reduction in
Total Crashes

Leading Pedestrian Interval



3+ Second
Advance Start



13% Reduction in
Pedestrian Crashes

Resources

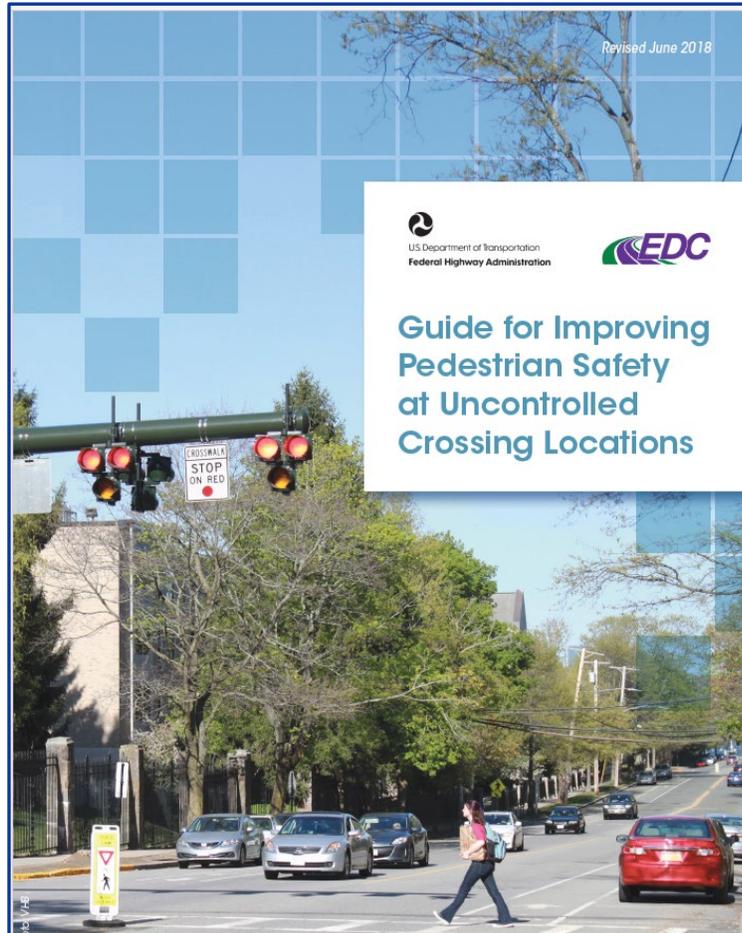


Table 1. Application of pedestrian crash countermeasures by roadway feature.

Roadway Configuration	Posted Speed Limit and AADT								
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph
2 lanes (1 lane in each direction)	① 2 4 5 6	① 5 6 7 9	① 5 6 7 9	① 4 5 6 7 9	① 5 6 7 9	① 5 6 7 9	① 4 5 6 7 9	① 5 6 7 9	① 5 6 7 9
3 lanes with raised median (1 lane in each direction)	① 2 3 4 5	① ③ 5 7 9	① ③ 5 7 9	① ③ 4 5 7 9	① ③ 5 7 9	① ③ 5 7 9	① ③ 4 5 7 9	① ③ 5 7 9	① ③ 5 7 9
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	① 2 3 4 5 6 7 9	① ③ 5 6 7 9	① ③ 5 6 7 9	① ③ 4 5 6 7 9	① ③ 5 6 7 9	① ③ 5 6 7 9	① ③ 4 5 6 7 9	① ③ 5 6 7 9	① ③ 5 6 7 9
4+ lanes with raised median (2 or more lanes in each direction)	① ③ 5 7 8 9	① ③ 5 7 8 9	① ③ 5 7 8 9	① ③ 5 7 8 9	① ③ 5 7 8 9	① ③ 5 7 8 9	① ③ 5 7 8 9	① ③ 5 7 8 9	① ③ 5 7 8 9
4+ lanes w/o raised median (2 or more lanes in each direction)	① ③ 5 6 7 8 9	① ③ 5 6 7 8 9	① ③ 5 6 7 8 9	① ③ 5 6 7 8 9	① ③ 5 6 7 8 9	① ③ 5 6 7 8 9	① ③ 5 6 7 8 9	① ③ 5 6 7 8 9	① ③ 5 6 7 8 9

Given the set of conditions in a cell,
 # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.
 ● Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.
 ○ Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.*
 The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.

- 1 High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs
- 2 Raised crosswalk
- 3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
- 4 In-Street Pedestrian Crossing sign
- 5 Curb extension
- 6 Pedestrian refuge island
- 7 Rectangular Rapid-Flashing Beacon (RRFB)**
- 8 Road Diet
- 9 Pedestrian Hybrid Beacon (PHB)**

Resources

https://safety.fhwa.dot.gov/ped_bike/step/resources/

Pedestrian Hybrid Beacon (PHB)

SAFE TRANSPORTATION FOR EVERY PEDESTRIAN
COUNTERMEASURE TECH SHEET



A Pedestrian Hybrid Beacon head consists of lenses above a single yellow lens. Unlike the PHB rests in dark until a pedestrian or pushbutton or other form of detection. When the beacon displays a sequence of flashing lights that indicate the pedestrian walk is safe for drivers to proceed (see figure).

The PHB is often considered for installation

SAFE TRANSPORTATION FOR EVERY PEDESTRIAN CASE STUDY



Publicly-Supported Road Diet Reduces Speeds in Alexandria

Alexandria Department of Transportation and Environmental Services

.....

KEY ELEMENTS:

-  Public support
-  Speed reduction

Community members can provide valuable insights into pedestrian safety on their streets, adding support to local projects such as the King Street Road Diet in Alexandria, Virginia. The City of Alexandria's Complete Streets policy requires that city maintenance and capital projects improve the transportation network for all users, so when a 1.8 mile segment of King Street was slated for resurfacing, the city had an opportunity to address longstanding community concerns and seek feedback on design options for improving the corridor.

stops, and upgraded curb ramps. Staff also presented options for more comprehensive corridor improvements such as a Road Diet, buffered bike lanes, new crosswalks, vehicle turning restrictions, and crosswalk visibility enhancements. In addition to dedicated space for bicyclists and shorter, safer pedestrian crossings at seven locations, the city also identified driver benefits from slower vehicle speeds, increased sight distance, and the addition of a center turn lane.



This section of King Street has a bus line, residences, multiple churches, a

STEP STUDIO

Tools for selecting and implementing countermeasures
for improving pedestrian crossing safety



U.S. Department of Transportation
Federal Highway Administration



Table 3 Implementation & Operations Considerations



	High Visibility Crosswalk Marking	In-Street Sign	Advance Yield or Stop Sign and Marking	Parking Restrictions on Crosswalk Approach	Curb Extension	Improved Nighttime Lighting	Raised Crosswalk	Pedestrian Refuge Island	Rectangular Rapid-Fashing Beacon (RRFB)	Road Diet	Pedestrian Hybrid Beacon (PHB)	Leading Pedestrian Interval (LPI)	Other Pedestrian Signal Options
Primary Safety Issues Addressed													
Reduce crashes at crossing locations	CRF: 48% (Peds)	UNK	CRF: 25% (Peds)	CRF: 30% (Peds)	UNK	CRF: 23% (Peds)	CRF: 45% (Peds)	CRF: 32% (Peds)	CRF: 47% (Peds)	CRF: 19-47% (all crashes)	CRF: 55% (Peds)	CRF: 13% (Peds)	CRF: 25% (Peds - Ped Countdown Signal)
Reduces vehicle speeds					✓		✓			✓			✓
Improves conspicuity/visibility	✓	✓	✓	✓	✓	✓	✓		✓			✓	
Improves separation from traffic					✓			✓		✓			
Installation Priorities													
Higher Pedestrian Volumes	✓						✓				✓	✓	✓
Public Response / Education							✓		✓	✓	✓		
Midblock (non-Intersection) Location	✓	✓	✓		✓	✓	✓	✓	✓		✓		✓
Intersection Location					✓	✓	✓	✓		✓		✓	✓
Multi-Lane Crossings			✓					✓	✓	✓	✓		
Operations & Maintenance Considerations													
Transit / Emergency Vehicles	✓				✓		✓			✓			
Snow Removal					✓		✓	✓					
Drainage					✓		✓	✓					
Traffic & Bicycle Operations					✓					✓	✓	✓	✓
Push Button Maintenance									✓		✓		✓
MUTCD Reference	3B.18 2C.50	2B.12	3B.16 2B.11	2B.46 3B.19 3B.23			3B.25	3B.10 3B.23 3B.18	2C.50 7B.08 1A-21		Figure 4F-1 Figure 4F-2 Part 4F	4E.06	

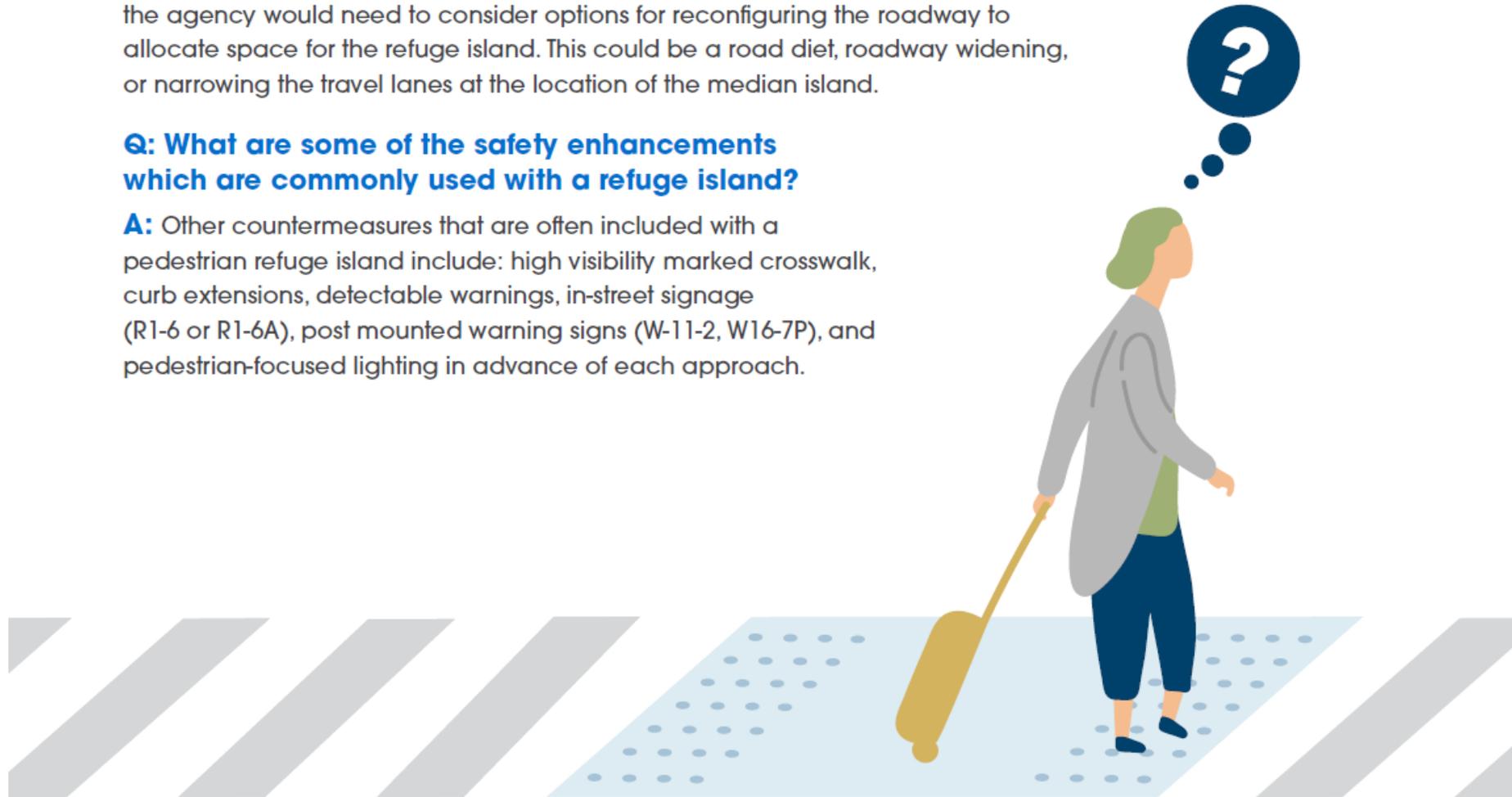
Pedestrian Refuge Island FAQs

Q: Can you use a pedestrian refuge island with a 4 lane undivided roadway? If so, how?

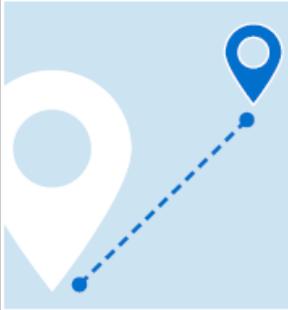
A: To include a pedestrian refuge island within a four lane undivided roadway, the agency would need to consider options for reconfiguring the roadway to allocate space for the refuge island. This could be a road diet, roadway widening, or narrowing the travel lanes at the location of the median island.

Q: What are some of the safety enhancements which are commonly used with a refuge island?

A: Other countermeasures that are often included with a pedestrian refuge island include: high visibility marked crosswalk, curb extensions, detectable warnings, in-street signage (R1-6 or R1-6A), post mounted warning signs (W-11-2, W16-7P), and pedestrian-focused lighting in advance of each approach.



STEM Lessons



Can I Get There from Here?

A safe way to cross the street is important when walking between different places in a city. The longer it takes someone to cross the street, the greater a chance for them to be struck by a car. Participants will discover strategies that can be used at crossings that improve safety for people walking.



Format: 20-minute activity to complete on a rolling basis at an all-come event (e.g., Family STEM Night)



Audience: Suitable for all ages (including adults)

Supplies

- ▶ Bucket or box
- ▶ Construct crosswalk on floor from one or combination of following:
 - ▶ Rectangular sections of white paper
 - ▶ Tape outlines of crosswalk bars
 - ▶ Long black roll of paper with white crosswalk bars colored or pasted on
- ▶ Gray poster board cut into an oval the same width as the crosswalk
- ▶ Masking tape or strips of white paper to indicate new end point of crosswalk for road diet
- ▶ Spinning device (choose one option):
 - ▶ If a laptop or tablet is available, set up using wheeldecide.com.
 - ▶ Spinner made from poster board /brad fastener/paperclips

Supplemental Materials

- ▶ Visual aid: PDF file with one-way WALK and DON'T WALK signs
- ▶ Visual aid: PDF file with 6 different silly street improvements
- ▶ Visual aid: PDF file of crosswalk floor layout with dimensions



STEM Lessons for Pedestrian Safety: Can I Get There from Here?

U.S. Department of Transportation
Federal Highway Administration

Activity Part 3: Participants then spin a wheel to "win" items to improve the crosswalk. These items are curb extension, road diet, and a refuge island. For each item won, the lesson leader shows the photo from Activity Part 2. Participants then place the prepared items on the crosswalk based on what they won and what they see in the images. White paper strips or tape are placed on the crosswalk to indicate the loss of one lane in each direction (road diet) and the gray oval poster board is placed in the center of the crosswalk (refuge island). With each combination of treatments, ask what effect these may have by looking at the crosswalk and thinking through the crossing.

Activity Part 4: The WALK/DON'T WALK activity is repeated from Activity Part 1 (can be shortened if needed). Ask students to guess the crossing time; then select students to measure the distances needed to cross. Compare the results with the numbers from Activity Part 1.

Optional: If there is a large group of participants, stagger their entry into the crossing. This will result in a game like the lava game or a similar activity.

Notes



Instructor Handout: Activity 2 - Better Crosswalk

Increasing VISIBILITY at MULTI-LANE CROSSINGS



Transportation
Administration



VIDEOS

‘Take the first *step*
in faith. You don't
have to see the
whole staircase,
just take the first
step.’

Martin Luther
King, Jr.



safety.fhwa.dot.gov/ped_bike/step
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Source: FHWA

Q&A

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<https://www.ksdot.gov/KansasATP.asp>



**WALK
BIKE
ROLL
KANSAS**

**VIRTUAL
SERIES**



Thank you!

Virtual Walk Bike Roll Virtual Series

**Next Session: Mobility and Access for All:
PROWAG and Active Transportation**

December 13 at 2:00 PM

Register Here: <https://events.r20.constantcontact.com/register/eventReg?oeidk=a07ejynkxsde0d01cf&oseq=&c=&ch=>

