



DES MOINES AREA MPO


Transportation Technical Committee Meeting

April 1, 2024



APPROVAL OF AGENDA

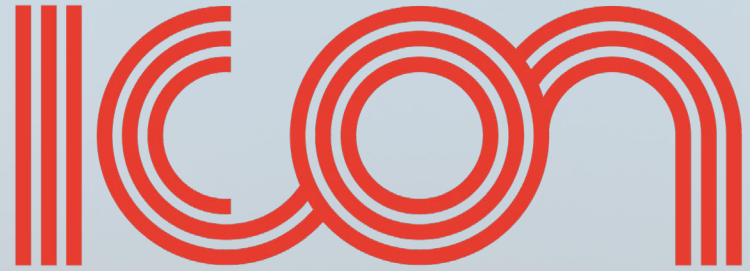
April 1, 2024, Agenda



1. Call to Order
2. VOTE: Approval of Agenda
3. VOTE: Approval of Meeting Minutes
4. PRESENTATION: Water Trails Update
5. PRESENTATION: Comprehensive Safety Action Plan Update
6. REPORT and VOTE: Carbon Reduction Program Funding Recommendation
7. REPORT and VOTE: Pavement Condition Data Collection
8. REPORT: FFY 2025-2028 Transportation Improvement Program Development
9. REPORT: Active Transportation Infrastructure Investment Program
10. REPORT: Upcoming Events
11. Other Non-Action Items of Interest to the Committee
12. Next Meeting Date – May 2, 2024 – 9:30 a.m.
13. Adjournment

APPROVAL OF MEETING MINUTES

PRESENTATION: WATER TRAILS UPDATE



IOWA CONFLUENCE WATER TRAILS



Safety
Economic
Development
Attract
Workforce
& Tourism
Environmental
Conservation
Outdoor
Recreation

Connecting Water.

WHY
WATER

Communities.

And People.

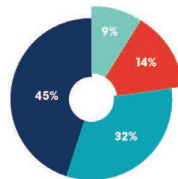
DOWNTOWN PROJECTS



THE NATURE CONNECTION:

SCOTT AVENUE DAM REGIONAL ATTRACTION

By modifying the dam and adding in-water features, The Nature Connection at Scott Avenue will enhance the most popular fishing spot in the state. Designs will be completed in 2021 with construction completed in 2024. Designs will include adding more natural access points, fish-cleaning stations, fish habitat and fish passage. Paddlers will be able to take advantage of a nature setting in the middle of an urban environment. The Nature Connection at Scott Avenue was the recipient of the 2019 Better Utilizing Investments to Leverage Development (BUILD) Grant.



SCOTT AVENUE DAM SUMMARY COSTS: \$45 MILLION

- Site Amenities:**
Upland amenities proposed to enhance the riverbanks
- Upland Improvements:**
Minimum upland improvements needed for access and portage
- Recreational Improvements:**
Whitewater drops, waveshapers, larger flashboards
- Dam Safing and Fish Passage:**
Total cost of the dam safing and fish passage



DOWNTOWN PROJECTS FLEUR

LEARN AND PLAY:

FLEUR DRIVE REGIONAL ATTRACTION

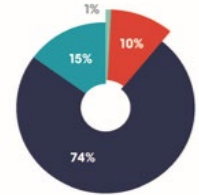
The Learn and Play project at Fleur Drive will leverage the redevelopment of Gray's Lake and Water Works Park by providing a safe space to learn and recreate in the water. A quieter area, children and adults alike will be able to play in the river, learn to surf and kayak.



Habitat Channel

Recreation Feature

Collapsible Flashboard



FLEUR DRIVE SUMMARY COSTS \$27 MILLION

- Site Amenities:** Upland amenities proposed to enhance the riverbanks
- Upland Improvements:** Minimum upland improvements needed for access and portage
- Recreational Improvements:** Whitewater drops, washshapers, larger flashboards
- Dam Safing and Fish Passage:** Total cost of the dam safing and fish passage



REGIONAL IMPACT



ECONOMIC SIGNIFICANCE

250K

VISITS

More than 250,000 visits to ICON's fifteen access points occurred during this six-month timeframe.

112

JOB

\$11M

SPENDING

Sectors including hotels, restaurants, and retail saw consumer spending north of \$11 million.

\$3.4M

WAGES

\$20M

OUTPUT

ICON access points yielded nearly \$20 million in total economic output in one season.

\$1.3M

TAXES





VALUE TO RECREATORS



\$12.7 MILLION

The access points generated non-market benefits of \$12.7 million in 2022.



\$16.7 MILLION

Recreational activities on ICON contributed to improved physical well-being, resulting in an estimated \$16.7 million reduction in healthcare costs.

KEY TAKEAWAYS



VISITOR ENGAGEMENT



LOCAL VS. NON-LOCAL DYNAMICS



ECONOMIC MULTIPLIERS



POLICY IMPLICATIONS



NON-MARKET BENEFITS



IOWA CONFLUENCE WATER TRAILS

**CONNECTING
WATER.
COMMUNITIES.
AND PEOPLE**



Thank you!

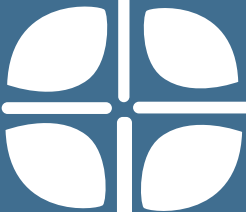
PRESENTATION: COMPREHENSIVE SAFETY ACTION PLAN UPDATE



DMAMPO

Comprehensive Safety Action Plan

- Crash Data Analysis Preliminary Findings
- Transportation Technical Committee
- April 1, 2024



01.

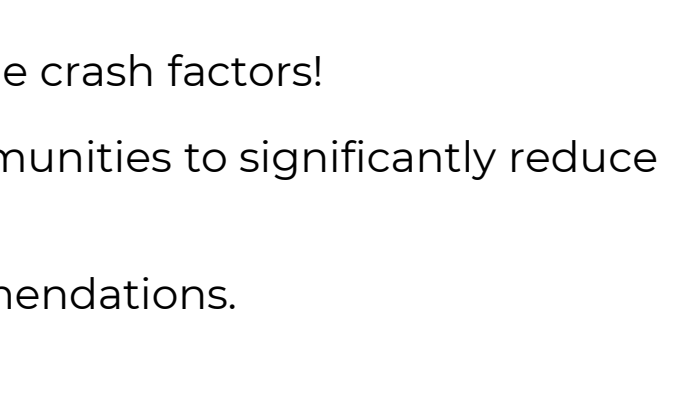
Introduction & Project Overview





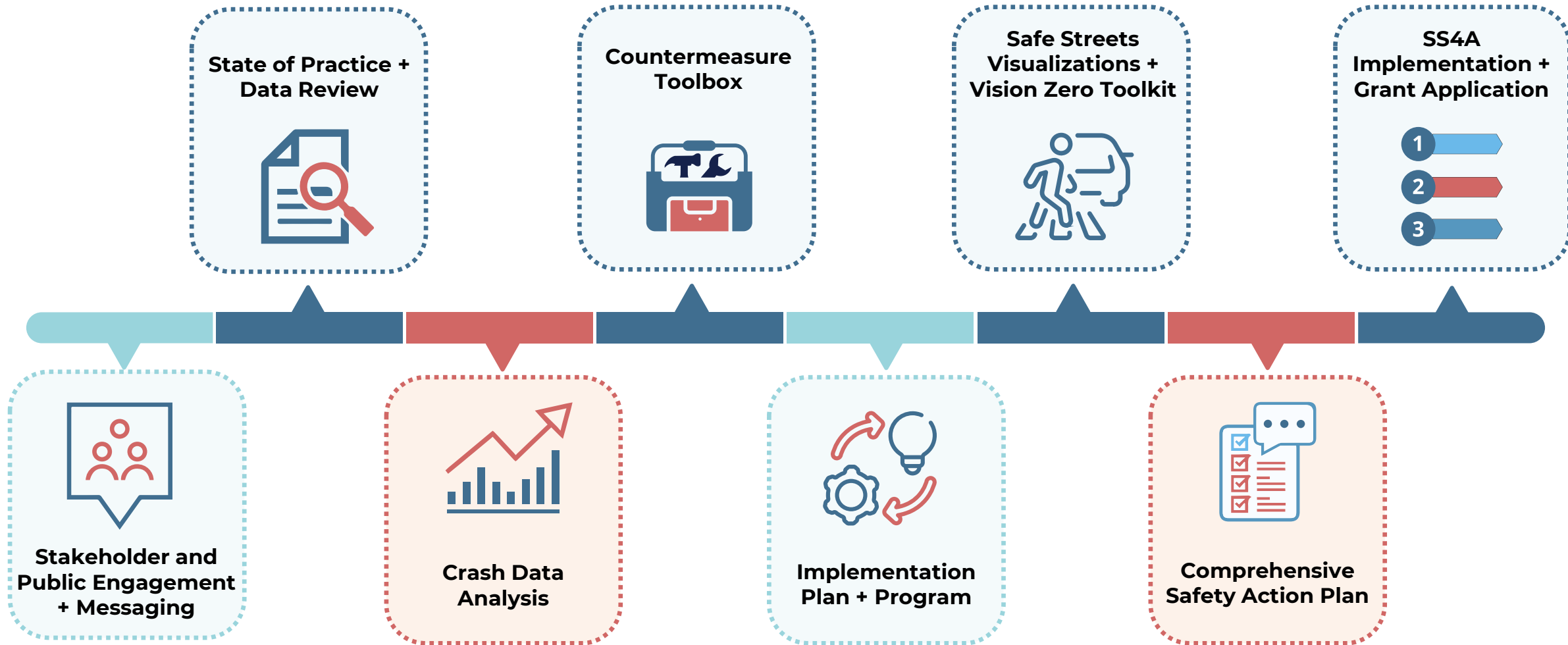
Comprehensive Safety Action Plan

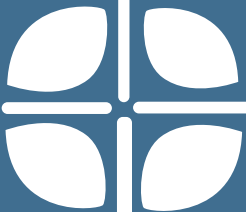
What is Comprehensive Safety Action Plan (CSAP)?

- Part of the SS4A Infrastructure Program & IJL Funding
 - Focused on eliminating **fatal and serious injury crashes**
 - Our team will:
 - ID crash factors and risks.
 - ID high injury network and priority corridors.
 - ID proven safety countermeasures – solutions, tailored to the crash factors!
 - Develop an action focused plan, to guide the regional communities to significantly reduce and eliminate fatal and serious injury crashes.
 - Plan will reflect community-based and data-driven recommendations.
 - **Complete SS4A Implementation Grant Application.**
- 

Overview of Project

Project Overview – 8 major tasks across 14 months





02.

Crash Trends Overview (Descriptive Analysis)



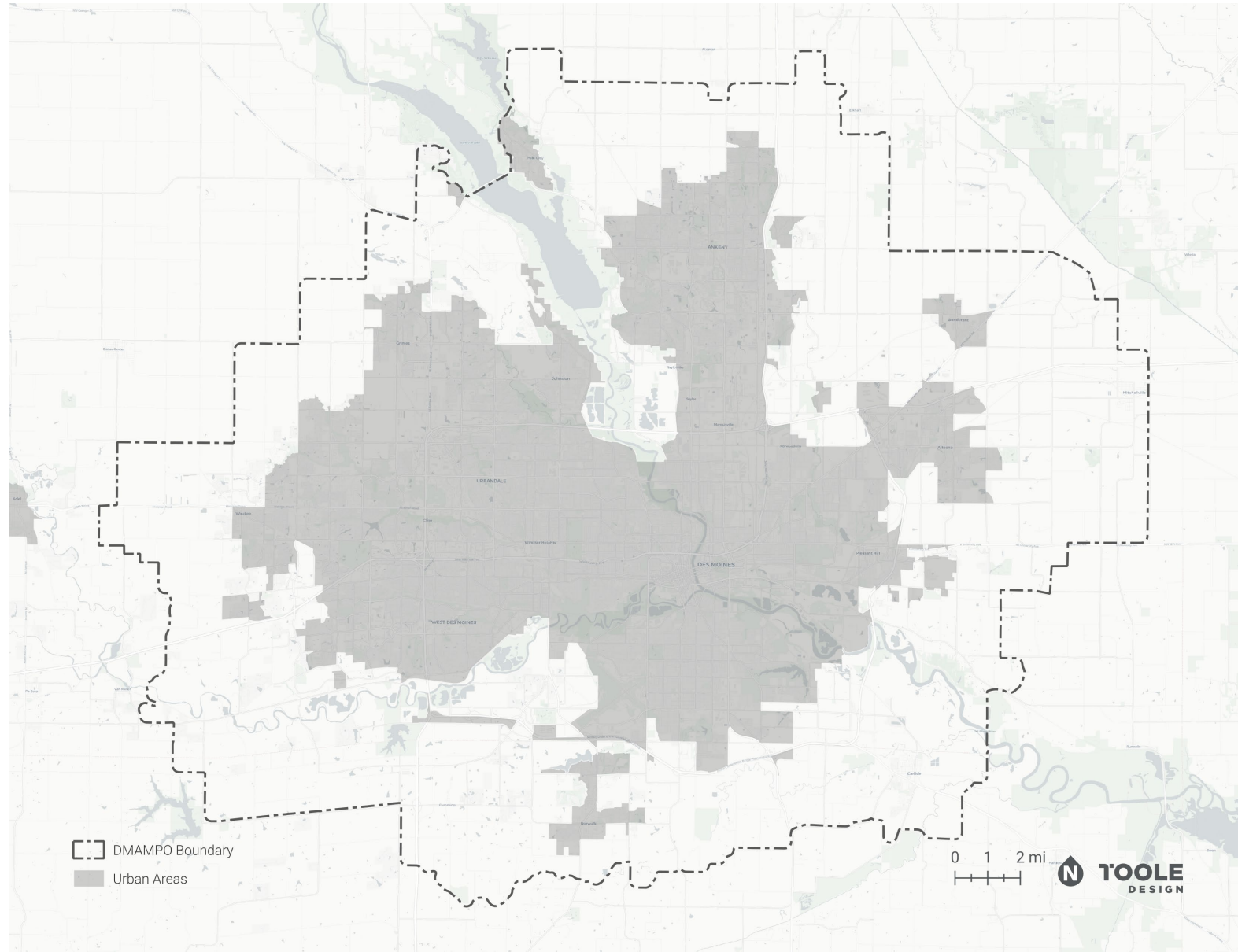
Goals of this Analysis

1. Create a shared understanding
2. Describe current safety conditions
3. Begin to tell the story of safety in DMAMPO



Analysis Context

- DMAMPO represents a diverse area
 - How do rural vs. urban contexts differ?
- Safety changes over time
 - Are we on the right track?
- Limitations of data
 - We need the community to help us help you!



Overview

From 2018 to 2022

50,265

total crashes

939

crashes where a person was fatally or seriously injured (FSI)

771

crashes led to a serious injury

168

crashes were fatal

Crashes where someone was *fatally or seriously injured (FSI)* included

576

motorists



215

motorcyclists



119

pedestrians



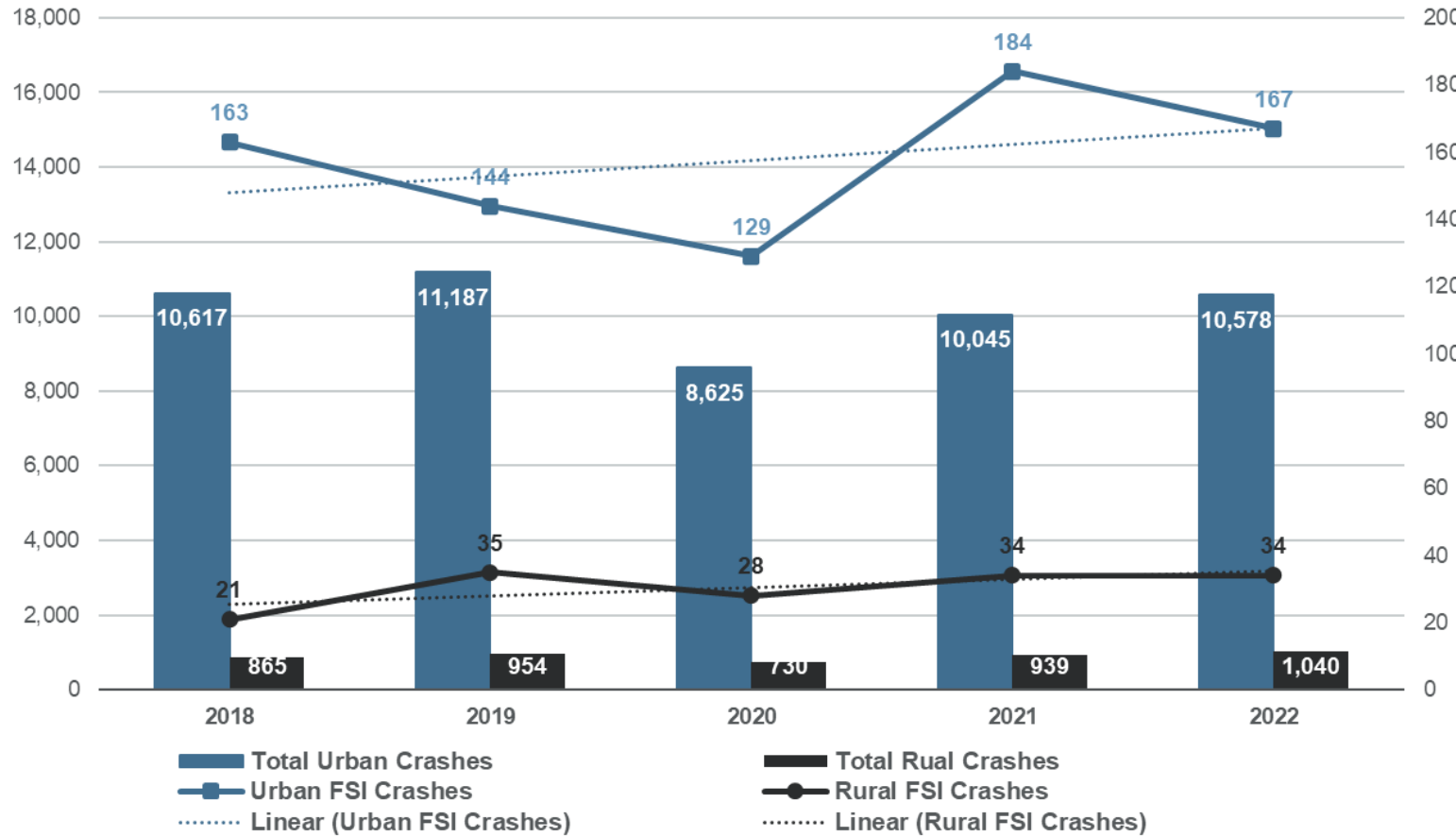
29

bicyclists



All stats after this slide are for fatal or serious injury (FSI) crashes, 2018 to 2022

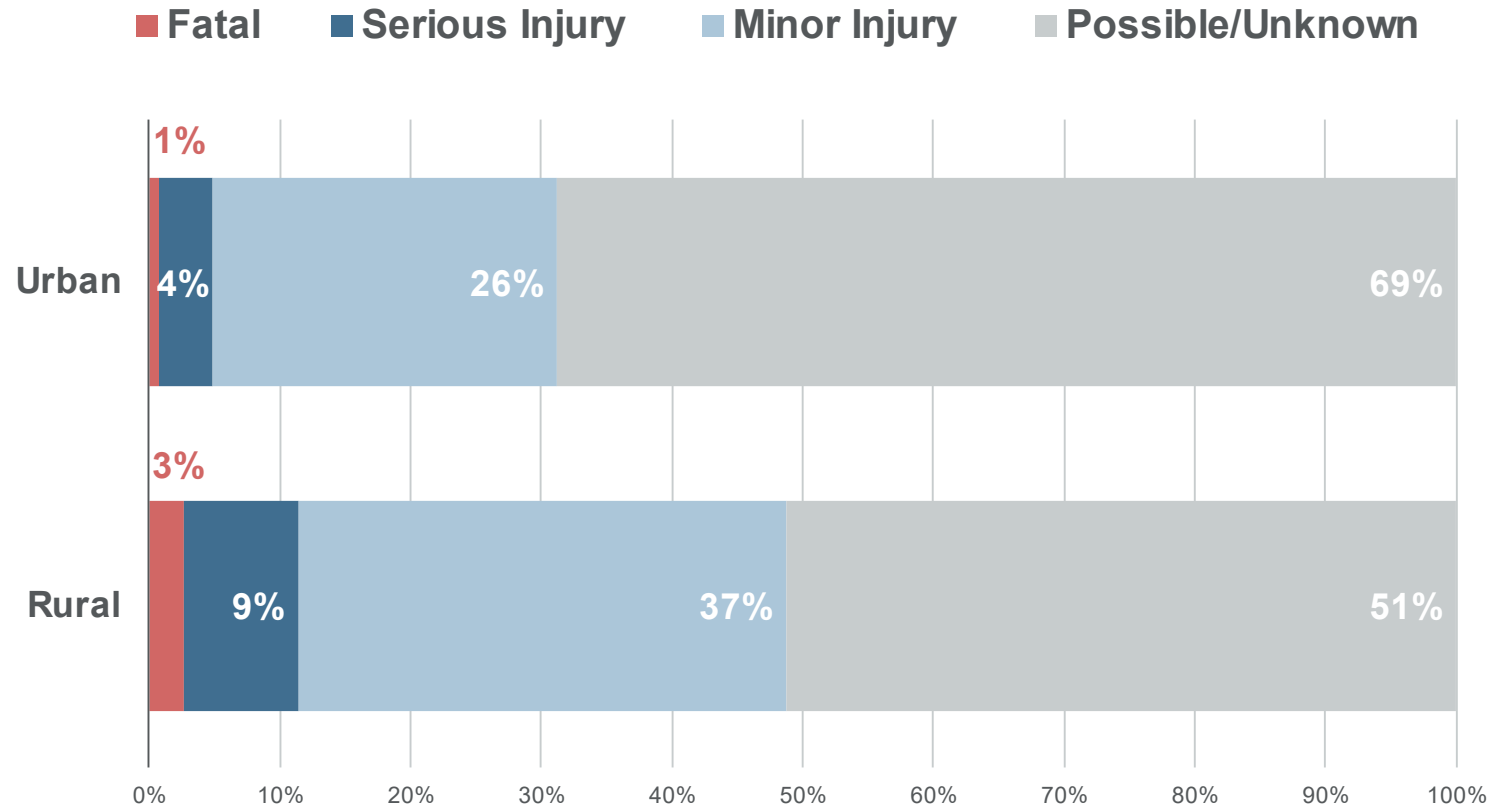
Urban vs. Rural Areas



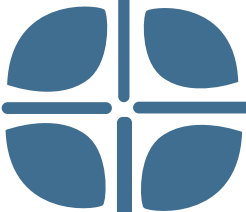
Fatal and Serious Injury (FSI) crashes are increasing slightly after a drop in 2020

How do we understand the impacts of COVID?

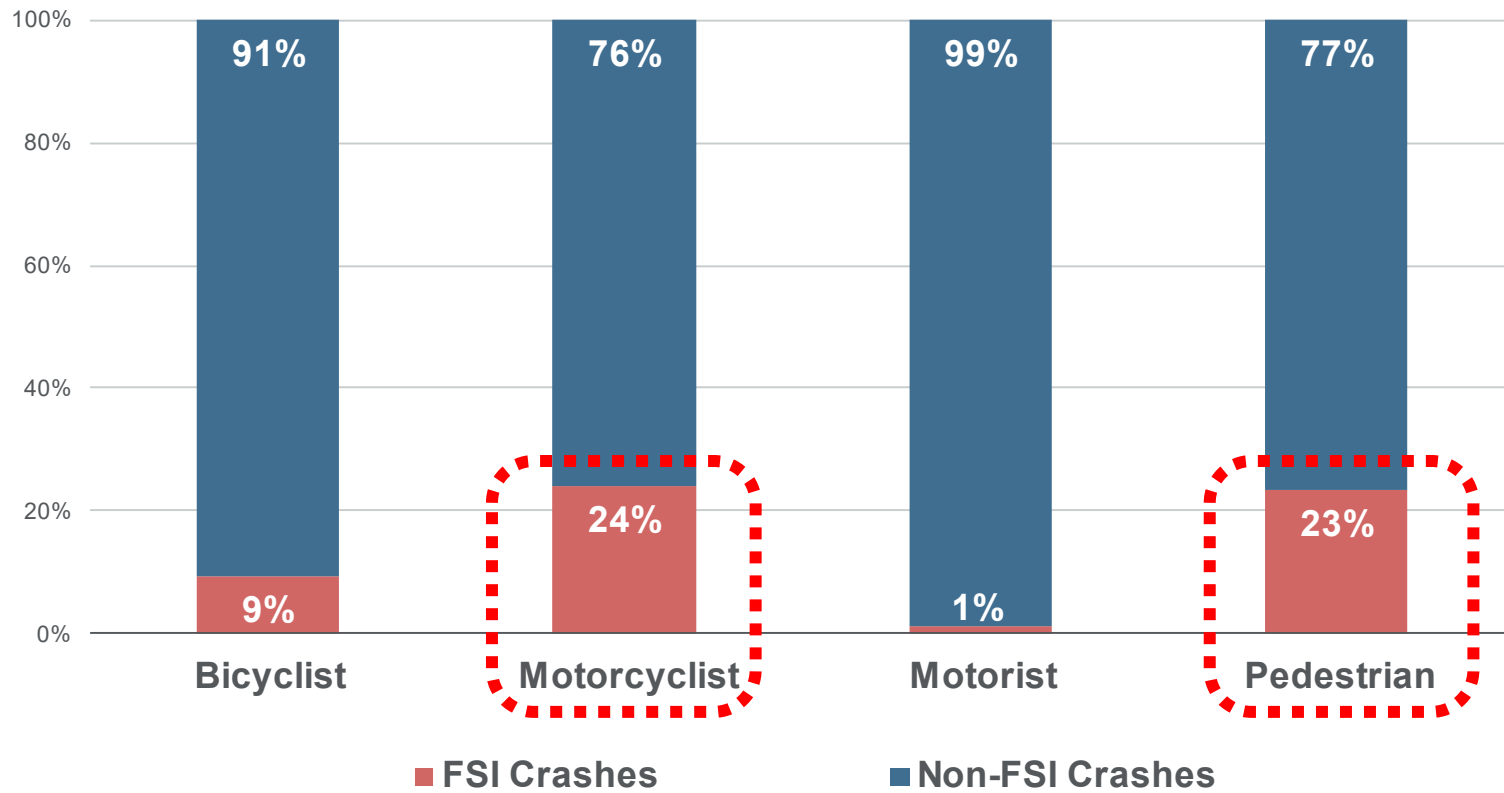
Urban vs. Rural Areas



Rural areas have a higher percent of crashes that led to someone being fatally or seriously injured



Road Users



Vulnerable road users experience higher severity crashes



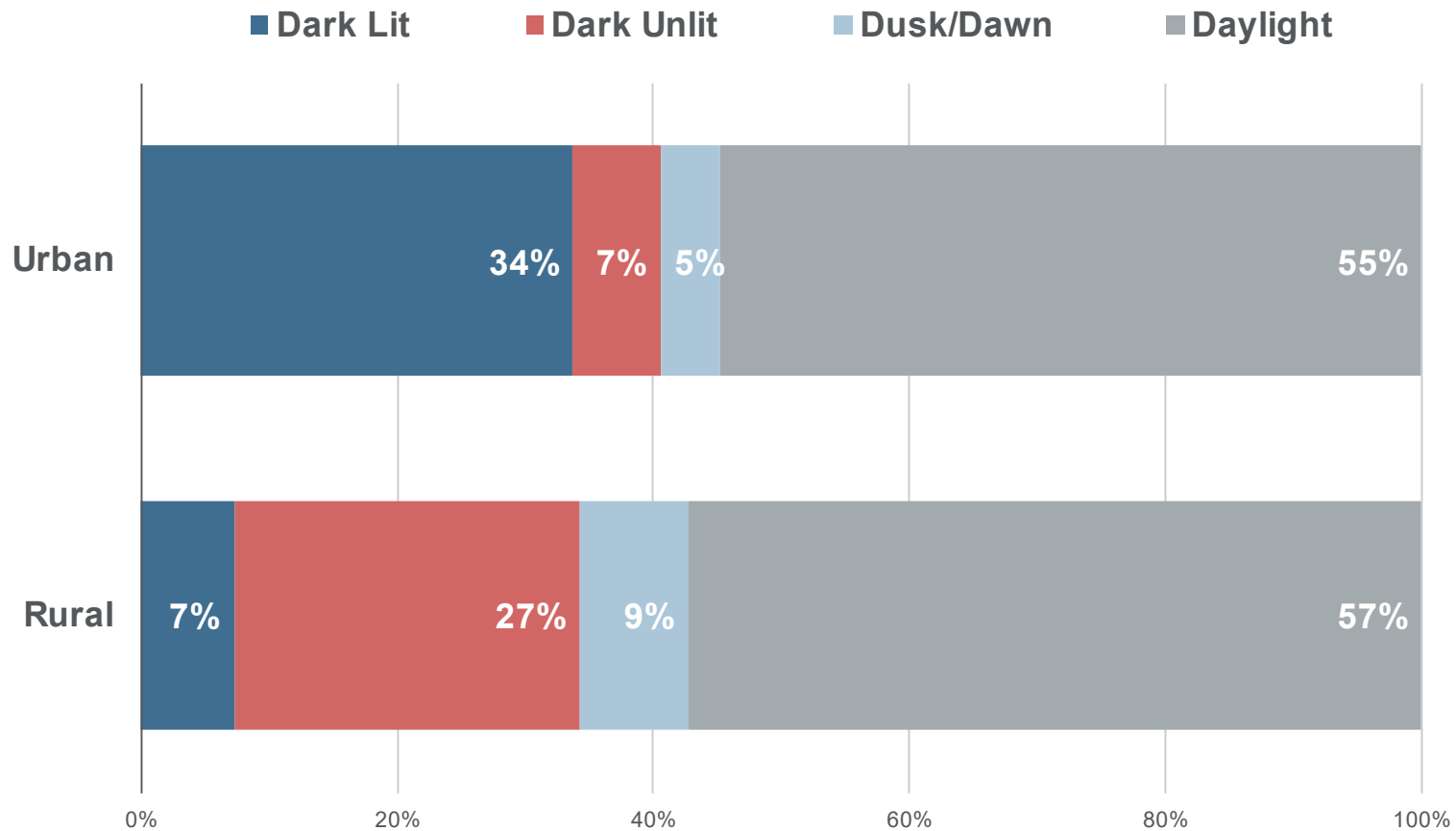
Day of Week / Time of Day

Day of Week	Time of Day								
	12AM - 3AM	3AM - 6AM	6AM - 9AM	9AM - 12PM	12PM - 3PM	3PM - 6PM	6PM - 9PM	9PM - 12AM	
Monday	10	5	9	20	9	30	18	10	Weekdays
Tuesday	9	2	12	10	16	34	18	9	
Wednesday	3	10	18	14	19	30	13	9	
Thursday	8	5	13	15	20	45	25	15	
Friday	13	6	12	10	18	33	25	28	
Saturday	29	13	6	14	17	22	30	25	Weekdays
Sunday	32	15	8	6	10	33	31	20	
	Dark Conditions		AM Peak	Light Conditions		PM Peak	Dark Conditions		

Crashes where someone is fatally or seriously injured are more frequent on weekends and dark conditions

Total crashes where someone was killed or seriously injured by time of day and day of week 2019-2022

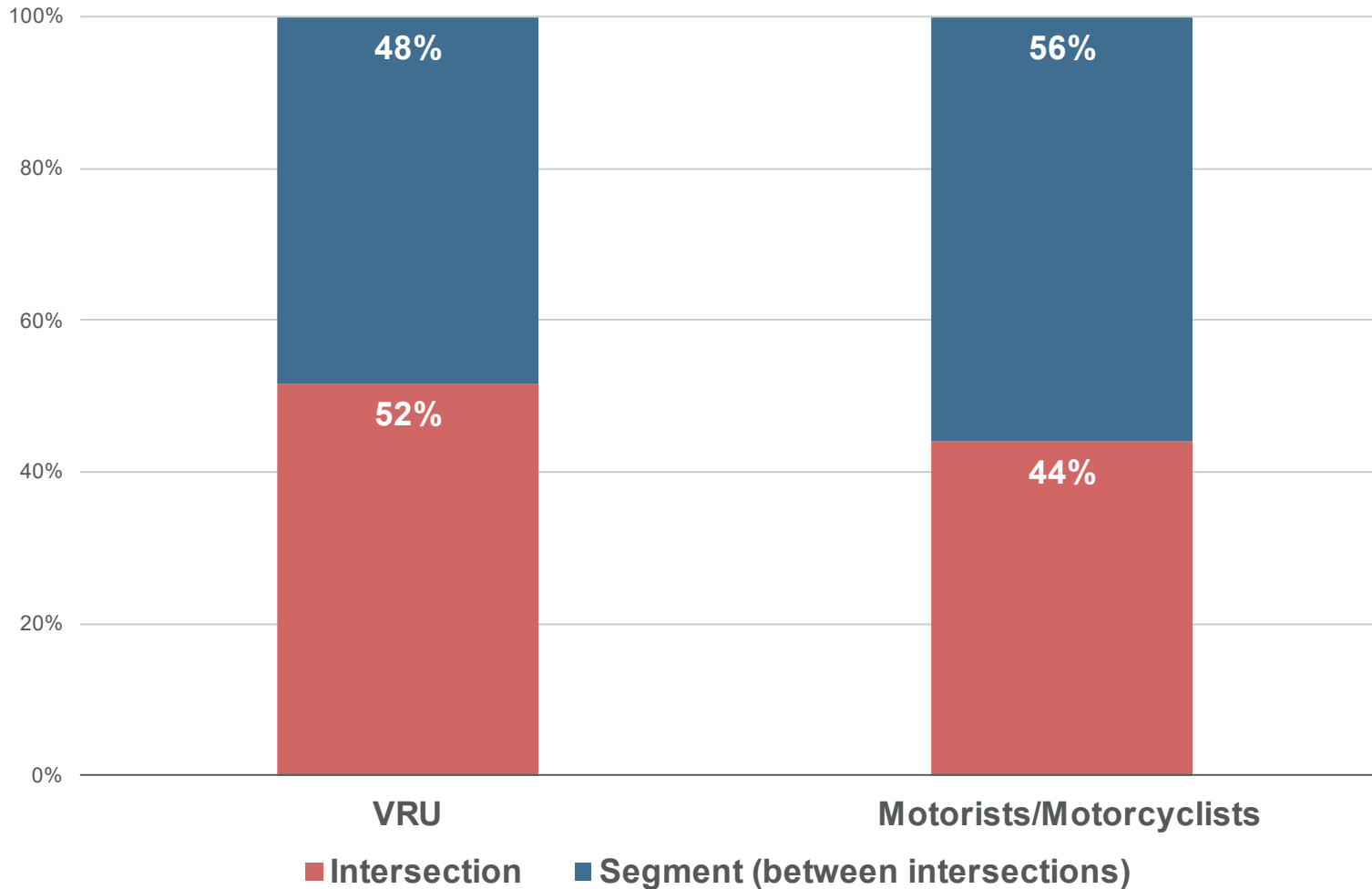
Lighting Conditions



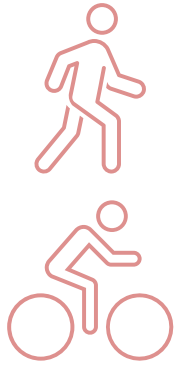
27% of FSI crashes in rural areas occurred in dark-unlit conditions

Dark-unlit crashes occurred in dark conditions where no lighting was present at the time of the crash report

Intersections

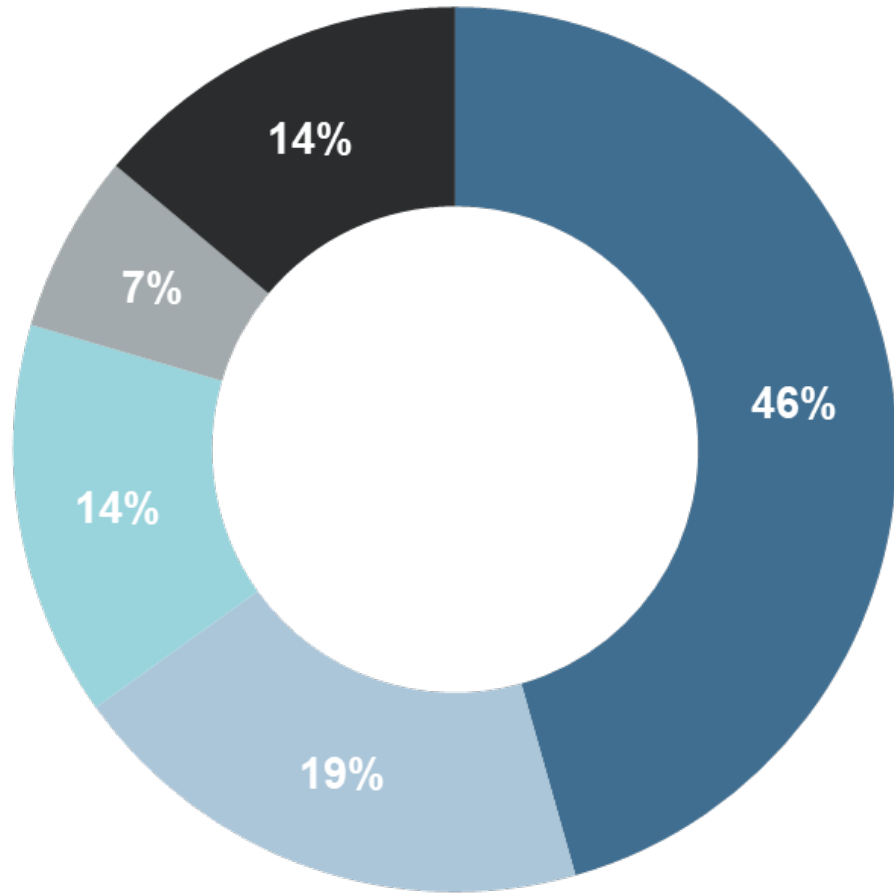


Vulnerable Road Users (VRU) are people who walk, roll, or ride a bicycle



A higher percent of VRU FSI crashes occur at intersections compared to other road users

Collision Manner



■ Single vehicle

■ Broadside

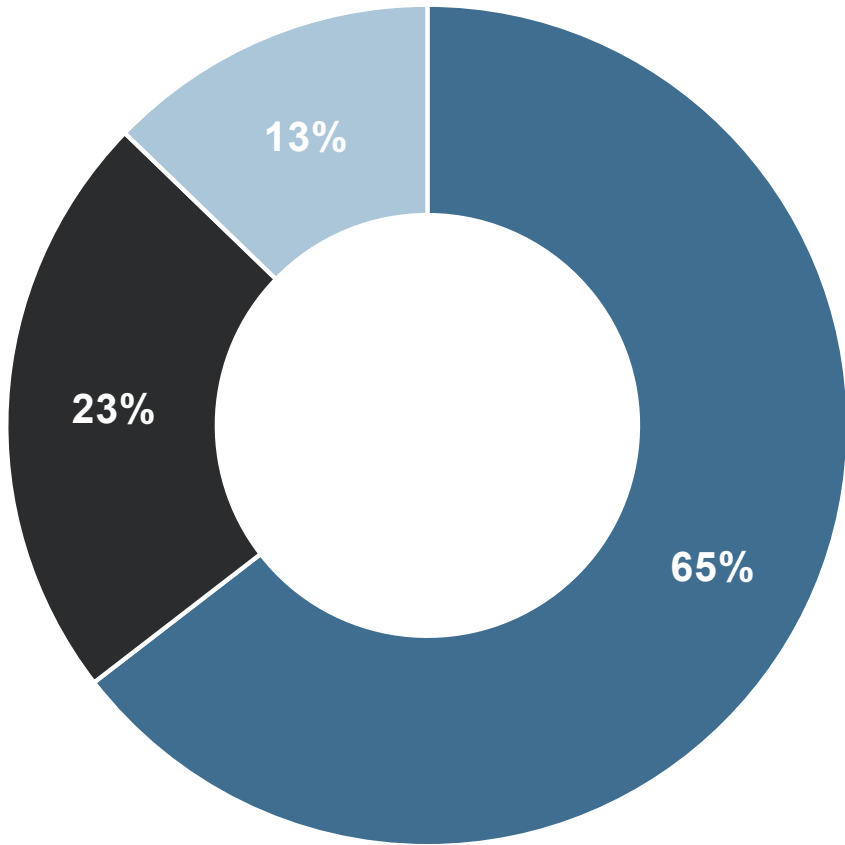
■ Rear-end

■ Head-on

■ Other

Almost half of FSI crashes was a single vehicle crash

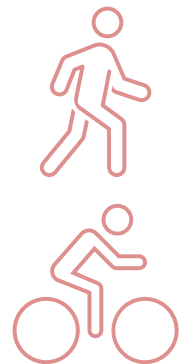
VRU Actions



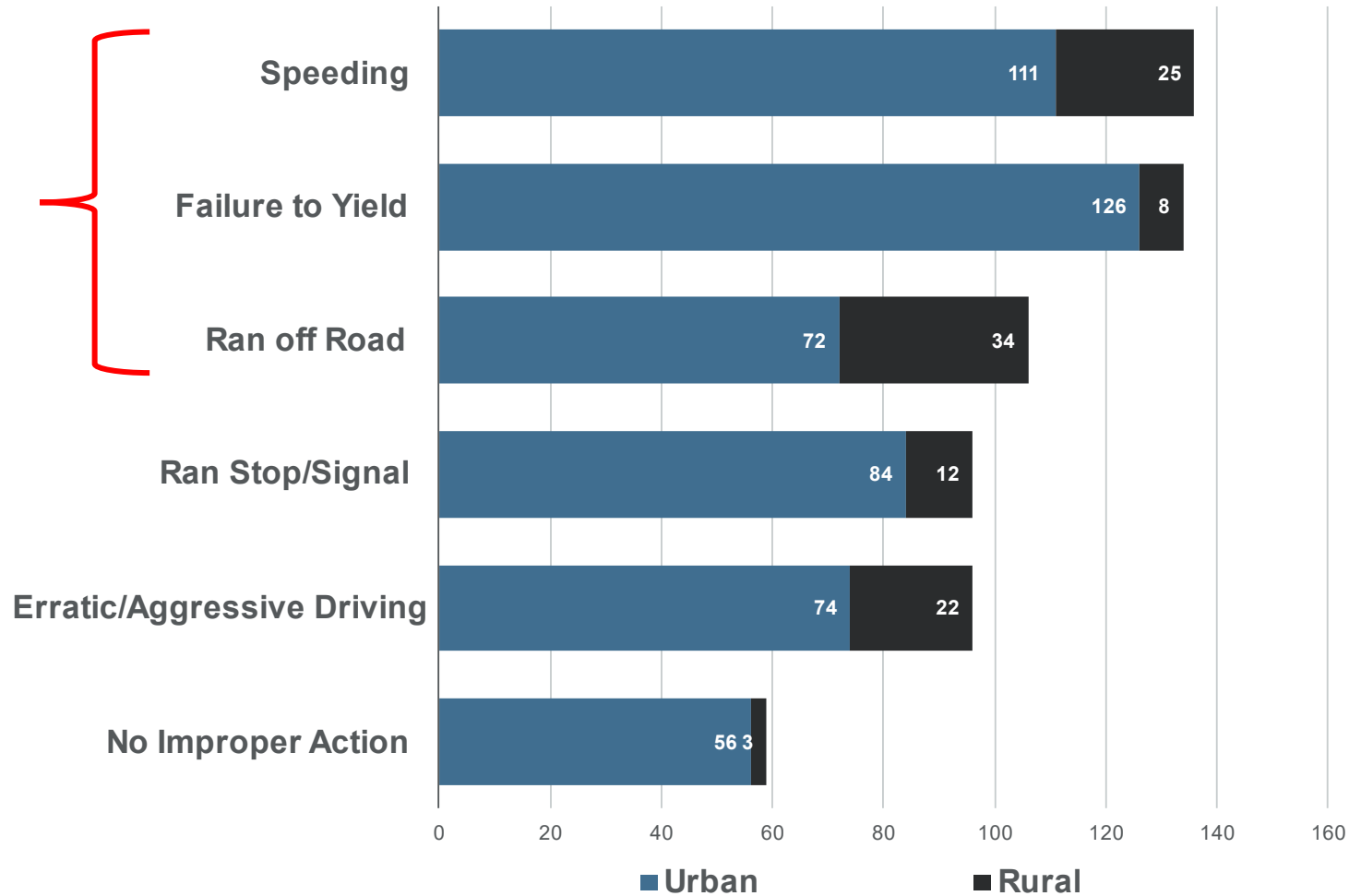
- Entering or Crossing Roadway
- Traveling Along Roadway
- Other

In 65% of VRU FSI crashes, the VRU action was *entering or crossing roadway*

Vulnerable Road Users (VRU) are people who walk, roll, or ride a bicycle



Unsafe Behaviors

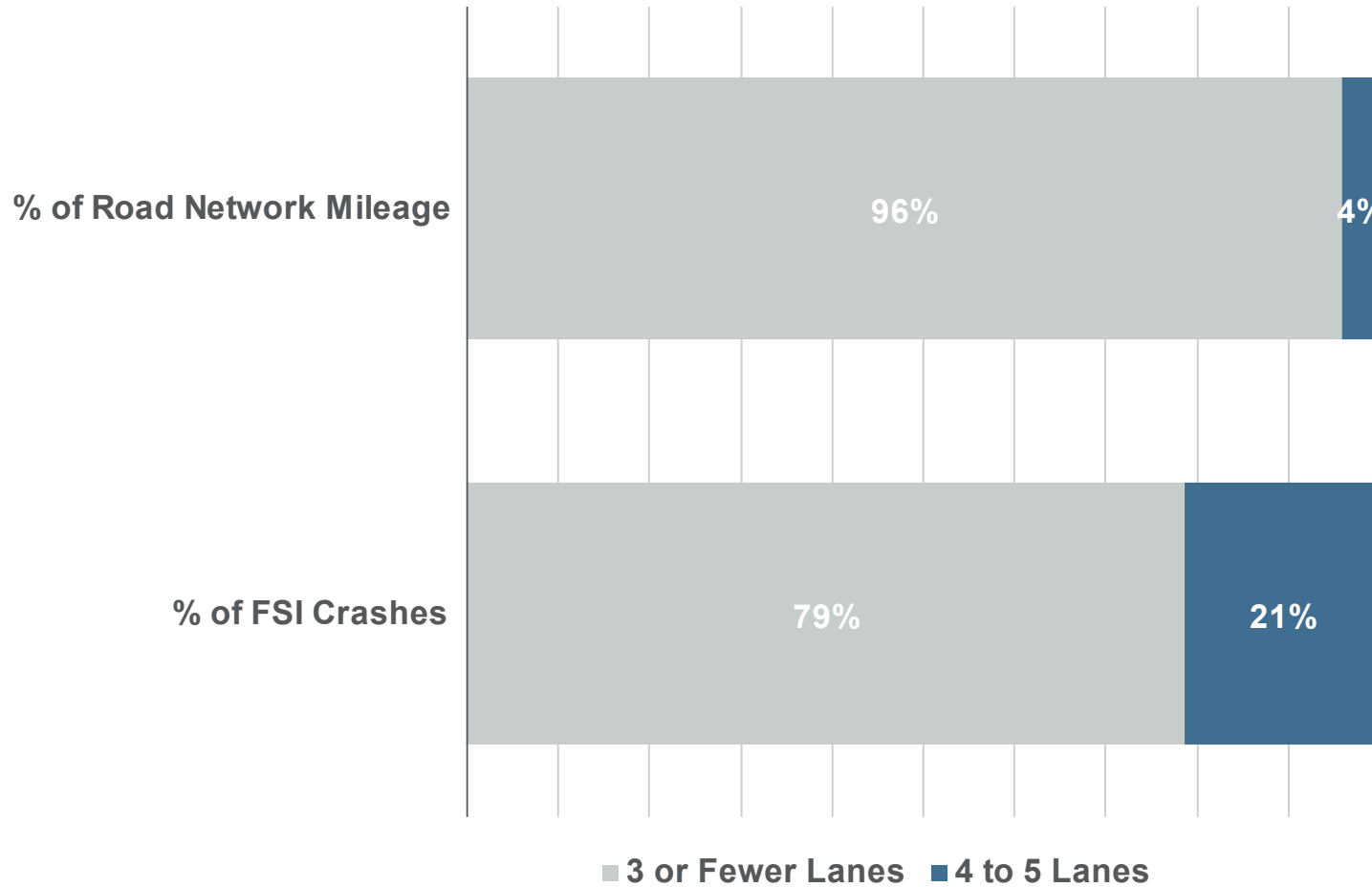


Speeding and **failure to yield** were the top behaviors in urban FSI crashes

Ran off road, speeding, and erratic/aggressive driving were the top behaviors in rural areas

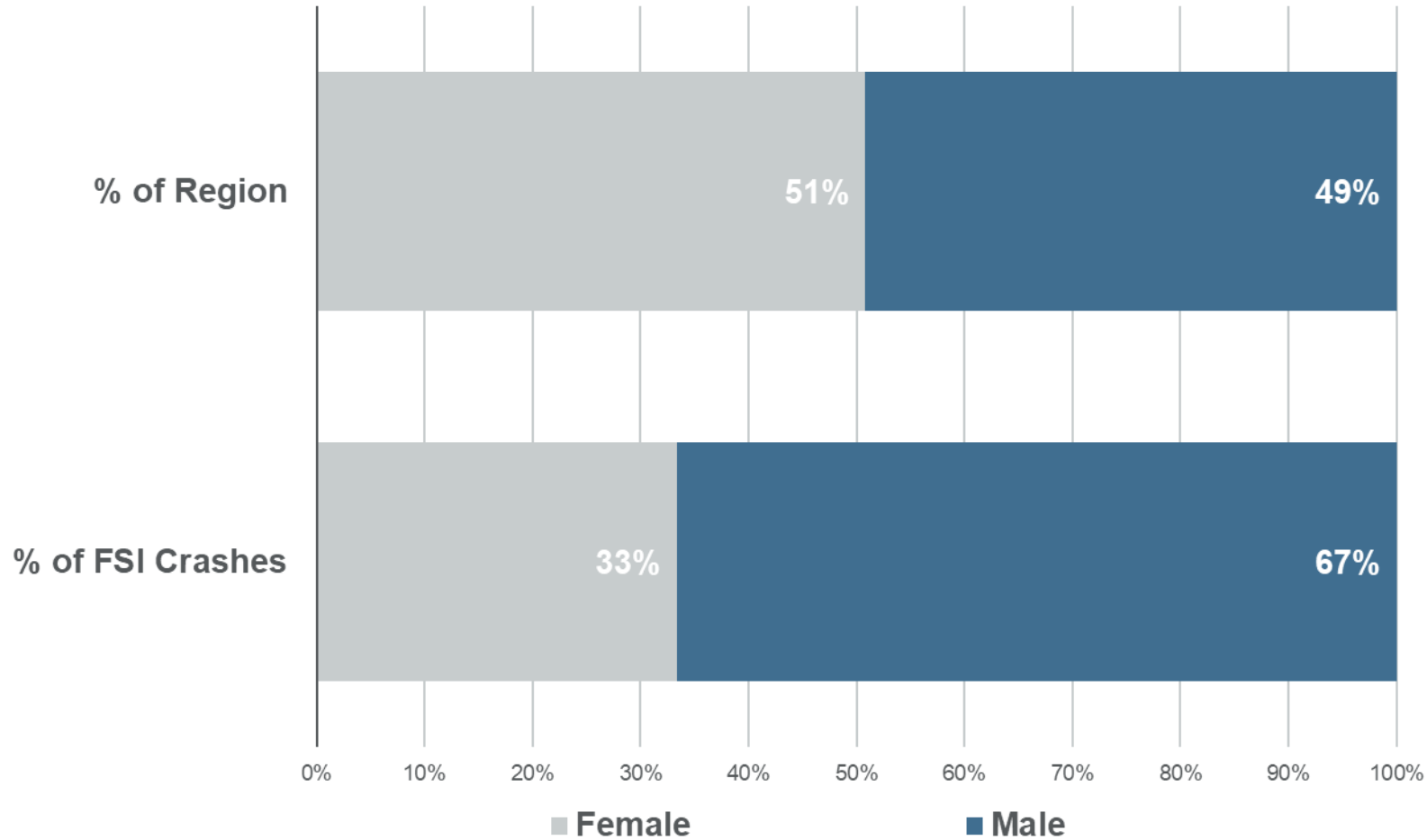
These six reported major causes represent 72% of all FSI crashes

Number of Lanes



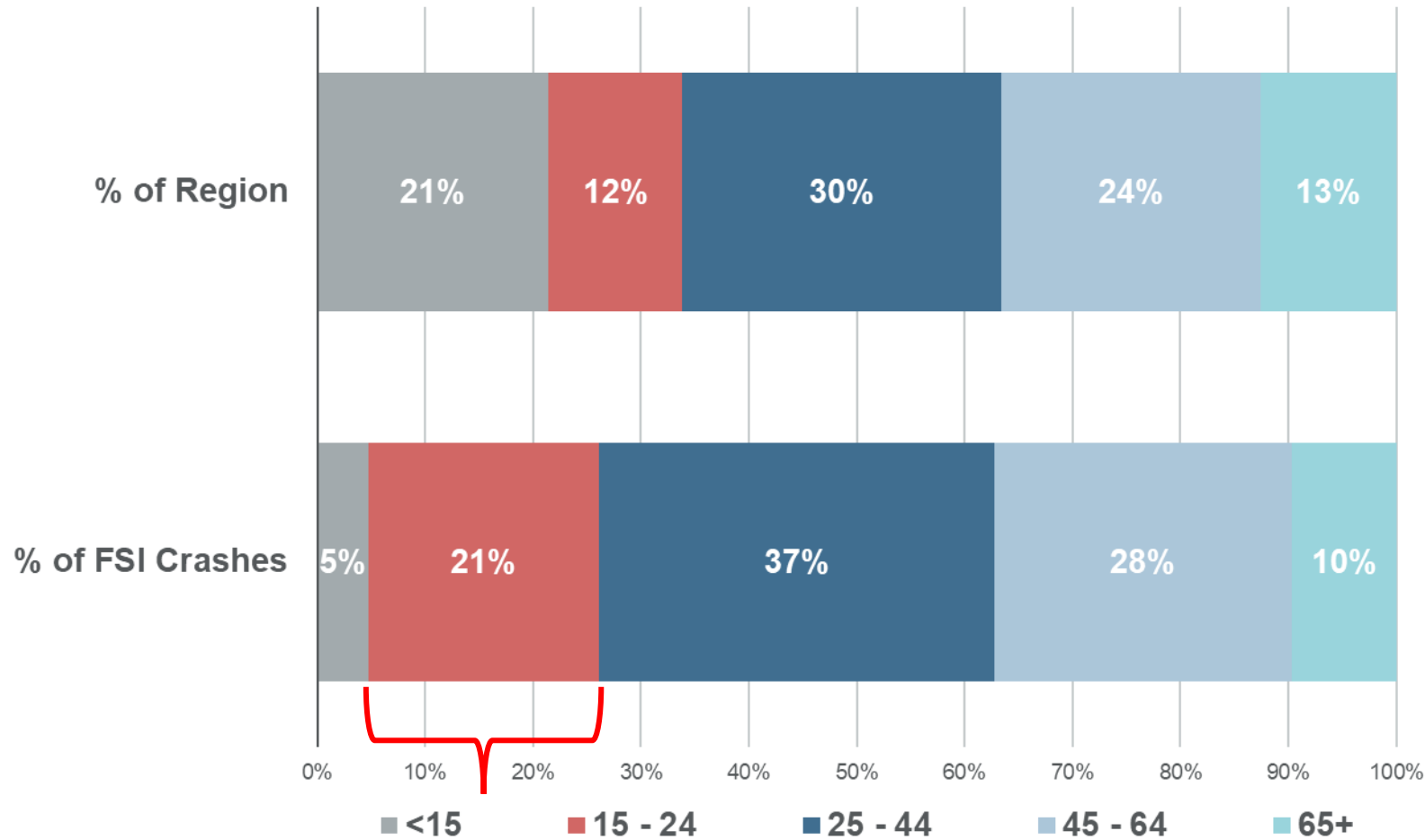
Although 4-5 lane roads make up 4% of the region's road network, 21% of FSI crashes occur on those roads

Gender



Males were involved in 67% of FSI crashes but makeup 49% of the region

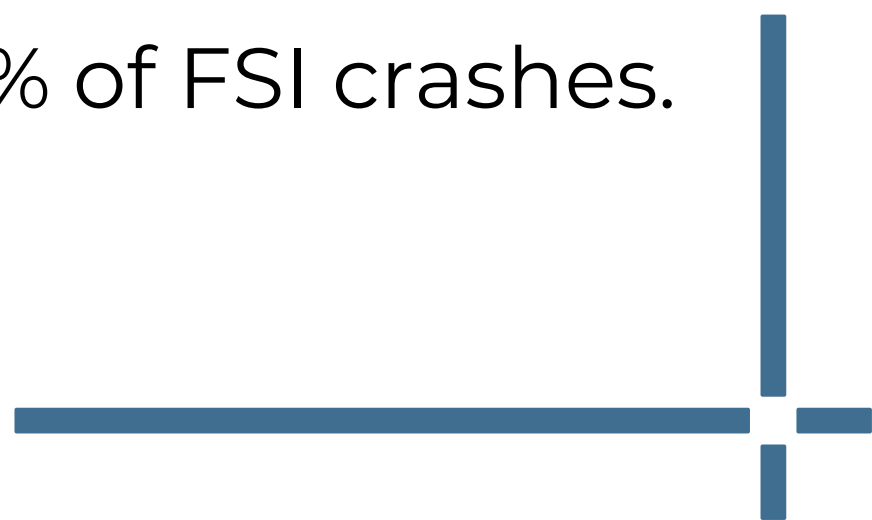
Younger Drivers



Although people in the 15 – 24 age range make up 12% of the region’s population, 21% of FSI crashes involved someone who is that age

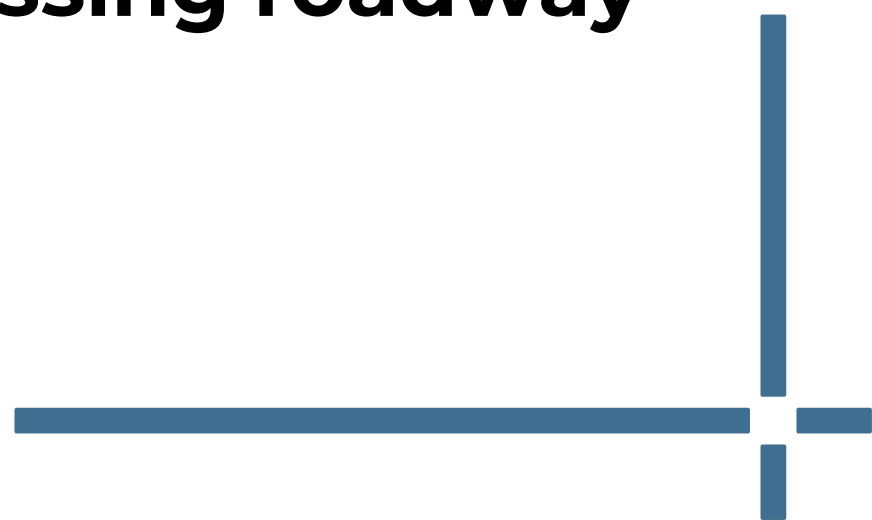


Key Takeaways (1/3)

- **Rural areas** have a higher percent of serious crashes. **Ran off road** was the top cause of rural FSI crashes.
 - FSI crashes are more frequent on **weekends** and **dark** conditions. One-third of **rural** FSI crashes occurred in dark-unlit conditions.
 - **Single-vehicle** crashes were 46% of FSI crashes.
- 




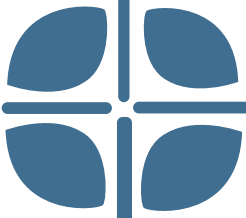
Key Takeaways (2/3)

- Crashes involving **motorcyclists** and **pedestrians** had a higher likelihood of leading to an FSI.
 - Half of **VRU** crashes occurred at an **intersection**.
 - VRU action was **entering or crossing roadway** in 65% of VRU FSI crashes.
- 



Key Takeaways (3/3)

- **Speeding** and **failure to yield** were the top major causes in urban FSI crashes.
 - **Males** were involved in 67% of FSI crashes.
 - **Younger drivers** were involved in 21% of FSI crashes.
- 



Top Five FSI Crash Factors

- 1. Ran off road (rural)**
- 2. Speeding (urban)**
- 3. Failure to yield**
- 4. Dark conditions**
- 5. Younger, male drivers**



What's Next?

1. Equity Analysis

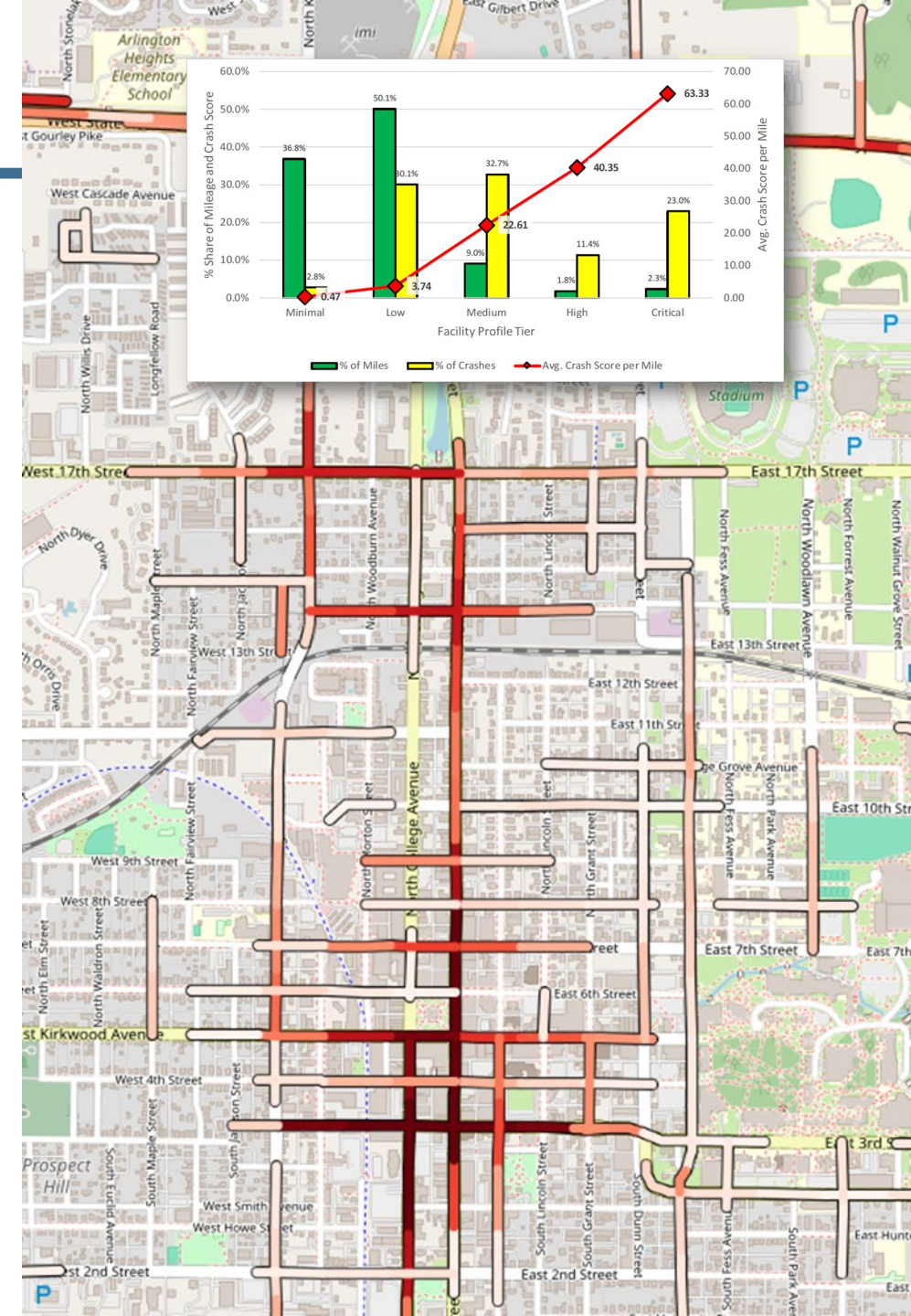
- How do *equity and socioeconomics* impact safety outcomes?

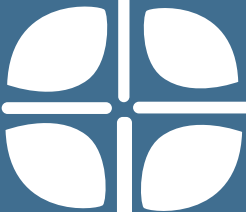
2. High-injury Network

- *Where* are these crash patterns occurring?

3. High-risk Network

- How can we *proactively* pursue safety?





03.

Questions?



CARBON REDUCTION PROGRAM FUNDING RECOMMENDATION

Carbon Reduction Funding Program Recommendation

- The Carbon Reduction Program was developed under the Bipartisan Infrastructure Law to target projects that reduce transportation related emissions
- The MPO currently has around \$9.1 million in CRP funds to award and had previously decided to wait until the LRTP was completed to more strategically awards these funds

Carbon Reduction Funding Program Recommendation

- Last year staff submitted a grant for the Charging and Fueling Infrastructure (CFI) grant that unfortunately wasn't awarded funds
- This grant request was for EV charging locations across the metro and the requested amount was \$4 million
- Staff is suggesting that \$4 million of the CRP funds could be used to fund the projects that were submitted as part of the CFI grant application
- Staff would like to get the Tech Committees input on this idea and provide a recommendation to the Funding Subcommittee

PAVEMENT CONDITION DATA COLLECTION

Pavement Condition Data Collection

- The Iowa DOT collects pavement condition data on a 4-year rotating cycle
 - They also provide an option for locals to purchase data for the second year of that cycle
- In recent years, the MPO has opted to purchase the off-cycle data for MPO members
- The estimated cost to opt-in on the off-cycle data is \$340,000 and could be taken off the top of the FFY 2028 STBG allocation as has been done in the past

FFY 2025-2028 TRANSPORTATION IMPROVEMENT PROGRAM DEVELOPMENT

FFY 2025-2028 TIP Development

- MPO develops a four-year Transportation Improvement Program (TIP) annually.
- MPO member governments and associated agencies receive current TIP projects for review and update.
- Federally funded FFY 2024 programmed projects must have FHWA authorization to proceed by **September 30, 2024**.
- If not, a rollover to FFY 2025 is required.
- Staff will send out TIP status reports in early April.

ACTIVE TRANSPORTATION INFRASTRUCTURE INVESTMENT PROGRAM

Active Transportation Infrastructure

- \$45 million in FY2023 ATIP funding to be awarded on competitive basis.
 - \$3 million for planning and design grants (\$100,000 minimum).
 - Construction grants require minimum total project cost of \$15 million.
- Eligible projects will provide safe and connected active transportation facilities.
- Federal Highway is hosting a webinar 10 a.m. Tuesday, April 9.
- Applications due Monday, June 17, 2024.

UPCOMING EVENTS

Upcoming Events

Webinars

- [How rural and frontier communities can develop and implement *fiscally sustainable* transportation and land-use policies and plans](#) – April 9
- [Adaptive Trail Mobility Equipment and Programming 101](#) – April 11
- [Innovations in Pavement Webinar](#) – April 16
- [Best Practices: Emergency Vehicle Access for Bicycle/Pedestrian Friendly Streets](#) – April 17
- [Building Culture and Community Through Safe Routes to School](#) – April 17
- [**How to foster collaboration between land use, housing, transportation, and economic development champions**](#) – April 23
- [Community Driven: How Engagement Guides the Vision and Planning of a Community Wide Trail Network](#)- April 25
- [Intermodal Freight Decarbonization](#) – April 26

Events

- [Lifesavers Conference on Roadway Safety](#) – April 7-9 – Denver, CO
- [APA National Planning Conference](#) – April 13-16 – Minneapolis, MN
- [Iowa Concrete Lunch and Learn: Adapting to Changes in Concrete Materials and Mixtures](#) – April 23 – Ankeny, IA
- [ITS America Conference & Expo](#) – April 22-25 – Phoenix, AZ
- [ISU Accessible Sidewalks and Curb Ramps Workshop](#) – April 30 – Ames, IA

OTHER ITEMS OF INTEREST


NCHRP 03-144 - Validation of Signal Count Data

Jeff von Brown at the Iowa DOT Systems Planning Bureau informed us of an opportunity to contribute to [NCHRP Project 03-144](#)

- Project lead by Texas A&M Transportation Institute to validate motorized and non-motorized traffic volume data extracted from various traffic signal equipment (cameras, radar sensors, LIDAR sensors, inductive loops, etc.)
 - Participation involves providing signal count and benchmark data (such as video recordings)
- No cost to participate in the study

For questions or to participate, email Yianni Tsapakis (i-tsapakis@tti.tamu.edu).

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