JOPLIN AREA
Transportation Study Organization

SAFE STREETS FOR ALL SAFETY ACTION PLAN 2025







ADOPTED BY THE JOPLIN AREA TRANSPORTATION STUDY ORGANIZATION (JATSO) POLICY BOARD

CJW

This safety action plan and the information contained herein is prepared solely for the purpose of identifying, evaluating, and planning safety improvements on public roads which may be implemented utilizing federal aid highway funds; and is therefore exempt from discovery or admission into evidence pursuant to 23 U.S.C.407.

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JOPLIN AREA
Transportation Study Organization

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RESOLUTION OF THE JOPLIN AREA TRANSPORTATION STUDY ORGANIZATION (JATSO) POLICY BOARD

WHEREAS, the Joplin Area Transportation Study Organization (JATSO) is the designated Metropolitan Planning Organization (MPO) for the Joplin region; comprised of one permanent committee, the Policy Board, which is the governing body and provides a forum for cooperative decision-making for the transportation planning process for the Joplin region; composed of elected and appointed officials of local governmental entities and providers of transportation in the metropolitan area; and

WHEREAS, planning for safe, accessible, and multimodal transportation options in the region is central to JATSO's mission; and

WHEREAS, JATSO's region had 355 total fatal and serious injury crashes between 2019-2023, 81 fatal vehicle crashes, 274 serious injury vehicle crashes, 12 fatal pedestrian crashes and 3 fatal bicycle crashes; and

WHEREAS, the goal of the JATSO Safety Action Plan is to develop a holistic well-defined strategy to prevent roadway deaths and serious injuries; and

WHEREAS, the JATSO Safety Action Plan is a data-driven, comprehensive, and actionable strategy developed utilizing the Safe System Approach to assist the JATSO region in considering a broader approach to improving transportation safety throughout the entire network for all users; and

WHEREAS, the Safe System Approach prioritizes the elimination of crashes that result in death and serious injuries by incorporating six key principles: death and serious injuries are unacceptable, humans make mistakes, humans are vulnerable, responsibility is shared among all stakeholders, safety is proactive, and redundancy is crucial in the transportation system; and

WHEREAS, the implementation of strategies identified in JATSO Safety Action Plan by its member jurisdictions will assist not only the USDOT's vision of zero deaths and serious injuries on our nation's roadways, but the State of Missouri's goal toward zero deaths and serious injuries.

NOW, THEREFORE, BE IT RESOLVED, that the Policy Board for the Joplin Area Transportation Study Organization does hereby adopt the JATSO Comprehensive Safety Action Plan and commits to a systematic approach to reducing transportation related serious injuries and deaths throughout the JATSO region with a goal toward zero deaths and serious injuries on the region's transportation network **by the year 2035**.

THE FOREGOING RESOLUTION WAS ADOPTED BY THE POLICY BOARD OF THE JOPLIN AREA TRANSPORTATION STUDY AREA (JATSO) ON March 20, 2025.

ATTEST:

Dan Johnson, PE, Chairman,
JATSO Policy Board



Acknowledgements

The JATSO SS4A Safety Action Plan is the result of collaborative efforts and dedicated contributions from many individuals and organizations. We would like to extend our heartfelt gratitude to the following:

JATSO Board (Voting Members)
We appreciate the unwavering support and commitment of the JATSO Board members. Your leadership and vision have been instrumental in guiding this initiative toward enhancing safety in our region. Thank you for your dedication to improving transportation safety for all citizens of the JATSO region.

Joplin Complete Streets Committee
We extend our sincere thanks to the members of the Joplin Complete Streets Committee, who acted as the Safety Action Plan Steering Committee. Your expertise, insights, and collaborative spirit have been invaluable in shaping this plan. Your passion for creating safer streets has directly influenced the strategies outlined in this document.

Additional Contributors
We also acknowledge the contributions of various stakeholders and community members who provided input, data, and support throughout the planning process. Your engagement has enriched this plan and reinforced our collective commitment to ensuring safer roadways for everyone.

Together, we strive to implement the strategies outlined in this Safety Action Plan, fostering a culture of safety and responsibility on our roads. Thank you for your dedication to this vital cause.

Acknowledgements

JATSO BOARD (Voting Members)

Daniel Johnson- City of Joplin, Director of Public Works (Chair)
Troy Bolander- City of Joplin, Director of Planning (Vice Chair)
Jermey Hagerman- City of Joplin, Assistant Director of Public Works- Engineering
Allison Zahner- City of Joplin, Airport Manager
Gina Thompson- City of Joplin, Transportation Coordinator
Carl Francis- City of Webb City, City Administrator
Steve Lawver- City of Carl Junction, City Administrator
Carrie Campbell- Harry S. Truman Coordinating Council, Executive Director
Marvin Morris- MoDOT, Area Engineer
Michael D. Landis- Jasper County, Commissioner
Daniel Swem- Newton County, Commissioner
Frank Miller- MoDOT SW District, Planning Manager (Alternate)
Will Cline- Harry S. Truman Coordinating Council, Transportation Planner (Alternate)
Dakota Rusk- City of Joplin, Traffic Engineer

JOPLIN COMPLETE STREETS COMMITTEE

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CJW Transportation Consultants, LLC, Consultant Partner

Safety Action Plan Overview

The Joplin Area Transportation Study Organization (JATSO) is the metropolitan planning organization (MPO), for parts of Jasper and Newton counties in southwest Missouri, serving a population of 115,490.

The Joplin Area Transportation Study Organization (JATSO) is committed to enhancing roadway safety within the region. The development of the JATSO Safe Streets and Roads for All (SS4A) Safety Action Plan is a critical step toward addressing the key safety issues that affect our region.

Recent data from 2019 to 2023 reveal a concerning trend in traffic crashes within the JATSO region, with a total of 81 fatal crashes resulting in 85 fatalities, 274 serious injury crashes leading to 335 serious injuries, including 15 non-motorized fatalities (3 bicyclists and 12 pedestrians). These statistics underscore the need for targeted interventions aimed at reducing roadway fatalities and serious injuries.

To guide our efforts, JATSO is adopting the **Federal Highway Administration's (FHWA) Safe System Approach**, which aligns with the principles of Vision Zero. This holistic framework emphasizes the importance of designing a transportation system that prioritizes safety for all users, regardless of their mode of travel. By recognizing that human error is inevitable, the Safe System Approach advocates for resilient infrastructure, improved vehicle technology, and effective traffic management to mitigate the consequences of crashes.

The JATSO SS4A Safety Action Plan aims to identify key risk factors, develop strategies for improvement, and implement actionable solutions to create safer transportation systems for all users. By collaborating with local stakeholders, law enforcement, and community members, we strive to foster a culture of safety and resilience on our roads. This plan not only seeks to mitigate the current trends but also to promote long-term sustainable practices that enhance the overall safety and mobility of our transportation network.

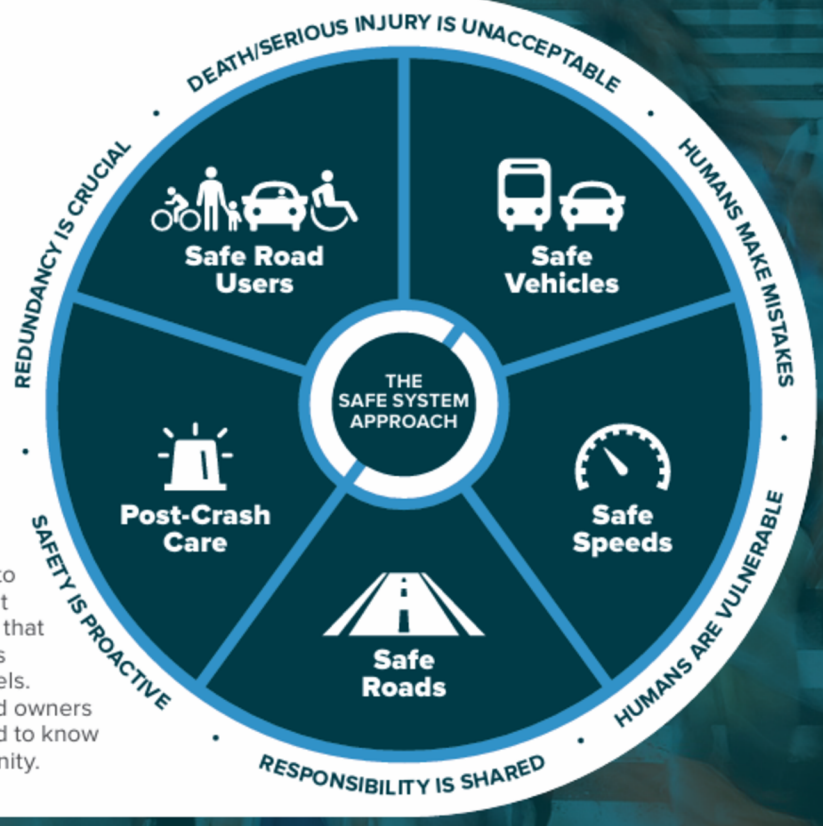
Through data-driven analysis and community engagement, JATSO is dedicated to making meaningful progress toward a safer, more accessible transportation environment for everyone in the region.

THE SAFE SYSTEM

APPROACH

Zero is our goal. A Safe System is how we will get there.

Imagine a world where nobody has to die from vehicle crashes. The Safe System approach aims to eliminate fatal & serious injuries for all road users. It does so through a holistic view of the road system that first anticipates human mistakes and second keeps impact energy on the human body at tolerable levels. Safety is an ethical imperative of the designers and owners of the transportation system. Here's what you need to know to bring the Safe System approach to your community.



SAFE SYSTEM PRINCIPLES

Death/Serious Injury is Unacceptable

While no crashes are desirable, the Safe System approach prioritizes crashes that result in death and serious injuries, since no one should experience either when using the transportation system.

Humans Make Mistakes

People will inevitably make mistakes that can lead to crashes, but the transportation system can be designed and operated to accommodate human mistakes and injury tolerances and avoid death and serious injuries.

Humans Are Vulnerable

People have limits for tolerating crash forces before death and serious injury occurs; therefore, it is critical to design and operate a transportation system that is human-centric and accommodates human vulnerabilities.

Responsibility is Shared

All stakeholders (transportation system users and managers, vehicle manufacturers, etc.) must ensure that crashes don't lead to fatal or serious injuries.

Safety is Proactive

Proactive tools should be used to identify and mitigate latent risks in the transportation system, rather than waiting for crashes to occur and reacting afterwards.

Redundancy is Crucial

Reducing risks requires that all parts of the transportation system are strengthened, so that if one part fails, the other parts still protect people.

U.S.Department of Transportation
Federal Highway Administration
FHWA-SA-20-015

Safe Roads for a Safer Future
Investment in roadway safety saves lives

SAFE SYSTEM ELEMENTS

Making a commitment to zero deaths means addressing every aspect of crash risks through the five elements of a Safe System, shown below. These layers of protection and shared responsibility promote a holistic approach to safety across the entire transportation system. The key focus of the Safe System approach is to reduce death and serious injuries through design that accommodates human mistakes and injury tolerances.

Safe Road Users

The Safe System approach addresses the safety of all road users, including those who walk, bike, drive, ride transit, and travel by other modes.

Safe Vehicles

Vehicles are designed and regulated to minimize the occurrence and severity of collisions using safety measures that incorporate the latest technology.

Safe Speeds

Humans are unlikely to survive high-speed crashes. Reducing speeds can accommodate human injury tolerances in three ways: reducing impact forces, providing additional time for drivers to stop, and improving visibility.

Safe Roads

Designing to accommodate human mistakes and injury tolerances can greatly reduce the severity of crashes that do occur. Examples include physically separating people traveling at different speeds, providing dedicated times for different users to move through a space, and alerting users to hazards and other road users.

Post-Crash Care

When a person is injured in a collision, they rely on emergency first responders to quickly locate them, stabilize their injury, and transport them to medical facilities. Post-crash care also includes forensic analysis at the crash site, traffic incident management, and other activities.

THE SAFE SYSTEM APPROACH VS. TRADITIONAL ROAD SAFETY PRACTICES

Traditional	Safe System
Prevent crashes	Prevent deaths and serious injuries
Improve human behavior	Design for human mistakes/limitations
Control speeding	Reduce system kinetic energy
Individuals are responsible	Share responsibility
React based on crash history	Proactively identify and address risks

Whereas traditional road safety strives to modify human behavior and prevent all crashes, the Safe System approach also refocuses transportation system design and operation on anticipating human mistakes and lessening impact forces to reduce crash severity and save lives.

WHERE ARE YOU ON THE SAFE SYSTEM JOURNEY?

Implementing the Safe System approach is our shared responsibility, and we all have a role. It requires shifting how we think about transportation safety and how we prioritize our transportation investments. Consider applying a Safe System lens to upcoming projects and plans in your community: put safety at the forefront and design to accommodate human mistakes and injury tolerances. Visit **safety.fhwa.dot.gov/zerodeaths** to learn more.

JATSO analyzed crash data from 2019 to 2023, examining 355 severe crashes that resulted in fatalities and serious injuries. Through a detailed study of crash types, high-risk locations, and contributing factors, the analysis identified critical patterns across the region's most severe traffic incidents, particularly related to human factors such as distracted driving, substance-impaired driving, and unbelted occupants. This data-driven approach provides a roadmap to enhance safety and prevent future tragedies on our streets.

GRAPH 2.1 : CRASH SEVERITY BY YEAR (KSI) 2019 - 2023

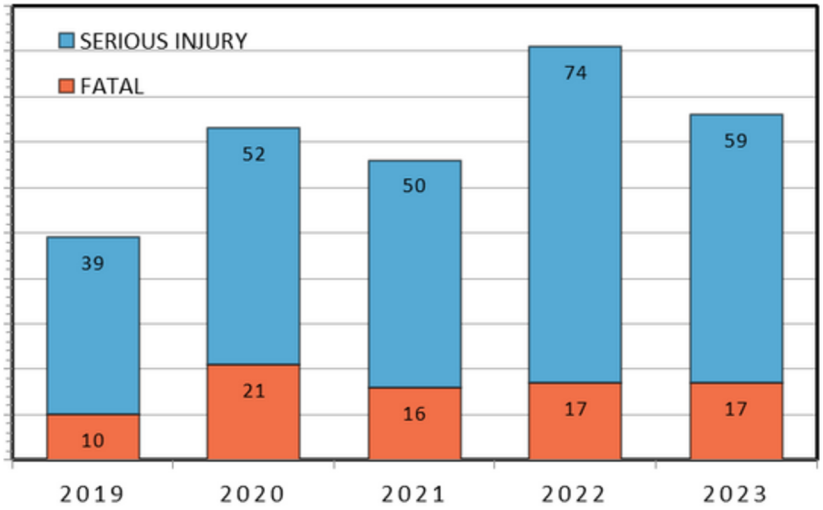


TABLE 2.1 : CRASH TYPE BY YEAR (KSI) 2019 - 2023

Crash Type	Year					Total
	2019	2020	2021	2022	2023	
AVOIDING	0	0	1	2	2	5
BACKING	0	0	0	1	0	1
CHANGING LANE	1	1	0	0	0	2
DEER	1	0	0	1	0	2
DUAL LEFTS	0	0	1	0	0	1
FIXED OBJECT	0	1	1	1	1	4
HEAD ON	6	7	6	1	5	25
LEFT TURN	5	6	9	10	4	34
LEFT TURN RIGHT ANGLE	0	2	3	3	6	14
OTHER	0	1	0	1	1	3
OUT OF CONTROL	15	27	22	37	25	126
PARKING/PARKED CAR	0	1	1	1	0	3
PASSING	1	3	1	1	1	7
PEDALCYCLE	4	4	0	2	1	11
PEDESTRIAN	3	7	2	8	9	29
REAR END	7	3	7	8	9	34
RIGHT ANGLE	6	9	7	12	8	42
RIGHT TURN	0	0	1	0	1	2
RIGHT TURN RIGHT ANGLE	0	0	1	1	1	3
SIDESWIPE	0	1	2	1	2	6
U - TURN	0	0	1	0	0	1
Total	*49*	*73*	*66*	*91*	*76*	*355*

Historical Crash Analysis

Within the JATSO region, 81 fatal crashes and 274 serious injury crashes were reported during the five-year analysis period. **Graph 2.1** shows the annual number of fatal and serious injury crashes in the region.

Since 2019, the JATSO region has seen a significant increase in both fatalities and serious injuries. Fatal crashes more than doubled from 2019 to 2020 and remained 60% to 70% higher than 2019 levels from 2021 through 2023. Similarly, serious injury crashes rose from 39 in 2019 to a peak of 74 in 2022, a 90% increase.

Crash Types

The most common crash type among the fatal and serious injury incidents reported during the five-year analysis period was out-of-control crashes, which accounted for approximately 35.5% of all fatal and serious injury crashes in the JATSO region. The next most common crash types were right-angle crashes (11.8%), non-motorized crashes (11.3%), rear-end crashes (9.6%), and left-turn crashes (9.6%). **Table 2.1** summarizes the fatal and serious injury crashes reported during this period by crash type.

Environmental Factors

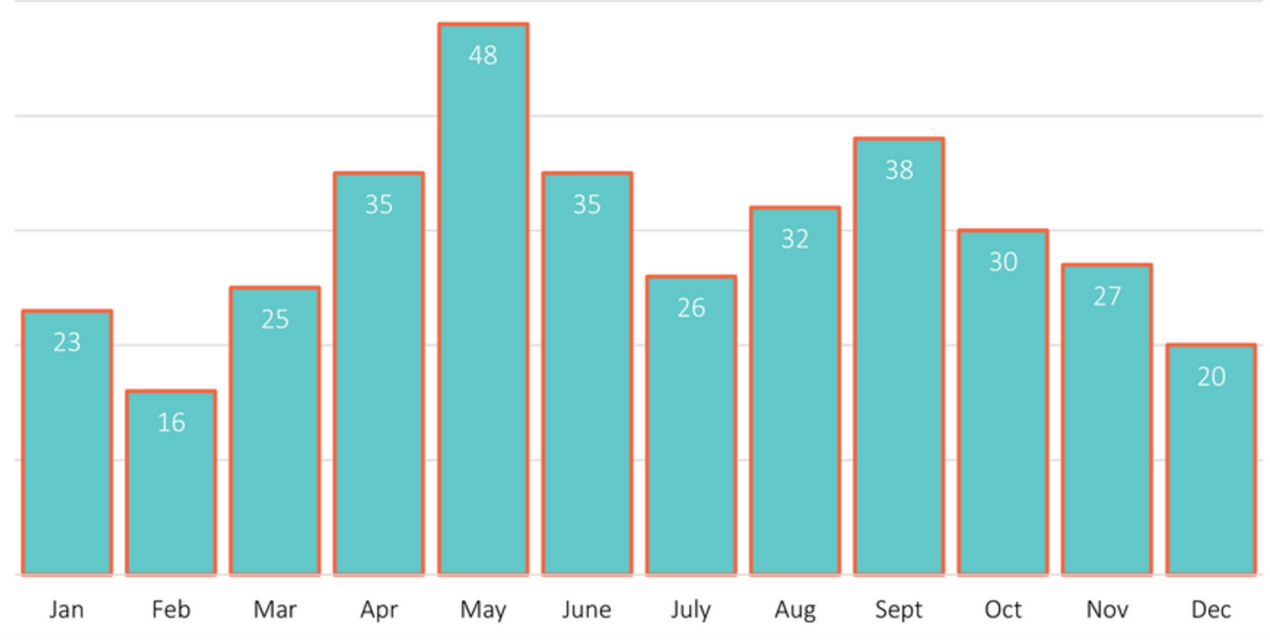
Environmental factors such as lighting, weather, and surface conditions were evaluated for the 355 fatal and serious injury crashes reported in the JATSO region. **Table 2.2** summarizes the contributing factors reported during the five-year analysis period.

Approximately 35 percent (35%) of fatal and serious injury crashes in the region during this period occurred under dark conditions. Approximately 20 percent (20%) were coded as "dark (not lighted)," indicating that there was no street or intersection lighting present at the crash location. Approximately 88 percent (88%) of fatal and serious injury crashes reported in the JATSO region during this analysis period occurred with dry surface conditions, and approximately 70 percent (70%) occurred during clear weather conditions.

TABLE 2.2 : JATSO CRASHES BY CONTRIBUTING CIRCUMSTANCES 2019-2023

LIGHT CONDITIONS	Year					Total
	2019	2020	2021	2022	2023	
DARK - UNKNOWN	0	0	0	0	1	1
DARK - LIGHTS OFF	10	14	13	26	8	**71**
DARK - LIGHTS ON	7	16	8	16	7	**54**
DAYLIGHT	32	43	45	49	60	**229**
Total	***49***	***73***	***66***	***91***	***76***	***355***
SURFACE CONDITIONS	**Year**					**Total**
	2019	2020	2021	2022	2023	
DRY	39	67	57	82	68	**313**
ICE	1	0	0	1	1	**3**
SNOW	0	0	1	0	0	**1**
WET	9	6	8	8	7	**38**
Total	***49***	***73***	***66***	***91***	***76***	***355***
WEATHER CONDITIONS	**Year**					**Total**
	2019	2020	2021	2022	2023	
CLEAR	34	53	44	65	53	**249**
CLOUDY	11	17	18	20	20	**86**
FOG/MIST	0	0	0	0	1	**1**
FREEZING	1	0	0	1	1	**3**
RAIN	3	3	3	5	1	**15**
SNOW	0	0	1	0	0	**1**
Total	***49***	***73***	***66***	***91***	***76***	***355***

Graph #2.2 - JATSO KSI Crashes By Month of the Year (2019 - 2023)



GRAPH 2.2: KSI Crashes by Month of the Year

The crash data for the JATSO Region from 2019 to 2023 reveals significant patterns and areas of concern regarding traffic safety:

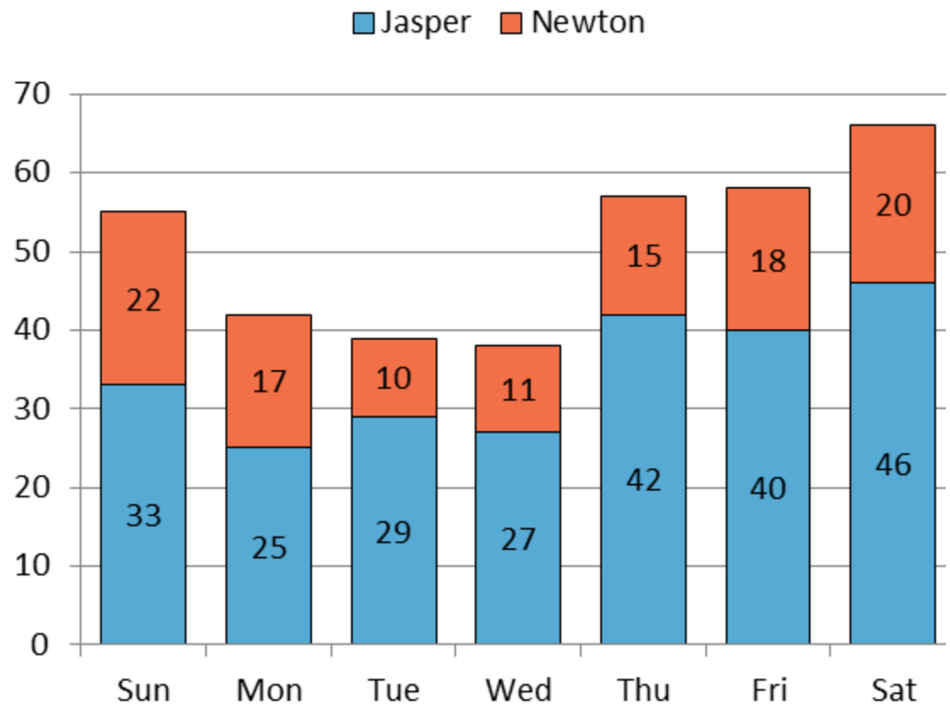
Crashes: 355 KSI reported crashes.

Key Observations

- May stands out as the month with the highest number of crashes at 48, indicating a critical need for targeted safety interventions during this period.
- Following May, September recorded 38 crashes, and April had 35 crashes, highlighting spring and early fall as critical times for traffic safety.
- Overall, seasonal trends suggest that crash rates are generally higher in the spring and fall, while winter months exhibit fewer incidents.

This data emphasizes the need to focus safety efforts during the months identified with higher crash occurrences, particularly in May and September. By addressing these patterns, the JATSO Safety Action Plan can effectively target resources and interventions to enhance roadway safety throughout the year.

Graph #2.3 - JATSO KSI Crashes by Day of the Week (2019 - 2023)

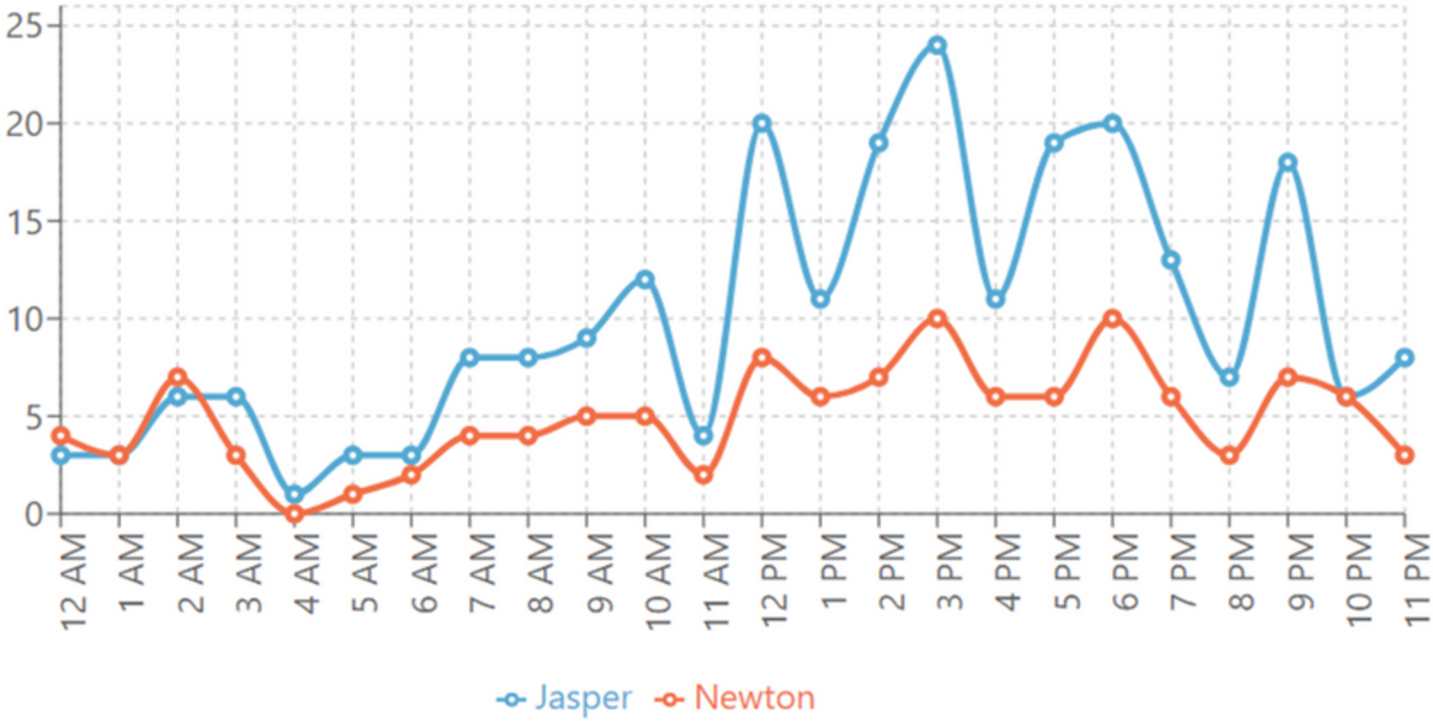


The crash data for Jasper and Newton Counties from 2019 to 2023 reveals distinct patterns in weekday crash occurrences:

- A total of 355 KSI crashes were recorded, with Jasper accounting for 68.2% (242) and Newton for 31.8% (113).
- Saturday emerges as the most hazardous day, with 66 total KSI crashes, followed closely by Friday with 58 KSI crashes.
- There is a clear trend of increasing crash rates as the week progresses, peaking on the weekend.
- Throughout the week, Jasper County consistently experiences more KSI crashes than Newton County.

These findings highlight the need for targeted weekend safety interventions in both counties, particularly addressing Jasper County's significantly higher KSI crash rate on Saturdays.

Graph #2.4 - JATSO KSI Crashes By Time of Day (2019 - 2023)



OVERVIEW

School Impact:
Graph 2.4 indicates that the highest frequency of KSI crashes occurs between 3 PM and 4 PM, coinciding with school dismissal times. This underscores the need for enhanced safety measures around schools during afternoon pickup.

Commute Patterns:
The morning commute (7 AM - 9 AM) also shows a notable increase in KSI crashes, while the evening commute (4 PM - 7 PM) maintains high crash rates, contributing to an extended high-risk period.

Peak Comparison:

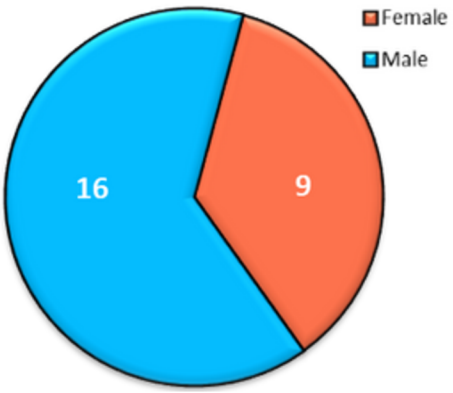
- **Highest Peak:** 3 PM - 4 PM, likely influenced by a combination of school traffic and early commuters returning home.
- **Lowest Peak:** 3 AM - 5 AM, when traffic is minimal.

This comparison highlights the significant impact of daily routines on crash occurrences.

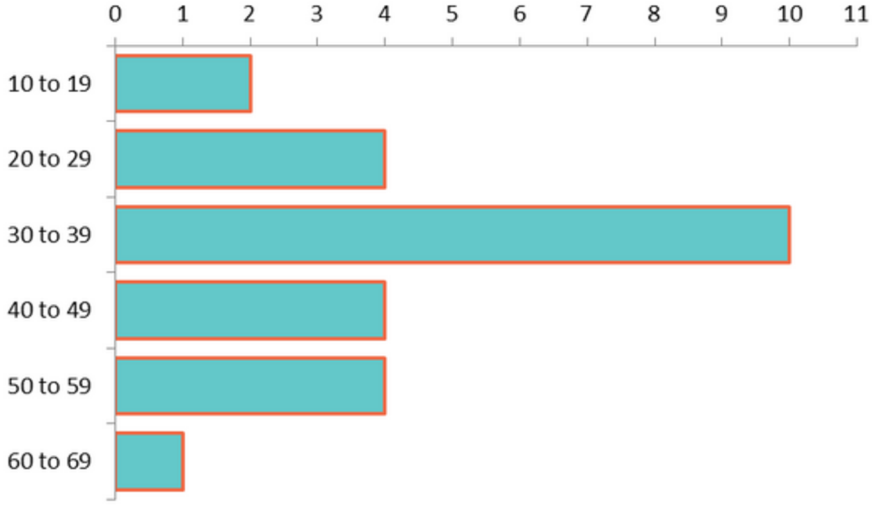
Traffic safety efforts should prioritize school zones during dismissal times and focus on managing commuter traffic, especially during the afternoon peak when school and work commutes overlap.

JATSO Unbelted Fatalities (2019 - 2023)

Graph 2.5 : Unbelted Total Fatalities



Graph 2.6: Unbelted Fatalities by Age Group



JATSO UNBELTED OVER-REPRESENTATION

Total Fatalities: 85
Unbelted Fatalities: 25
Unbelted Occupants: 29.4% of all Fatalities
Demographic Focus: Males (64% of unbelted fatalities)
Seat Belt Usage Rate: 87% (JATSO 2023)
Unbelted Usage Rate: 13%

Step 1: Calculate the Expected Fatalities for Unbelted Occupants based on seat belt usages rate.

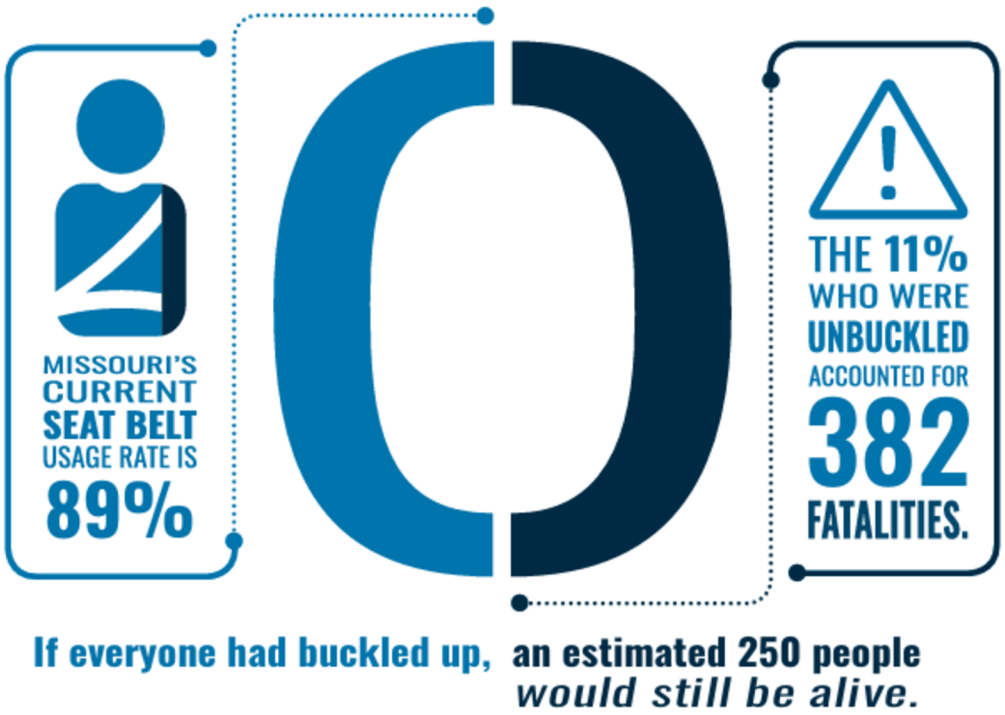
Expected Unbelted Fatalities = Total Fatalities x Unbelted Usage Rate = 85 x 0.13 = 11.05 (Use 11)

Step 2: Calculate the Over-Representation
Actual Unbelted Fatalities: 25
Expected Unbelted Fatalities: 11

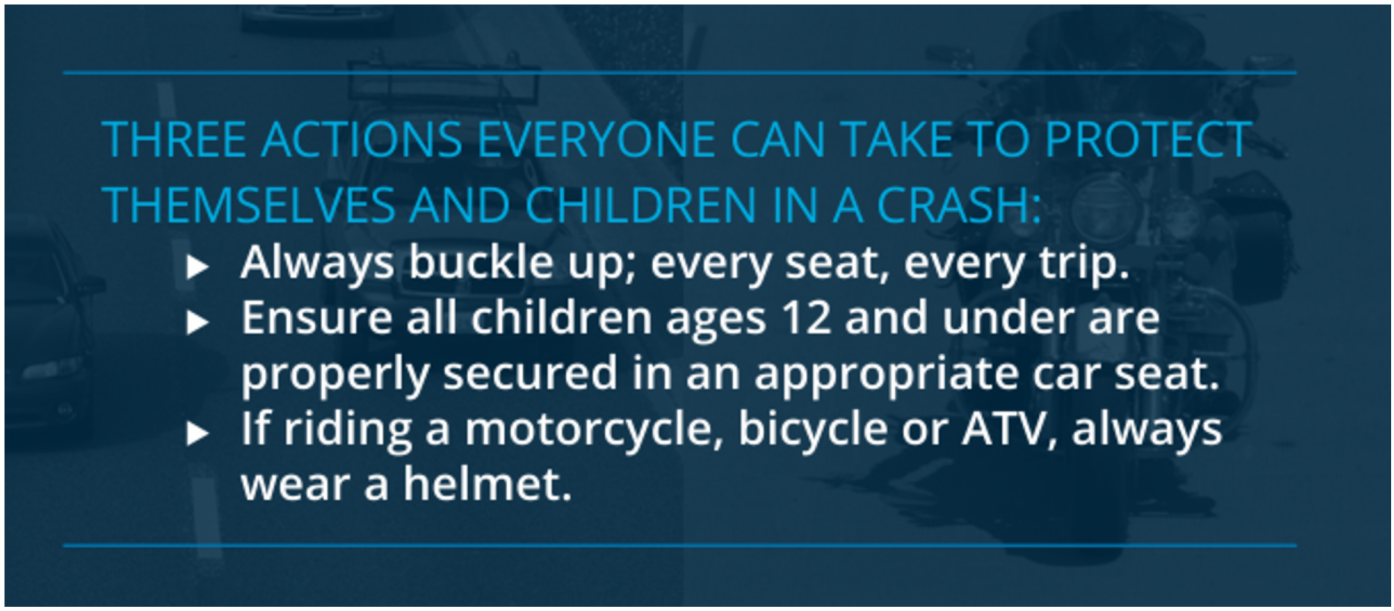
Over-Representation Factor = Actual Unbelted Fatalities/Expected Unbelted Fatalities = 25/11 ≈ 2.27

The over-representation factor for unbelted fatal crashes in JATSO 2019 - 2023 is approximately 2.27. This means that unbelted occupants are about 2.27 times more likely to be involved in fatal crashes than would be expected based on the overall seat belt usage rate.

Unbelted Fatalities (2019 - 2023)



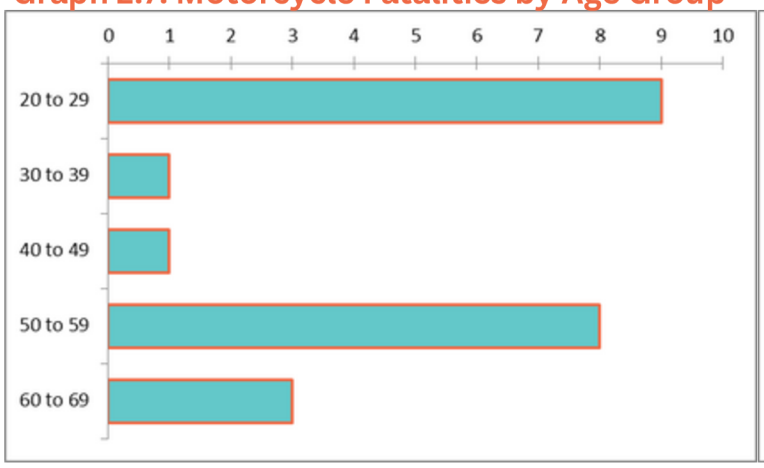
Source: Missouri's Strategic Highway Safety Plan 2021-2025



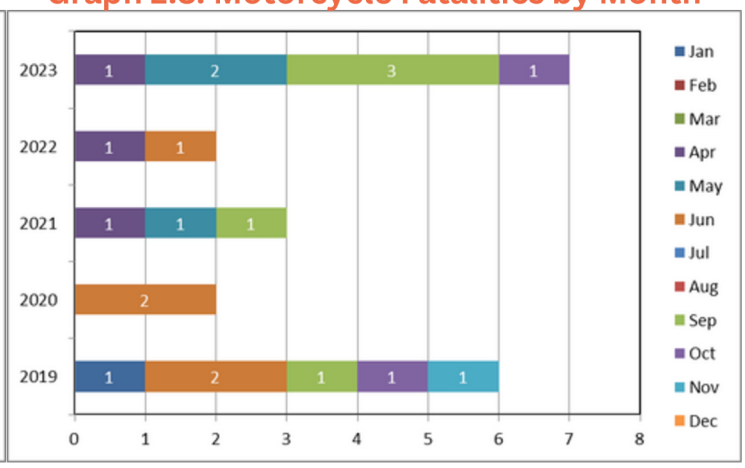
Source: Missouri's Strategic Highway Safety Plan 2021-2025

JATSO Motorcycle Crash Fatalities

Graph 2.7: Motorcycle Fatalities by Age Group



Graph 2.8: Motorcycle Fatalities by Month



Motorcycle crashes accounted for **25.88%** of all fatalities in the JATSO region (22 out of 85 fatalities).

Motorcycle Crashes

- **Total Motorcycle Crashes:** 321
- **Fatal Crashes:** 22
  - **Straight:** 20
  - **Daylight:** 16
  - **State System:** 14
  - **Left Turns:** 8
  - **No Helmet:** 7 (~32% of Motorcycle Fatalities)
  - **Out of Control:** 6
- **Demographic Focus:** Males (95.45% of Motorcycle Fatalities)
- **SI Crashes**: 66
- **Minor Injury Crashes:** 164
- **PDO Crashes**: 69





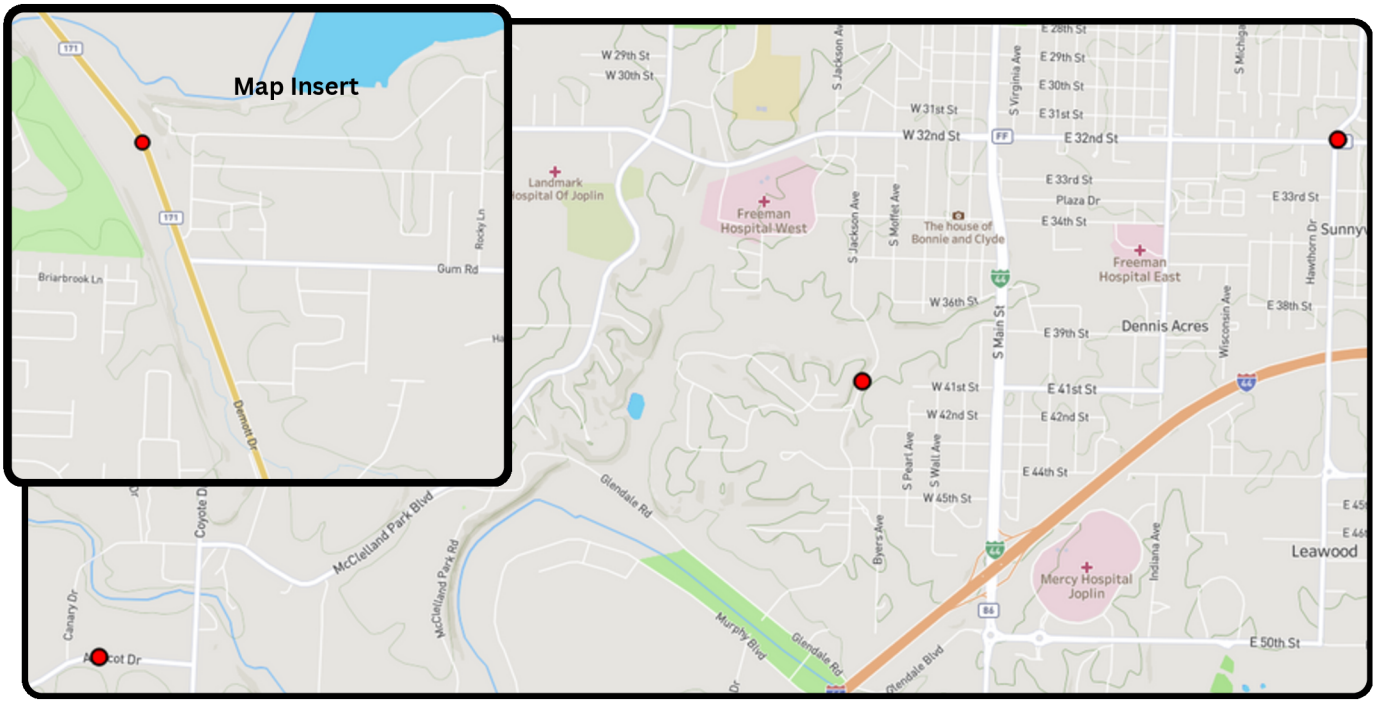
Source: Missouri's Strategic Highway Safety Plan 2021-2025

Source: MCRS

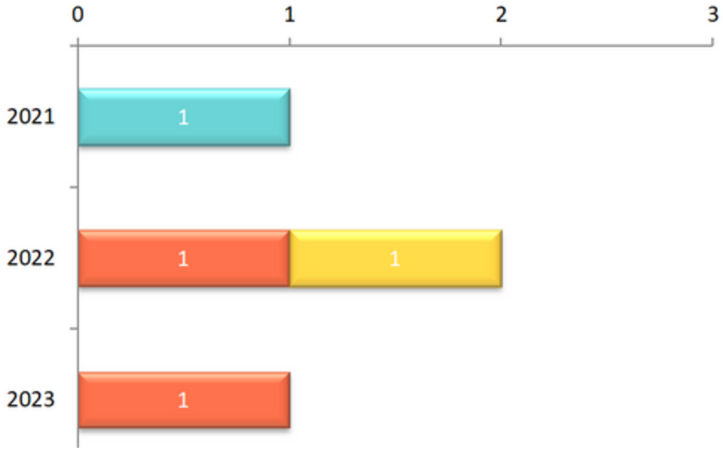
JATSO Distracted Drivers in Fatal Crashes (2019 - 2023)

4

Fatalities Involving a Distracted Driver



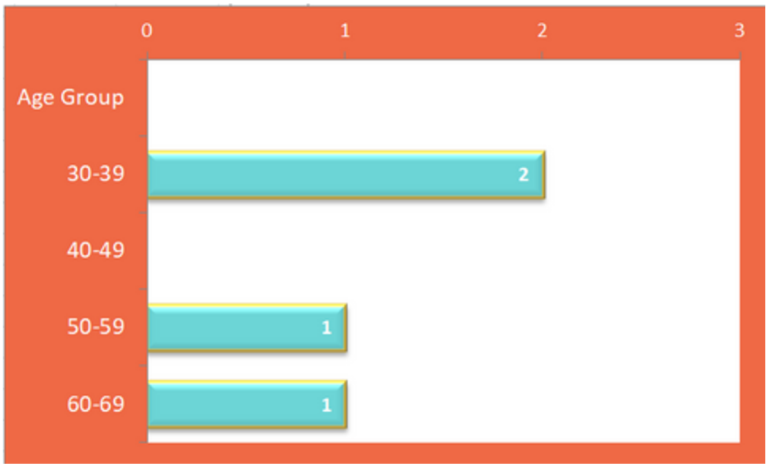
Fatalities by Year & Month



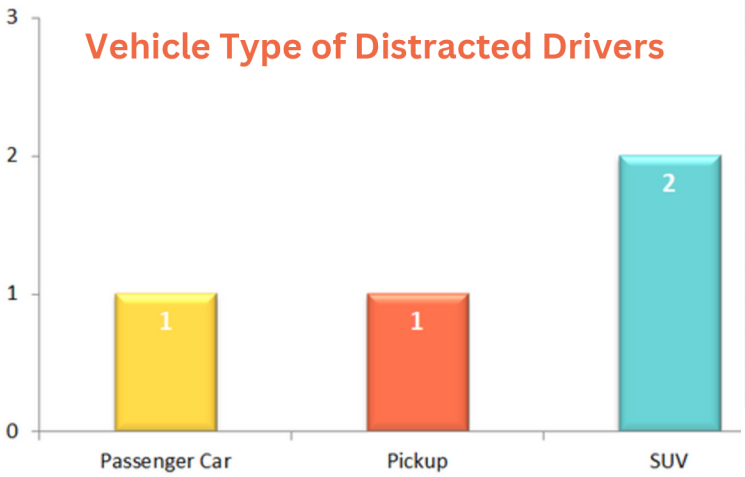
Gender of Distracted Drivers



Age of Distracted Drivers



Vehicle Type of Distracted Drivers



Source: MCRS

Distracted Driving in the JATSO Region (2019-2023)

Overview
Distracted driving is a critical factor influencing road safety nationally. Between 2019 and 2023, a total of 300 injury crashes were attributed to distracted driving, encompassing both KSI incidents and minor injuries in the JATSO region. However, it's important to note that distracted driving crashes are likely underreported, as officers may not always be able to ascertain whether a driver was using a mobile device at the time of the crash.

Crash Data Summary
- **Total Reported Distracted Driving Injury Crashes:** 300
  - **KSI Crashes:** 38
  - **Fatal Crashes:** 4
    - **Fatalities:** 4
  - **Serious Injury Crashes:** 34
    - **Serious Injuries:** 47
  - **Minor Injury Crashes:** 262
    - **Minor Injuries:** 399

Conditions and Contributing Factors
- **Road Conditions:** 35 crashes occurred on dry pavement, indicating that weather conditions are not a primary factor in these incidents.
- **Road Alignment:** 34 crashes took place on straight roads, suggesting that distractions can occur even in less complex driving environments.
- **Lighting Conditions:** 30 crashes occurred during daylight hours, demonstrating that distractions affect drivers regardless of visibility.
- **Loss of Control:** 13 crashes were categorized as out of control, highlighting the severe impact distractions can have on vehicle handling.

Supporting Data
Recent data from AT&T indicates that nearly 9 out of 10 drivers engage in some form of smartphone usage while driving. This statistic underscores the prevalence of distractions and their potential role in increasing the risk of crashes. Additionally, the JATSO Community Online Survey (See Appendix) identified distracted driving as the top priority for safety improvements, reflecting community concerns regarding this issue.

Implications for Safety
The data reveals a concerning trend in distracted driving, particularly in KSI incidents, where the consequences can be fatal. With 300 injury crashes, interventions are necessary to address this widespread safety issue.

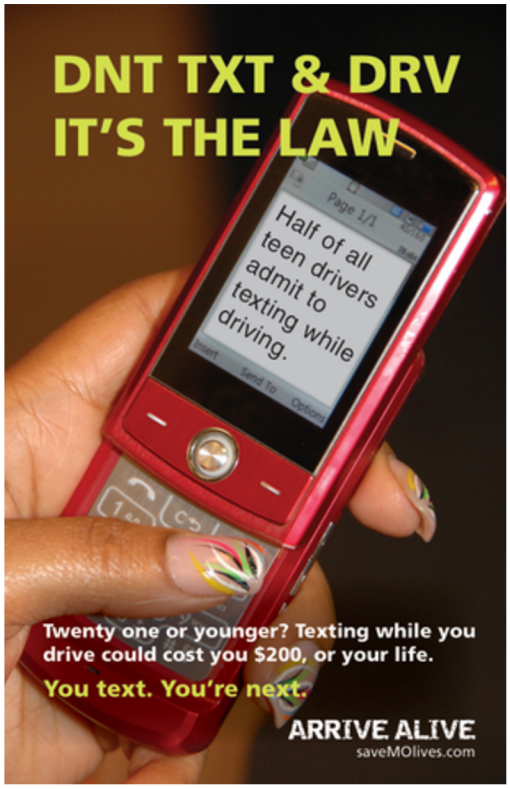
Strategies for Improvement

- **Public Awareness Campaigns:** Implement educational initiatives available through the Missouri Coalition for Roadway Safety (MCRS) to inform drivers about the risks associated with distracted driving, utilizing social media, local advertising, and community events.
- **Enhanced Enforcement:** Collaborate with law enforcement to increase the monitoring and enforcement of distracted driving laws, particularly in high-incident areas.
- **Community Programs:** Partner with local organizations to conduct workshops and seminars on safe driving practices, emphasizing the dangers of distractions such as mobile phone use.
- **In-Vehicle Technology:** Promote the use of in-vehicle technology that minimizes distractions, such as hands-free devices and apps that limit phone functionality while driving.
- **Infrastructure Improvements:** Evaluate high-crash locations for potential enhancements, such as improved signage or road markings that remind drivers to focus on the road.

Addressing distracted driving is essential for improving safety on JATSO roads. By implementing targeted strategies that raise awareness and promote safe driving behaviors, the region can work toward reducing the number of KSI crashes related to distractions. The community's prioritization of this issue highlights the need for effective interventions.

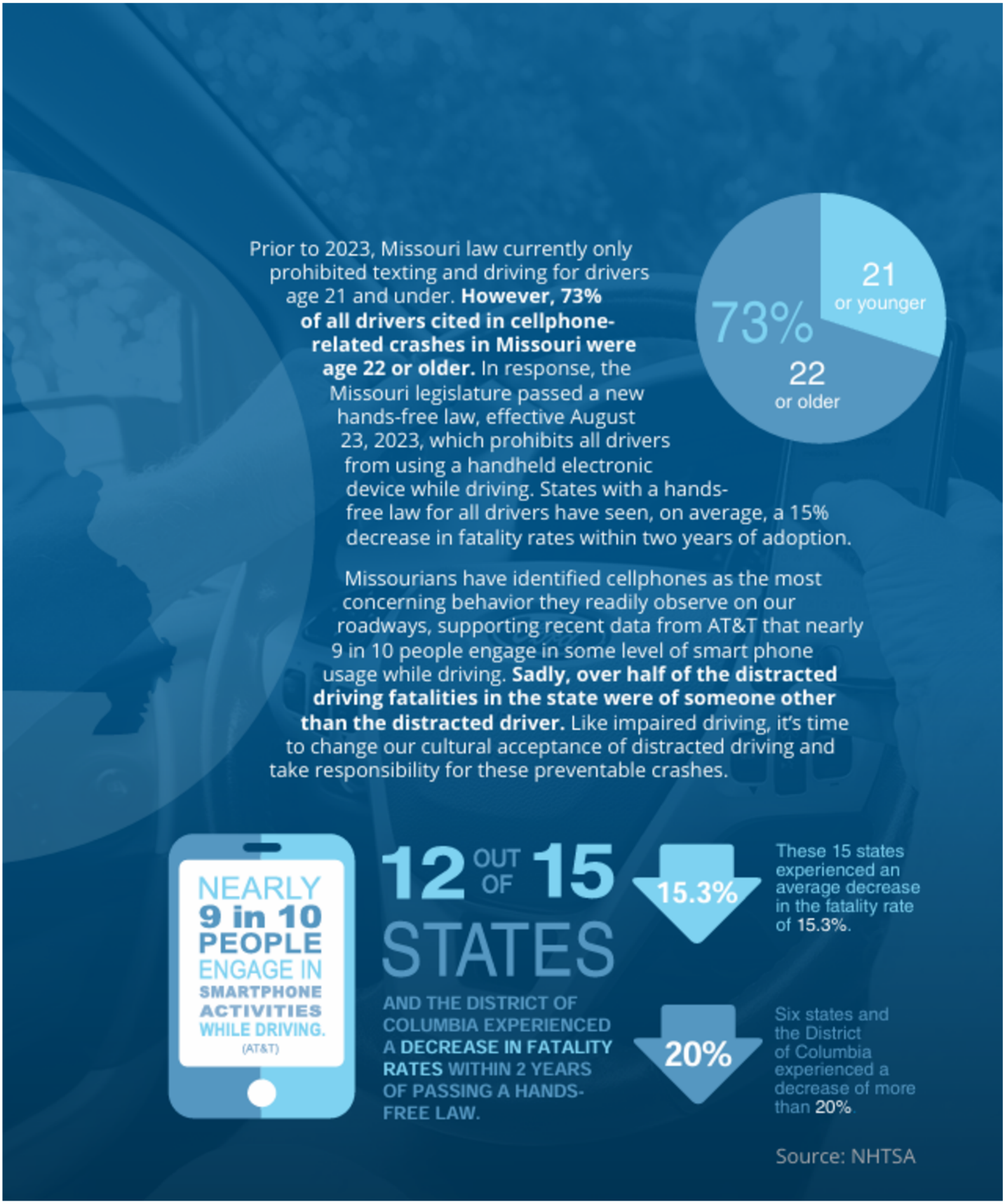


Source: MCRS



Source: MCRS

Distracted driving emerged as the community's most pressing safety concern, cited over 50 times in the online survey. These targeted strategies respond directly to residents' urgent feedback while working to reduce distraction–related crashes in our region

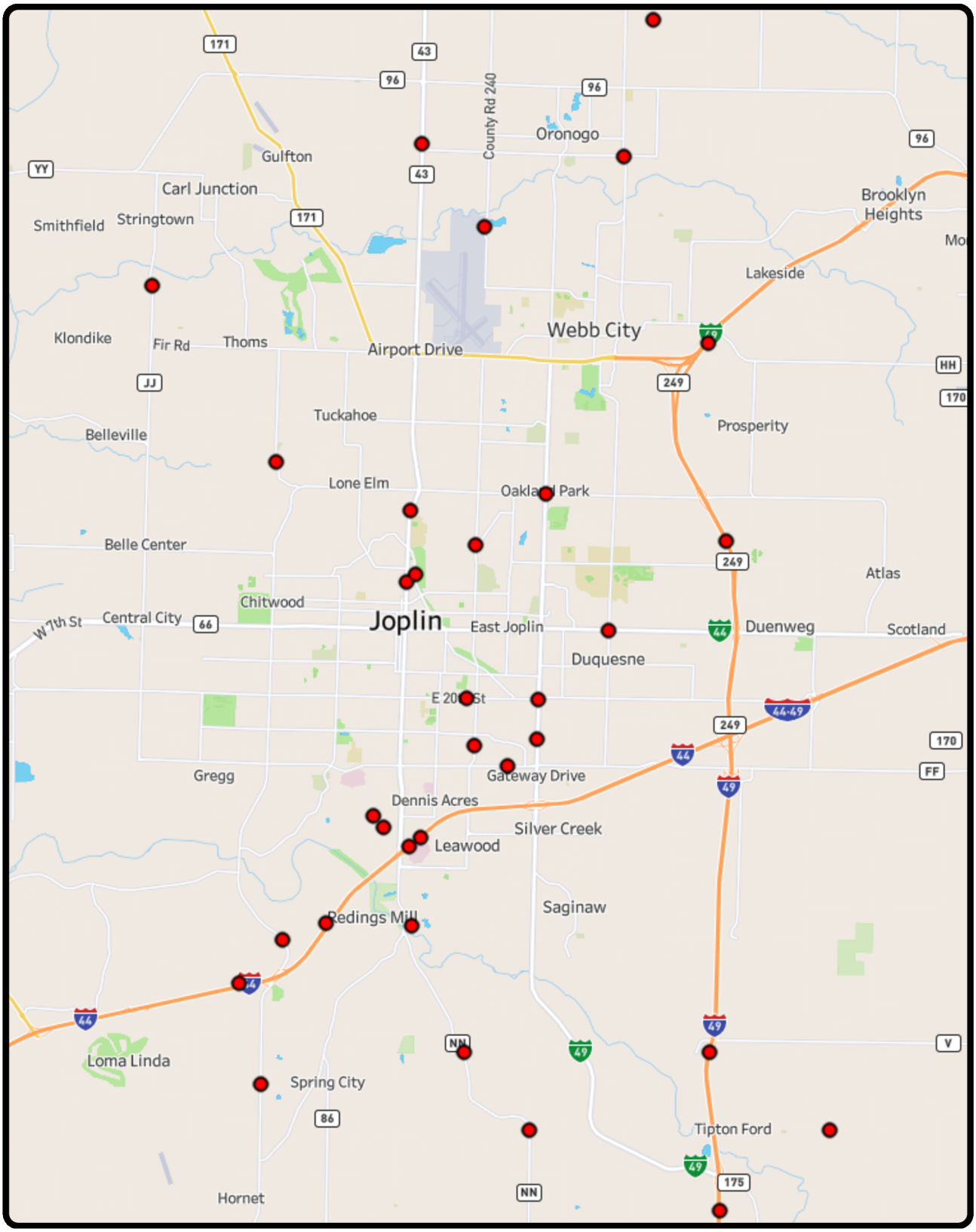


Source: Missouri's Strategic Highway Safety Plan 2021-2025

JATSO Aggressive Driving Fatalities (2019 - 2023)

36

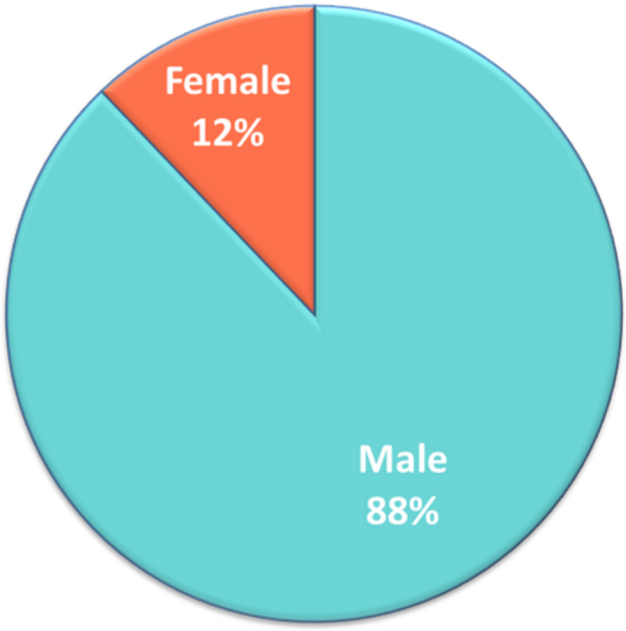
Fatalities caused by Aggressive Drivers



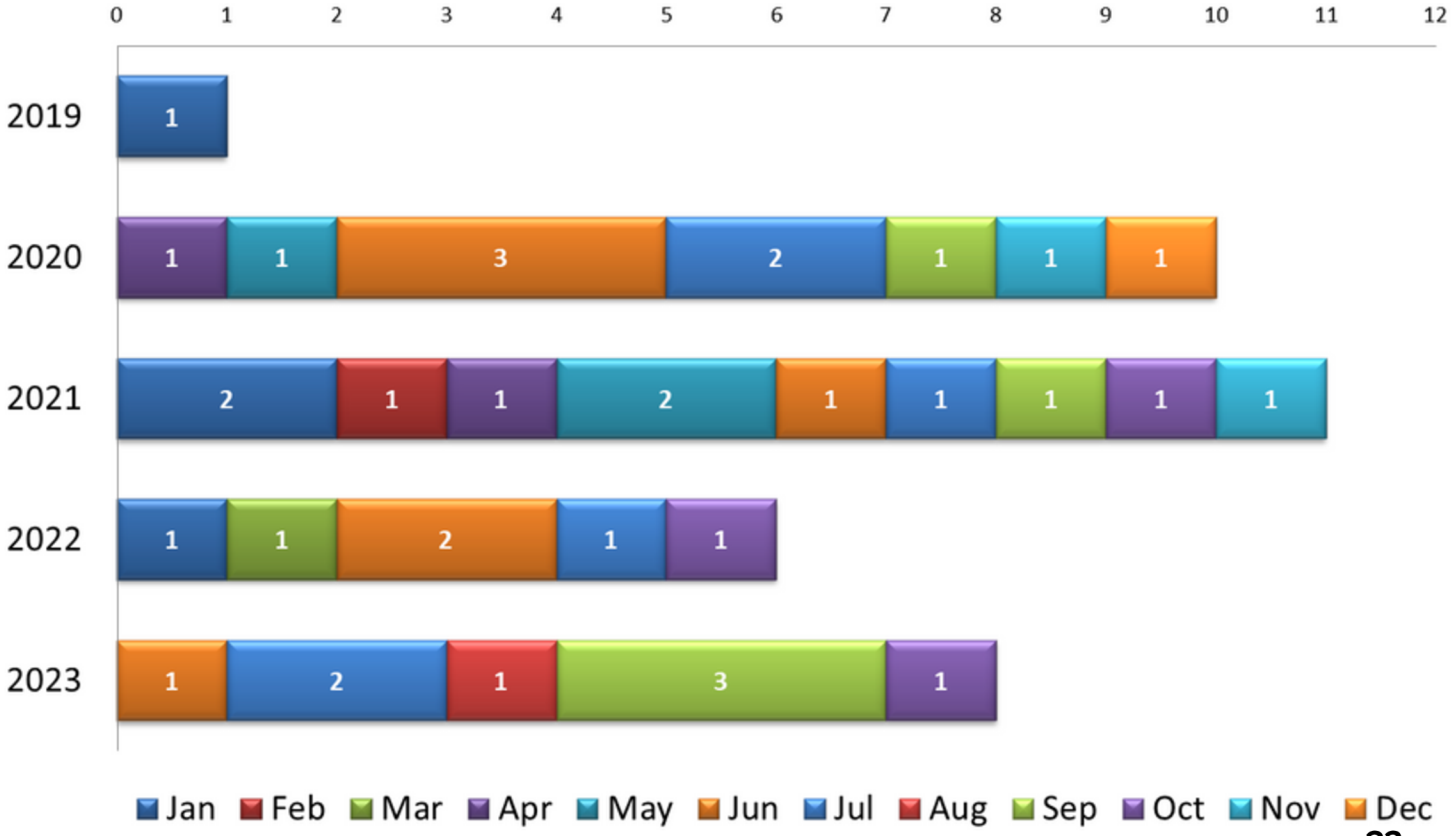
Source: MCRS

JATSO Aggressive Driving Fatalities (2019 - 2023)

Gender of Aggressive Drivers



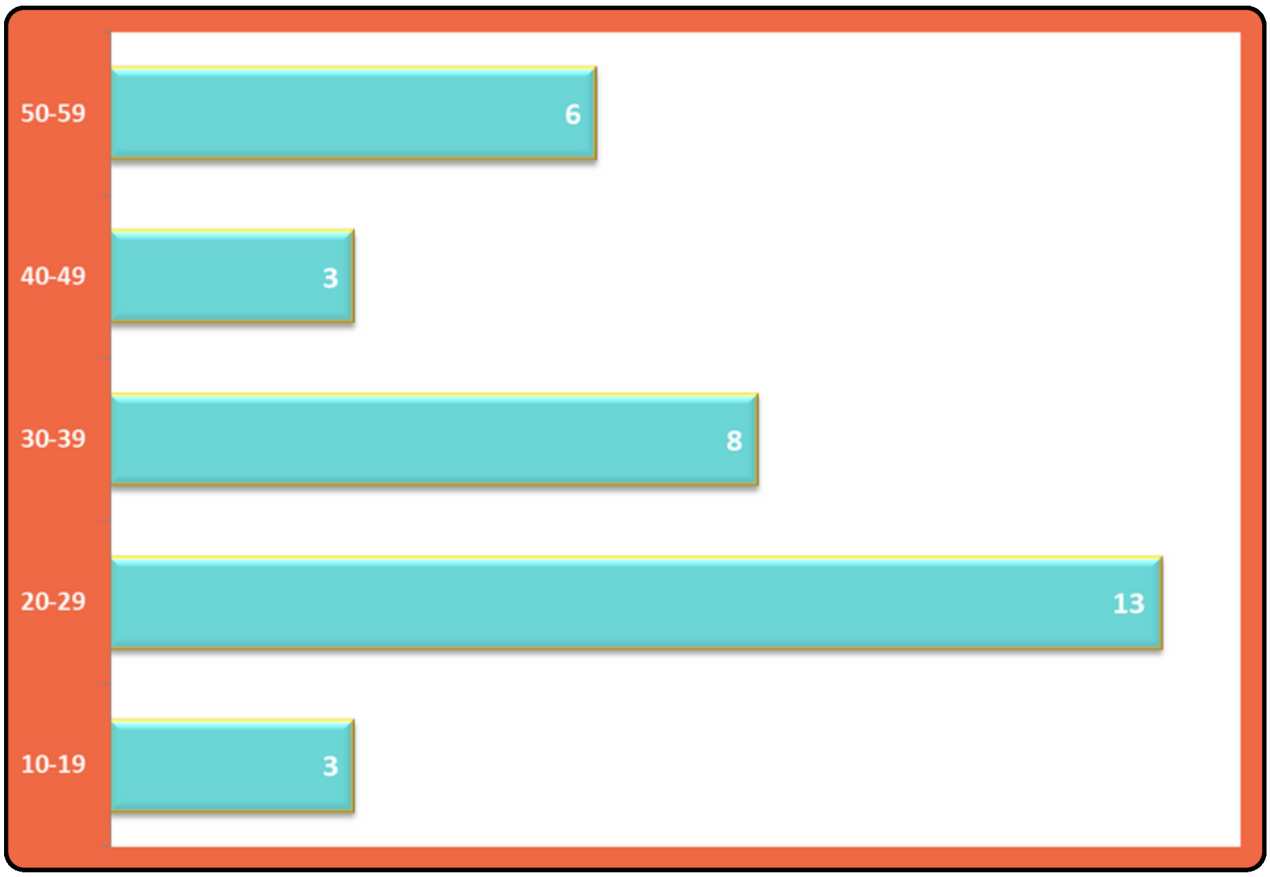
Fatalities by Year & Month



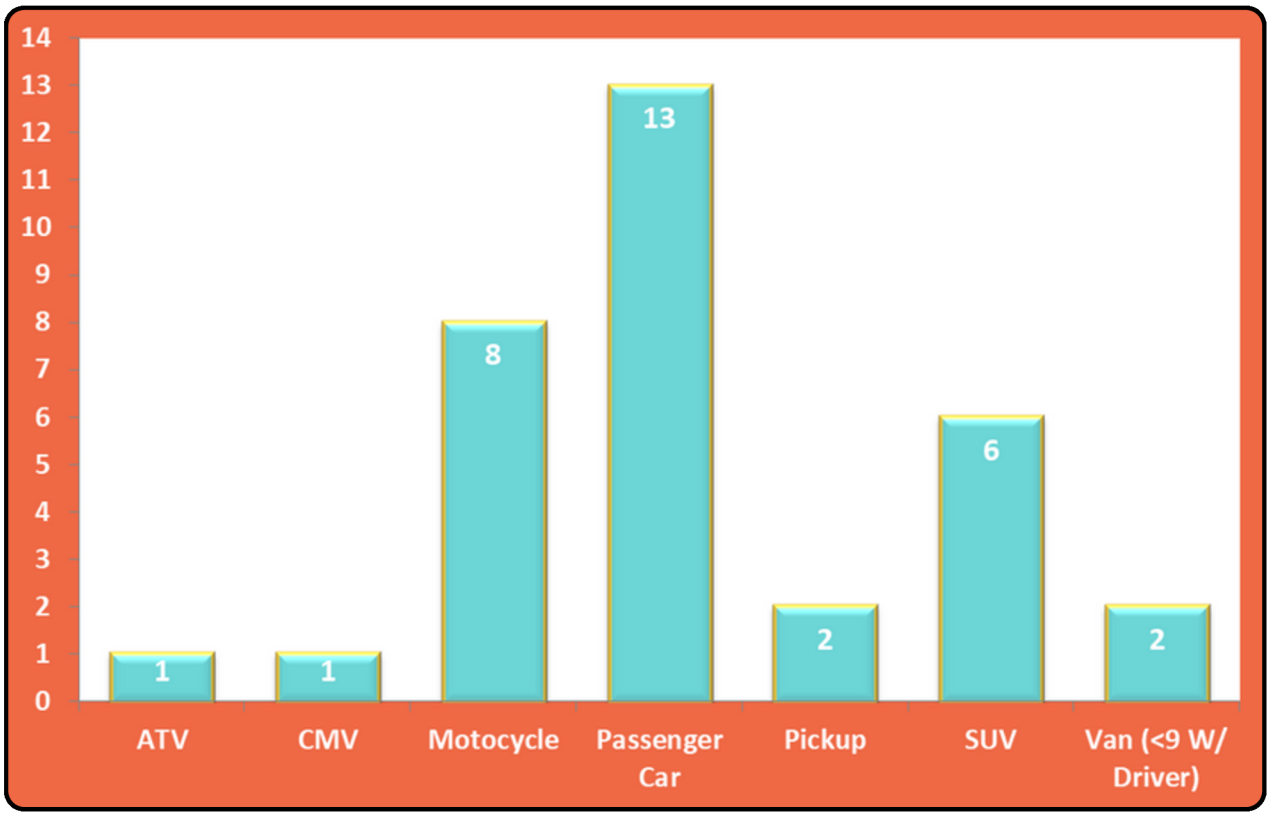
Source: MCRS

JATSO Aggressive Driving Fatalities (2019 - 2023)

Age of Aggressive Drivers



Vehicle Type of Aggressive Drivers



Source: MCRS

Summary of Aggressive Driver Crashes (2019-2023)

Introduction

Aggressive Driving Crash – A crash that involved a driver who was cited for one or more of the following actions: exceeding the speed limit, driving too fast for conditions, following too closely, improper passing or improper lane usage/change (Missouri's Strategic Highway Safety Plan 2021-2025). Aggressive driving poses a significant threat to road safety in the JATSO region, contributing to a total of 36 traffic fatalities from 2019 to 2023. (42.35% of all fatalities).

Aggressive Drivers Crashes

- **Total Aggressive Drivers Crashes:** 798
- **Fatal Crashes:** 33
  - **Fatalities:** 36
    - **Single Vehicle:** 20
    - **Out of Control:** 17
- **Serious Injury Crashes:** 84
- **Minor Injury Crashes:** 681

Demographics & Conditions (Aggressive Drivers Fatal Crashes)

- **Driver Gender:** Males were involved in 29 of the 33 fatal crashes (87.88%).
- **Crash Conditions:**
  - **Daylight Conditions:** 18 crashes occurred during daylight.
- **Location:**
  - 17 crashes on state systems.
  - 17 crashes at intersections.

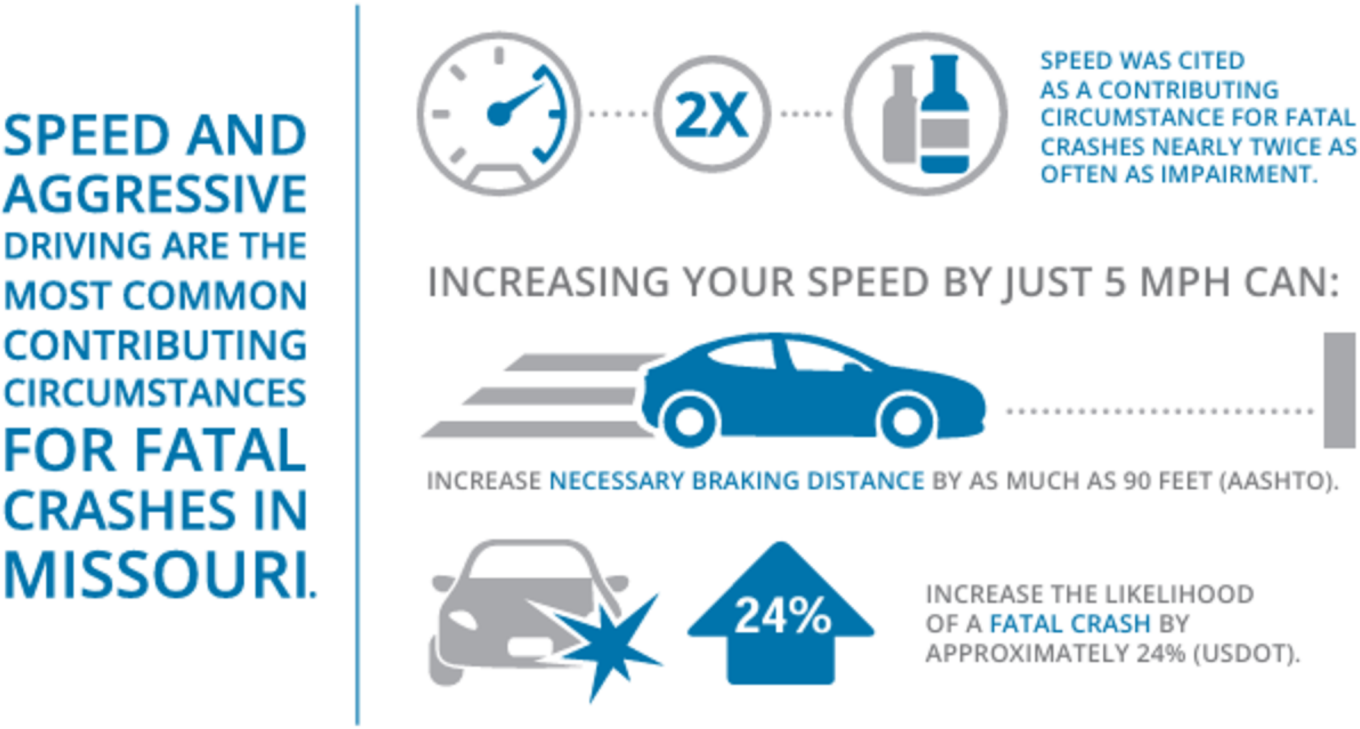
Implications for Safety

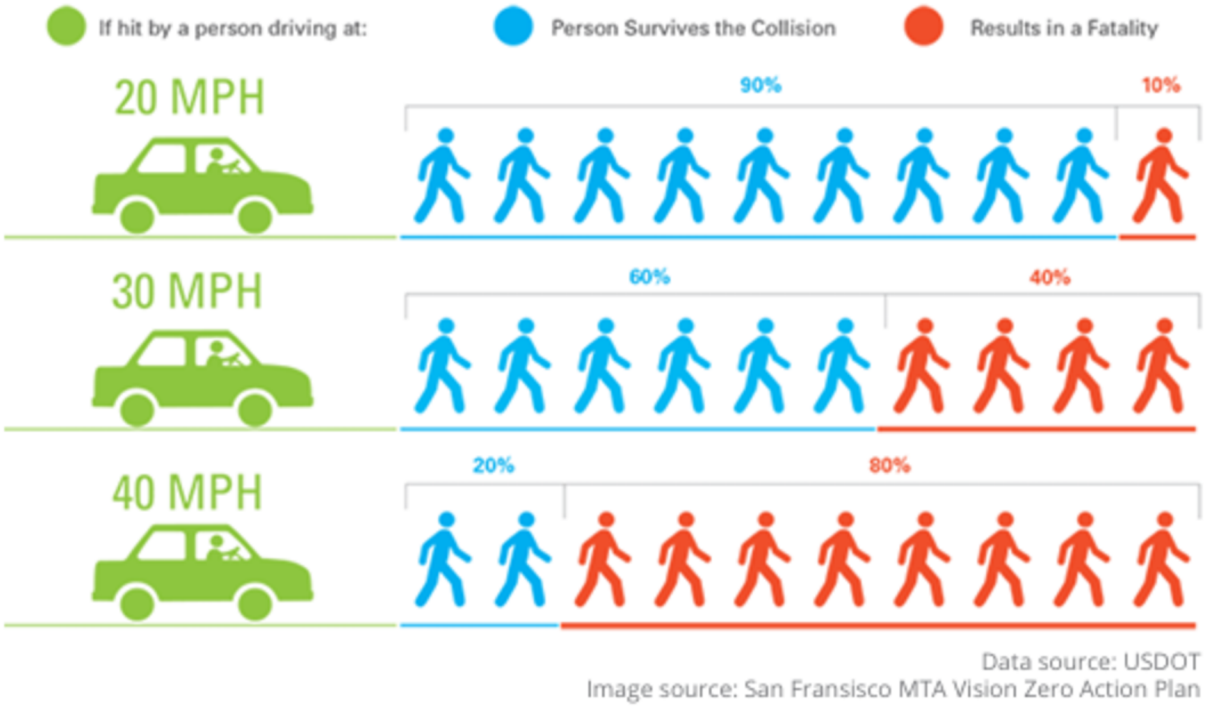
The data underscores a clear link between aggressive driving behaviors and fatal outcomes, necessitating targeted interventions to improve road safety.

Strategies for Improvement

- **Public Awareness Campaigns:** Launch initiatives to educate drivers on the dangers of aggressive driving through various media channels partnering with the MCRS.
- **Enhanced Enforcement:** Increase law enforcement presence in high-risk areas to deter aggressive driving.
- **Community Engagement:** Partner with local organizations to promote safe driving initiatives and awareness programs.
- **Infrastructure Improvements:** Assess high-crash locations for potential enhancements to reduce aggressive driving incidents.

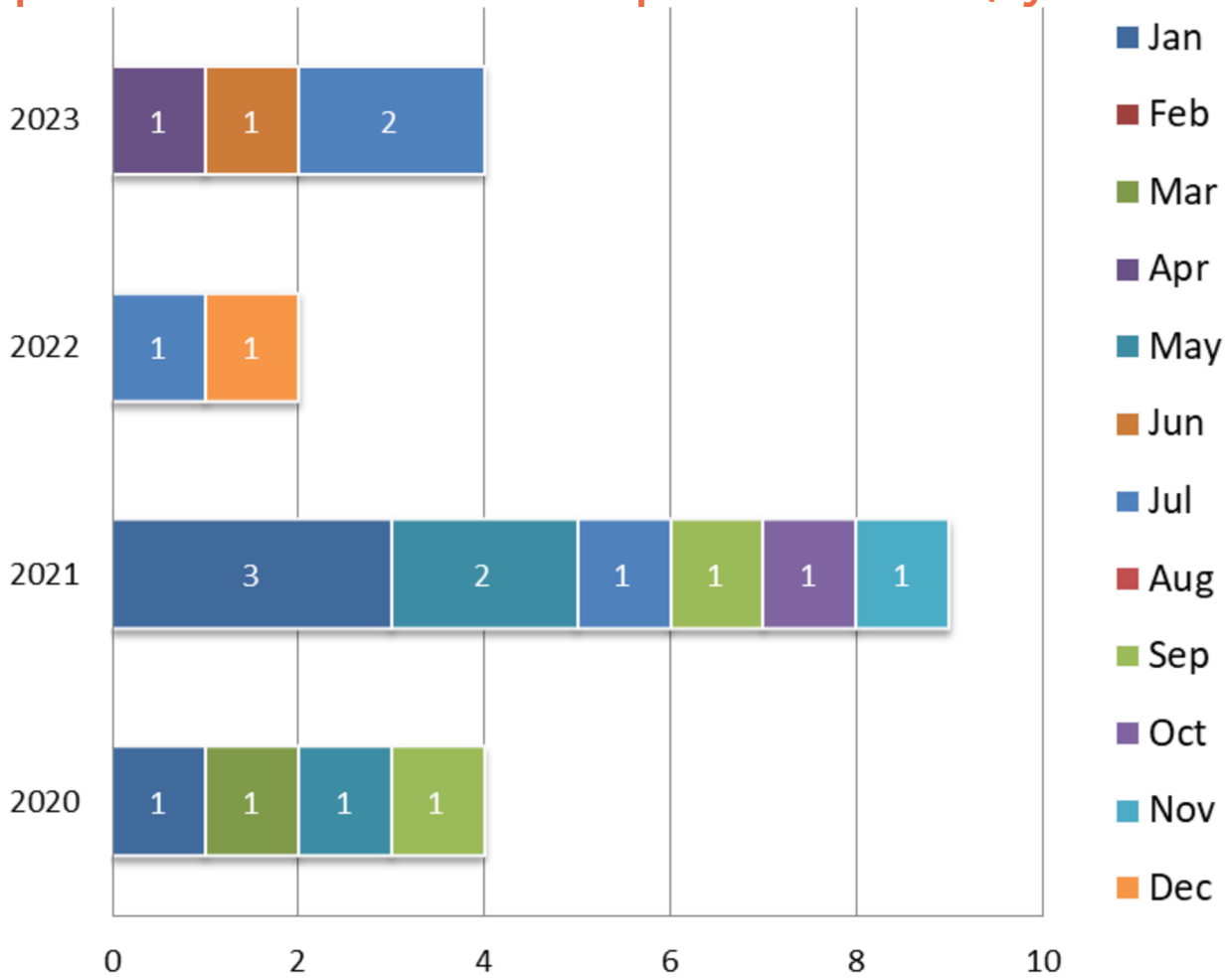
Addressing aggressive driving is crucial for reducing fatalities and serious injuries in the JATSO region. By implementing targeted strategies, stakeholders can foster a safer driving environment for all road users.





Source: Missouri's Strategic Highway Safety Plan 2021-2025

Graph #2.9 - JATSO Substance Impaired Fatalities (by Year & Month)



Overview

Substance-impaired driving remains a major concern in the JATSO region, significantly impacting traffic safety.

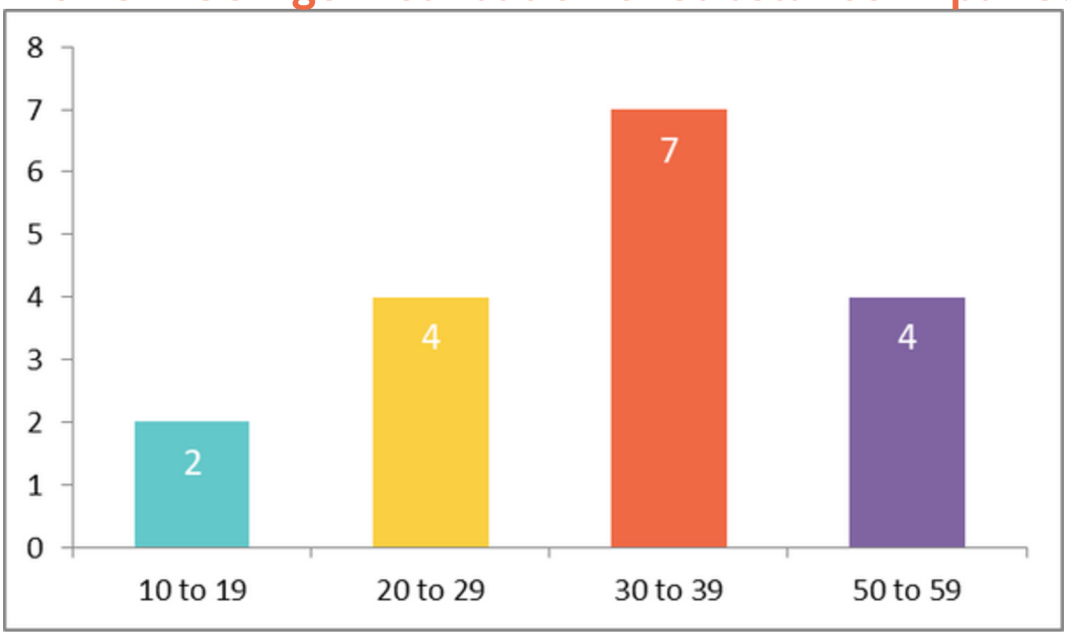
Crash Data Analysis Substance Impaired Fatal Crashes

From the crash data analyzed, the following statistics have been identified:

- **Total Fatal Crashes:** 17
- **Total Fatalities:** 19
  - **Male Drivers Involved:** 14 (82.35%)
  - **Out of Control Crashes:** 13
  - **Crashes on Curves:** 9
  - **Crashes Occurring During Daylight:** 9
- **Fatality Distribution by Day**
  - Sunday: 5 fatalities
  - Saturday: 5 fatalities
  - Friday: 3 fatalities

Overall, substance impaired driving contributes to **22.35% of all fatalities** in the JATSO region, underscoring the need for targeted interventions.

Graph #2.10 - JATSO Age Distribution of Substance Impaired Drivers



Source: MCRS

GRAPH #2.6: The above graph illustrates the number of fatal crashes by the age of substance-impaired drivers:

- Ages 10 to 19: 2 fatal crashes
- Ages 20 to 29: 4 fatal crashes
- Ages 30 to 39: 7 fatal crashes
- Ages 50 to 59: 4 fatal crashes

Understanding the age demographics of these drivers is crucial for developing targeted interventions aimed at reducing impaired driving incidents. The data reveals that the highest number of fatal crashes occurred among drivers aged 30 to 39, underscoring the need for focused educational campaigns and enforcement strategies aimed at this age group. **Note: 82.35% of substance-impaired fatal crashes involved male drivers.**

By identifying the specific age groups most affected, we can tailor our outreach efforts and community engagement initiatives to address the unique challenges faced by these drivers. This data-driven approach will help us implement effective measures to enhance roadway safety and reduce the incidence of substance-impaired driving in the JATSO region.

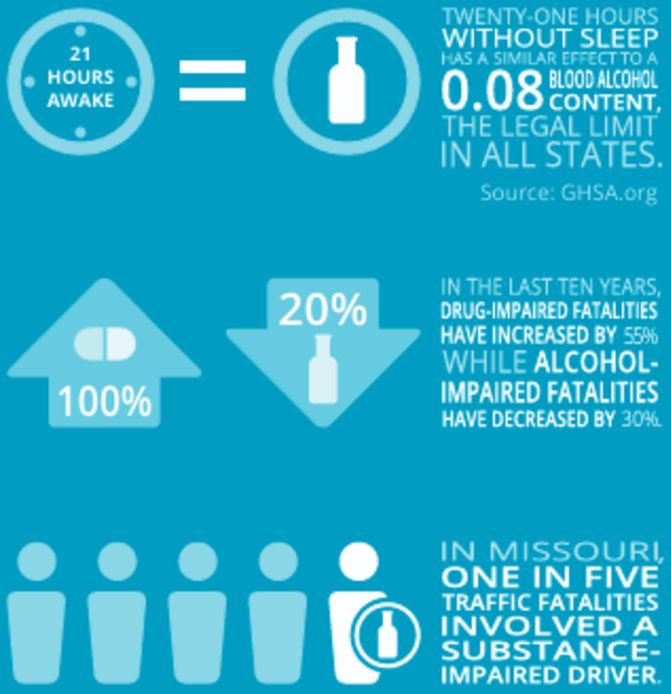
Missouri Substance-Impaired Driving Statistics

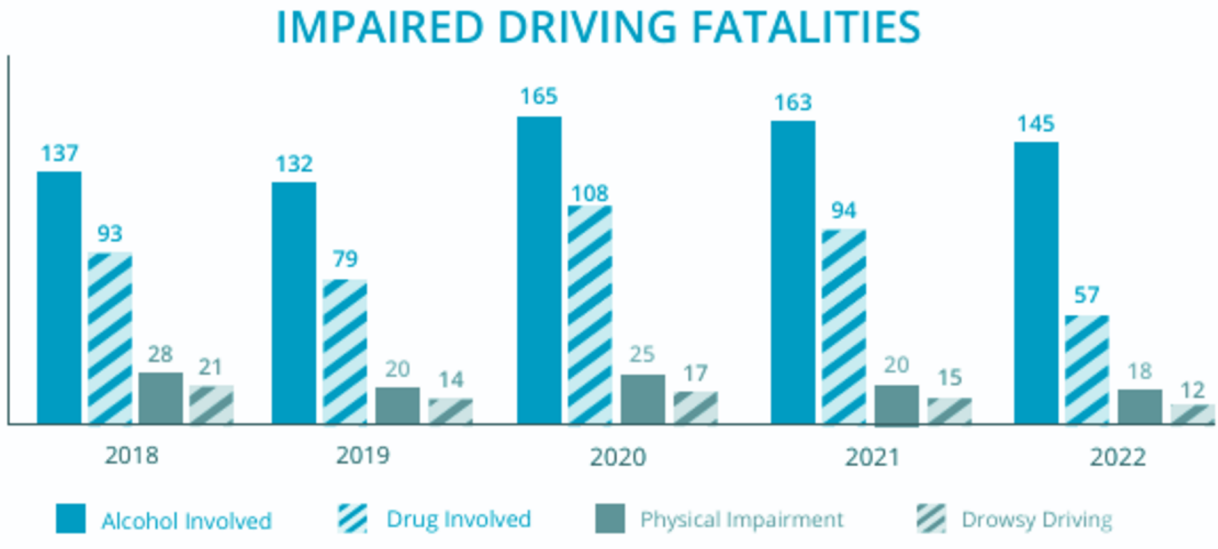
(Based on 2023 Data)

- Increase in drug-impaired fatalities over the last 10 years - **24%**
- Decrease in alcohol-impaired fatalities over the last 10 years - **15%**
- People killed in traffic crashes involving a substance-impaired driver (in 2023) - **183**
- Hours without sleep has the equivalent effect of a 0.08 BAC - **21**

Though not a substance, research has consistently shown fatigued drivers often operate similarly to substance-impaired drivers. In fact, the Governors Highway Safety Association reports that driving after 21 hours of no sleep has the same impact as a 0.08 blood alcohol content, the legal limit in Missouri. Furthermore, more than half of the drowsy driving crashes in the US involve a driver age 25 or younger.

Other forms of impairment can include physical or cognitive limitations that inhibit a driver's ability to adequately observe, react and maneuver as necessary. All potential drivers, regardless of age, should be examined to ensure they are fit to drive. For some, this may require more frequent screening than usual by family members or health professionals.

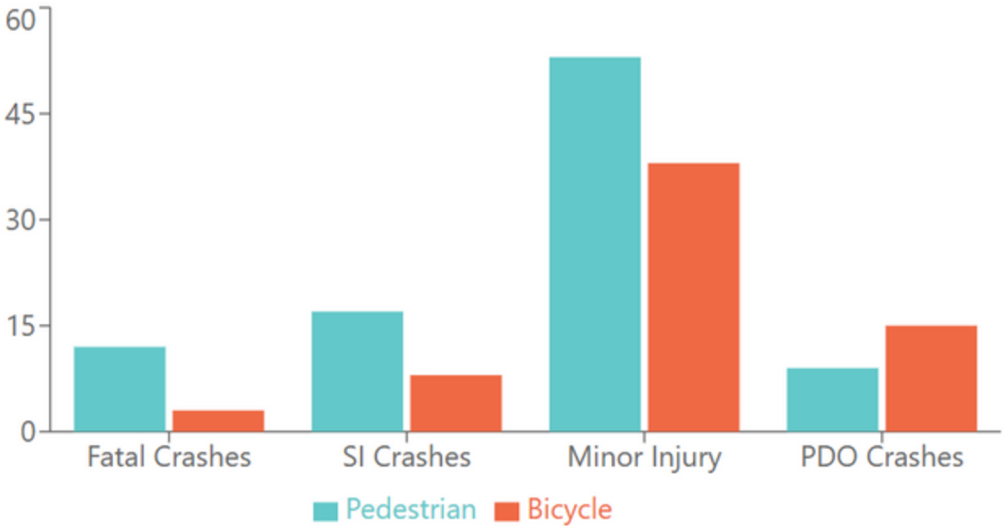




Source: Missouri's Strategic Highway Safety Plan 2021-2025

JATSO Non-Motorized Crash Comparison (2019 - 2023)





JATSO Non-Motorized Crash Summary (2019 -2023)

The analysis of non-motorized crashes from 2019 to 2023 reveals important safety patterns that warrant attention. **Non-motorized crashes accounted for 17.65% of all fatalities** in the JATSO region (15 out of 85 fatalities).

Pedestrian Crashes

- **Total Pedestrian Crashes:** 91
- **Fatal Crashes:** 12
  - Crashes on State Systems: 12
  - Crashes on Straight Roads: 11
  - Crashes in Dark Conditions: 9
  - Crashes on the Interstate: 6
  - Crashes Involving Commercial Motor Vehicles (CMVs): 4
- **Serious Injury Crashes:** 17
- **Minor Injury Crashes:** 53

The data show that many pedestrian fatalities occurred when individuals were not yielding at crosswalks, indicating a need for greater awareness of right-of-way rules. The significant number of crashes in low-light conditions further highlights the importance of visibility and safe crossing practices.

Bicycle Crashes

- **Total Bicycle Crashes:** 64
- **Fatal Crashes:** 3
  - Crashes on State Systems: 3
  - Crashes on Straight Roads: 3
  - Crashes at Intersections: 2 (in dark conditions)
- **Serious Injury Crashes:** 8
- **Minor Injury Crashes:** 38

Overall, these findings emphasize the need for enhanced safety measures, education, and infrastructure improvements to protect non-motorized road users in the JATSO region.

JATSO Non-Motorized Crash Summary (2019 -2023)

In the case of bicycle fatalities, several contributing circumstances were identified: the absence of lights or reflectors at night, loss of control on a sidewalk (potentially due to a tire blowout) that resulted in the bicyclist entering the roadway and into oncoming traffic, and improper lane use or changes at night combined with an inattentive driver. These factors underscore the critical importance of visibility and attentiveness for both cyclists and motorists.

Key Safety Concerns
The data reveals several areas that could benefit from enhanced education and outreach efforts:

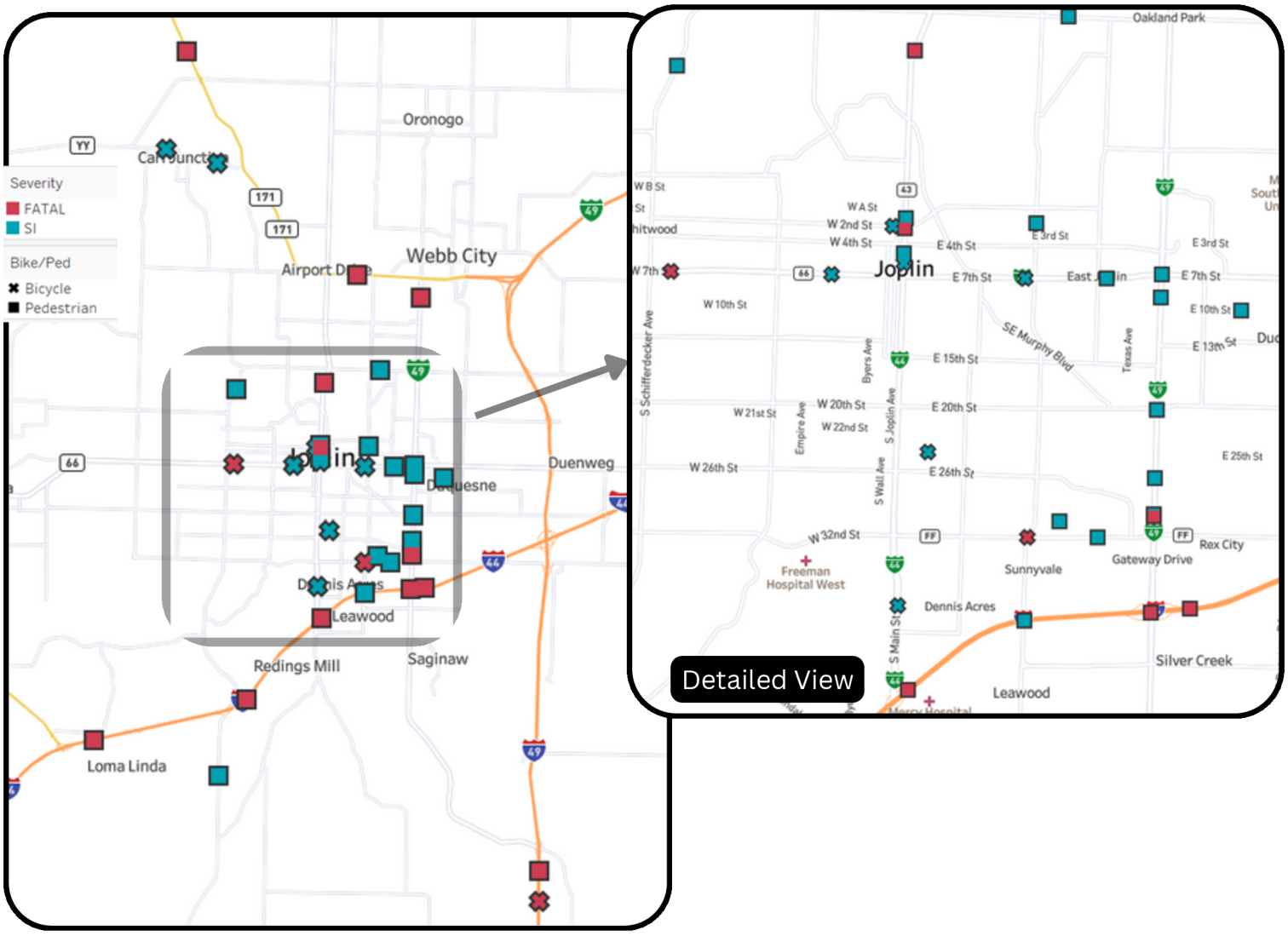
- **Awareness of Right-of-Way:** Many pedestrian incidents involved individuals not using crosswalks and failure to yield including high speed Interstate highways. Increased education on right-of-way rules for both pedestrians and motorists can improve safety for all road users.
- **Visibility for Bicyclists:** The importance of using lights at night cannot be overstated. Educational campaigns can encourage cyclists to adopt safety measures that enhance their visibility.
- **Safe Riding Practices:** Encouraging cyclists to remain in designated bike lanes (when available) and avoid sidewalks where possible can help reduce accidents.

HEADS UP MISSOURI
DRIVE SMART • WALK SMART • ROLL SMART

Complete Streets Policy
The City of Joplin has adopted a Complete Streets Ordinance, which aims to create a safe and accessible transportation network for all users, including pedestrians and bicyclists. This policy aligns with the FHWA Safe System Approach, which promotes a comprehensive view of road safety that considers human behavior and seeks to minimize risks through improved infrastructure and education.

The findings from this analysis highlight the need for enhanced safety measures and education for non-motorized users in the JATSO region. By focusing on awareness for walkers, bicyclists, and motorists alike, we can foster a culture of safety that respects the rights and needs of all road users. Through the principles of the Safe System Approach and the implementation of the Complete Streets Ordinance, we can work together to create a safer environment for everyone in the JATSO region.

MAP 2.2 : JATSO Non-Motorized KSI CRASHES (2019 - 2023)



Map #2.2 presents non-motorized KSI crash data for the JATSO region, emphasizing hotspot locations.

The data reveals that KSI crashes are concentrated along major corridors, including I-44, Range Line Road, and 7th Street, with a notably high density in central Joplin. This detailed analysis highlights several KSI crash locations near key arterial roads, indicating potential areas for targeted safety improvements.

By identifying these high-risk areas, the map serves as a valuable resource for informing future safety interventions, in alignment with the objectives of both the FHWA Safe System Approach and Joplin's Complete Streets Policy. The Complete Streets Policy prioritizes the development of a safe and accessible transportation network for all users, including pedestrians and cyclists.

Through systematic enhancements in these identified locations, JATSO aims to reduce non-motorized fatalities and serious injuries, ultimately striving to create a safer transportation environment for everyone.

Pedestrian Safety

Be a Safe Pedestrian

Basic pedestrian safety includes:

- Obey signs and signals. Use pedestrian crossings, but remember vehicles use that space too. Observe traffic lights and signs. Look in all directions before crossing.
- Walk - don't run.
- Be alert, especially in bad weather. Focus on what's happening around you, and remember drivers' response times can be slower in rain and snow.
- Use sidewalks. If you must walk in the street, walk single file, facing traffic, and stay close to the edge of the road.
- Cross streets only at intersections or crosswalks. Don't surprise drivers by entering roadways from between parked cars or from behind shrubs or bushes.
- Don't assume drivers will stop for you. They may not be paying attention and may not see you. Drivers are usually more focused on other cars than on pedestrians.
- Wear white or light colors and reflective strips, and carry a flashlight while walking at night.
- When wearing headphones or ear buds while walking or running, make sure you keep them at a low volume so you can hear the traffic noise.

For Parents

Make sure children know and practice traffic safety rules. Common safety problems that involve children are:

- Darting between cars
- Playing in streets
- Running across intersections
- Getting on or off school buses
- Running across streets without looking

Bicycle Safety

Ride a Safe Bicycle, and Ride it Safely

Your safety as a bike rider is mostly up to you. You need to know how to choose and care for your bike, use proper safety equipment, and understand the rules of the road.

Your bike should be equipped for safety. This means adding safety features such as:

- A rearview mirror
- A bell or horn
- A headlight and taillight, or comparable reflectors

Chapter 307 of the Missouri Revised Statutes lists minimum mandatory requirements for safely equipping and operating your bicycle on Missouri roads. By law, bicycles must be equipped with a brake or brakes that will enable you to stop the bike within 25 feet from a speed of 10 miles per hour on clean, dry pavement.

Additionally, all bicycles ridden after dark must have:

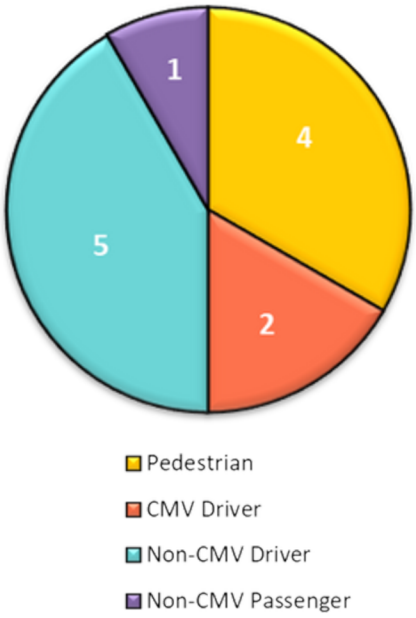
- A white light mounted on the front of the bicycle or carried by the rider
- A rear-facing red reflector at least two inches square, or a rear-facing red lamp
- Reflective material and/or lights visible from each side of the bicycle
- Reflective material and/or lights visible from the front and rear on any moving parts or the bicyclist's shoes and lower legs

Some municipalities may have additional laws that govern bicycle safety. Failure to comply with safety requirements may result in fines or even impoundment of a bicycle for up to five days.

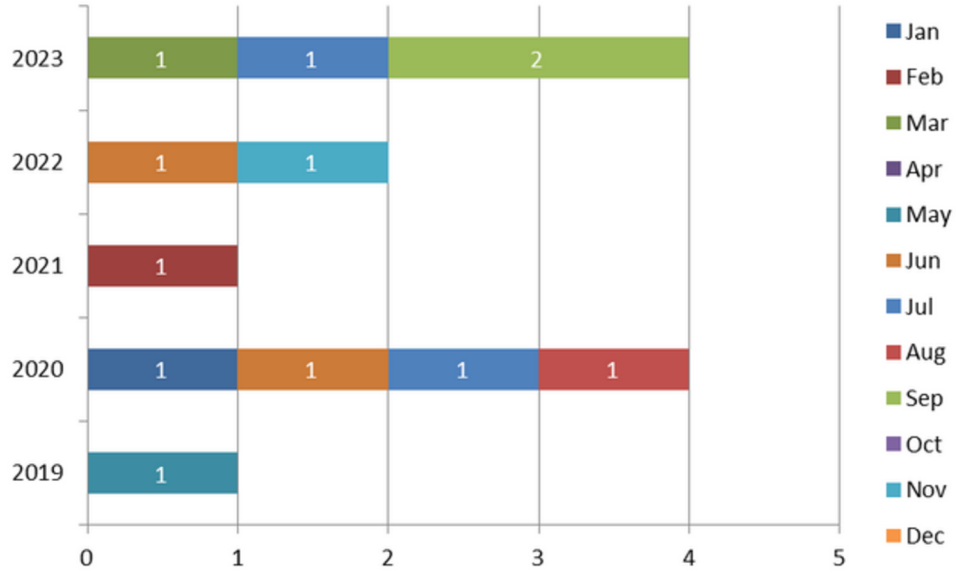
Source: MCRS

Commercial Motor Vehicle (CMC) Fatality Crashes

Graph 2.12: CMV Fatalities by Type



Graph 2.13: CMV Fatalities by Month



Source: MCRS

Overview of CMV Crashes

This overview outlines the crash data for Commercial Motor Vehicles (CMVs) in the JATSO region from 2019 to 2023, focusing on fatal and injury crashes. This information is critical for developing effective safety interventions.

- **Total CMV KSI & Minor Injury Crashes:** 202
  - **Fatal CMV Crashes:** 12
    - On State Systems: 11
    - Straight Roadway Alignment: 11
    - Daylight Hours: 10
    - Pedestrians Involved: 4 (all occurring in dark light conditions)
  - **Serious Injury Crashes:** 28
    - **Serious Injuries:** 32
  - **Minor Injury Crashes:** 162
    - **Minor Injuries:** 224

Regional Impact

CMVs account for 14.12% of all fatalities in the JATSO region, highlighting their significant role in traffic safety and the need for targeted safety measures.

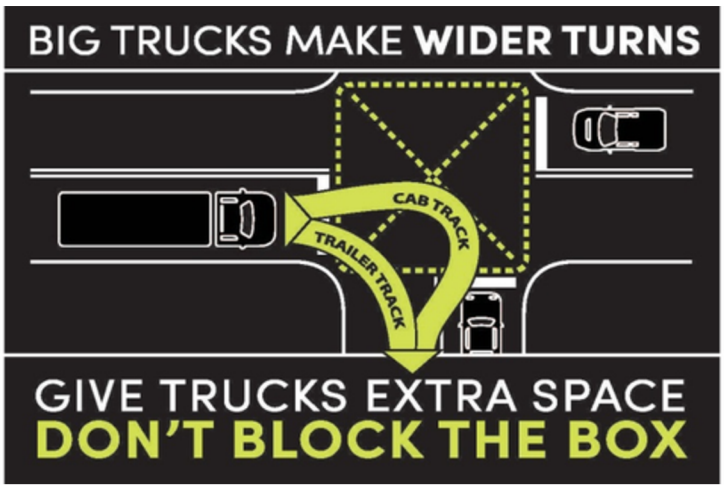
Commercial Motor Vehicle (CMC) Fatality Crashes

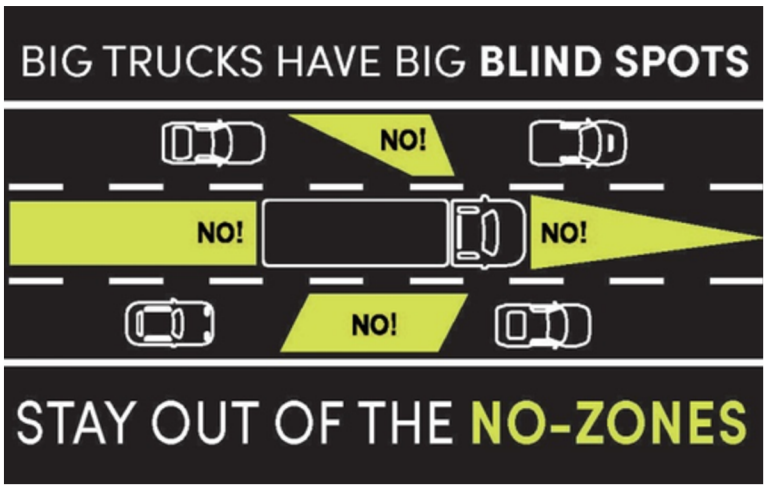
Recommendations

- **Enhanced Driver Training:** Improve training programs for CMV drivers to emphasize pedestrian awareness and safe driving practices, particularly on state systems and straight roads.
- **Roadway Safety Enhancements:** Assess and upgrade road infrastructure to enhance safety conditions, especially in areas with a high incidence of crashes.
- **Visibility Improvements:** Implement strategies to increase visibility during low-light conditions to reduce the likelihood of pedestrian-related crashes.
- **Data Analysis for Targeted Interventions:** Continuously analyze crash data to identify trends and inform safety initiatives, ensuring that resources are allocated where they are most needed.

This overview underscores the importance of ongoing efforts to enhance safety for CMVs and all road users in the JATSO region, serving as a foundation for this Comprehensive Safety Action Plan.







Source: MCRS

Summary of JATSO Younger Drivers Crashes

Overview

This summary provides an analysis of crash data involving younger drivers in the Joplin area, as part of the SS4A Safety Action Plan. In Missouri, younger drivers account for approximately 4.5% of licensed drivers, yet they represented 11 fatalities in the JATSO region out of a total of 85 fatalities. This indicates that younger driver fatalities are significantly overrepresented, underscoring the need for targeted safety interventions.

Crash Data Summary

- **Fatal Crashes:** 10
  - **Fatalities:** 11 (12.94% of All Fatalities)
    - **Daylight Crashes: 6** (60%)
    - **Straight Alignment:** 8 (80%)
    - **Dry Pavement:** 9 (90%)
    - **Out of Control:** 4 (40%)
    - **Head-On Collisions:** 3 (30%)
    - **State System:** 5 (50%)
    - **City of Joplin:** 7 (70%)
- **Serious Injury Crashes:** 58
  - **Serious Injuries:** 78

Key Insights

1. **High Incidence During Daylight:** The majority of fatal crashes occurred during daylight hours, indicating a need for enhanced awareness and risk management even in favorable visibility conditions.
2. **Straight Roadways Predominant:** A significant number of crashes took place on straight alignments, suggesting that factors such as speed and distraction may be critical areas for further examination.
3. **Dry Pavement Conditions:** Most crashes occurred on dry pavement, which challenges the assumption that adverse weather is a primary factor in these incidents.
4. **Loss of Control:** A notable portion of crashes involved drivers losing control, pointing to potential issues related to speeding or inexperience.
5. **Head-On Collisions:** The presence of head-on collisions highlights the importance of driver behavior and road-sharing practices.
6. **Geographic Focus:** With 70% of fatal crashes occurring within the city limits of Joplin, localized interventions may be particularly effective in reducing future incidents.
7. **Serious Injury Impact:** The 58 serious injury crashes resulting in 78 serious injuries indicate a significant risk for younger drivers, necessitating attention to prevention strategies.
8. **Overrepresentation of Younger Drivers:** Despite making up only 4.5% of licensed drivers in Missouri, younger drivers accounted for a disproportionate number of fatalities in the JATSO region, highlighting a critical area for intervention.

Recommendations

1. **Educational Campaigns:** Implement targeted educational initiatives focusing on safe driving practices, particularly for younger drivers.
2. **Road Safety Improvements:** Consider enhancements to road design and signage in areas with high crash rates.
3. **Community Engagement:** Foster community involvement in safety programs and workshops aimed at reducing crashes among younger drivers.

This summary underscores the critical need for focused safety strategies to address the troubling trends in younger driver crashes within the JATSO region. The insights drawn from the data will guide the development of effective interventions as part of the SS4A Safety Action Plan.

TEEN DRIVERS AND OLDER DRIVERS

ACCOUNT FOR APPROXIMATELY **25%** OF LICENSED DRIVERS IN MISSOURI.

YEAR	LICENSED DRIVERS AGE 16-19	% OF MO LICENSED DRIVERS	LICENSED DRIVERS AGE 65+	% OF MO LICENSED DRIVERS	TOTAL MO LICENSED DRIVERS
2018	196,430	4.6%	889,534	20.8%	4,270,438
2019	193,529	4.5%	917,788	21.5%	4,267,831
2020	189,355	4.4%	938,806	22.0%	4,264,229
2021	190,816	4.5%	958,578	22.4%	4,271,570
2022	191,609	4.5%	987,938	23.0%	4,289,971
5-YEAR TOTAL	**961,739**	**4.5%**	**4,692,644**	**22.0%**	**21,364,039**



MORE THAN HALF OF THE DROWSY DRIVING CRASHES IN THE U.S. INVOLVE A DRIVER **AGE 25 OR YOUNGER** (GHSA).



NEARLY ONE-THIRD OF MISSOURI TRAFFIC FATALITIES INVOLVED EITHER A **YOUNGER (AGE 15-20) OR OLDER (AGE 65 OR OLDER) DRIVER.**

Source: Missouri's Strategic Highway Safety Plan 2021-2025

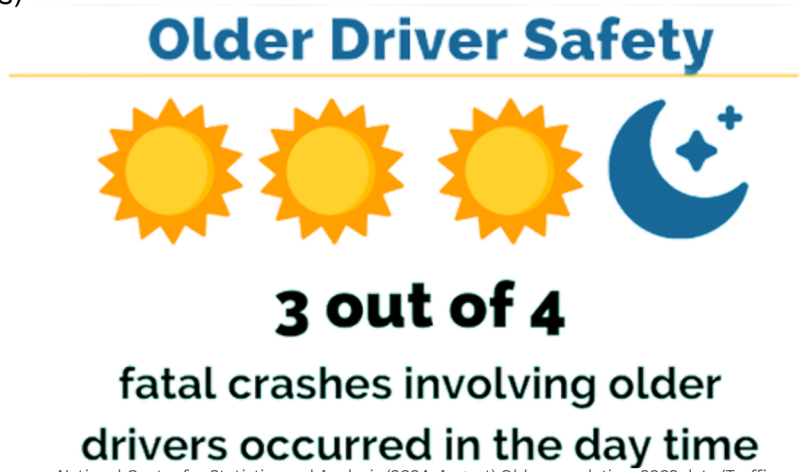
Summary of JATSO Older Drivers Crashes

Overview

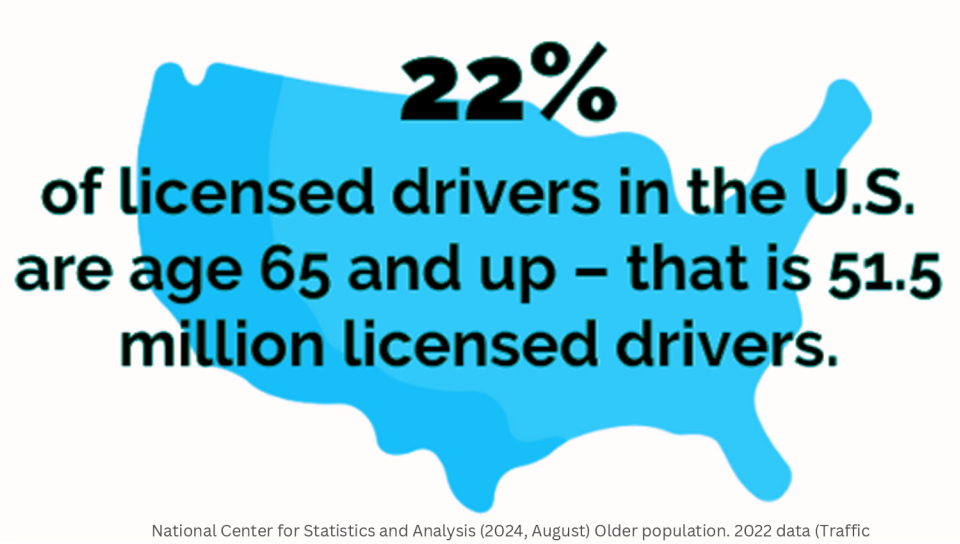
This summary presents an analysis of crash data involving older drivers in the JATSO region, as part of ongoing efforts to improve road safety. In Missouri, older drivers account for approximately 22% of licensed drivers. Between 2019 and 2023, the JATSO region experienced a total of 85 traffic crash fatalities, with 9 involving older drivers.

Older Drivers Crash Data Summary

- **Fatal Crashes:** 10 (1 Fatal Crash was reported as medical condition)
  - **Fatalities:** 9 (10.58% of All Fatalities)
    - **Daylight Crashes:** 9
    - **Straight Alignment:** 9
    - **Dry Pavement:** 7
    - **Pedestrian Involved Crash:** 3
    - **Right Angle Crash:** 3
    - **State System:** 7
    - **City of Joplin:** 5
- **Serious Injury Crashes:** 58
  - **Serious Injuries:** 75



National Center for Statistics and Analysis (2024, August) Older population. 2022 data (Traffic Safety Facts report No DOT HS 813 616). National Highway Traffic Safety Administration



National Center for Statistics and Analysis (2024, August) Older population. 2022 data (Traffic Safety Facts report No DOT HS 813 616). National Highway Traffic Safety Administration

Key Insights

1. **High Incidence During Daylight:** The majority of fatal crashes involving older drivers occurred during daylight hours, suggesting that visibility alone may not mitigate risks for this demographic.
2. **Predominance of Straight Alignments:** Most crashes took place on straight roadways, indicating potential areas for further investigation into driver behavior and environmental factors.
3. **Dry Pavement Conditions:** A significant number of crashes occurred on dry pavement, challenging the assumption that adverse weather conditions are a primary factor in these incidents.
4. **Pedestrian Involvement:** The three pedestrian crashes underscore the need for heightened awareness and safety measures in pedestrian-heavy areas.
5. **Right Angle Crashes:** The three right-angle crashes represent a significant concern, indicating potential issues with intersection safety and driver decision-making.
6. **Geographic Focus:** With 70% of fatal crashes occurring on the state system and 50% in the city of Joplin, localized interventions may be particularly effective in enhancing safety for older drivers.
7. **Serious Injury Impact:** The 58 serious injury crashes, resulting in 75 serious injuries, highlight a critical area for intervention, particularly since older drivers face an increased risk of severe outcomes in crashes.
8. **Demographic Context:** Older drivers represent 22% of licensed drivers in Missouri. Given the JATSO region's total of 85 traffic crash fatalities, the expected number of fatalities among older drivers would be approximately 18.5 (85 x 0.22). However, with only 9 fatalities attributed to older drivers, this discrepancy indicates underrepresentation in fatal crashes relative to their proportion of licensed drivers. This suggests that while older drivers may not be involved in as many fatal crashes, the severity of injuries they experience can be significant, warranting focused attention on their safety.

Recommendations

1. **Driver Education Programs:** Implement targeted educational initiatives focused on safe driving practices for older adults. This could include refresher courses and strategies to address their unique challenges on the road.
2. **Road Safety Improvements:** Enhance road design and signage, especially at intersections and in areas with high pedestrian activity, to improve safety for older drivers.
3. **Community Engagement:** Foster community programs that promote safe mobility options for older adults, such as public transportation resources and carpooling initiatives.

This summary underscores the need for ongoing assessment and targeted strategies to enhance road safety for older drivers in the JATSO area. Despite their underrepresentation in crash fatalities, older drivers are at a heightened risk for severe injuries when involved in accidents. Therefore, it is essential to implement tailored interventions that address their unique vulnerabilities and promote safer driving conditions.

JATSO HIGH INJURY NETWORK

INTRODUCTION: The Joplin Area Transportation Study Organization (JATSO) is committed to enhancing road safety by reducing traffic-related fatalities and injuries in the region. As part of the Safe Streets and Roads for All (SS4A) initiative, JATSO has developed a High Injury Network (HIN) to identify and prioritize roadways where traffic crashes—particularly those resulting in fatalities and severe injuries—are most prevalent.

The High Injury Network is a key tool for understanding traffic crash patterns and locations within the JATSO region. By analyzing recent crash data, including incidents involving aggressive driving and speeding, JATSO aims to pinpoint areas that require focused safety interventions. This data-driven approach enables effective resource allocation and the implementation of targeted safety strategies to mitigate risks and enhance overall roadway safety.

NETWORK SCREENING: The HIN analysis has identified locations within JATSO that have historical safety concerns, guiding local investments in infrastructure and safety programming. Three HINs have been developed for the following roadway user categories:

1. **HIN for All Roadway Users:** This network encompasses all types of roadway users, including motorists, motorcyclists, bicyclists, and pedestrians.
2. **HIN for Vulnerable Road Users:** This network specifically focuses on vulnerable populations, such as motorcyclists, bicyclists, and pedestrians, who face a higher risk of serious injuries and fatalities.
3. **HIN for Non-Motorized Users:** This network focuses specifically on bicyclists and pedestrians, encompassing all injury crashes. By analyzing comprehensive crash data, it aims to identify high-risk areas and promote targeted safety interventions to enhance protection for these vulnerable road users.

The HIN for All Roadway Users emphasizes road segments with the highest frequency of fatal and serious injury (KSI) crashes. Additionally, crash data has been analyzed to identify intersections within the JATSO region that exhibit the highest frequency of KSI injuries.

JATSO HIGH INJURY NETWORK

SEGMENT ANALYSIS (All Roadway Users)

The segment analysis has identified roads within the JATSO region with the highest frequency of KSI crashes. These roads represent only 11.9% of the centerline miles within JATSO but account for 71.5% of KSI crashes. The following process was employed to determine these road segments:

1. **Data Collection:** Compiled crash data focusing on KSI crashes (2019-2023).
2. **Segment Identification:** Road segments were sorted based on the number of KSI crashes.
3. **Crash Frequency:** Segments with at least one fatal and/or serious injury crash were sorted by the total number of KSI crashes.
4. **Ranking:** Ranked road segments in descending order to identify those with the highest frequency of KSI crashes.

INTERSECTION ANALYSIS (All Roadway Users)

The intersection analysis identified locations in the JATSO region with the highest frequency of KSI crashes. This analysis follows the same process as the segment analysis:

1. **Data Collection:** Compiled crash data specifically for KSI intersection crashes (2019-2023).
2. **Intersection Identification:** Defined intersections based on existing traffic control measures and roadway configurations.
3. **Crash Frequency:** Sorted intersections with at least one fatal and/or serious injury crash based on the total number of such crashes.
4. **Ranking:** Ranked intersections in descending order to identify those with the highest frequency of incidents.

SEGMENT ANALYSIS (Vulnerable Road Users)

The segment analysis for vulnerable road users focuses on road segments with the highest frequency of KSI crashes involving pedestrians, bicyclists, and motorcyclists. The process mirrors that of the segment analysis for all roadway users:

1. **Data Collection:** Compiled crash data specifically for KSI incidents involving vulnerable road users (2019-2023).
2. **Segment Identification:** Selected roadway segments with at least one KSI crash involving a vulnerable road user.
3. **Crash Frequency:** Sorted segments based on the total number of KSI crashes involving vulnerable road users.
4. **Ranking:** Ranked segments in descending order to identify those with the highest frequency of incidents.

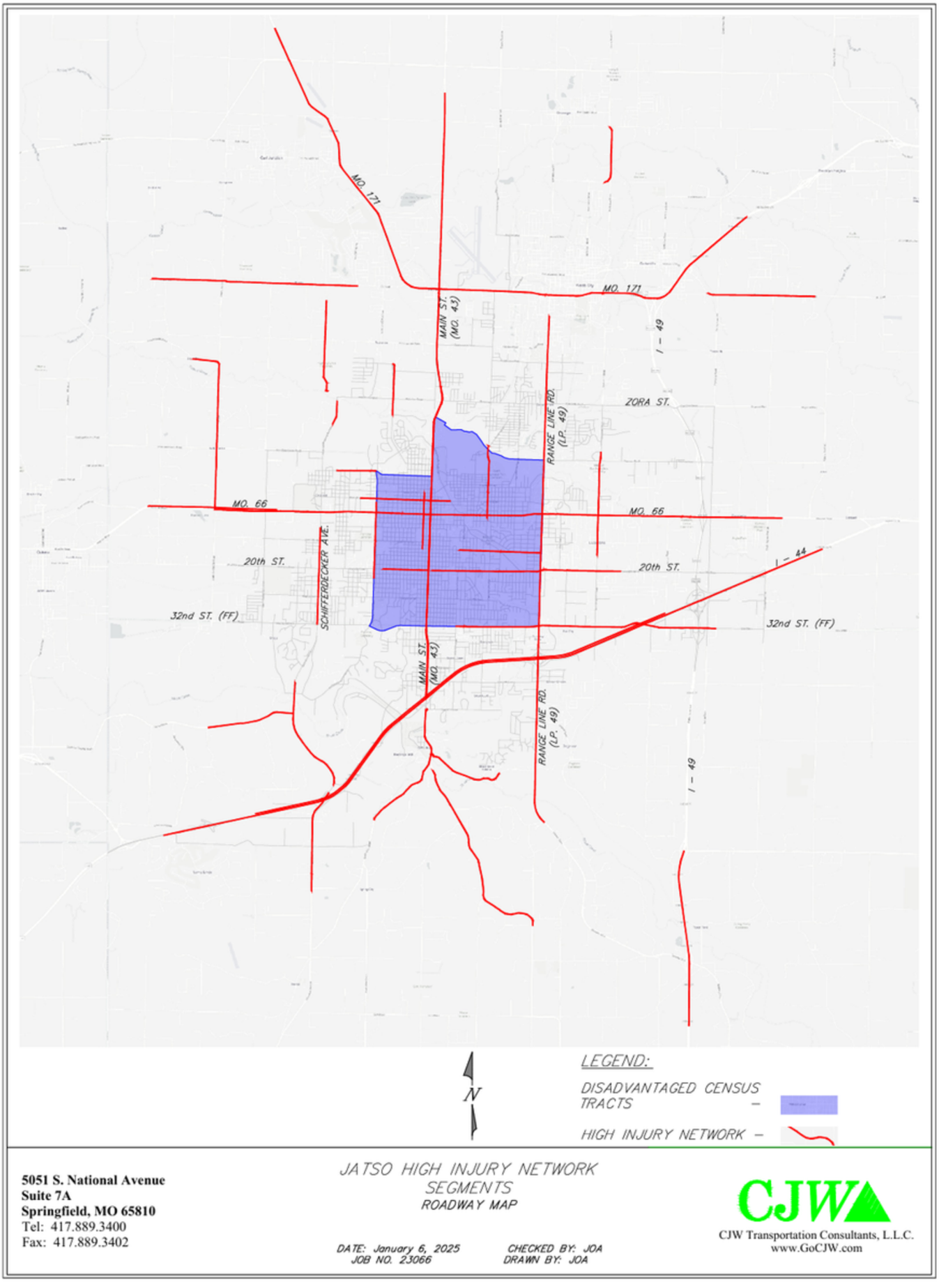
SEGMENT ANALYSIS (Non-Motorized Road Users)

1. **Data Collection:** Compiled crash data for all injury incidents involving non-motorized road users (2019-2023).
2. **Segment Identification:** Selected roadway segments with at least one injury crash involving a non-motorized road user.
3. **Crash Frequency:** Sorted segments based on the total number of injury crashes involving non-motorized road users.
4. **Ranking:** Ranked segments in descending order to identify those with the highest frequency of incidents.

GOALS OF THE HIGH INJURY NETWORK

1. **Identify High-Risk Areas:** Utilize crash data to map and analyze high-injury locations, facilitating targeted interventions.
2. **Enhance Safety Measures:** Develop and implement strategies to improve roadway safety in identified high-risk areas, including physical improvements and community outreach.
3. **Engage the Community:** Foster collaboration with local stakeholders, including residents, law enforcement, and advocacy groups, to address safety concerns and promote shared responsibility for road safety.
4. **Monitor & Evaluate:** Continuously assess the effectiveness of implemented strategies and adjust them as necessary to ensure sustained improvements in safety outcomes.

By establishing these High Injury Networks, JATSO is taking proactive steps to reduce the number of KSI crashes. Through collaboration and targeted interventions in the areas of occupant protection, distracted driving, speeding and aggressive driving, and impaired driving, the Joplin Area Transportation Study Organization aims to create safer roadways for all users, ultimately contributing to the broader goal of zero traffic fatalities and serious injuries in the JATSO region.

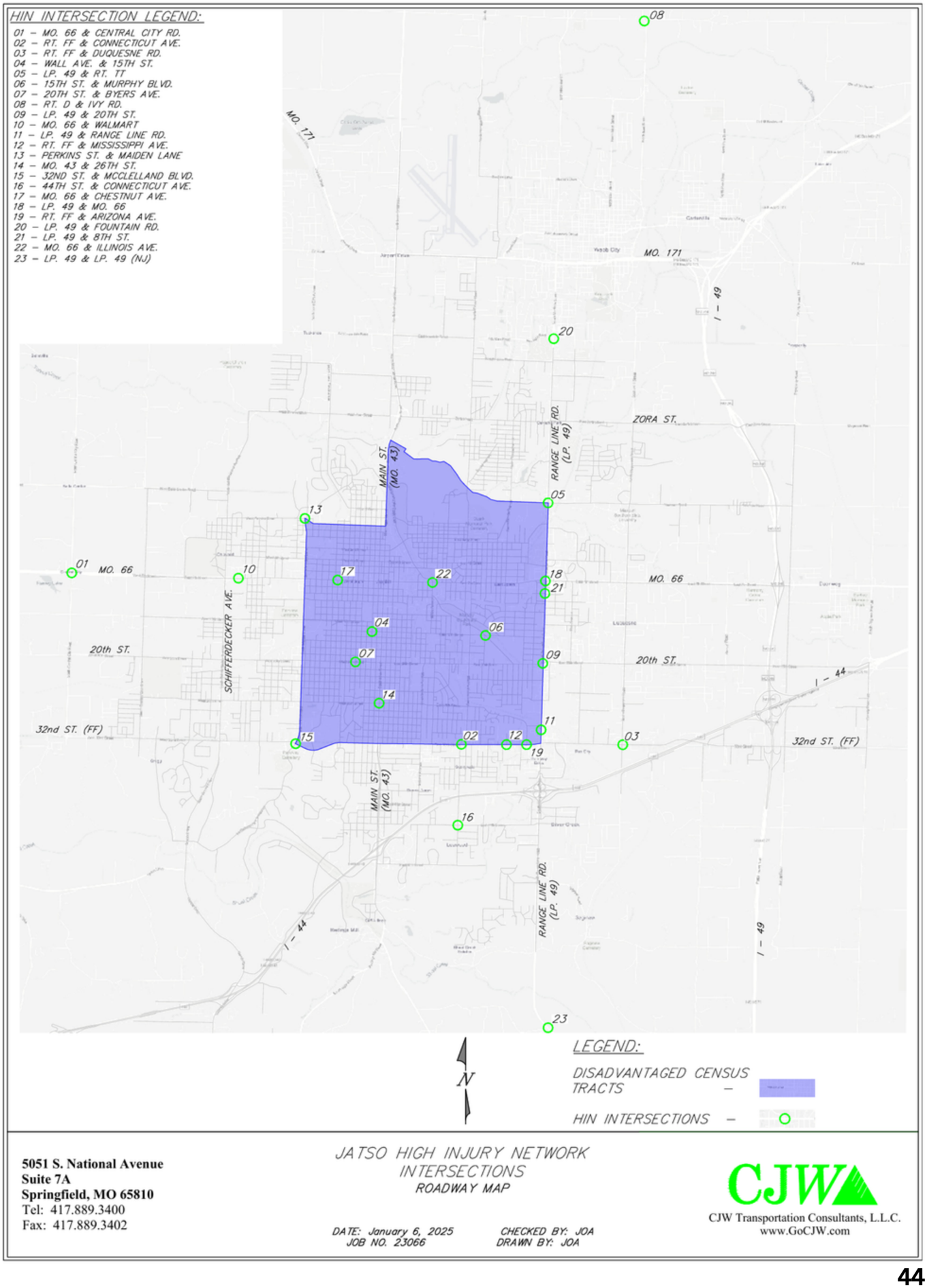


5051 S. National Avenue
Suite 7A
Springfield, MO 65810
Tel: 417.889.3400
Fax: 417.889.3402

JATSO HIGH INJURY NETWORK SEGMENTS
ROADWAY MAP

DATE: January 6, 2025
JOB NO. 23066
CHECKED BY: JOA
DRAWN BY: JOA

CJW Transportation Consultants, L.L.C.
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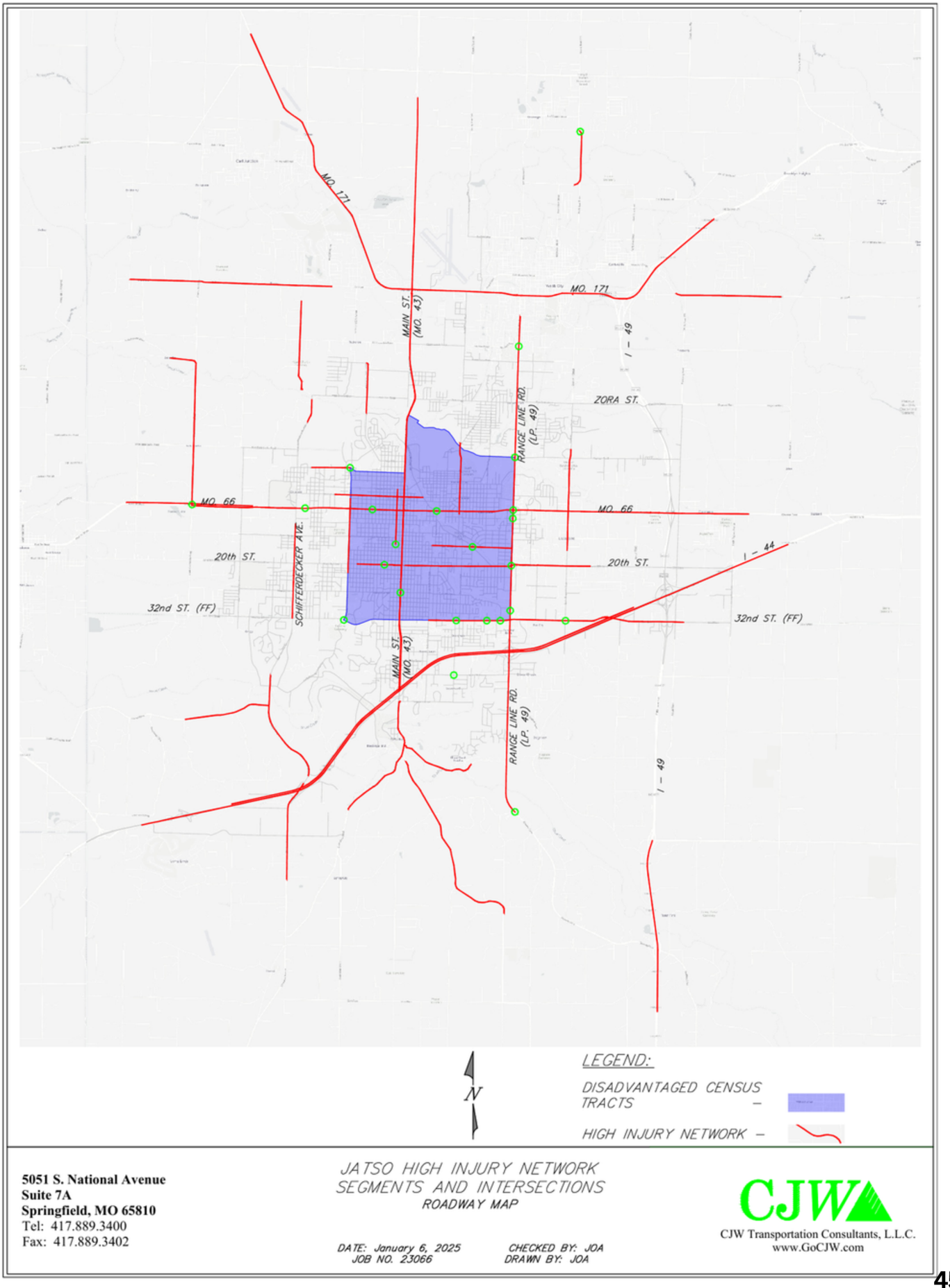
5051 S. National Avenue
Suite 7A
Springfield, MO 65810
Tel: 417.889.3400
Fax: 417.889.3402

JATSO HIGH INJURY NETWORK
INTERSECTIONS
ROADWAY MAP

DATE: January 6, 2025
JOB NO. 23066

CHECKED BY: JOA
DRAWN BY: JOA

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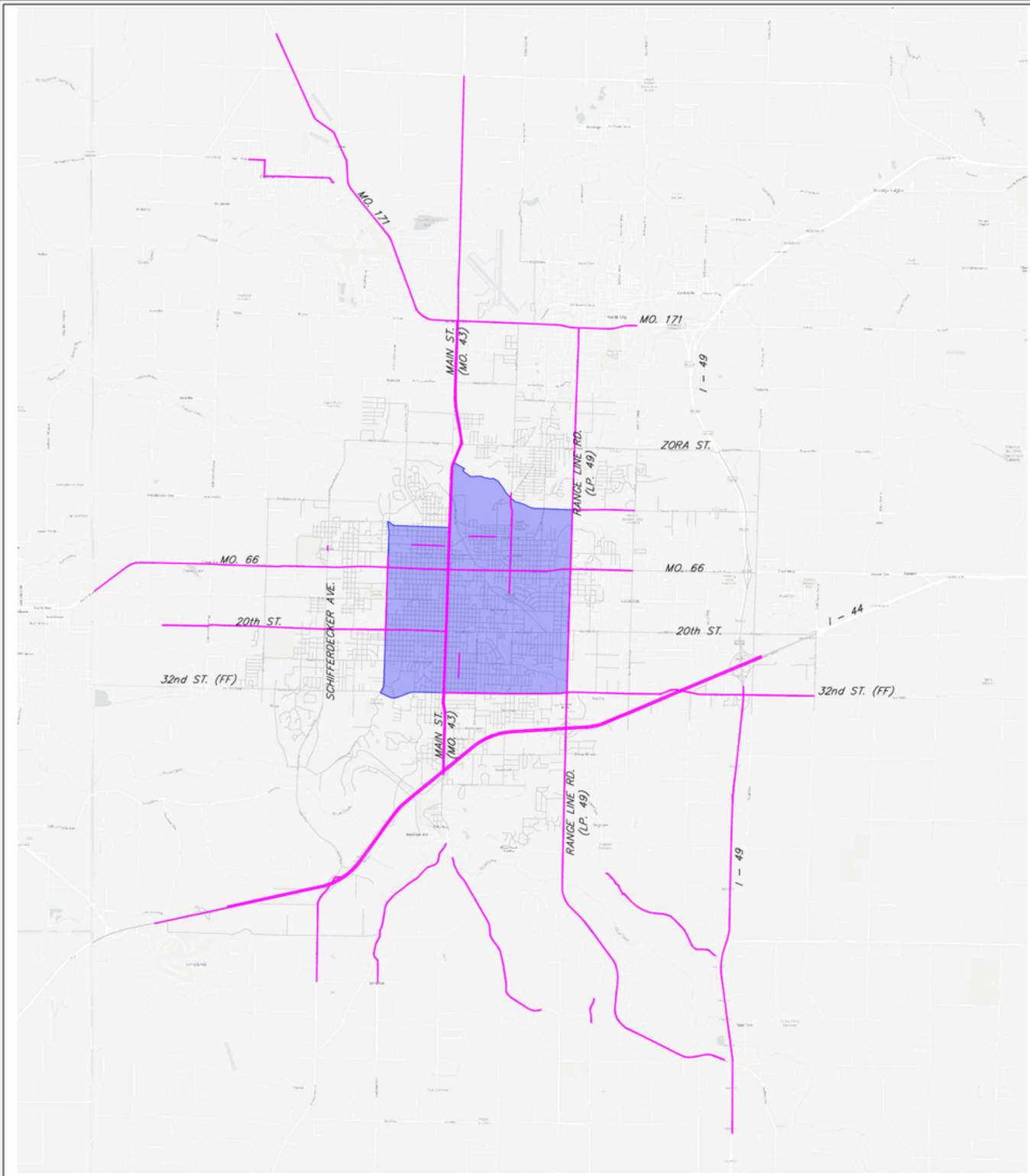
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Suite 7A
Springfield, MO 65810
Tel: 417.889.3400
Fax: 417.889.3402

JATSO HIGH INJURY NETWORK SEGMENTS AND INTERSECTIONS
ROADWAY MAP

DATE: January 6, 2025
JOB NO. 23066

CHECKED BY: JOA
DRAWN BY: JOA

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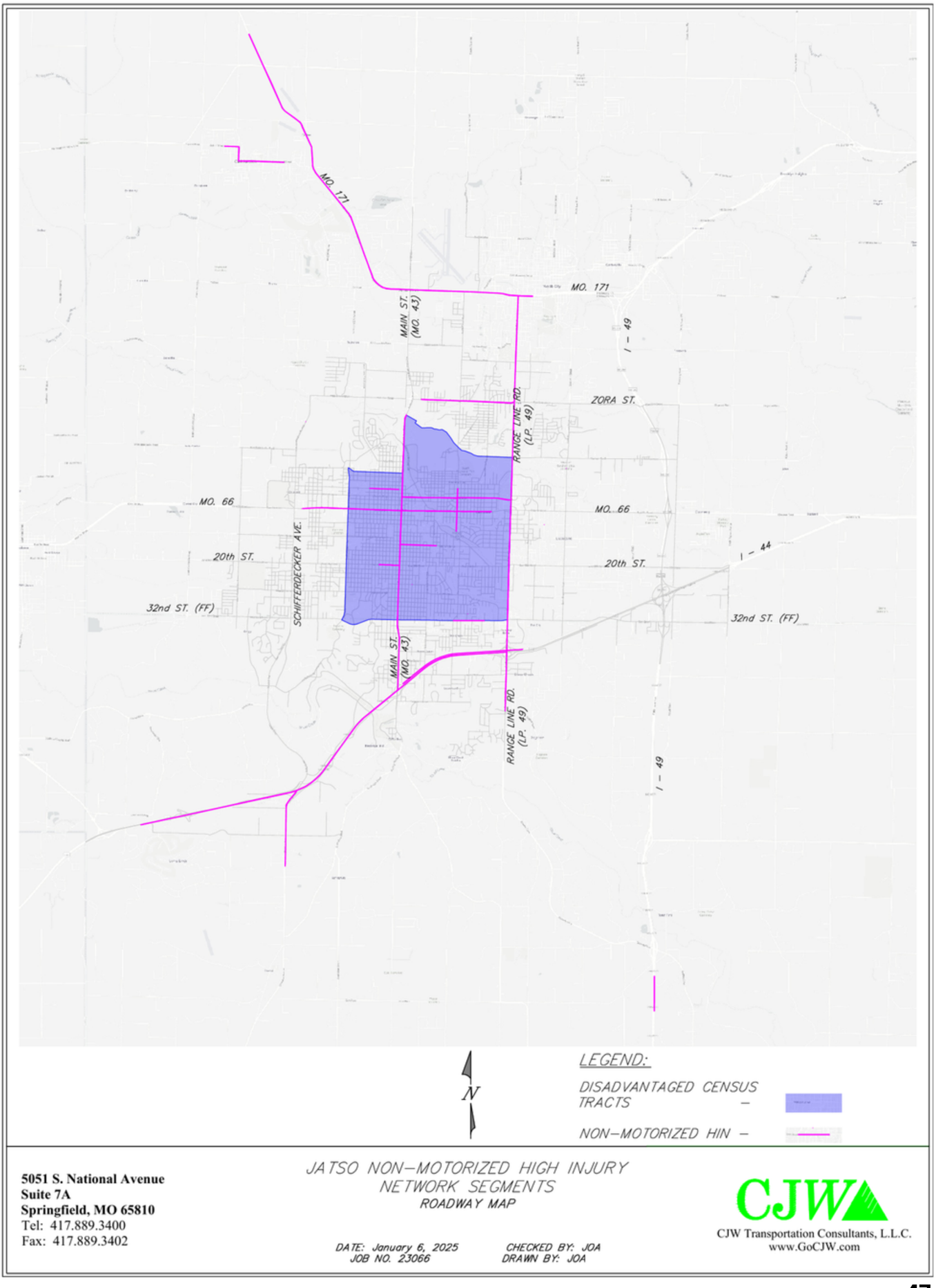
5051 S. National Avenue
Suite 7A
Springfield, MO 65810
Tel: 417.889.3400
Fax: 417.889.3402

JATSO VULNERABLE ROAD USER HIGH INJURY NETWORK SEGMENTS
ROADWAY MAP

DATE: January 6, 2025
JOB NO. 23066

CHECKED BY: JOA
DRAWN BY: JOA

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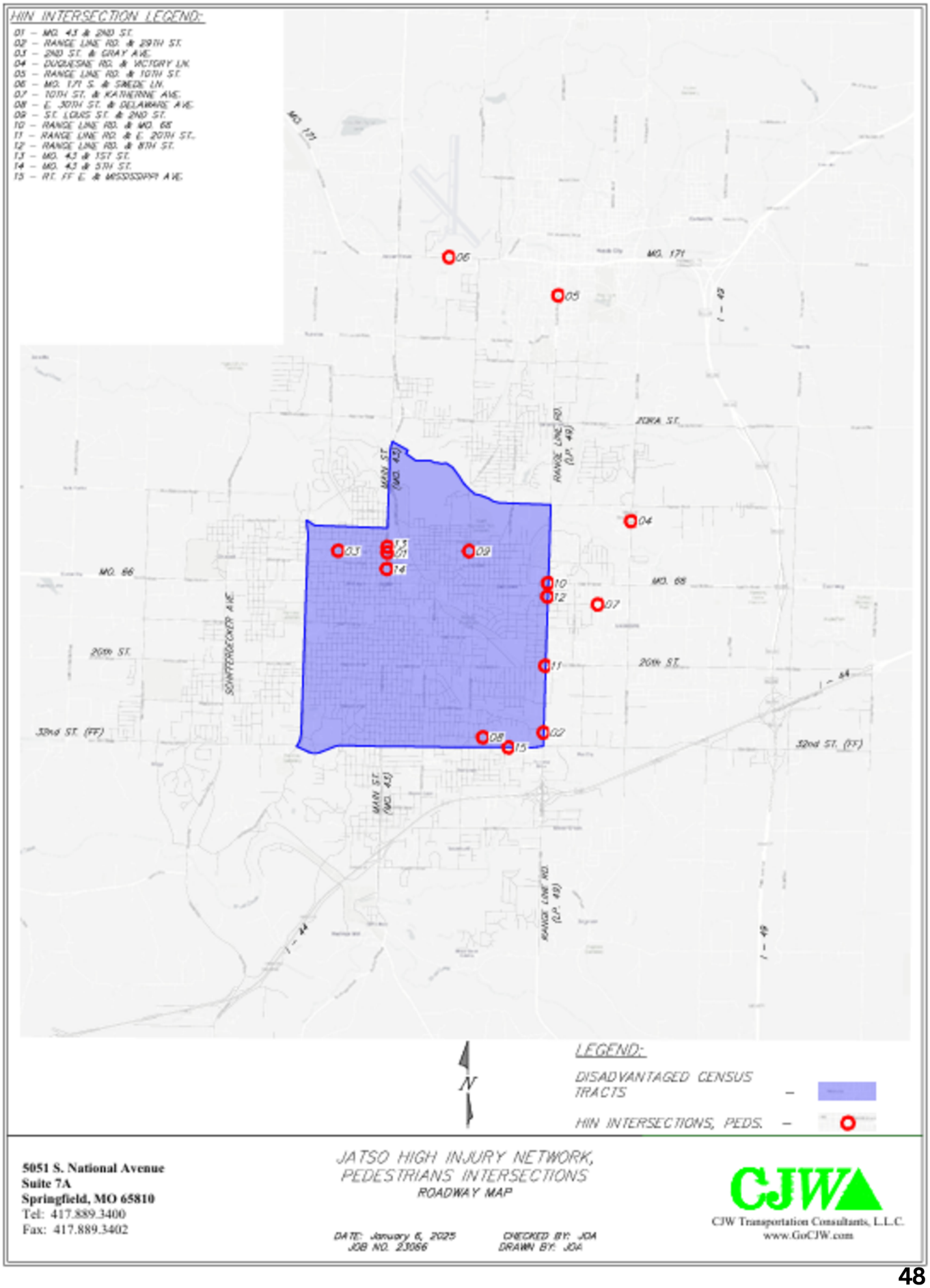
5051 S. National Avenue
Suite 7A
Springfield, MO 65810
Tel: 417.889.3400
Fax: 417.889.3402

JATSO NON-MOTORIZED HIGH INJURY NETWORK SEGMENTS
ROADWAY MAP

DATE: January 6, 2025
JOB NO. 23066

CHECKED BY: JOA
DRAWN BY: JOA

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JATSO HIGH INJURY NETWORK,
PEDESTRIANS INTERSECTIONS
ROADWAY MAP

DATE: January 6, 2025
JOB NO. 23056
CHECKED BY: JDA
DRAWN BY: JDA

5051 S. National Avenue
Suite 7A
Springfield, MO 65810
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Introduction

Equity is a fundamental principle guiding the Joplin Area Transportation Study Organization (JATSO) in its efforts to improve road safety and accessibility. This chapter outlines the importance of equity in transportation planning and discusses how JATSO aims to address disparities in safety outcomes across different demographic groups and communities.

Understanding Equity in Transportation

Transportation equity involves ensuring that all individuals, regardless of their race, ethnicity, age, income, or ability, have access to safe and reliable transportation options. Disparities in traffic safety can disproportionately affect vulnerable populations, including low-income communities, people of color, the elderly, and individuals with disabilities. Addressing these disparities is essential for creating a more just and inclusive transportation system.

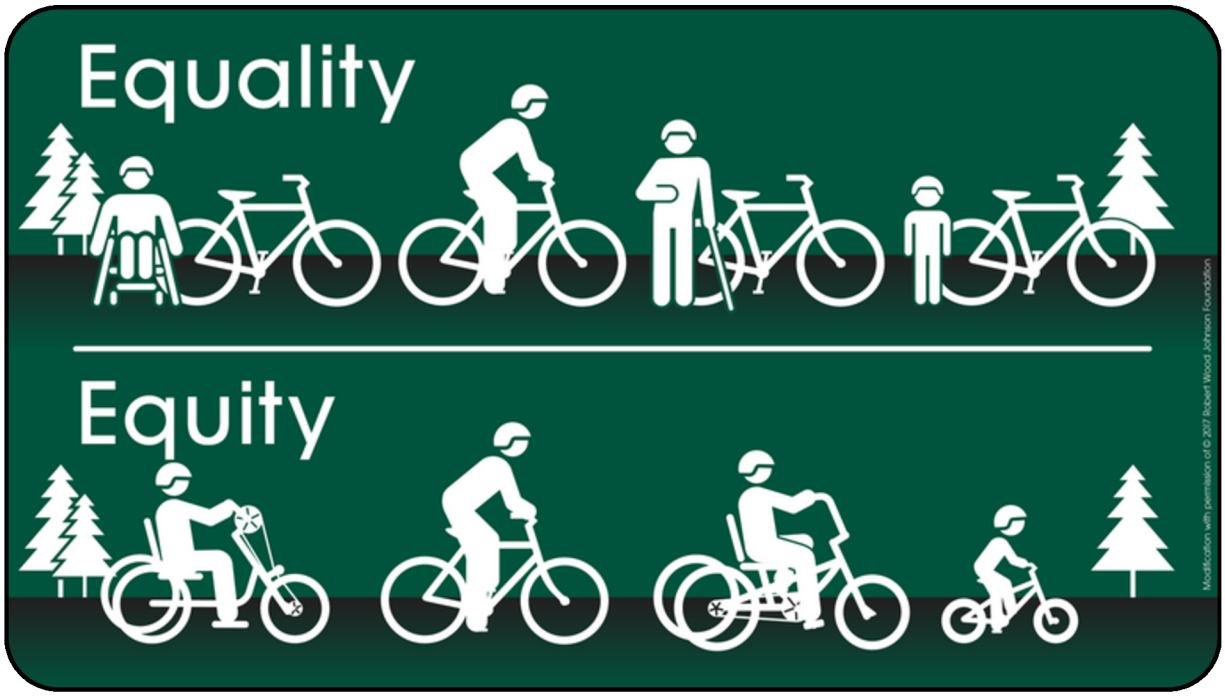
Key Equity Considerations

1. **Disproportionate Impact of Traffic Injuries:** Data indicates that certain demographic groups, particularly younger and older drivers, as well as pedestrians and bicyclists, face higher risks of traffic-related injuries and fatalities. JATSO is committed to analyzing crash data through an equity lens to identify and prioritize areas where these groups are most affected.
2. **Access to Transportation Resources:** In many communities, access to safe transportation options is limited, particularly for low-income individuals and families who may rely on public transit or active transportation modes. JATSO will work to enhance accessibility and ensure that safety improvements benefit all community members.
3. **Census Tracts of Concern:** The USDOT Explorer Tool was used to identify the following disadvantaged census tracts (29097010100, 29097010500, 29097010601, 29097010602, 29097010700, 29097010800, and 29097011000) within the JATSO MPO boundary, which together have a combined disadvantaged population of 25,400. These areas require special attention to address their unique needs and challenges related to transportation safety.
4. **Community Engagement:** Engaging with communities that are historically marginalized or underserved is critical to understanding their unique challenges and needs. JATSO has prioritized inclusive outreach efforts to gather input from diverse stakeholders, including community organizations, residents, and advocacy groups. The Joplin Complete Streets Committee acts as the Safety Action Plan's Steering Committee and includes residents from two disadvantaged census tracts.
5. **Culturally Relevant Messaging:** JATSO recognizes that safety campaigns and educational materials must resonate with diverse populations. To address the specific needs and concerns of different demographic groups, JATSO plans to utilize relevant safety messaging available through the Missouri Coalition for Roadway Safety (MCRS), ensuring that safety information is accessible to all.

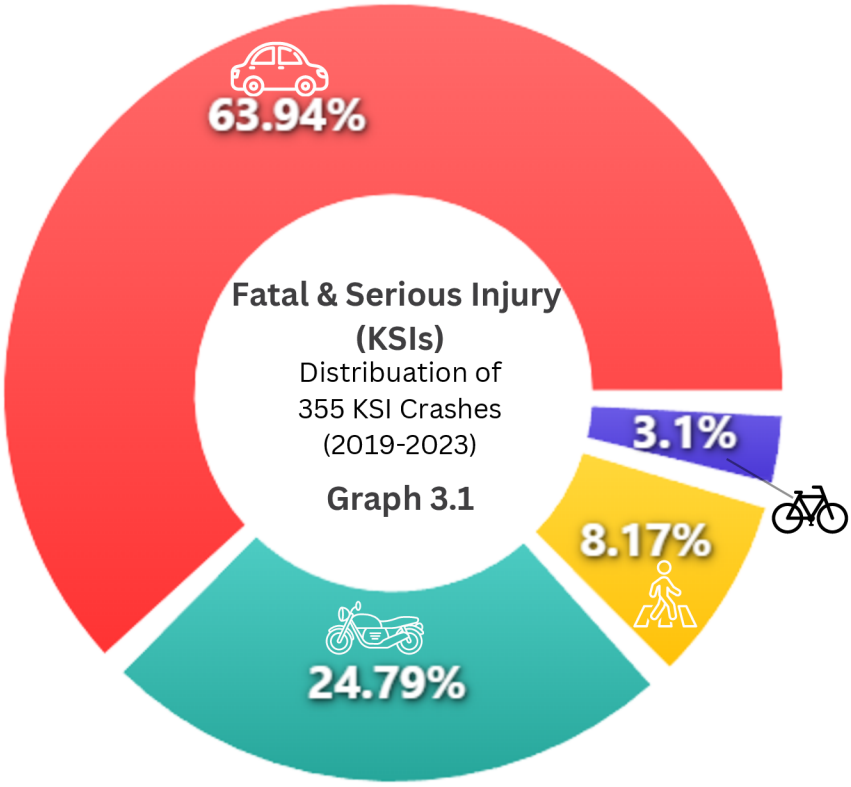
Strategies for Promoting Equity

1. **Data-Driven Analysis:** JATSO will conduct regular analyses of crash data segmented by various relevant factors to identify disparities and target interventions where they are most needed.
2. **Equity in Funding & Resources:** Ensure that funding for safety projects is allocated equitably, prioritizing high-need areas, including identified disadvantaged census tracts and communities that have historically been underserved.
3. **Partnerships with Local Organizations:** Collaborate with local nonprofits, advocacy groups, and community organizations to amplify outreach efforts and engage underrepresented populations in the planning and implementation processes.
4. **Inclusive Policy Development:** Incorporate equity considerations into all policy and program development processes. This includes evaluating how proposed safety measures will affect various demographic groups and ensuring that their voices are included in decision-making.
5. **Monitoring & Evaluation:** Establish metrics to assess the effectiveness of equity-focused initiatives and interventions. Regularly evaluate outcomes to ensure that safety improvements benefit all segments of the JATSO region.

Incorporating equity into the JATSO Safety Action Plan is vital for creating a transportation system that effectively serves all community members. By recognizing and addressing disparities in traffic safety, particularly in underserved areas, JATSO aims to develop solutions that promote inclusivity, enhance accessibility, and ultimately reduce traffic-related injuries and fatalities across the region. Through ongoing engagement, data analysis, and targeted interventions, JATSO is committed to advancing a safer and more equitable transportation future for everyone.



Importance of Equity in Traffic Safety for Vulnerable Road Users (VRU)

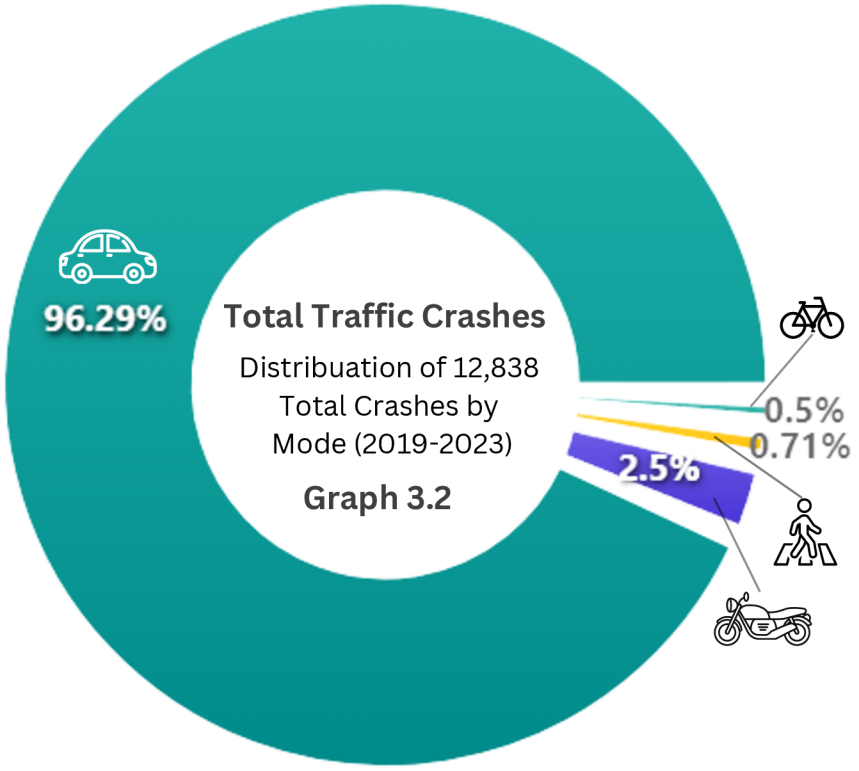


In the JATSO region from 2019 to 2023, there were 355 fatal and serious injury incidents (KSIs), as shown in **Graph 3.1**:

- **Motor Vehicles:** 227 incidents (63.94%)
- **Motorcycles:** 88 incidents (24.79%)
- **Pedestrians:** 29 incidents (8.17%)
- **Bicycles:** 11 incidents (3.10%)

During the same period, there were a total of 12,838 crashes, as detailed in **Graph 3.2**:

- **Motor Vehicles:** 12,362 crashes (96.29%)
- **Motorcycles:** 321 crashes (2.50%)
- **Pedestrians:** 91 crashes (0.71%)
- **Bicycles:** 64 crashes (0.50%)

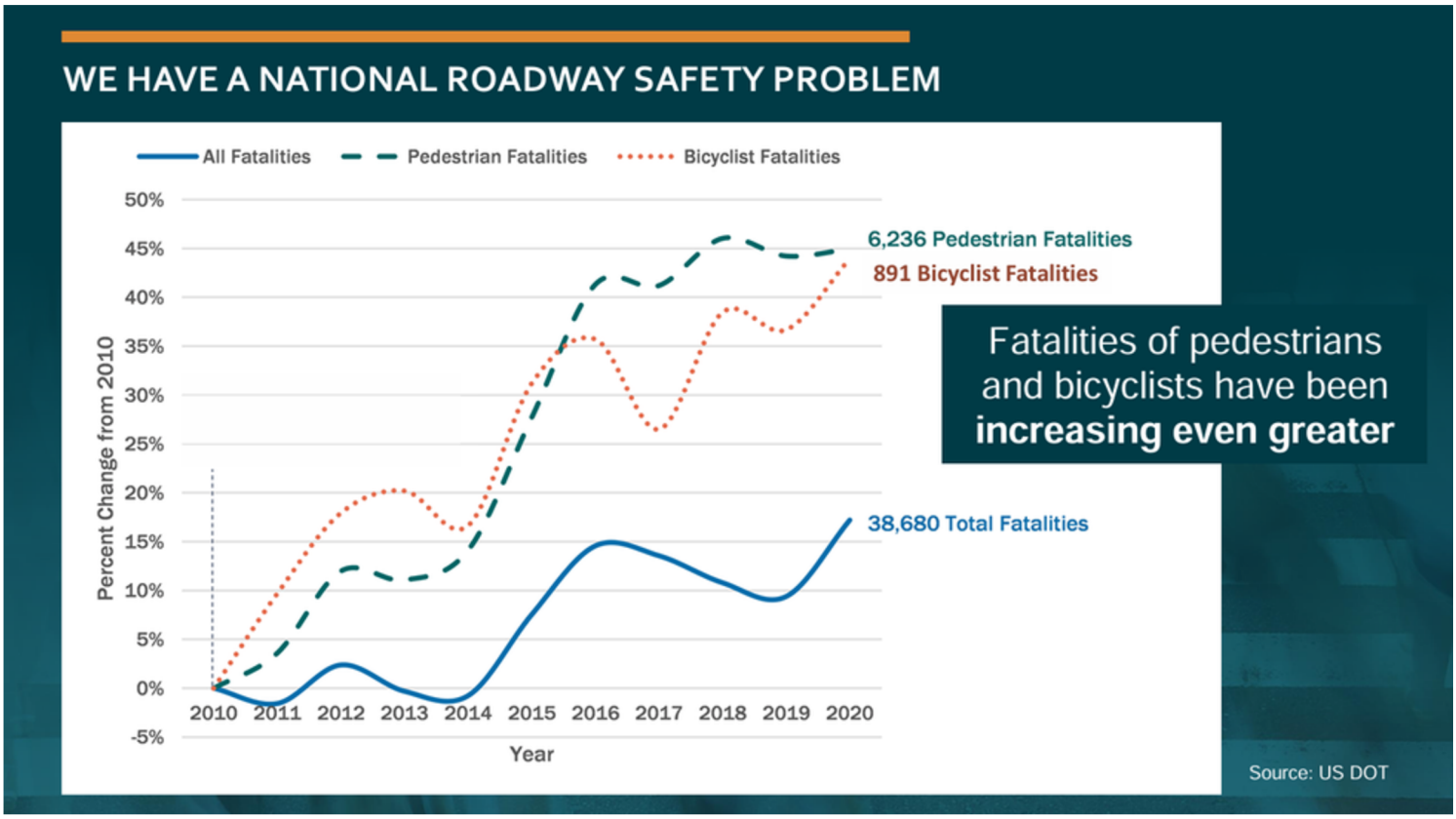


While motor vehicles account for 96.29% of all crashes, they represent a lower proportion (63.94%) of severe incidents (KSIs). In contrast, motorcycles, pedestrians, and bicycles exhibit disproportionately higher KSI rates relative to their total crash involvement. This indicates that vulnerable road users face a higher risk of severe outcomes when crashes occur, underscoring the critical need for targeted safety measures.

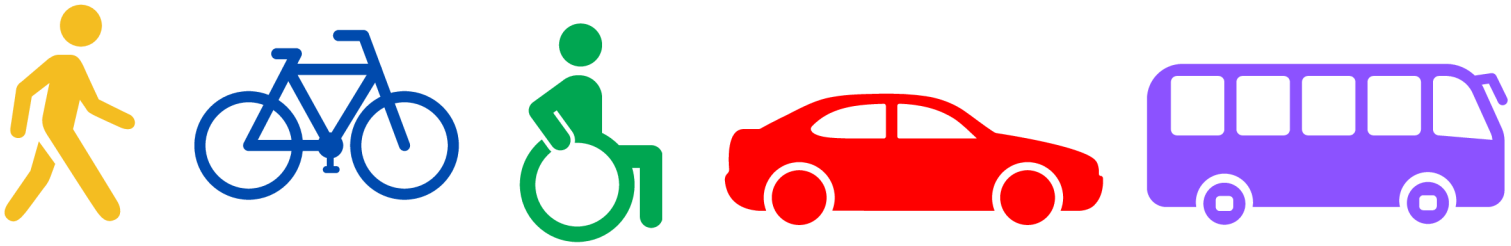
Based on the crash data presented above, vulnerable road users are significantly more likely to be killed or seriously injured in traffic crashes within the JATSO region compared to motor vehicle occupants:

- **Pedestrians:** ~ 17.3 times more likely.
- **Motorcyclists:** ~ 14.9 times more likely.
- **Bicyclists:** ~ 9.3 times more likely.

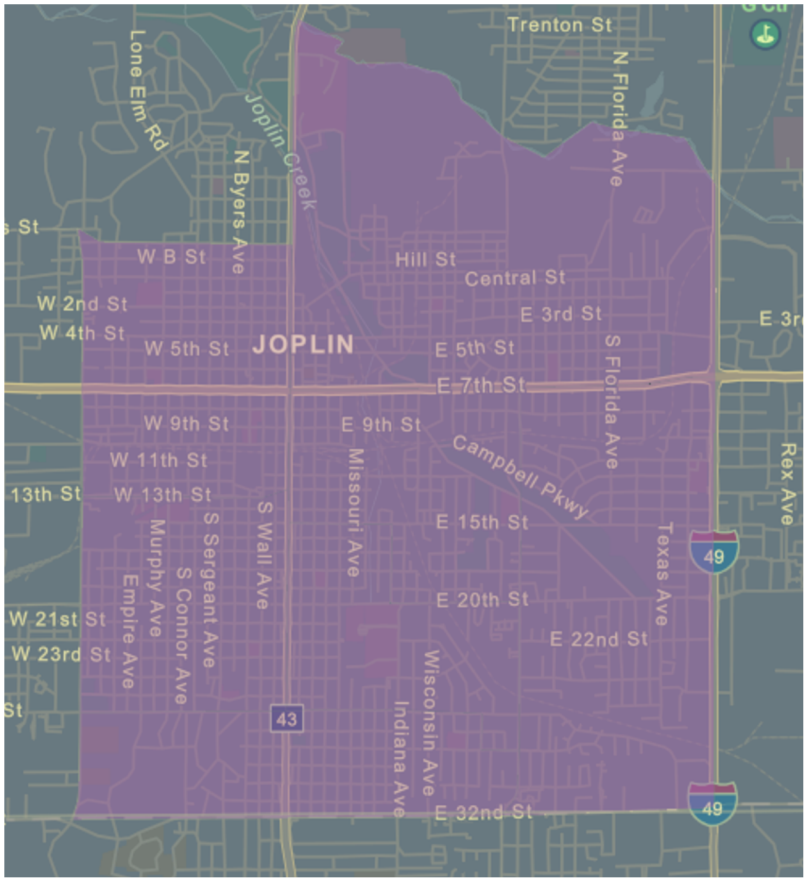
We have a National Roadway Safety Problem



Safety is for Everyone



USDOT Equitable Transportation Community (ETC) Explorer
Disadvantaged Census Tracts in JATSO MPO Boundary



Percentage of Population in Underserved Communities

Population in Underserved Communities

÷

United States Census Bureau — Total jurisdiction population

× 100

Example: 81,594 population in underserved communities ÷ 1,255,296 total pop. = 0.065

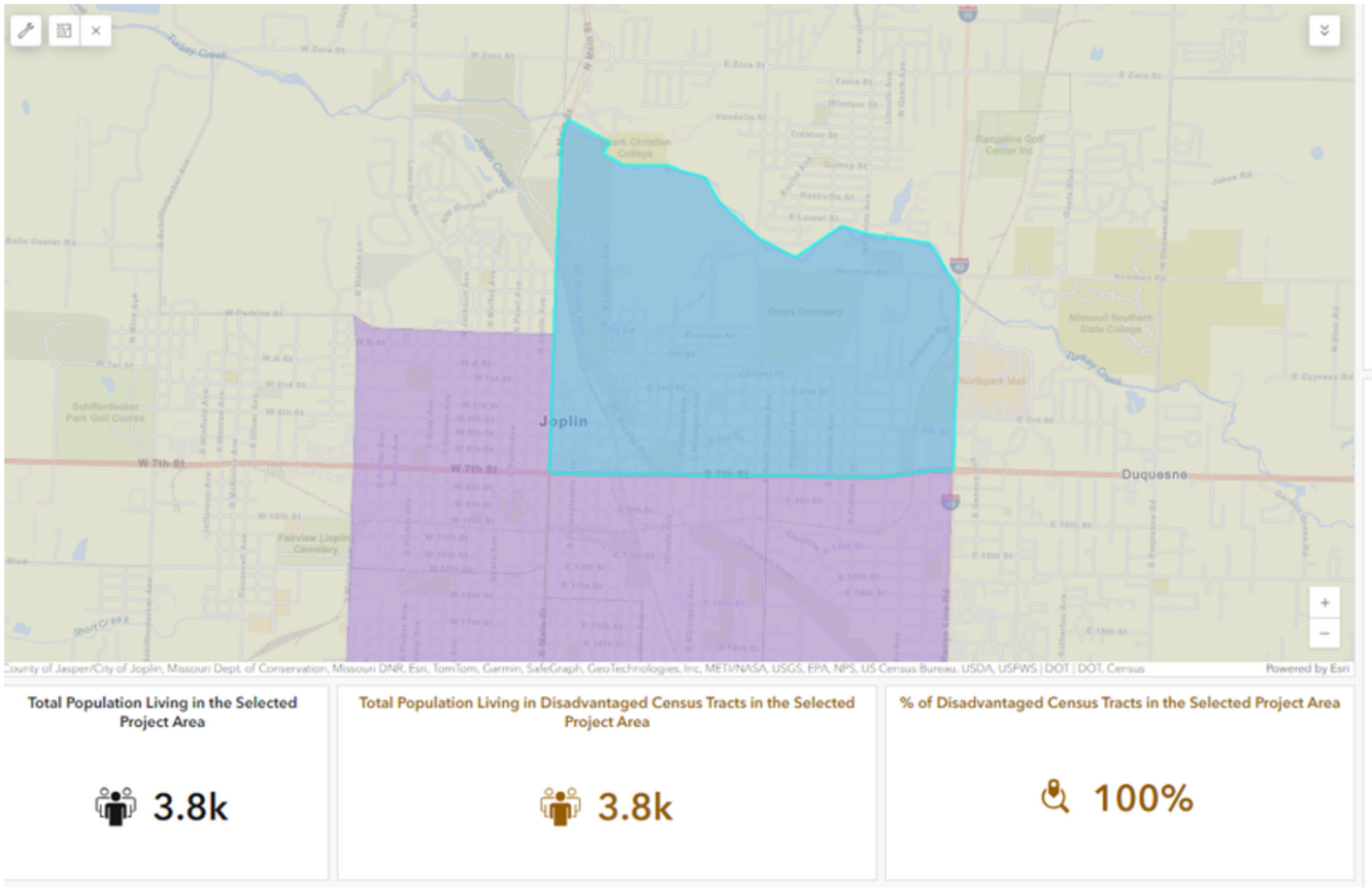
0.065 × 100 = **6.5% in underserved communities**

JATSO (MPO) Region

25,400/102,900 = **24.68% in undeserved communities**

Using the ETC Explorer Tool

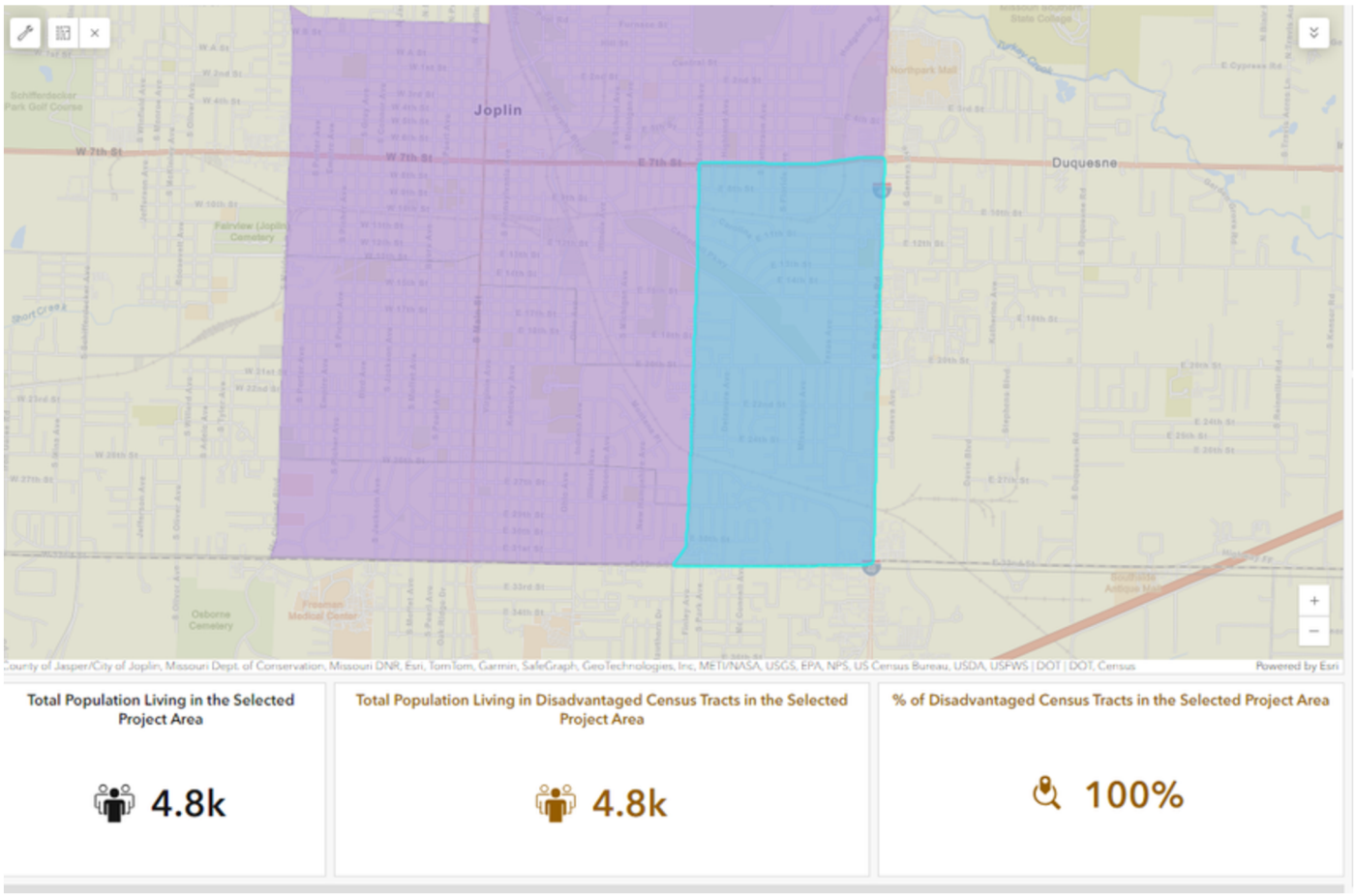
USDOT Equitable Transportation Community (ETC) Explorer
Disadvantaged Census Tract 29097010100 (101) - Jasper County, MO



Total Population Living in the Selected Project Area	Total Population Living in Disadvantaged Census Tracts in the Selected Project Area	% of Disadvantaged Census Tracts in the Selected Project Area
3.8k	3.8k	100%

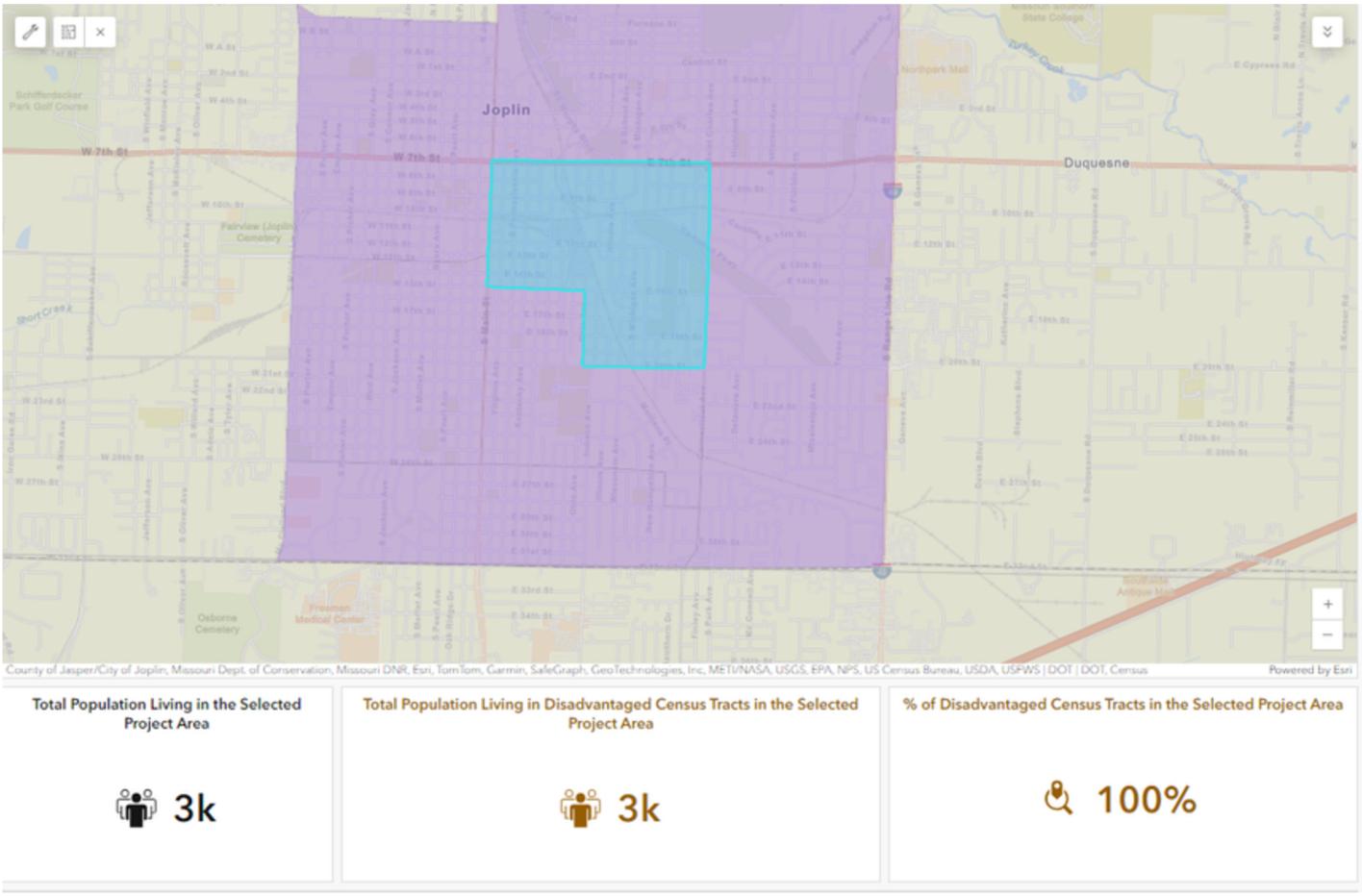
Number of households with no personal vehicle estimated at 15.50%
Population in this tract that are at or below 200% of the federal poverty line (45.60%)

USDOT Equitable Transportation Community (ETC) Explorer
Disadvantaged Census Tract 29097010500 (105) - Jasper County, MO



Number of households with no personal vehicle estimated at 6.30%
Population in this tract that are at or below 200% of the federal poverty line (27.11%)

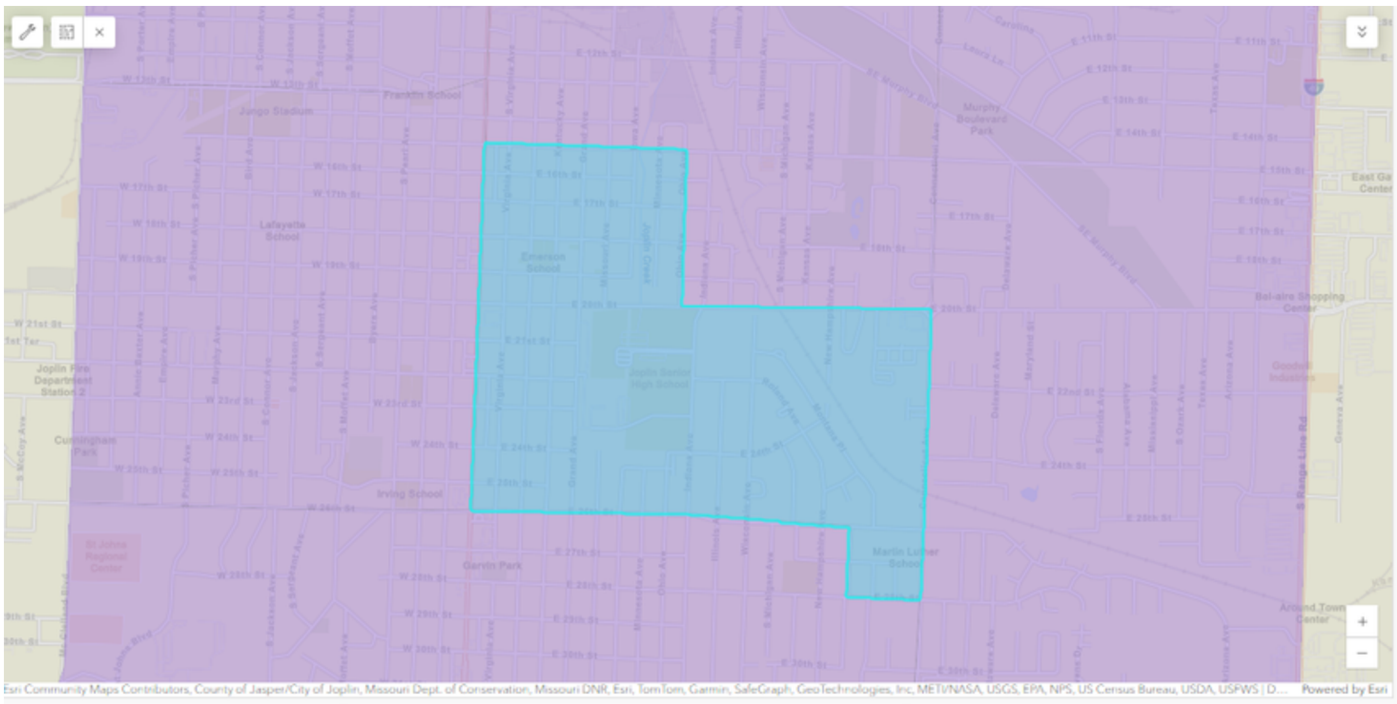
USDOT Equitable Transportation Community (ETC) Explorer
Disadvantaged Census Tract 29097010601 (106.01) - Jasper County, MO



Total Population Living in the Selected Project Area	Total Population Living in Disadvantaged Census Tracts in the Selected Project Area	% of Disadvantaged Census Tracts in the Selected Project Area
3k	3k	100%

Number of households with no personal vehicle estimated at 10.80%
Population in this tract that are at or below 200% of the federal poverty line (67.83%)

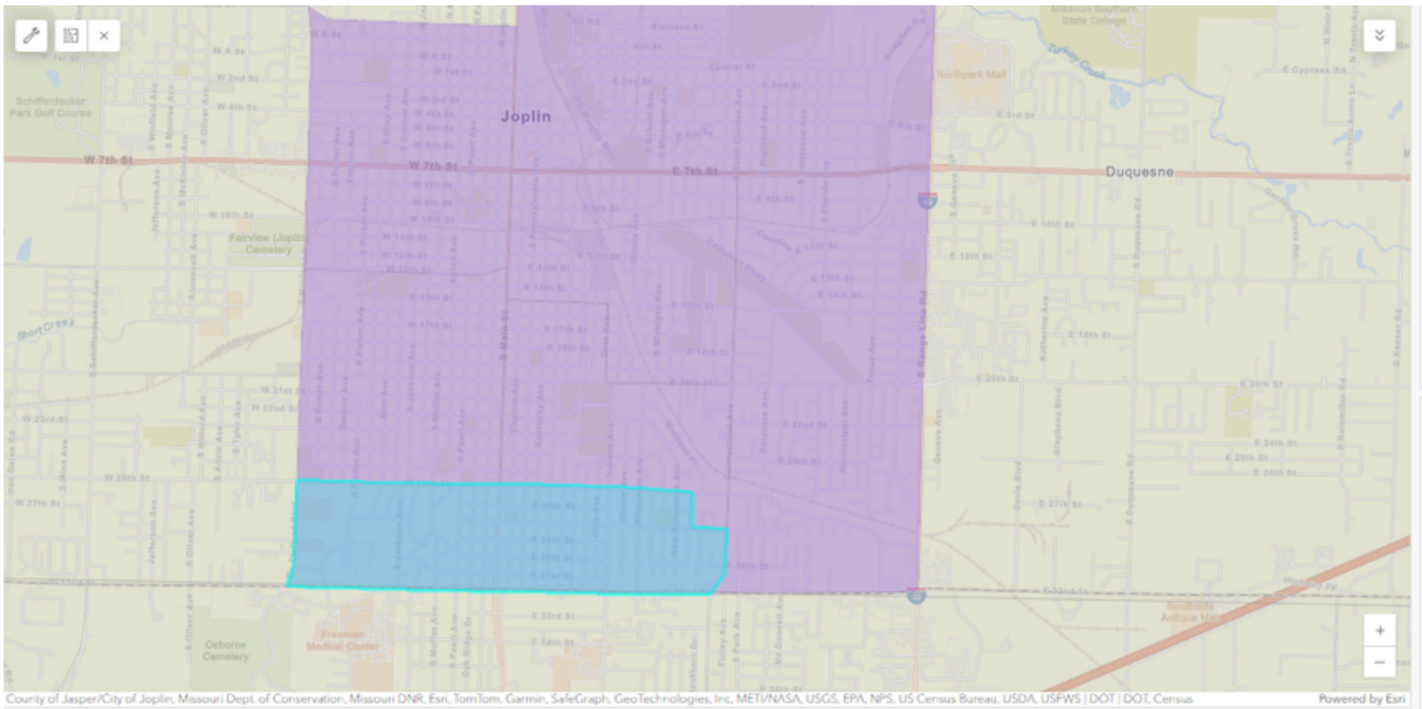
USDOT Equitable Transportation Community (ETC) Explorer
Disadvantaged Census Tract 29097010602 (106.02)- Jasper County, MO



Total Population Living in the Selected Project Area	Total Population Living in Disadvantaged Census Tracts in the Selected Project Area	% of Disadvantaged Census Tracts in the Selected Project Area
2.3k	2.3k	100%

Number of households with no personal vehicle estimated at 0%
Population in this tract that are at or below 200% of the federal poverty line (50.83%)

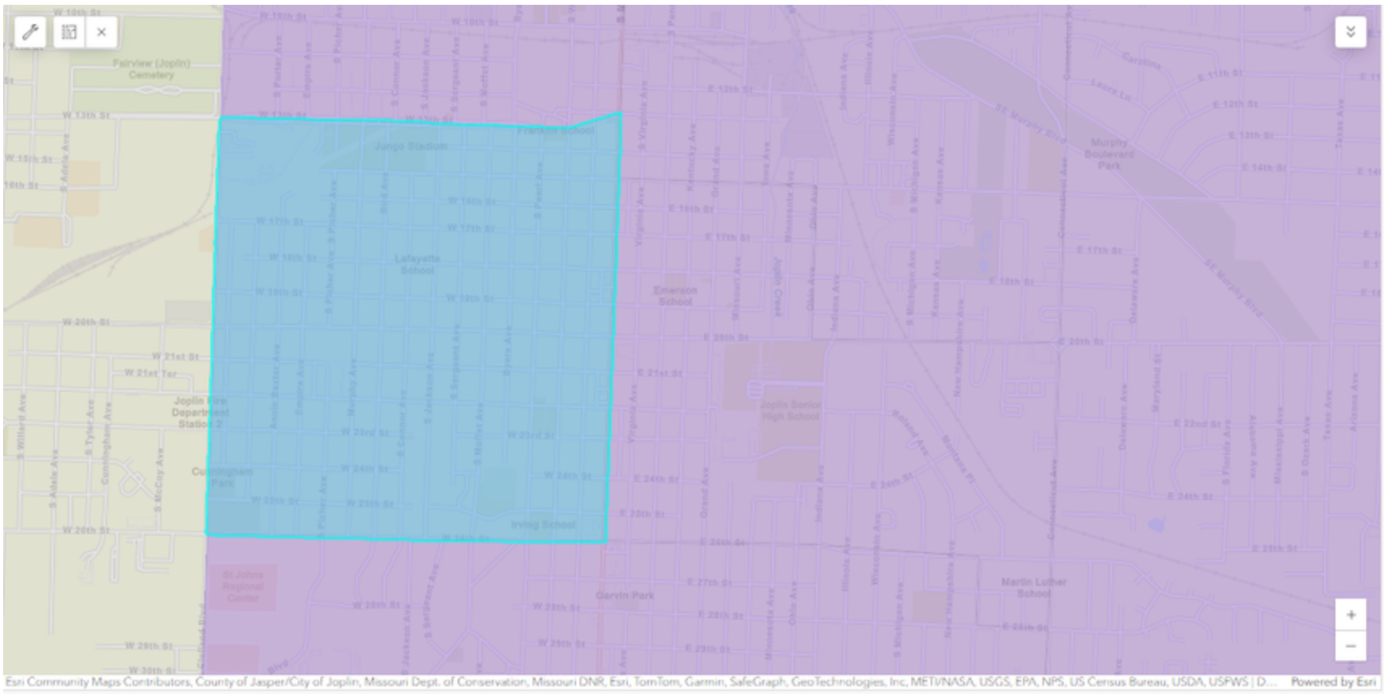
USDOT Equitable Transportation Community (ETC) Explorer
Disadvantaged Census Tract 29097010700 (107) - Jasper County, MO



Total Population Living in the Selected Project Area	Total Population Living in Disadvantaged Census Tracts in the Selected Project Area	% of Disadvantaged Census Tracts in the Selected Project Area
2.7k	2.7k	100%

Number of households with no personal vehicle estimated at 5.00%
Population in this tract that are at or below 200% of the federal poverty line (35.81%)

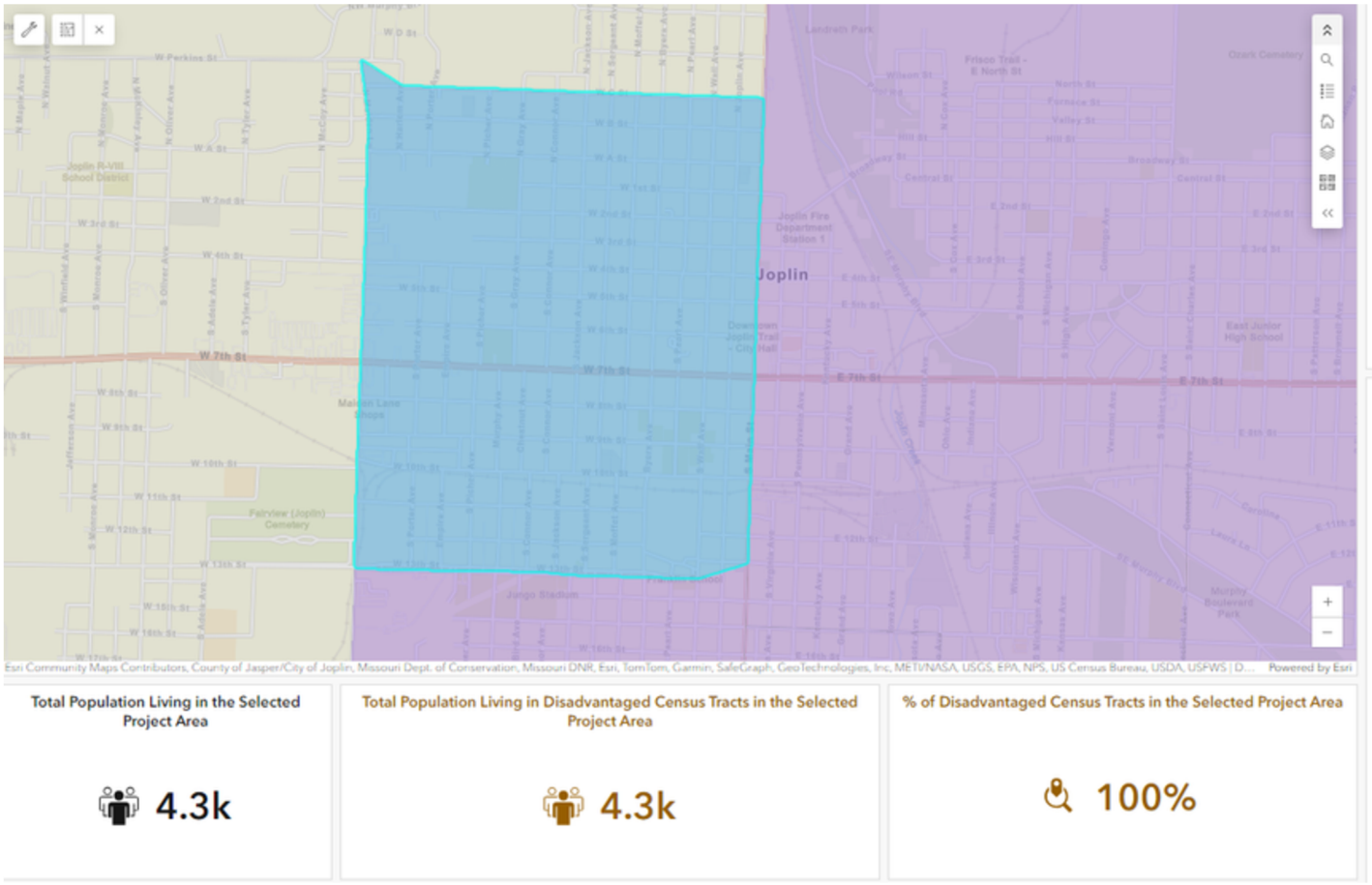
USDOT Equitable Transportation Community (ETC) Explorer
Disadvantaged Census Tract 29097010800 (108) - Jasper County, MO



Total Population Living in the Selected Project Area	Total Population Living in Disadvantaged Census Tracts in the Selected Project Area	% of Disadvantaged Census Tracts in the Selected Project Area
4.7k	4.7k	100%

Number of households with no personal vehicle estimated at 13.60%
Population in this tract that are at or below 200% of the federal poverty line (55.05%)

USDOT Equitable Transportation Community (ETC) Explorer
Disadvantaged Census Tract 29097011000 (110) - Jasper County, MO



Total Population Living in the Selected Project Area	Total Population Living in Disadvantaged Census Tracts in the Selected Project Area	% of Disadvantaged Census Tracts in the Selected Project Area
4.3k	4.3k	100%

Number of households with no personal vehicle estimated at 19.80%
Population in this tract that are at or below 200% of the federal poverty line (56.83%)

Table 3.1: Equity Data Sets

Data	Source	Use
Historically Disadvantaged Communities	USDOT ETC Explorer	Preliminary evaluation, engagement, project prioritization criteria
Areas of Persistent Poverty	USDOT ETC Explorer	Preliminary evaluation, engagement, project prioritization criteria
Minority Population	USDOT ETC Explorer	Project prioritization criteria
Vehicle Ownership	USDOT ETC Explorer	Project prioritization criteria

Source: FHWA

JATSO - Equity by the Numbers

(ETC Explorer Tool)

- Historically Disadvantaged Census Tracts - **7 Tracts**
- Areas of Persistent Poverty Census Tracts - **5 of 7 Tracts**
- Estimated Minority Population - **17.6%**
- Percentage of Population in Underserved Communities - **24.68%**

JOPLIN COMPLETE STREETS ORDINANCE

Plan Overview

The Joplin Complete Streets Ordinance outlines a framework for creating and maintaining a transportation network that is safe, accessible, and equitable for all users, regardless of age, ability, or mode of transportation. The ordinance emphasizes designing streets that accommodate pedestrians, bicyclists, public transit users, motorists, and commercial vehicles, ensuring a comprehensive and integrated approach to city planning. It also highlights the importance of integrating Complete Streets principles into all new projects, reconstructions, and maintenance efforts within the city.

Goals & Objectives

1. **Safety & Accessibility:** Ensure that all road users, including those from diverse age groups and abilities, have safe and accessible facilities.
2. **Equity:** Prioritize improvements in neighborhoods with historic underinvestment and poor health outcomes, particularly low-income neighborhoods where 51% or more of residents are classified as low-income.
3. **Multimodal Transportation Network:** Create a comprehensive street network that supports various modes of transportation, including walking, cycling, and public transit.
4. **Sustainability:** Incorporate sustainable landscaping and native plant species into street design projects where possible.
5. **Community Engagement & Education:** Involve community members in decision-making processes and educate the public on Complete Streets principles.

Key Findings

1. **Diverse Users:** The ordinance recognizes the legitimacy of all transportation network users and emphasizes the need to accommodate them in planning and design.
2. **Clear Exceptions:** Infrastructure may be excluded from Complete Streets requirements only if documented evidence shows that the costs or impacts are excessively disproportionate to the need or probable use.
3. **Cross-Jurisdictional Collaboration:** Implementation will involve cooperation among various city departments, private developers, and state, regional, and federal agencies.
4. **Performance Measures:** The city will track and publicly report progress using internal and external metrics, including policy updates, infrastructure improvements, and safety statistics.
5. **Best Practices:** The National Complete Streets Coalition recognized the City of Joplin's Complete Streets Ordinance in its "Best Complete Streets Policies 2023," awarding it a score of 95 out of 100. The Joplin Complete Streets policy set a goal in its vision and intent to prioritize underinvested and underserved communities: "While this ordinance applies throughout the community, Joplin shall develop plans and set goals to prioritize and ensure the successful implementation of Complete Streets in neighborhoods that have experienced historic underinvestment."
6. **Project Selection Criteria:** Equity – the project will broaden transportation options for neighborhoods with limited connectivity to community assets.

JOPLIN COMPLETE STREETS ORDINANCE | ADOPTED 2022									
Jurisdiction: Joplin, MO				**Population:** 51,846			**Land Area:** 36 square miles		
NCSC Score | 95 / 100									
Elements									
Establishes commitment and vision	Prioritizes underinvested and underserved communities	Applies to all projects and phases	Allows only clear exceptions	Mandates coordination	Adopts excellent design guidance	Requires proactive land-use planning	Measures progress	Sets criteria for choosing projects	Creates a plan for implementation
Score									
12/12	9/9	10/10	8/8	8/8	7/7	10/10	13/13	8/8	10/15

Recommendations for Transportation Safety

1. **Infrastructure Improvements:** Increase the construction of new sidewalks, trails, and bike lanes, and repair existing infrastructure to enhance safety and accessibility.
2. **Traffic Calming Measures:** Implement measures to curb dangerous driving behaviors, such as distracted driving and excessive speeding.
3. **Data Collection & Analysis:** Regularly collect and analyze data on crashes, injuries, and fatalities to identify areas needing safety improvements.
4. **Community Engagement:** Involve the community in planning and design processes to ensure that the implemented changes meet the needs of all users, particularly those in underinvested areas.
5. **Annual Training:** Train city staff and decision-makers on Complete Streets principles and best practices to ensure consistent and informed application of the policy.

The Complete Streets Ordinance sets a clear and comprehensive approach to enhancing transportation infrastructure in Joplin, aiming to create a safer, more accessible, and equitable environment for all residents.

To better align Joplin's Complete Streets Ordinance with the Safe System Approach, the following strategies have been identified:

- **Promote Safe Speeds:** Safe speeds are a critical component of the Safe System Approach. The ordinance could establish specific measures to manage vehicle speeds, especially in areas with mixed traffic and vulnerable road users.
- **Systemic Approach to Safety:** Encourage a proactive, data-driven approach to identifying and addressing potential safety issues throughout the transportation network.
- **Implementation Plan:** Explore ways to strengthen the Implementation Plan for the delivery of Complete Streets initiatives and projects.

JATSO METROPOLITAN TRANSPORTATION PLAN

Plan Overview
The Joplin Area Transportation Study Organization (JATSO) 2045 Metropolitan Transportation Plan (MTP) outlines a comprehensive strategy for the region's transportation network over a 20-year horizon. It focuses on integrating multiple modes of transportation, including roadways, transit, and non-motorized travel, to efficiently move people and goods.

Goals & Objectives
1. **Enhance Mobility & Accessibility:** Improve transportation options and connectivity.
2. **Promote Safety & Security:** Reduce accidents and enhance emergency response.
3. **Support Economic Development:** Foster regional economic growth through improved transportation infrastructure.

Key Findings
1. **Growing Demand:** There is an increasing demand for diverse transportation options due to population growth.
2. **Infrastructure Needs:** There is a significant need for maintenance and modernization of existing infrastructure.
3. **Funding Challenges:** Limited funding sources and financial constraints are affecting project implementation.

Recommendations for Transportation Safety
1. **Implement Safety Measures:** Prioritize projects that enhance safety, such as improved signage, crosswalks, and bike lanes.
2. **Focus on High-Risk Areas:** Target improvements in areas with high accident rates.
3. **Encourage Multimodal Safety:** Ensure that all modes of transportation, including walking and cycling, are safe and accessible.

To better align Joplin's MTP with the Safe System Approach, the following strategies have been identified:

- **Prioritize Safety as the Core Objective:** Explicitly state that safety is the primary consideration in all transportation projects, aiming to eliminate fatalities and serious injuries.
- **Speed Management:** Implement measures to control vehicle speeds, especially in areas with vulnerable road users like pedestrians and cyclists.
- **Equity & Accessibility:** Ensure that safety improvements are equitably distributed, focusing on historically underinvested areas and vulnerable populations.

By incorporating these strategies, Joplin's MTP can more effectively prioritize safety and align with the principles of the Safe System Approach.

JATSO ACTIVE TRANSPORTATION PLAN

Plan Overview

The Joplin Active Transportation Plan focuses on improving and expanding the city's infrastructure for non-motorized transportation modes, such as walking and biking. It aims to provide safe, efficient, and accessible connections within and between Joplin Area communities. The plan was developed to support sustainable transportation, enhance community health, and improve the overall quality of life for residents.

Goals & Objectives

1. **Connectivity:** Enhance connections between neighborhoods, business districts, parks, and other key destinations.
2. **Safety:** Prioritize the safety of all road users, especially pedestrians and cyclists.
3. **Equity:** Ensure access to transportation options for all community members, including historically underserved neighborhoods.
4. **Sustainability:** Promote environmentally friendly transportation modes to reduce traffic congestion and emissions.
5. **Health & Wellness:** Encourage physical activity by providing safe and convenient active transportation options.

Key Findings

1. **Existing Infrastructure:** There is a need for improved pedestrian and bicycle infrastructure, including better sidewalks, bike lanes, and crossings.
2. **Safety Concerns:** High traffic speeds and inadequate facilities contribute to safety risks for pedestrians and cyclists.
3. **Public Demand:** There is significant public interest in more active transportation options and safer streets.
4. **Equity Issues:** Certain neighborhoods lack sufficient access to safe walking and biking paths.

Recommendations for Transportation Safety

1. **Infrastructure Improvements:** Develop and expand sidewalks, bike lanes, and crosswalks in key areas, focusing on connections to schools, parks, and commercial zones.
2. **Traffic Calming Measures:** Implement measures such as speed humps, raised crosswalks, and traffic circles to slow down vehicles in pedestrian-heavy areas.
3. **Safety Education:** Launch public awareness campaigns about pedestrian and cyclist safety and the benefits of active transportation.
4. **Data-Driven Decisions:** Use crash data and other relevant metrics to identify high-risk areas and prioritize safety interventions.
5. **Community Engagement:** Involve local communities in the planning and implementation process to ensure that solutions meet their needs and concerns.

JATSO ACTIVE TRANSPORTATION PLAN

To better align Joplin's Active Transportation Plan with the Safe System Approach, the following strategies have been identified:

- **Accommodate Human Error:** Design infrastructure to minimize the consequences of human errors. This can include forgiving road designs, such as wider sidewalks, protected bike lanes, and pedestrian refuges at crosswalks.
- **Speed Management:** Implement more aggressive speed management strategies, including setting lower speed limits in areas with high pedestrian and cyclist activity, and enhancing enforcement.
- **Protect Vulnerable Users:** Focus on creating safer environments for vulnerable road users, including children, elderly individuals, and people with disabilities. This could involve designing crossings with longer signal times and adding more pedestrian signals.
- **Community Involvement & Equity:** Ensure equitable safety improvements by engaging with all communities, especially those historically underserved, to understand their specific safety needs and concerns.

Implementing these strategies will help create a transportation system that is safer, more forgiving of human mistakes, and more protective of all road users.

CITY OF JOPLIN'S 2020 ADA TRANSITION PLAN & EVALUATION

Plan Overview

The City of Joplin's ADA Transition Plan and Evaluation, updated in January 2020, outlines the city's commitment to ensuring accessibility for individuals with disabilities. The plan includes assessments of public facilities, sidewalks, and infrastructure to identify barriers and provide solutions for compliance with the Americans with Disabilities Act (ADA).

Goals & Objectives

1. **Ensure Accessibility:** Achieve full compliance with ADA requirements across all public facilities.
2. **Identify Barriers:** Conduct comprehensive evaluations of existing facilities to identify accessibility barriers.
3. **Implement Solutions:** Develop and execute a timeline for necessary upgrades and modifications.

Key Findings

1. **Infrastructure Gaps:** Several sidewalks and public buildings require modifications to meet ADA standards.
2. **Prioritized Areas:** The plan identifies key areas with significant barriers that need immediate attention, including high-traffic zones and essential public services.

Recommendations for Transportation Safety

1. Sidewalk Improvements: Prioritize upgrading sidewalks to include ramps, tactile indicators, and proper widths to accommodate all users.
2. Crosswalk Accessibility: Enhance crosswalks with audible signals, proper curb cuts, and visible markings.
3. Public Transportation: Ensure that all public transportation services and facilities are accessible to individuals with disabilities, including proper boarding ramps and communication aids.

To better align Joplin's ADA Transition Plan with the Safe System Approach, consider the following strategies:

- **Safety Prioritization:** Emphasize the elimination of serious injuries and fatalities among all users, especially those with disabilities.
- **Design for Human Error:** Include infrastructure that mitigates the impact of human error, such as wider sidewalks and buffer zones.
- **Speed Management:** Implement traffic calming measures to protect vulnerable pedestrians, particularly in areas with frequent crossings by individuals with disabilities.
- **Equity Focus:** Prioritize accessible infrastructure in underserved communities, ensuring equitable access to safe transportation.

These strategies will help integrate safety and accessibility into the city's transportation network comprehensively.

ACCESS & CIRCULATION

The City of Joplin Development Code (Updated July 2022) includes Article 7.02 Access & Circulation provides design standards for internal street and driveways (number of access points, locations, spacing, and widths) to improve traffic operations and safety.

To better align with a Safe Systems Approach, Article 7.02 could be revised to include the following strategies:

1. **Safe Access Points:** Stress the importance of carefully planning the location and design of access points, such as driveways and street connections. Properly designed access points help reduce potential conflict areas, thereby lowering the risk of collisions.
2. **Controlled Spacing:** The spacing of access points is regulated to prevent congestion and ensure smooth traffic flow. Adequate spacing minimizes the chances of accidents by reducing the frequency of merging and turning movements.
3. **Coordination & Consistency:** Emphasize the need for coordination between local and state agencies to ensure consistent application of access management principles. A unified approach helps create a predictable and safe roadway system across different jurisdictions.

By adopting these strategies, the Joplin Development Code would create a safer and more efficient transportation network, aligning with broader goals of reducing traffic-related injuries and fatalities.

JOPLIN NEIGHBORHOOD TRAFFIC CALMING POLICY 2019

Policy Overview

The City of Joplin's Neighborhood Traffic Calming Policy (2019) was developed to address traffic-related issues in residential areas, focusing on improving neighborhood livability and safety. The policy outlines a systematic approach involving education, enforcement, and engineering measures to reduce the negative impacts of vehicular traffic, such as speeding and cut-through traffic, on residential streets.

Goals & Objectives

The primary goals of the policy are:

1. **Enhance Safety:** Reduce the frequency and severity of traffic accidents within neighborhoods.
2. **Improve Livability:** Minimize the adverse effects of traffic, thereby improving the quality of life for residents.
3. **Promote Fairness:** Ensure consistent and equitable application of traffic calming measures across all neighborhoods.
4. **Increase Community Involvement:** Engage residents in the process of identifying and solving traffic-related issues.

JOPLIN NEIGHBORHOOD TRAFFIC CALMING POLICY 2019

Key Findings

1. **Speeding & Cut-Through Traffic:** The policy identified speeding and non-local cut-through traffic as the most significant issues affecting neighborhood safety.
2. **Varied Impact:** Traffic issues vary across neighborhoods, requiring tailored solutions based on specific conditions and community feedback.
3. **Effectiveness of Combined Approaches:** The combination of education, enforcement, and engineering has proven effective in mitigating traffic problems.

Recommendations for Transportation Safety

1. **Implementation of Traffic Calming Measures:** Install speed humps, traffic circles, curb extensions, and other physical measures in areas with identified traffic issues.
2. **Enhanced Signage and Markings:** Increase the visibility of traffic signs and road markings to better inform drivers and encourage compliance with traffic rules.
3. **Community Education Programs:** Launch initiatives to educate residents about traffic safety and the purpose of traffic calming measures.

To better align with the Safe System Approach, the following strategies are recommended:

- **Safety Design:** Integrate safety into the planning and design of all neighborhood streets, ensuring that roadways are forgiving of human errors.
- **Proactive Safety Management:** Use data to identify potential safety issues before they result in accidents and implement preventive measures.
- **Equitable Access to Safety:** Ensure that all neighborhoods, regardless of socio-economic status, have access to traffic calming measures.
- **Speed Management:** Focus on managing speeds through road design and traffic calming to reduce the risk of severe injuries or fatalities in crashes.
- **Strengthen Enforcement:** Consider the use of technology and law enforcement partnerships to ensure compliance with traffic regulations, especially in high-risk areas.

These strategies can help Joplin's traffic calming policy more effectively reduce traffic-related injuries and fatalities while improving overall community livability.

Introduction

Public engagement is a critical component of the Joplin Area Transportation Study Organization (JATSO) Safety Action Plan (SAP). Engaging with the community helps ensure that the plan reflects the needs, concerns, and priorities of the residents it aims to serve. This chapter outlines the various public engagement activities conducted throughout the development of the SAP, highlighting the importance of community input in shaping the safety strategies for the region.

Engagement Activities

- **Progress Meetings:** Throughout the development of the Safety Action Plan, progress meetings were held with JATSO leadership to discuss ongoing efforts, review findings, and refine strategies based on preliminary feedback. These meetings ensured that the leadership team was actively involved in the planning process and that the project remained aligned with community goals and safety priorities.
- **Complete Streets Committee** (Steering Committee) **Meetings:** Following the assignment of the Complete Streets Committee to serve as the Safety Action Plan Steering Committee, weekly meetings were conducted with the Steering Committee Working Group. These meetings aimed to review progress and ensure alignment with the Metropolitan Planning Organization's (MPO) vision and community input for the JATSO Safety Action Plan. In total, 19 weekly meetings were held with the Steering Committee Working Group. A final draft was submitted to the Complete Streets Committee for review and approval before being forwarded to the JATSO Board for official adoption.
- **Community-Wide Online Survey:** To gather broader input from the community, a comprehensive online survey was conducted over a period of 45 days. The online survey was promoted through ***The Citizen*** a quarterly newsletter sent out to every household in Joplin as well as a News-Release from the City of Joplin (copy attached). This survey received 362 citizen responses and covered a variety of topics, including:
  - **Demographics:** Understanding the diverse makeup of the community to tailor safety strategies effectively.
  - **Transportation Habits:** Insight into how residents travel, including the use of cars, pickups/SUVs, motorcycles, walking, biking, and public transit.
  - **Top Safety Concerns:** Identifying the primary safety issues faced by the community on JATSO roads and streets.
  - **Perceptions of Safety:** Gauging how safe residents feel while using JATSO transportation infrastructure.
  - **Suggestions for Improvements:** Collecting ideas and recommendations from the public to enhance road safety.

The survey results provided valuable data, allowing JATSO to prioritize issues that matter most to residents and to inform the development of targeted safety interventions.

Open House Meeting

An SS4A Safety Action Plan Open House Meeting was held on October 29th at the Joplin Public Library from 3 PM to 6 PM. This event provided an opportunity for community members to engage directly with the project team. Attendees were invited to share their input and recommendations through open discussions and interactive poster board displays.

The open house facilitated meaningful conversations about safety concerns, potential improvements, and the overall vision for safer streets in Joplin. Feedback collected during this event was instrumental in refining the strategies outlined in the Safety Action Plan.

Conclusion

The public engagement efforts undertaken by JATSO throughout the development of the Safety Action Plan demonstrate a commitment to inclusivity and community involvement. By actively seeking input from residents through surveys and open house meetings, JATSO has ensured that this Safety Action Plan reflects the voices and needs of the community. This collaborative approach will ultimately lead to more effective and targeted safety solutions that enhance the overall well-being of all roadway users in the Joplin area.

JOPLIN MISSOURI

NEWS RELEASE

FOR IMMEDIATE RELEASE

October 1, 2024

SUBJECT: Transportation organization seeking citizens' input about their safety on roads

CONTACT: Lynn Onstot, Public Information Officer, 417-624-0820, ext. 1204

Everyone values moving through a community safely. The Joplin Area Transportation Study Organization (JATSO) believes that the best safety plan is shaped by the community it serves. Therefore, JATSO invites residents and stakeholders to take an online survey for the ***JATSO SS4A Safety Action Plan*** to share their thoughts and experiences regarding transportation safety in our region.

"Residents can voice their opinions and share their experiences with transportation safety in our area," said Robert Lolley, JATSO Planner for the City of Joplin. "This feedback is crucial in helping to identify safety concerns and develop effective strategies to enhance road safety for all users—whether they walk, bike, or drive."

Survey questions focus on safety perceptions, specific problem areas, and suggestions for improvement. Responses will help JATSO make informed decisions that target the most pressing issues affecting roads in the region.

The JATSO Online Survey is open for comments from October 1 through October 30, 2024.

"Residents offer valuable insights about local traffic safety concerns and experiences to help create a safer environment for all road users in the JATSO Region. Their answers will help ensure that the plan reflects the needs and priorities of the community. We appreciate everyone who takes the time to share their thoughts," said Lolley.

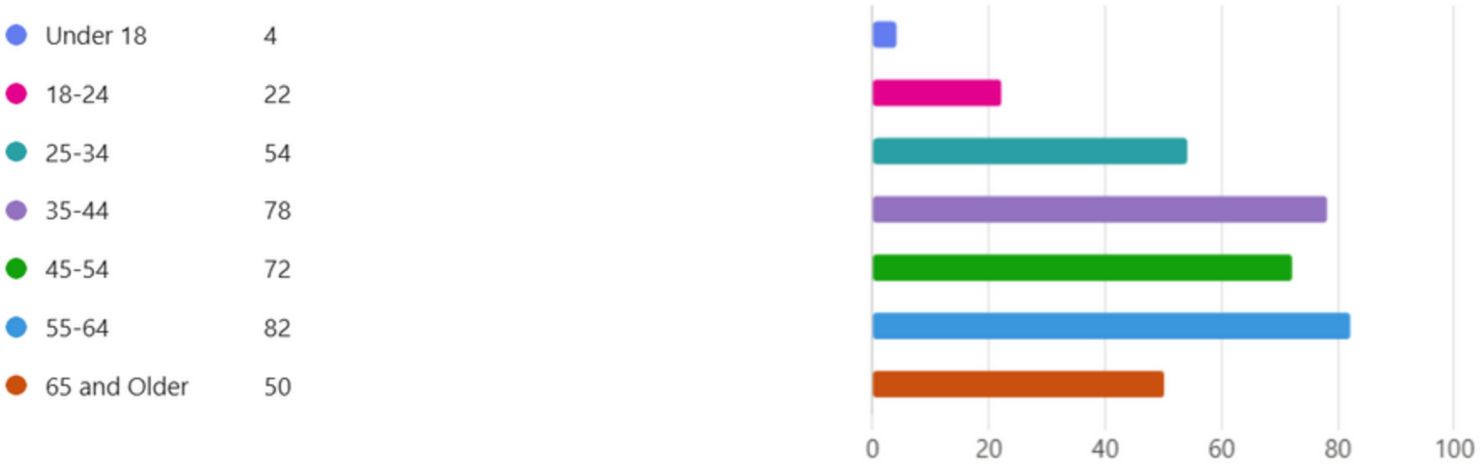
A **Public Meeting** using an open house format will be held from **3 to 6 p.m. on Tuesday, October 29, at the Joplin Public Library, 1901 East 20th Street** to discuss transportation safety.

JATSO is the designated Metropolitan Planning Organization (MPO) for the Joplin region. Federal legislation requires an MPO for any urbanized area with a population of over 50,000. MPOs ensure that existing and future transportation projects and program expenditures are based on a continuing, cooperative, and comprehensive planning process.

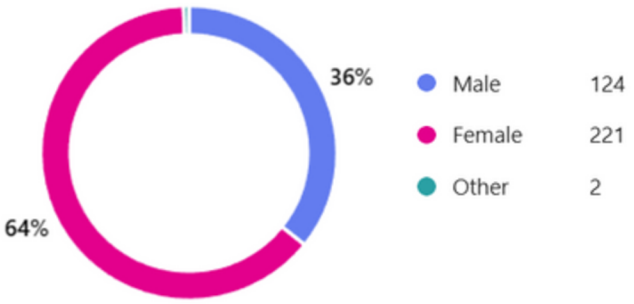
JATSO Survey link: https://forms.office.com/r/vPxWsNhgvM

NOTE: The Online Survey was extended through November 15, 2024

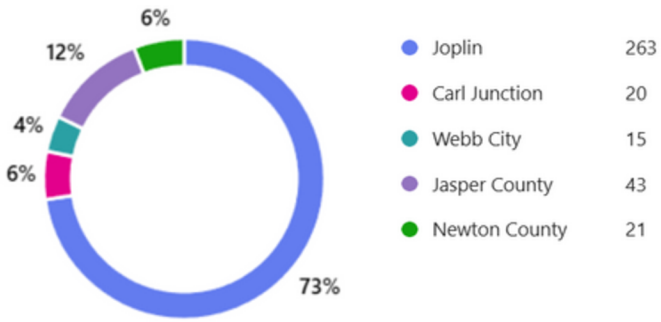
Age Demographics of Respondents



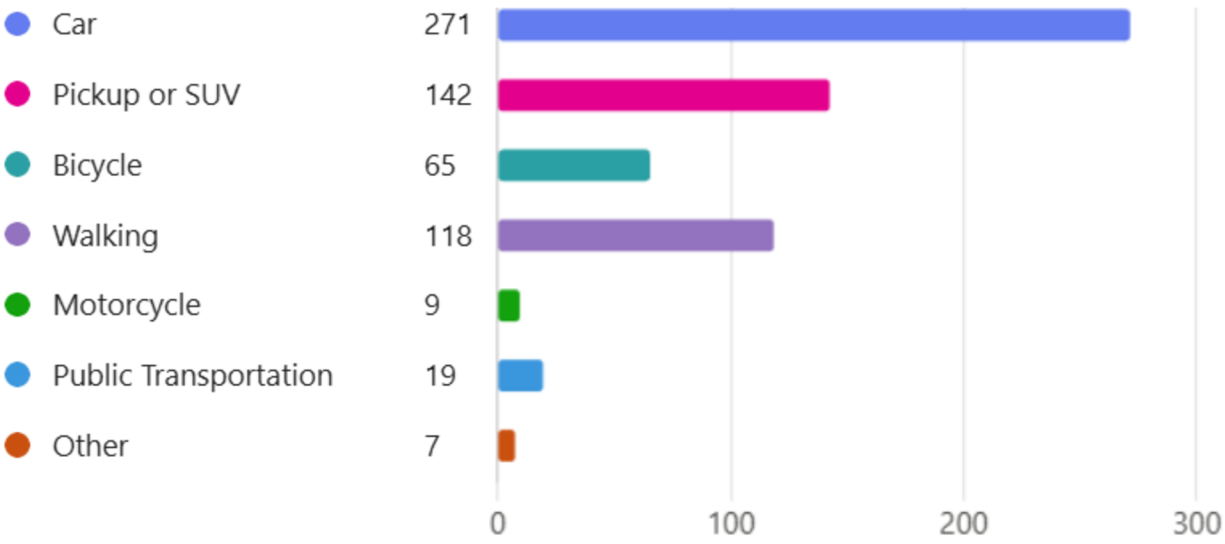
Gender Demographics of Respondents



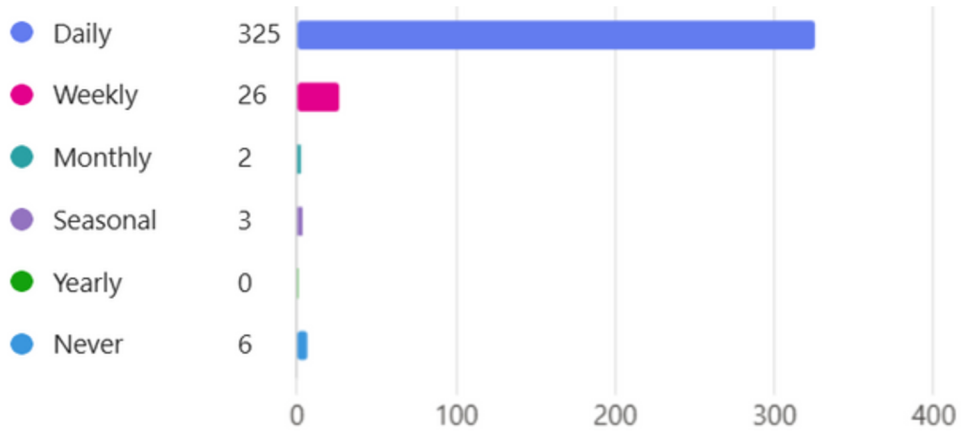
Area Demogaphics of Respondents



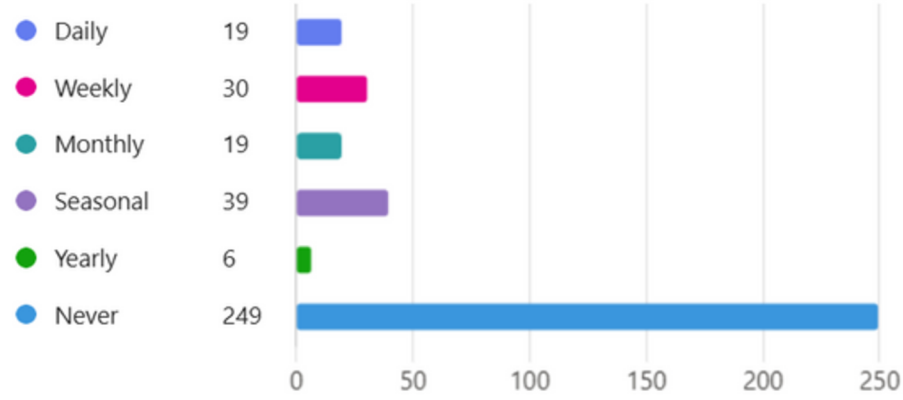
Transportation Habits - Vehicle Type Frequent Travel



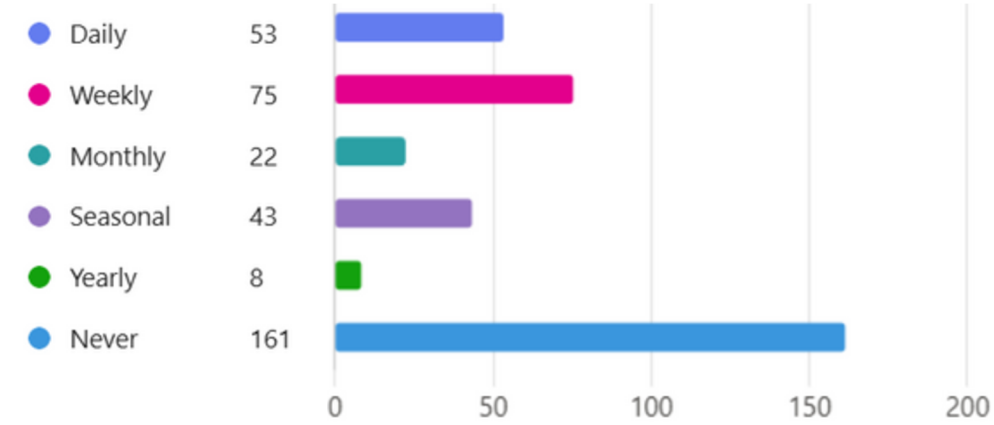
Transportation Habits - Car/Pickup/SUV



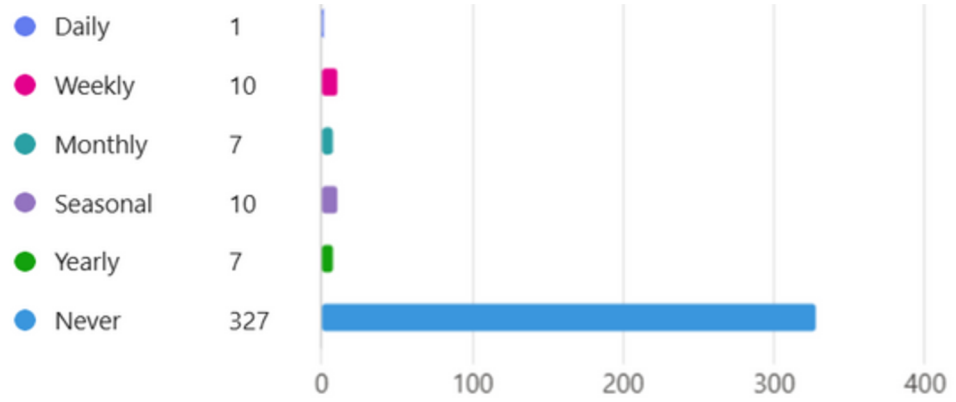
Transportation Habits - Bicycle



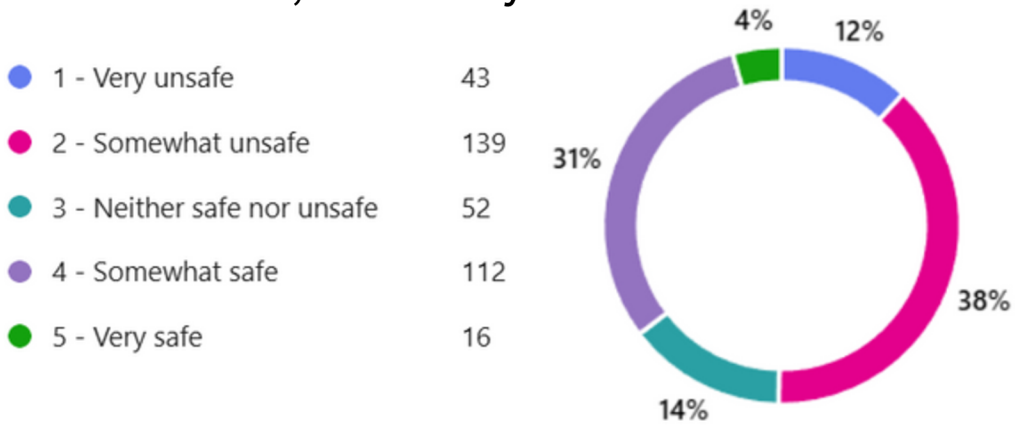
Transportation Habits - Walk



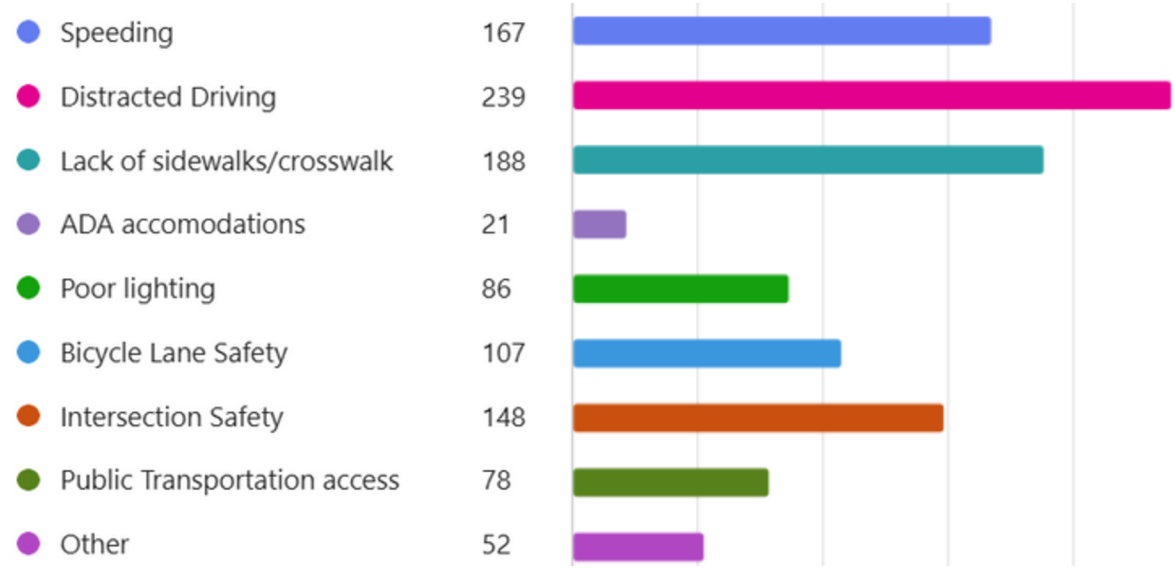
Transportation Habits - Public Transportation



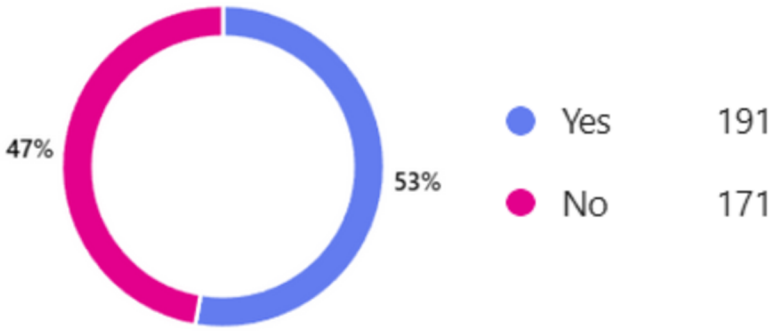
On a scale of 1 to 5, how safe do you feel on our roads?



What are your top safety concerns in our community? (select up to three)



Have you, or someone you know, been involved in a traffic incident in the past year?



Suggestions and Improvements

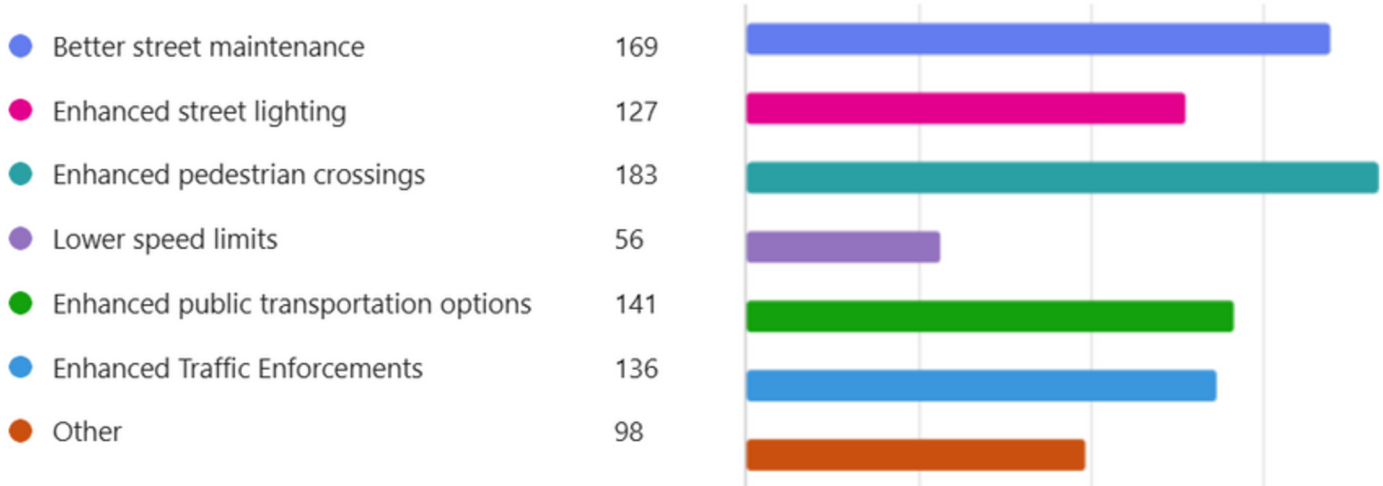
362
Responses

Latest Responses

"Rangeline is too congested where the Sam's club lets out. People on unlicen... "
"Zora heading east from Rangeline requires attention, particularly at the railr... "
"Flashing lights at crosswalks. Make cell phone usage while driving a primary ... "
• • •

76 respondents (21%) answered Rangeline for this question.

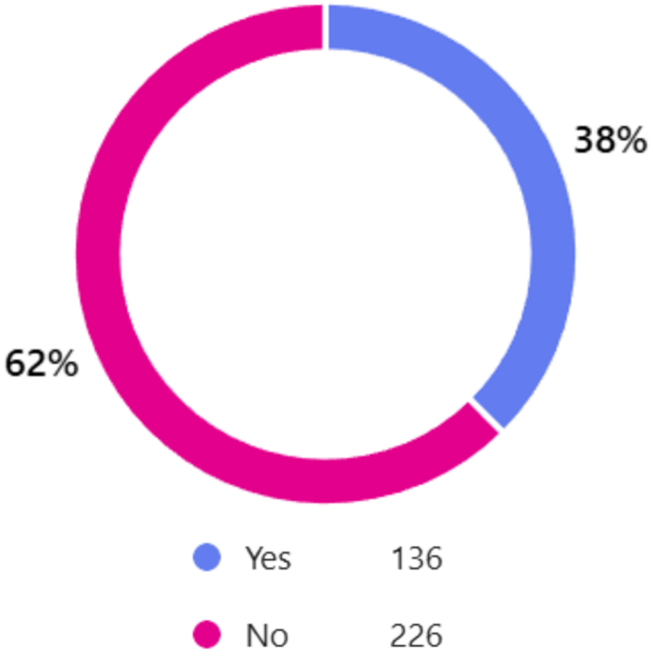




Suggestions and Improvements



Would you like to participate in future community meetings or workshops on this topic?



Note: 120 Citizens provided email addresses

Introduction to Prioritization & Recommendations

The built environment plays a critical role in roadway safety. Design deficiencies, insufficient infrastructure for vulnerable road users (VRUs), and inadequate maintenance can result in serious traffic crashes, threatening lives and diminishing community well-being. This chapter presents a systematic approach developed to prioritize critical local projects aimed at improving safety across the Joplin Area Transportation Study Organization (JATSO) region. The prioritization process emphasizes alignment with the Missouri Department of Transportation (MoDOT) Planning Framework for Roads & Bridges and VRU projects.

By addressing the challenges identified throughout the region and strategically prioritizing investments, this plan seeks to enhance safety, equity, and multimodal accessibility for all road users.

Project Prioritization Process

The project prioritization process was informed by data from a variety of sources, including the High Injury Network (HIN) developed in this report, contributions from JATSO, and input from local agency partners. These data points were used to identify key community needs and evaluate infrastructure projects.

Step 1: Initial Ranking Using SS4A Criteria

Each project was first ranked using the Safe Streets and Roads for All (SS4A) criteria. This process considered factors such as crash history, alignment with the High Injury Network, and equity considerations. Continued discussion on this evaluation can be found under **Safety Action Plan Scoring Matrix**.

Step 2: Evaluation of MoDOT-Owned Facilities

The top 20 projects on MoDOT-owned facilities were further analyzed using the MoDOT Planning Framework. This evaluation focused on key priorities, including safety, equity, and multimodal accessibility, to create a ranked list of high-priority projects. These projects were selected based on their potential impact and alignment with both state and local planning goals.

This dual evaluation process ensures that local and state resources are allocated effectively, resulting in targeted safety improvements across the JATSO region.

Project Sources

Projects were identified from a comprehensive review of existing plans, community feedback, safety assessments, and systemic improvements. The following sources were integral to the prioritization process:

- **JATSO Unfunded Needs Project List -** This list provides a detailed inventory of infrastructure projects that have been identified but lack funding. It serves as a valuable resource for understanding unmet community needs and prioritizing future investments.
- **Joplin Active Transportation Plan** - This plan focuses on enhancing active transportation options, such as walking and biking, and identifies specific improvements to support these modes. It highlights the importance of creating safe, accessible, and connected networks for VRUs.
- **Community Feedback and Safety Assessments -** Input from community members and insights from safety assessments were crucial for identifying specific areas of concern. Public engagement ensures that project prioritization reflects the needs and priorities of the JATSO community.
- **Systemic Safety Improvements** - This approach prioritizes addressing recurring safety issues across the transportation network. By implementing systemic improvements, JATSO aims to enhance safety for all users, rather than focusing solely on isolated locations.

By incorporating these diverse sources, the prioritization process is informed by a wide range of perspectives and data, resulting in a more robust and effective approach to safety improvements.

Safety Action Plan Scoring Matrix

The Safety Action Plan scoring matrix was developed to evaluate and rank projects based on key safety and equity criteria. This scoring matrix ensures that projects are evaluated transparently and consistently, prioritizing those with the greatest potential to enhance safety and equity. A detailed breakdown of project scores is included in the Appendix.
The matrix incorporates the following criteria:

Safety Action Plan Scoring Matrix

Criteria	Assigned Points if...	Points Assigned
Number of Fatal and Serious Injuries	More than 4 recorded	7
Along High Injury Network	True	6
Posted Speed Limit on Project	35mph or higher	5
Number of Fatalities	One or More	4
Number of Serious Injuries	More than 4 recorded	3
VRU Involved Crash	True	2
Project is in a Plan	True	1
Within or crossing a Disadvantaged Census Tract	True	1
Within or crossing a census tract in which 10% of households lack car ownership	True	2
Public Input received during SS4A Public Involvement	True	1

MoDOT Planning Framework Project Prioritization

The MoDOT Planning Framework provided additional criteria for evaluating projects, particularly those involving road/bridge and vulnerable road user improvements. Below is a summary of the prioritization criteria with point values. By applying these criteria, JATSO ensures that projects are aligned with state and local priorities, enhancing their competitiveness for MoDOT funding opportunities:

Roads & Bridges Projects

Safety — 35 points total

Project addresses a location that had one or more fatalities	10 pts
Project addresses a location that had four or more serious injuries	10 pts
Project addresses a need/recommendation in a VRU assessment, safety audit, or safety plan	5 pts
Project would reduce the number of conflict points at an intersection	5 pts
Project would address curve safety issues	5 pts

Equity — 10 points total

Project is located in a Historically Disadvantaged Community (HDC) Census Tract	5 pts
Project is located in an Area of Persistent Poverty Census Tract	5 pts

Infrastructure — 23 points total

Project is located in a high traffic area (more than 7,500 AADT/lane)	5 pts
Project addresses system reliability and/or enhances mobility	3 pts
Project located on a Principal Arterial, Minor Arterial, or Major Collector	2 pts
Project addresses one or more High-Need Segments on the MoDOT Freight Plan	5 pts
Project is located on a Missouri Freight System Route	5 pts
Project addresses a highway/railroad grade separation	3 pts

Roads & Bridges Projects
Continued

Other — 9 points total

Project relates to a project in a regional CFMP	2 pts
Project addresses connectivity to an activity center (industrial park, etc.)	2 pts
Project addresses a structurally or functionally deficient bridge	5 pts

Vulnerable Road User (VRU) Projects

Safety — 34 points total

Project addresses a location that had one or more fatalities	10 pts
Project addresses a location that had four or more serious injuries	10 pts
Project addresses a need/recommendation in a VRU assessment, safety audit, or safety plan	5 pts
Project addresses new separation of bike/ped traffic from vehicular traffic	5 pts
Project provides a pedestrian signal at road crossing	2 pts
Project provides traffic calming features	2 pts

Equity — 10 points total

Project is located in a Historically Disadvantaged Community (HDC) Census Tract	5 pts
Project is located in an Area of Persistent Poverty Census Tract	5 pts

Infrastructure & Connectivity	9 points total
Project provides a grade-separated road or railroad crossing for bike/ped	3 pts
Project addresses preservation of existing bike/ped infrastructure	3 pts
Project provides connection to activity centers (school, bus stop, etc.)	2 pts
Project provides bike/ped connectivity by extending existing infrastructure or filling a gap	1 pt

Compliance	3 points total
Project adds new element of ADA Transition Plan or brings existing into ADA compliance	3 pts

Prioritized Projects
Following the evaluation process, projects were ranked into two lists:

1. **Overall Safety Action Plan Ranking**: A comprehensive list of all evaluated projects on both local and state-owned routes based on the Safety Action Plan scoring criteria.
2. **Top 20 MoDOT-Owned Facilities**: A refined list of priority projects on state-owned roads and bridges, evaluated using MoDOT criteria.

These lists provide a framework for directing resources toward projects with the highest potential for impact, ensuring a balanced approach to safety improvements across the region. The Safety Action Plan list can be found below with the Top 20 MoDOT-Owned Facilities list found in the Appendix.

Project Strategies
For each project, potential safety enhancements were identified. These strategies include roadway safety audits to refine project scopes, as well as specific improvements such as traffic calming measures, pedestrian signal installations, and infrastructure upgrades. For projects with existing scope in prior plans, these details were carried forward into the recommendations. The recommended activities serve as a starting point for developing tailored solutions to address the unique safety challenges of each project area.

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Safety Action Plan Project List

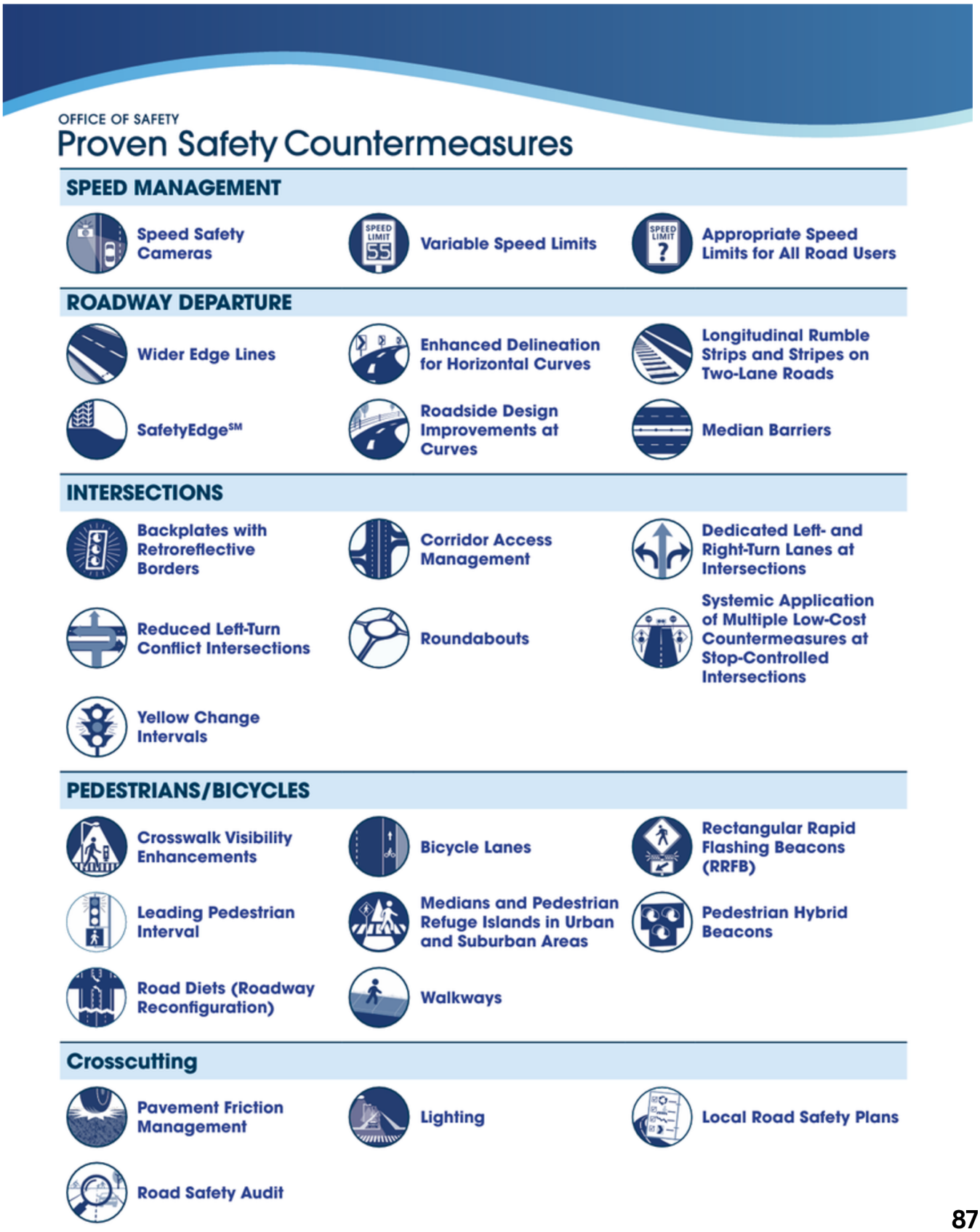
Project Name	Project Limits	Potential Acitivies
7th Street	Shifferdecker to Range Line	Pavement, ADA, Storm Water, and Operational Improvements
MO 66 E (7th Street)	Along High Injury Network	Evaluate for road diet to include speed management, bike-ped crossings, designated turn lanes
LP 49 S (Range Line)	Along High Injury Network	Speed Management, roadway lighting. Reduce left turning conflicts
MO 43 S (Main Street)	Along High Injury Network	Speed management
RT FF (32nd Street)	Along High Injury Network	Evaluate for road diet. Evaluate signalized intersections for Flashing Yellow Arrow installation
Wall Ave - Downtown Loop	Between 2nd Street and 15th Street	Road diet with bike lane and speed limit reduction
15th Street - Downtown Loop	Between Wall Ave and Connecticut	Road diet with bike lanes
W 20TH ST	Along High Injury Network	Reduce speed limit, consider access management strategy
MO 171 S	Along High Injury Network	Centerline Rumble Strips. Speed Management
Broadway/2nd Street - Downtown Loop	Between St. Louis Ave and Wall Ave	Bike lane conversion

Safety Action Plan Project List - Continued

Project Name	Project Limits	Potential Acitivies
IS 44 E	Along High Injury Network	Reduce speed limit, consider pedestrian fencing
IS 44 W	Along High Injury Network	Reduce speed limit, consider pedestrian fencing
E 20TH ST	Along High Injury Network	Reduce speed limit, access management strategy, signal improvements
IS 49 N	Along High Injury Network	Verify signing, on-ramp merge lane.
Wall Ave Active Transportation	Between 15th Street and 20th Street	Road diet with bike lane and speed limit reduction
32nd Street and Connecticut Ave	Extents of Intersection	Review signal phasing for protected left at certain times.
15th Street	Between Connecticut Ave and Range Line	Road diet with bike lanes
Wall Ave and 15th	Extents of Intersection	Add stop control for south bound Wall St.
15th Street and Murphy Blvd	Extents of Intersection	Consider roundabout or other intersection improvement
32nd Street and McClelland Blvd	Extents of Intersection	Reduce speed limit and evaluate traffic control for improvements

Additional Strategies for Improvement

In addition to the prioritized projects, many approaches can enhance safety on the local and state-owned roads in JATSO. FHWA Office of Safety has provided the Prove Safety Countermeasures below. Additional detail for the countermeasures can be found in the Appendix. To supplement the Proven Safety Countermeasure documents, the following strategies are recommended:



Design Roadways for Safety

- Implement proven design principles and countermeasures
- Focus on multimodal accommodations
- Address high-risk areas with targeted improvements
- Integrate complete streets concepts

Promote Safe Behavior

- Develop educational outreach initiatives
- Utilize Missouri Coalition for Roadway Safety resources
- Engage community in safety awareness
- Promote multimodal safety practices

Data Collection and Analysis

- Conduct regular safety audits
- Identify and monitor high-risk areas
- Track project effectiveness
- Use data to inform future improvements

Community Engagement

- Foster public involvement in planning
- Facilitate stakeholder collaboration
- Gather community input on priorities
- Build partnerships with local organizations

Conclusion

This chapter outlines a systematic process for prioritizing safety projects across the JATSO region. By integrating data-driven methodologies, community feedback, and established planning frameworks, the prioritization approach ensures that resources are directed toward projects with the greatest potential to enhance safety, equity, and connectivity.

Through the implementation of these prioritized projects and broad application of the safety strategies and countermeasures, the JATSO region is poised to make significant progress in reducing traffic crashes and creating a safer, more accessible transportation network for all users.

Introduction

The Joplin Area Transportation Study Organization (JATSO) is committed to enhancing safety across its transportation network. This chapter outlines our approach to monitoring progress, ensuring transparency, and engaging stakeholders in the ongoing safety action plan.

Goals for Progress and Transparency

1. **Continuous Improvement:** Regularly assess the effectiveness of safety measures and adapt strategies based on data-driven insights.
2. **Stakeholder Engagement:** Foster open communication with community members, local agencies, and organizations to encourage participation and feedback.
3. **Data Sharing:** Provide accessible safety data and reports to stakeholders and the public to promote accountability.

Monitoring and Evaluation

1. **Performance Metrics:** Establish key performance indicators (KPIs) to measure the effectiveness of safety initiatives, including:
   a. Reduction in traffic fatalities and serious injuries
   b. Improvement in public perception of safety
   c. Increased compliance with safety regulations
   d. Number of Road Safety Assessments conducted
2. **Regular Reporting**: Produce annual reports summarizing progress towards safety goals, including data analysis, challenges faced, and adjustments made.
3. **Road Safety Assessments:** Conduct regular road safety audits of transportation facilities and infrastructure to identify hazards and areas for improvement.

Public Engagement Strategies

1. **Community Meetings:** Host annual community meetings to discuss safety issues, gather feedback, and share progress on action plan initiatives.
2. **Online Platforms:** Utilize social media and the JATO website to disseminate safety information, updates, and opportunities for public comment.
3. **Partnerships:** Collaborate with local organizations, schools, and businesses to promote safety initiatives and gather diverse perspectives.

Transparency in Decision-Making

1. **Open Data Policy:** Implement an open data policy that allows the public to access safety-related data, including crash statistics, project updates, and funding allocations.
2. **Documentation:** Maintain a well-documented process for safety decision-making, ensuring that the rationale behind safety initiatives is clear and accessible.

Next Steps

This chapter will be reviewed annually, with updates made based on feedback and evolving safety needs in the community. Stakeholders will be encouraged to participate in the review process to ensure the action plan remains relevant and effective.