Southeast Kansas Comprehensive Safety Action Plan

Montgomery County, Kansas

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Southeast Kansas Regional Planning Commission (SEKRPC) | June 2025

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CHAPTER 1 | INTRODUCTION

Roadway safety is an issue that impacts every person and every community in the United States. Every individual is exposed to risk on the roadway network whether a driver, passenger, transit user, bicyclist, or pedestrian. In the United States, roadway crashes account for large numbers of serious injuries and death. To combat this challenge, the U.S. Department of Transportation (USDOT) created the Safe Streets and Roads for All (SS4A) grant program to support safety initiatives designed to prevent roadway deaths and serious injuries.

In 2024, the Southeast Kansas Regional Planning Commission (SEKRPC) was awarded an SS4A Planning grant to study roadway safety in the 12-county region. This study would culminate in the development of a Comprehensive Safety Action Plan (CSAP) for each county to address the most significant transportation safety risks in the community with an emphasis on fatal and serious injury crashes.

The SEKRPC region includes Coffey, Anderson, Linn, Woodson, Allen, Bourbon, Wilson, Neosho, Crawford, Montgomery, Labette, and Cherokee counties in Kansas. The 12-county study area is shown in ***Figure 1.1***.

Over 39,000 crashes occurred in the SEKRPC region in the past 10 years (2014-2023). In Montgomery County, 6,140 crashes occurred during this period including 74 fatal crashes, 117 serious injury crashes, and 5,949 injury and property damage only (PDO) crashes.

Figure 1.1: Study Area
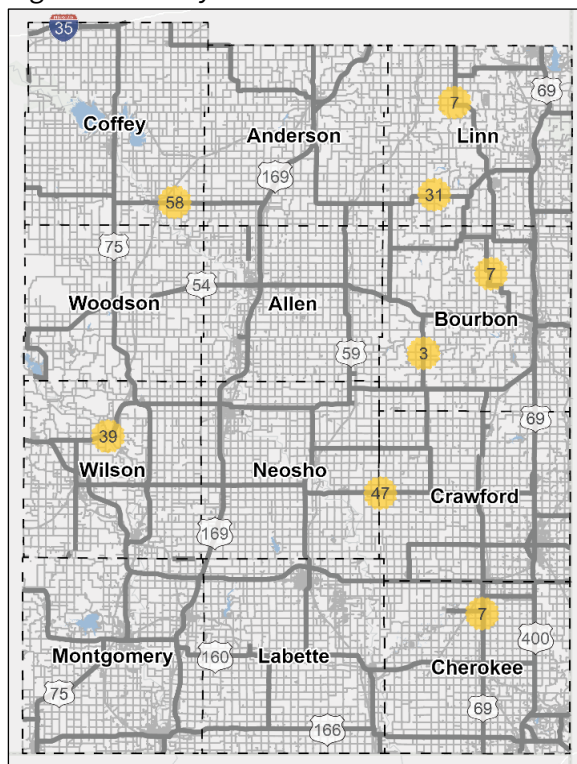
1.1 Commitment to Safety

SEKRPC and Montgomery County recognize that one life lost is one too many and seek to develop a set of programs and projects that will reduce transportation safety risks and save lives. This Safety Action Plan outlines specific strategies and actions to reduce fatal and serious injury crashes in Montogomery County.

The success of this Safety Action Plan relies on the commitment and participation of all stakeholders in Montgomery County and the SEKRPC region. Development of the Safety Action Plan fostered collaboration among the counties and cities in the 12-county region. By bringing together residents, local government, law enforcement, transportation authorities, school districts, and community organizations, collective expertise and resources were leveraged to implement safety initiatives.

By working together, we can promote a culture of safety and work towards making our communities a safe place to live, work, and visit. A Safety Task Force with representatives from each county in the region is dedicated to fostering collaboration, innovation, and a proactive approach to addressing safety issues and making a positive impact on Southeast Kansas.

1.2 Safe System Approach

The SS4A program supports the USDOT National Roadway Safety Strategy and Montgomery County's goal of zero roadway deaths using the Safe System Approach. The SS4A program supports the development of a CSAP that identifies the most significant roadway safety concerns in a community and the implementation of projects and strategies to address roadway safety issues.

The USDOT Safe System Approach is a comprehensive and proactive framework to reduce the number of fatalities and serious injuries on roadways. The Safe System Approach is based on the fundamental concept that fatal and serious injury traffic crash outcomes are preventable and responsibility for roadway safety lies with multiple stakeholders.

Figure 1.2: Safe Systems Approach

The Safe System Approach has key elements as shown in *Figure 1.2.* Layering these together creates redundancy so that if one component fails, the others are still in place to prevent severe outcomes. Policies and projects recommended in this report focus on these five proven objectives to create safer conditions for all roadway users. The five objectives for the Safe System Approach are:

- **Safer Roads:** The design and maintenance of roadway environments to mitigate human mistakes and account for injury tolerances, encourage safer behaviors, and to facilitate safe travel by the most vulnerable users.

- **Safer Speeds:** Promote safer speeds in all roadway environments through a combination of thoughtful, equitable, context-appropriate mitigation measures such as roadway design, targeted education, outreach campaigns, and enforcement.

- **Safer Road Users:** Encourage safe, responsible driving and behavior by people who use our roads and create conditions that prioritize their ability to reach their destination unharmed by promoting a safety awareness culture through various outlets.

- **Safer Vehicles:** Expand the availability of vehicle systems and features that help prevent crashes and minimize the impact of crashes on both occupants and non-occupants. Additionally, encouraging other safety actions such as seat belt use, proper child seats, and proper vehicle maintenance.

- **Post Crash Care:** Enhance the survivability of crashes through expedient access to emergency medical care, while creating a safe working environment for first responders and preventing secondary crashes through robust traffic incident management practices.

1.3 Plan Organization

This Comprehensive Safety Action Plan is built on the following eight key components:

- **Leadership Commitment and Goal Setting:** An official public commitment by a high-ranking official and/or governing body to an eventual goal of eliminating roadway fatalities and serious injuries. *(Chapter 1)*

- **Planning Structure:** A committee, task force, or similar body charged with oversight of the Safety Action Plan development, implementation, and monitoring. *(Chapter 1)*

- **Engagement and Collaboration:** Robust engagement with the public and relevant stakeholders that allows for both community representation and feedback. Information received is analyzed and incorporated into the Safety Action Plan. *(Chapter 2)*

- **Safety Analysis:** A comprehensive analysis of existing conditions, historical trends, and risk factors that provides a baseline level of fatal and serious injuries. *(Chapter 3)*

- **Equity Considerations:** Plan development using inclusive and representative processes. Underserved communities are identified through data and other analyses in collaboration with appropriate partners. *(Chapter 4)*

- **Strategy and Project Selection:** Identification of a comprehensive set of projects and strategies shaped by data, equity considerations, public and stakeholder input, and best practices to address the safety issues identified in the Safety Action Plan. *(Chapter 5-6)*

- **Policy and Process Changes:** Assessment of current policies, plans, guidelines, and standards to identify opportunities to improve how processes prioritize transportation safety. *(Chapter 6)*

- **Progress and Transparency:** A method to measure progress over time after the Safety Action Plan is developed or updated. *(Chapter 7)*

1.4 Leadership Commitment and Goal Setting

Committing to zero roadway deaths is ambitious and achieving this goal will be challenging for any community. Leadership from local officials on this issue is critically important as leadership sets the tone for the organization and the community. Elected leadership can steer the course of policy and secure the resources necessary to implement safety strategies. The commitment of elected leadership can also result in new local regulations, legislative support at the state or federal level, and better enforcement of existing laws.

Through participation in the planning process facilitated by SEKRPC, the participating counties formed a Safety Task Force. This regional leadership group shaped a shared vision to eliminate roadway fatalities. This vision employs Vision Zero elements and the Safe System Approach to develop a Safety Action Plan for each SEKRPC county. These plans seek to improve roadway safety outcomes, with the eventual goal of zero deaths across the Montgomery County transportation network by 2050. Montgomery County's commitment to this goal is demonstrated by the Vision Zero resolution passed by the Montgomery County Commission. The resolution is included in ***Appendix A.***

Vision

The Safety Task Force envisions the development of comprehensive transportation infrastructure that meets the needs of all residents in the SEKRPC region through transportation improvements, education, and community collaboration with a goal of zero traffic deaths and serious injuries.

Goals

SEKRPC and the Safety Task Force are committed to reducing the risk of fatal or serious injury crashes for all road users. The goals established and facilitated through this plan support this vision:

- Adopt and implement the Vision Zero resolution in each Southeast Kansas county to eliminate all fatal and serious injury crashes by 2050.

- Utilize a comprehensive data driven approach to address factors contributing to traffic crashes.

- Engage stakeholders, monitor progress, and allocate resources to ensure meaningful progress toward achieving the vision.

1.5 Planning Structure

SEKRPC received a SS4A Planning grant and facilitated the development of a Comprehensive Safety Action Plan for each county in the 12-county region: Coffey, Anderson, Linn, Woodson, Allen, Bourbon, Wilson, Neosho, Crawford, Montgomery, Labette, and Cherokee counties in Kansas.

The vision and goals described above were identified by a regional Safety Task Force consisting of representatives from each county. The Safety Task Force and the communities it represents are charged with oversight of plan development, project implementation, and monitoring. Follow-up meetings were also held with each county to facilitate more detailed discussions.

Safety Task Force

The Safety Task Force is a regional working group consisting of county staff, law enforcement, and school district representatives. Safety Task Force members served as representatives of their community to validate information and data, provide insight on potential focus areas, discuss safety strategies, and serve as community champions. The Safety Task Force played an integral role in the process by participating in a series of stakeholder meetings and directly informing the development of the Safety Action Plans. Members invited to participate in the Safety Task Force are identified in *Appendix B*.

Expanded Stakeholder List

Due to the regional nature of the study, an expanded stakeholder list of over 300 organizations was also engaged through an online survey to provide additional input to the Safety Task Force. The expanded stakeholder list included additional city staff, emergency services, school districts, healthcare organizations, public transportation providers, business organizations, and transportation advocacy groups. Organizations in the expanded stakeholder list are also identified in *Appendix B*.

CHAPTER 2 | ENGAGEMENT AND COLLABORATION

The Safety Action Plan included a robust engagement plan with the public and stakeholders that allowed for community representation and feedback. The plan used input from the engagement process to inform development of the plan.

2.1 Community Engagement Plan

The Community Engagement Plan in **_Appendix C_** was prepared as a guide to obtain meaningful input from study partners, community organizations, residents, and employees impacted by the transportation system. The Community Engagement Plan focused on the entire 12-county region but also provided flexibility to identify engagement needs specific to each county. Three primary opportunities to obtain public input were provided:

1. **Information and Communications:** Communicated information regarding the study background, process, methods, schedule, key messages, and project updates.

2. **Stakeholder Input:** Facilitated meetings with community leaders, elected and appointed officials, government staff, and other stakeholder groups to inform recommendations.

3. **Community Outreach:** Informed, educated, and engaged with community members with the intent of providing an interactive dialogue for input throughout the study.

2.1.1 Key Audiences

Many stakeholders were engaged in the process to provide a comprehensive perspective on the Safe Systems Approach and share unique insights for understanding transportation safety needs in Southeast Kansas. Residents, employees, and businesses provided insights into local transportation challenges, while local governments and school districts ensured alignment with community needs. First responders shared critical knowledge of safety risks and emergency response. Regional and state agencies contributed broader expertise and guidance to address transportation safety issues.

Key audiences in the 12-county Southeast Kansas region that provided input for the plan included:
* Residents, employees, and businesses
* Governmental units (county staff, city staff, school districts, elected officials)
* First responders (law enforcement, fire departments, emergency management, healthcare services)
* Community organizations (business organizations, transportation advocacy groups)
* Regional or statewide agencies (SEKRPC, KDOT, public transportation providers)

2.1.2 Community Engagement Methods

A variety of community engagement methods were utilized to promote meaningful involvement and gather input from stakeholders and the public. Targeted stakeholder discussions and Safety Task Force meetings provided expert insights and shaped the plan development, while surveys and public open house meetings offered opportunities for community members to highlight safety concerns and share feedback.

These approaches promoted inclusive participation, enhanced understanding of regional safety issues, and fostered collaboration in developing effective solutions.

* **Project Update Meetings:** Project updates were shared in-person and virtually with the SEKRPC Executive Board and staff at regularly scheduled meetings.

- **Stakeholder Meetings:** Three Safety Task Force meetings were held to review crash history, solicit local input, share possible safety countermeasures, and discuss potential priorities and recommendations. Stakeholder meetings were held in a hybrid format with both in-person and virtual attendance options.

- **Public Meetings:** One in-person open house style meeting was held within each county to inform the public of the study's progress, gather input regarding safety needs, and share features of the proposed plan.

- **Public Survey:** An online survey was distributed that allowed respondents to note specific areas of concern via a mapping tool and share other issues and opportunities. Demographic information was collected to monitor responses by location and socioeconomic characteristics.

- **Public Comments:** Public comments were compiled from meetings, online surveys, phone calls, and face-to-face conversations and incorporated into the plan.

- **Public Information:** Announcements for news media, websites, and social media outlets were provided to SEKRPC, the Safety Task Force, and the expanded stakeholder list for distribution.

2.2 Safety Task Force Meetings

The Safety Task Force participated in three meetings throughout the process to review crash data and help identify safety needs in the region. Safety Task Force members played an integral role in confirming challenges and opportunities, which directly influenced plan recommendations to align with the safety vision for the Southeast Kansas region. Meeting summaries are included in **Appendix B**.

Safety Task Force Meeting #1

Safety Task Force Meeting #1 was held in October 2024 to introduce the study and the Safe Systems Approach, review crash data, and discuss safety concerns and potential solutions. The meeting also included an initial discussion of emphasis areas to provide direction for the planning process.

During the meeting, an interactive survey was conducted to better understand community needs. After crash data trends were presented, participants had an opportunity to select their top three emphasis areas for developing safety solutions. Based on this <u>initial</u> input, the selected emphasis areas were *roadway departures*, *distracted driving*, and *unrestrained occupants*. These stakeholder-selected areas helped provide focused direction for the planning process.

In addition to specific locations noted in **Appendix B**, participants also noted the following concerns:

- **Seatbelt Usage:** In Crawford County, a SAFE (Seatbelts Are For Everyone) program began after students were involved in a fatal crash. This tragic event highlighted the need for enhanced education around seatbelt usage.

- **Distracted Driving:** Concerns were raised about distracted driving and cell phone use, including its prevalence among older adults.

- **Road Access and Truck Traffic:** Discussion highlighted the need for improved hard surface roads to medical centers and major employers, particularly areas with newly constructed or planned facilities.

- **Speeding on Gravel Roads:** Concerns were expressed about drivers traveling higher speeds on gravel roads and underestimating road conditions.

The following areas were potential solutions identified by stakeholders for improving roadway safety:

- **Driver Education Enhancements:** Online driver education programs and other similar initiatives that emphasize navigating unpaved roads and unmarked intersections.

- **Behavioral Interventions:** Increase citations to encourage safer driving behaviors and address misconceptions, such as the dangers of driving under the influence of marijuana.

- **Infrastructure Improvements:** Implement measures like road edging and clearing line-of-sight obstructions to improve visibility and reduce crashes.

- **Speed Management:** Lower speed limits on gravel roads to enhance safety.

Safety Task Force Meeting #2

Safety Task Force Meeting #2 was held in November 2024 to re-visit key emphasis areas and discuss proven effective countermeasures to address the emphasis areas. Based on crash patterns and a review of public input to date, the Safety Task Force built consensus around *roadway departures*, *intersection-related crashes*, and *unrestrained occupants* as the refined top emphasis areas. Other identified areas that would receive consideration were vulnerable road users, distracted driving, and alcohol or drug-related crashes.

In addition to specific locations noted in **Appendix B**, an interactive survey allowed participants to discuss how potential countermeasures could be integrated into their communities to address the emphasis areas:

- **Roadway Departure:** Preferred improvements included 2-foot shoulders, edgeline treatment, and removing fixed objects in the clear zone.

- **Intersections**: Preferred improvements for unsignalized intersections included retroreflective strips on warning signs, street lighting, dedicated turn signals, and roundabout designs for both passenger vehicles and trucks. Overhead lighting was emphasized as a cost-effective option due to franchise agreements with electric companies (as applicable).

- **Unrestrained Occupant:** Strategies discussed included behavior-changing programs, enforcement campaigns, and outreach, including targeting specific groups such as school age children or farmers.

- **Distracted Driving:** Strategies discussed included high-visibility cell phone/texting enforcement and targeted communications.

- **Vulnerable Road Users:** Preferred strategies for pedestrian improvements included high visibility crosswalks, raised crosswalks, curb extensions, and refugee islands. Bicycle improvements included multi-use paths, cycle tracks, and buffered bike lanes. Discussion also included challenges in school zones and strong support for Safe Routes to School programs.

Safety Task Force Meeting #3

Safety Task Force Meeting #3 was held in April 2025 to summarize the crash data analysis and public engagement efforts to date and discuss example project recommendations and potential countermeasures. Safety projects at specific locations were shown for *roadway departures*, *signalized intersections, unsignalized intersections,* and *vulnerable road users.* Programs, policies, and potential actions were also described to address education related to speeding, pedestrian and bicycle travel, and distracted driving. Steps to implement Vision Zero and potential funding opportunities for implementation were discussed as well.

2.3 Public Survey

To gather greater community input, an online public survey was distributed throughout the 12-county region and available from October 2024 to April 2025 – including distribution to the expanded stakeholder list of over 300 organizations. The survey allowed participants to provide feedback on location-specific and systemic safety concerns, road user behavior, and vulnerable road user protection. The responses provided direction towards top priorities in the Southeast Kansas region as well as location-specific concerns, as summarized in *Figure 2.1*. Survey results are summarized below with detailed survey responses included in *Appendix D*.

2.3.2 Safety Priorities

The survey results revealed a strong consensus that there are too many severe crashes and a need for prioritized investments. Participants expressed the most concern for Safer Roads and Safer People and identified distracted driving, speeding vehicles, and intersections as their top three emphasis areas. In support of increased safety, participants identified intersection improvements, infrastructure maintenance, and traffic maintenance as top funding priorities. Specific safety concern locations were concentrated along US-169.

2.3.3 County-Specific Concerns

Montgomery County survey participants expressed concerns regarding speeding and reckless driver behaviors, specifically when navigating the State Highway System. Respondents also emphasized the need for improvements such as additional lanes or passing lanes on US-160 and US-169.

Figure 2.1: Public Survey Comment Locations
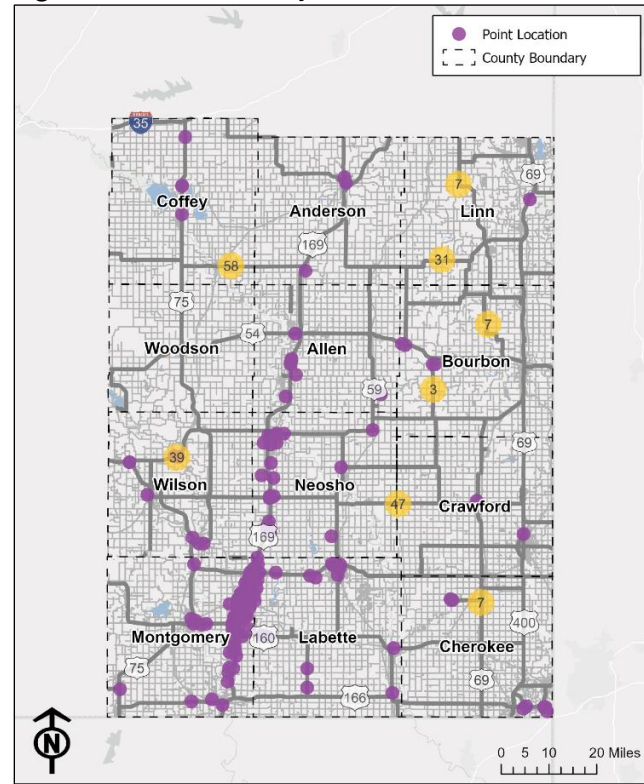
2.4 Public Meeting

An open house public meeting was held in each county to share project information and gather feedback from the public. Feedback was collected through multiple methods including comment cards, an interactive mapping activity, and conversations with attendees. The public meeting in Montgomery County was held on March 10, 2025 from 4:00-6:00pm in the Montgomery County Judicial Center and was attended by three community members.

As shown in *Figure 2.2*, meeting attendees identified areas of traffic safety concern by placing color coded dots on a map of Montgomery County. Most concerns were concentrated along the state highway system, particularly on US-169 and US-166. Specific crash locations at intersections in the City of Coffeyville were also identified, including at 8th Stret and Buckeye Street intersection and the 8th Street and US-166 intersection.

Figure 2.2: Public Meeting Map
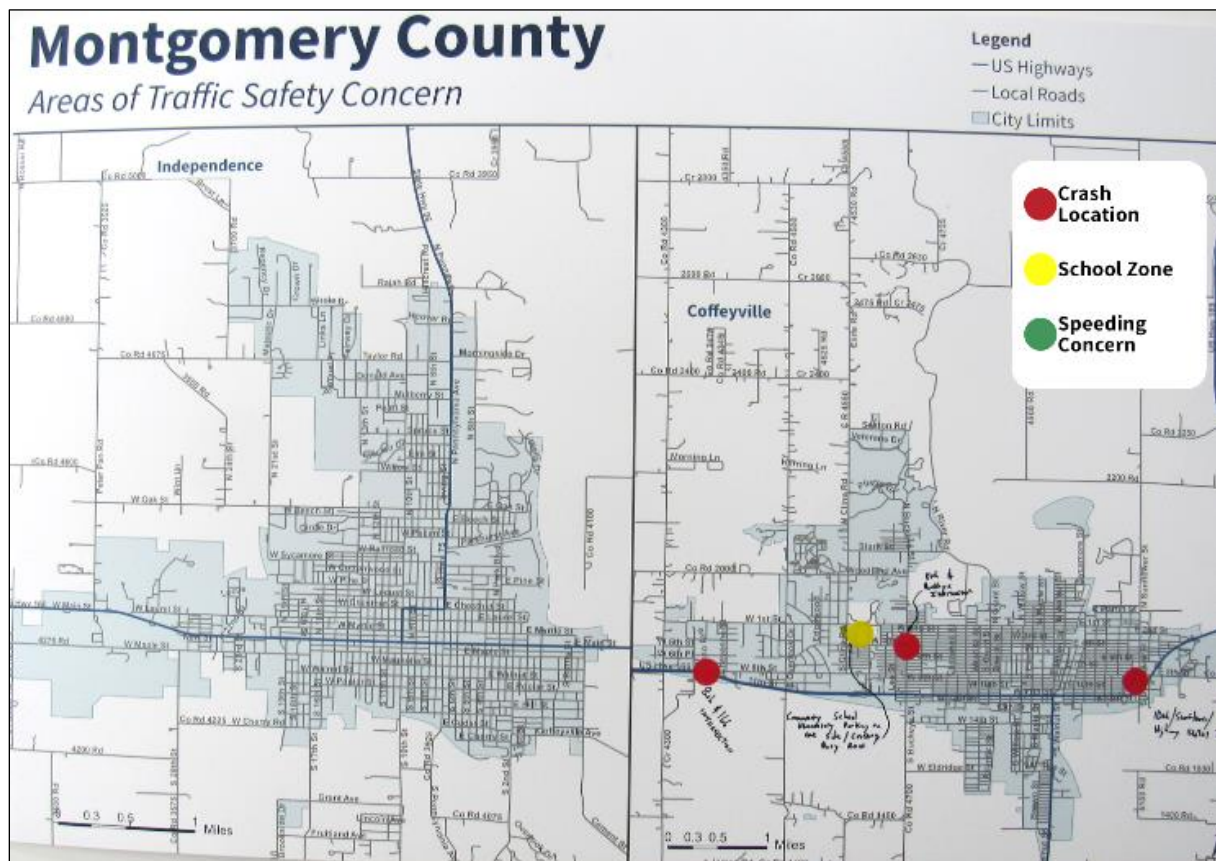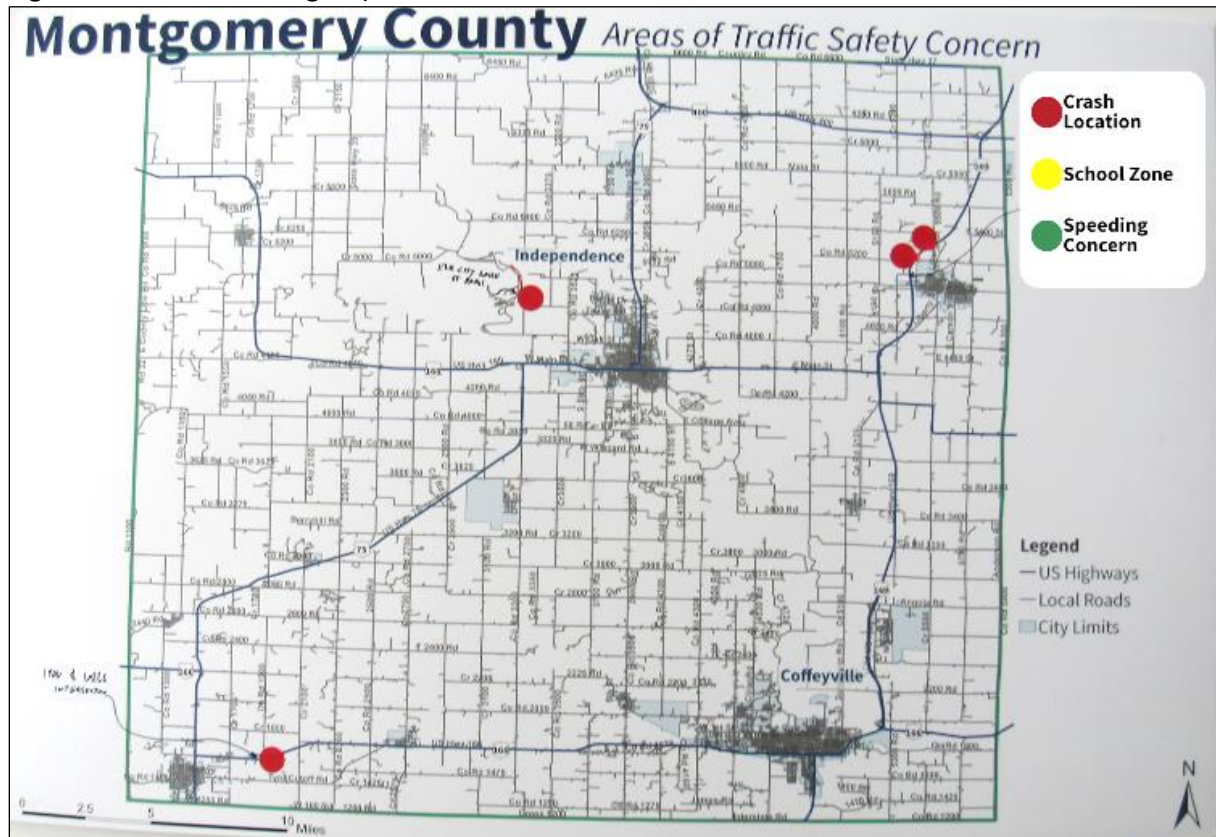
CHAPTER 3 | EXISTING CONDITIONS ANALYSIS

3.1 Background

Southeast Kansas is a region characterized by a mix of rural landscapes, small towns, and urban centers, playing a critical role in the state's economy through agriculture, manufacturing, and transportation. The region is served by a network of highways, including eight U.S. Routes and many state routes, to facilitate the movement of people and goods across the region and beyond. These corridors provide vital connections between many of the larger communities in Southeast Kansas that offer major employment centers, agricultural markets, and growing industrial facilities. The network of city and county roadways, which includes both paved and unpaved roadways, then facilitates local connections to specific destinations.

Due to this context of a primarily rural region with interspersed activity centers, Southeast Kansas faces unique transportation challenges. These include addressing safety concerns at intersections on high-speed corridors, managing increased freight activity, and improving rural roadway conditions.

Montgomery County has a population of approximately 31,000 people with about one-third of the population residing in the City of Coffeyville. The US-169, US-160, and US-75 corridors provide important connections within and beyond the county.

3.2 Collaboration with Other Plans

A review of previously completed or ongoing studies was documented to help align the Safety Action Plan with existing plans and processes. **Table 3.1** summarizes relevant strategies identified through other planning efforts.

Table 3.1: Document Review

Document	Goals	Strategies	Application
KDOT Long Range Transportation Plan (2021)	Promote safety, security, and transportation system management	Adopt a systemic approach to safety and use education, enforcement, and engineering to reduce the severity of crashes and reduce the number of travel-related deaths	Provides information about KDOT's Strategic Safety Initiative and an overview of KDOT's safety priorities and processes
Kansas Strategic Highway Safety Plan (2020)	Achieve a fatal and injury crash rate of less than 35 crashes per 100 million vehicle miles travel by 2025	Use data to address roadway departures, impaired driving, teen drivers, older drivers, intersections, local roads, and pedestrians and cyclists	Provides a statewide safety framework to apply to local plans
Montgomery County Local Road Safety Plan (2020)	Help local jurisdictions select and prioritize roadway projects that will have the biggest impact on safety	Use education, enforcement, engineering, and emergency response to reduce the severity and number of crashes	Identifies high-priority road segments, curves, and intersections for safety improvements in unincorporated areas

3.3 Crash Analysis

The most recent ten years of crash data (2014-2023) was analyzed to evaluate crash trends within the Southeast Kansas region and Montgomery County. The crash analysis includes a hotspot analysis to identify where crashes are occurring but also reviews trends and emphasis areas to identify high-risk roadway characteristics. This approach allows the Safety Action Plan to offer a proactive approach to systemic issues that may affect the greater roadway network.

Within the crash data, crash severity is categorized using an injury scale that includes property damage only, possible injury, minor injury, serious injury, and fatal. To focus on the Vision Zero goal in Southeast Kansas, the crash analysis primarily focuses on the most severe crashes that result in serious injuries and/or fatalities.

Note: The Federal Highway Administration (FHWA) required KDOT to change its serious injury definition in 2019, which resulted in a higher number of serious injury crashes from 2019-2023. The data also reflects changes in travel patterns during the COVID-19 pandemic from 2020-2022.

Regional Crash Summary

Data for the 12-county Southeast Kansas region provided a large sample size to identify regional crash trends. During the 10-year study period, there were 39,032 total crashes, including 351 fatal and 823 serious injury crashes. The remaining 37,858 crashes were injury or property damage only (PDO) crashes. These crashes occurred on the local road system, the county system, and the state system, underscoring the need for cross-agency collaboration and a systemic approach to improving roadway safety. A heat map of fatal and serious injury crashes in the Southeast Kansas region is shown in *Figure 3.1*.

For all crashes in the 12-county region, the most common types of crashes were *roadway departure* and *intersection related* crashes. There were significantly fewer *unrestrained occupant* and *alcohol or drug related* crashes, but these crash types accounted for similar numbers of fatal and serious injury crashes, demonstrating the need to address these issues. Distracted driver-related crashes were also high in number but lower in fatal and serious injuries.

Figure 3.1: Heat Map of Fatal and Serious Injury Crashes in Southeast Kansas (2014-2023)
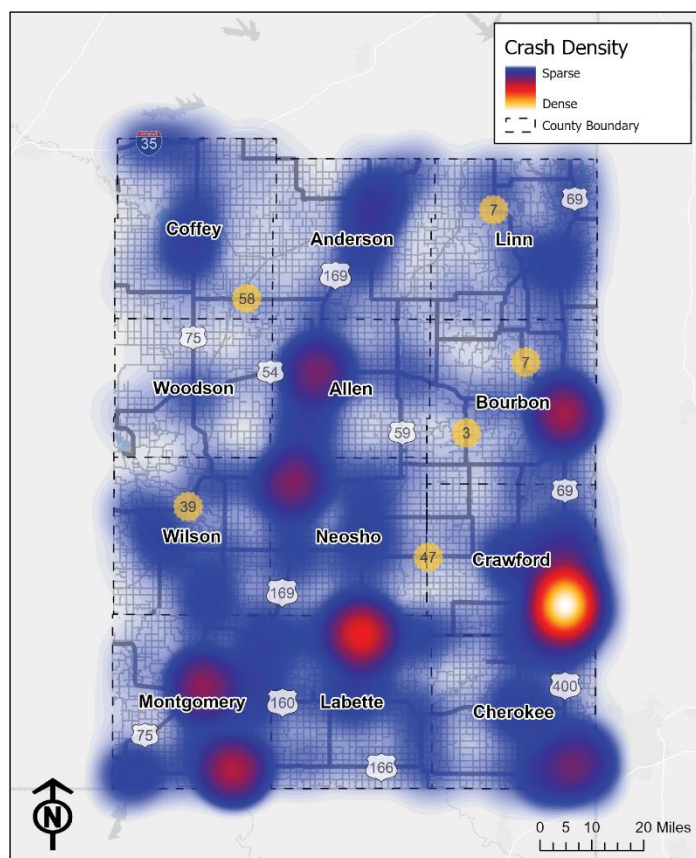
Crash Trend Analysis

In Montgomery County, 6,140 crashes occurred in the 10-year study period (2014-2023). The total number of crashes per year is shown in **Figure 3.2**. The total number of crashes generally decreased over the study period with an average of 614 crashes per year.

Figure 3.2: Total Crashes by Year in Montgomery County (2014-2023)
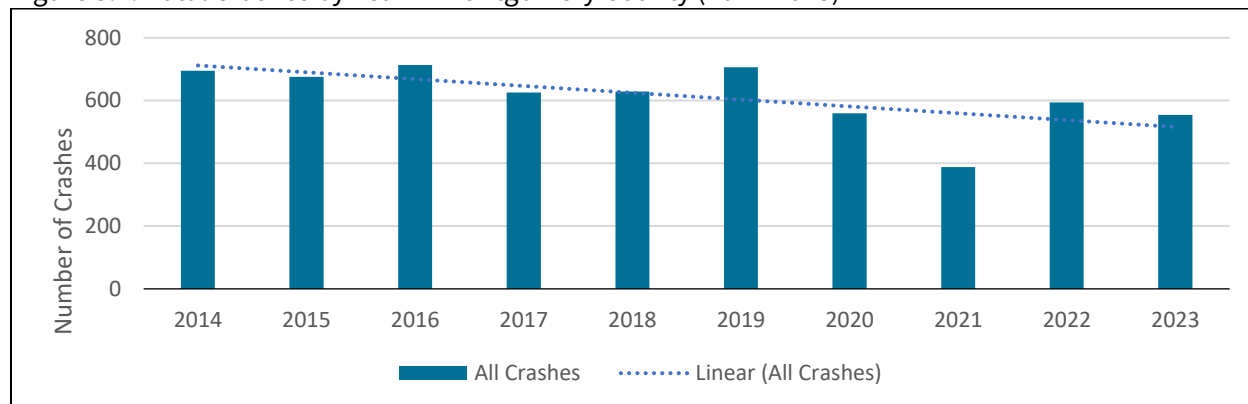
Crash Severity

As shown in **Table 3.2**, approximately 3.1% of all crashes in Montgomery County resulted in a fatality or serious injury. Crash severity by year is shown in **Figure 3.3**. The number of fatal crashes per year generally decreased during the study period. The number of serious injury crashes increased over the study period, but the increase also corresponds with the change in the serious injury crash definition that occurred in 2019.

Table 3.2: Crash Severity in Montgomery County (2014-2023)

Crash Severity	Crashes	Percent
Fatal	74	1.2%
Serious Injury	117	1.9%
Injury	734	12.0%
Property Damage Only	5,215	84.9%
Total	6,140	100.0%

Figure 3.3: Fatal and Serious Injury Crashes by Year in Montgomery County (2014-2023)
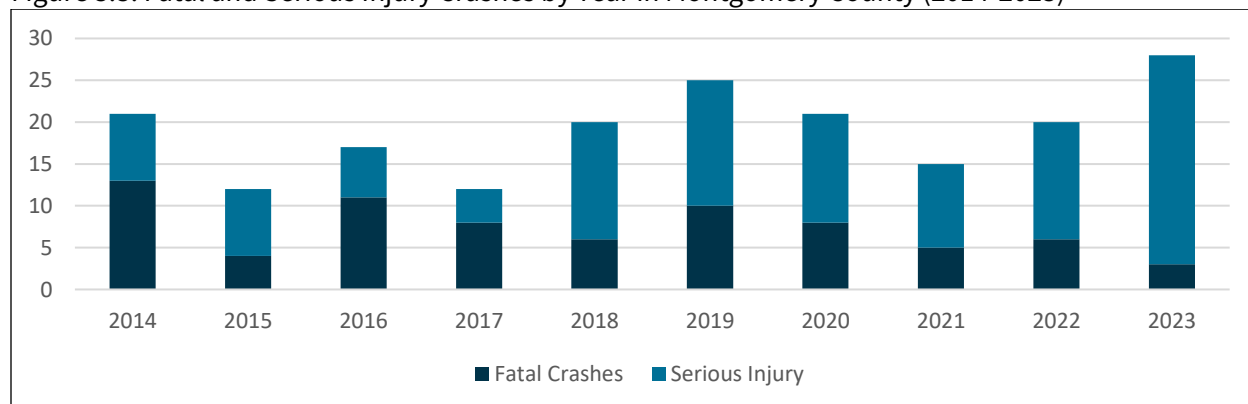
Crash Type

Crash type (e.g., collision with other vehicles, fixed object, pedestrian) analysis is a common method to understand crash characteristics and develop effective countermeasure solutions. As shown in *Table 3.3*, the three most prevalent crash types were collisions with another motor vehicle (37.2%), animals (28.9%), and fixed objects (18.1%).

However, pedestrian, overturned vehicles, and crashes with railroad/train accounted for the highest percentage of fatalities and serious injuries (FSI) compared to the total number of crashes. While the total number of pedestrian crashes is low, they account for significantly higher rates of severe injury due to their unprotected nature. Both crash frequency and percentage of fatal and serious injury crashes can be used to identify applicable improvement strategies for Vision Zero.

Table 3.3: Crash Type with Fatal/Serious Injury Percentage in Montgomery County (2014-2023)

Crash Type	Count	Percent	Fatal	Serious Injury	FSI Percent
Animal	1,766	28.9%	0	0	0%
Fixed Object	1,109	18.1%	18	23	4%
Other Motor Vehicle	2,274	37.2%	28	50	3%
Other Non-Collision	81	1.3%	0	1	1%
Other Object	77	1.3%	2	5	9%
Overturned	323	5.3%	16	29	14%
Parked Motor Vehicle	427	7.0%	1	2	1%
Pedalcycle	17	0.3%	0	1	6%
Pedestrian	39	0.6%	8	6	36%
Railroad/Train	8	0.1%	1	0	13%
Total[1]	6,121	100.0%	74	117	3%

[1] Total excludes crashes listed as "none" or "unknown" crash types.

KDOT crash data separates collisions with other vehicles into further breakdowns of type (e.g., angle-side impact, head-on). As shown in *Table 3.4*, this data indicates that angle-side impact (47.9%) and sideswipe same direction (23.2%) collisions are the most common crash types with other motor vehicles. However, head on, angle-side impact, and rear end collisions accounted for the highest number of fatalities and serious injuries (FSI) compared to the total number of crashes. The angle-side impact crashes are concerning due to both their high total number of crashes and higher FSI percent.

Table 3.4: Crash Type for Collisions with Other Motor Vehicle in Montgomery County (2014-2023)

Crash Type	Count	Percent	Fatal	Serious Injury	FSI Percent
Angle-Side Impact	1,089	47.9%	17	25	4%
Backed Into	155	6.8%	0	0	0%
Head On	163	7.2%	7	11	11%
Sideswipe: Opposite Direction	5	0.2%	0	0	0%
Sideswipe: Same Direction	526	23.2%	3	7	2%
Rear End	113	5.0%	1	5	5%
Other	221	9.7%	0	2	1%
Total	2,272	100.0%	28	50	3%

Crash Location (Intersection and Non-Intersection)

Approximately 26.6% of all crashes occurred at intersections and 73.4% of all crashes occurred at non-intersections. For fatal and serious injury crashes, the primary crash type at intersections was with other motor vehicles. At non-intersections, the most frequent crash types were overturned vehicles, collisions with fixed objects, and collisions with other motor vehicles – which highlights that many of the severe non-intersection crashes are likely due to roadway departures. Crash location and type specifically for fatal and serious injury crashes is shown in **Table 3.5**.

Table 3.5: Crash Type by Intersection Type in Montgomery County

Crash Type	Intersection				Non-Intersection			
	Fatal		Serious Injury		Fatal		Serious Injury	
	Count	Percent[1]	Count	Percent[1]	Count	Percent[1]	Count	Percent[1]
Animal	0	0%	0	0%	0	0%	0	0%
Fixed Object	1	5%	1	3%	17	32%	22	27%
Other Motor Vehicle	17	81%	28	82%	11	21%	22	27%
Other Object	0	0%	0	0%	0	0%	1	1%
Other Non-Collision	0	0%	1	3%	2	4%	4	5%
Overturned	1	5%	4	12%	15	28%	25	30%
Parked Motor Vehicle	0	0%	0	0%	1	2%	2	2%
Pedalcycle	0	0%	0	0%	0	0%	1	1%
Pedestrian	2	10%	0	0%	6	11%	6	7%
Railway Train	0	0%	0	0%	1	2%	0	0%
Unknown	0	0%	0	0%	0	0%	0	0%
Total	21	100%	34	100%	53	100%	83	100%

[1] Percent of fatal and serious injury crashes

Crash by Maintaining Authority

Crashes by the maintaining roadway authority are shown in **Table 3.6**. Approximately 61% of all crashes occurred on city or county-owned roadways and the remaining 39% of crashes occurred on KDOT maintained roadways. This average is approximately equal to the percentage of injury and property damage only crashes occurring on city and county roadways compared to state system roadways. However, 55.4% of fatalities occurred on KDOT maintained roadways compared to 44.6% on non-KDOT maintained roadways.

Table 3.6: Crashes by Maintaining Authority in Montgomery County

Maintaining Authority	Fatal		Serious Injury		Total	
	Count	Percent	Count	Percent	Count	Percent
State System	41	55.4%	53	45.3%	2,406	39.2%
Non-State System	33	44.6%	64	54.7%	3,734	60.8%
Total	74	100.0%	117	100.0%	6,140	100.0%

3.4 Identification of High Risk Locations

Heat maps provide a way to visualize data by identifying crash locations with color shading to indicate the concentration of crashes. *Figure 3.4* shows a heat map of all crashes in Montgomery County. *Figure 3.5* then shows a heat map of fatal and serious injury crashes only.

While the U.S. Route corridors remain a crash hot spot on both maps, more distinct locations are prominent on the fatal and serious injury crash map. These hotspots tend to be concentrated at intersections including:

- US-169 & US-400
- US-169 & US-160
- US-75 & US-160
- US-75 & US-166

A vulnerable road user (VRU) is anyone on the road who is not protected by a vehicle shell, including pedestrians, cyclists, and roadway workers. While VRU crashes only make up 1% of crashes that occurred in Montgomery County, they represent a key demographic of the Vision Zero initiative as VRUs are at a higher risk of serious injury or death in a crash. As shown in *Figure 3.6*, VRU crashes are concentrated within city limits, particularly in Independence and Coffeyville.

Figure 3.4: Heat Map for All Crashes in Montgomery County (2014-2023)
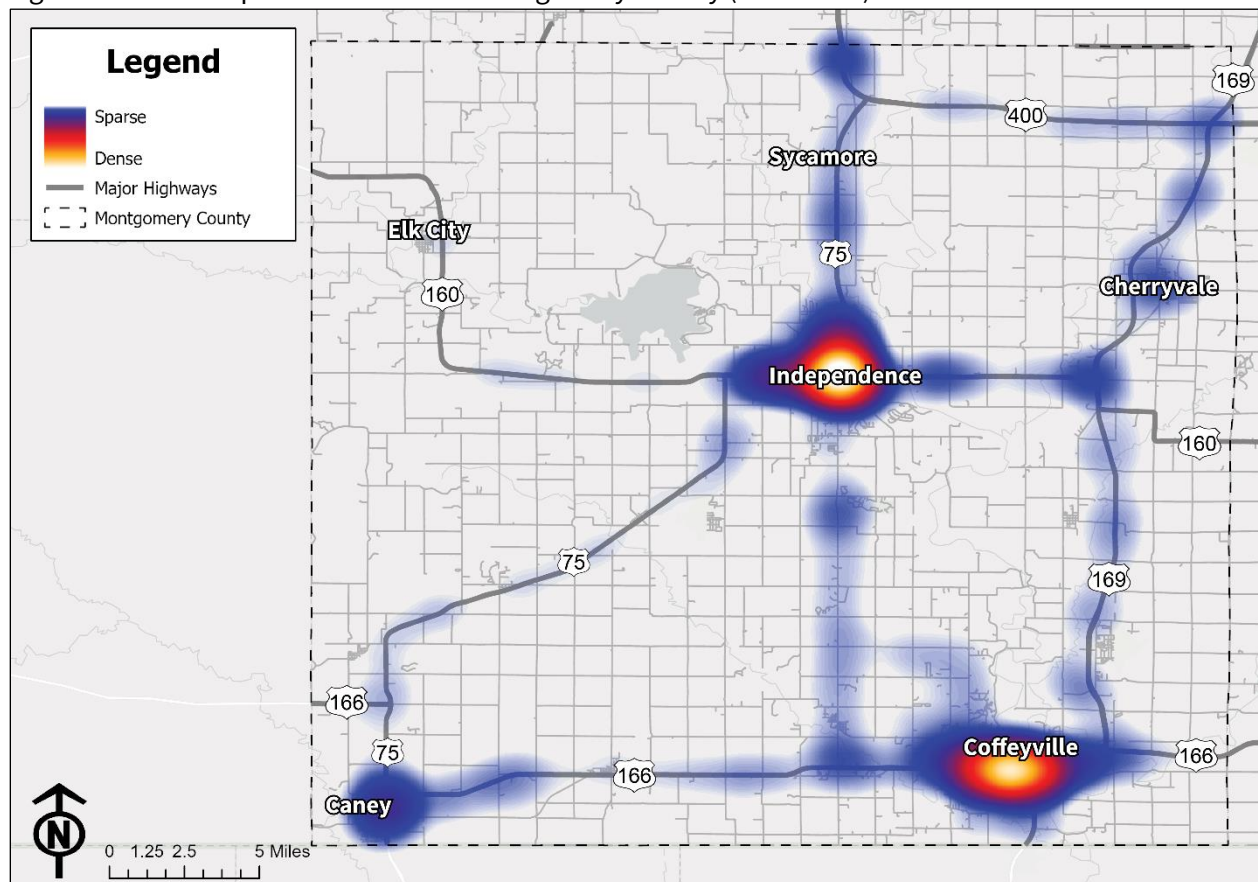
Figure 3.5: Heat Map for Fatal and Serious Injury Crashes in Montgomery County (2014-2023)
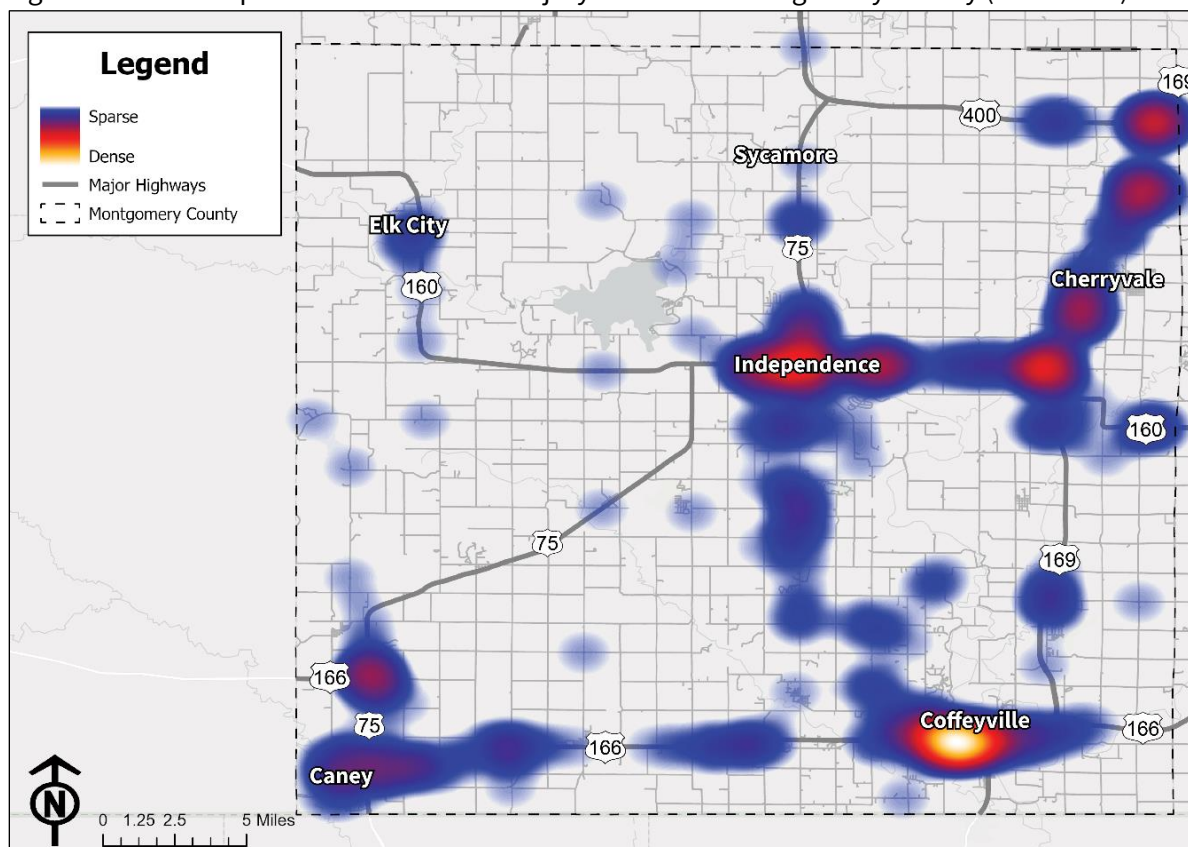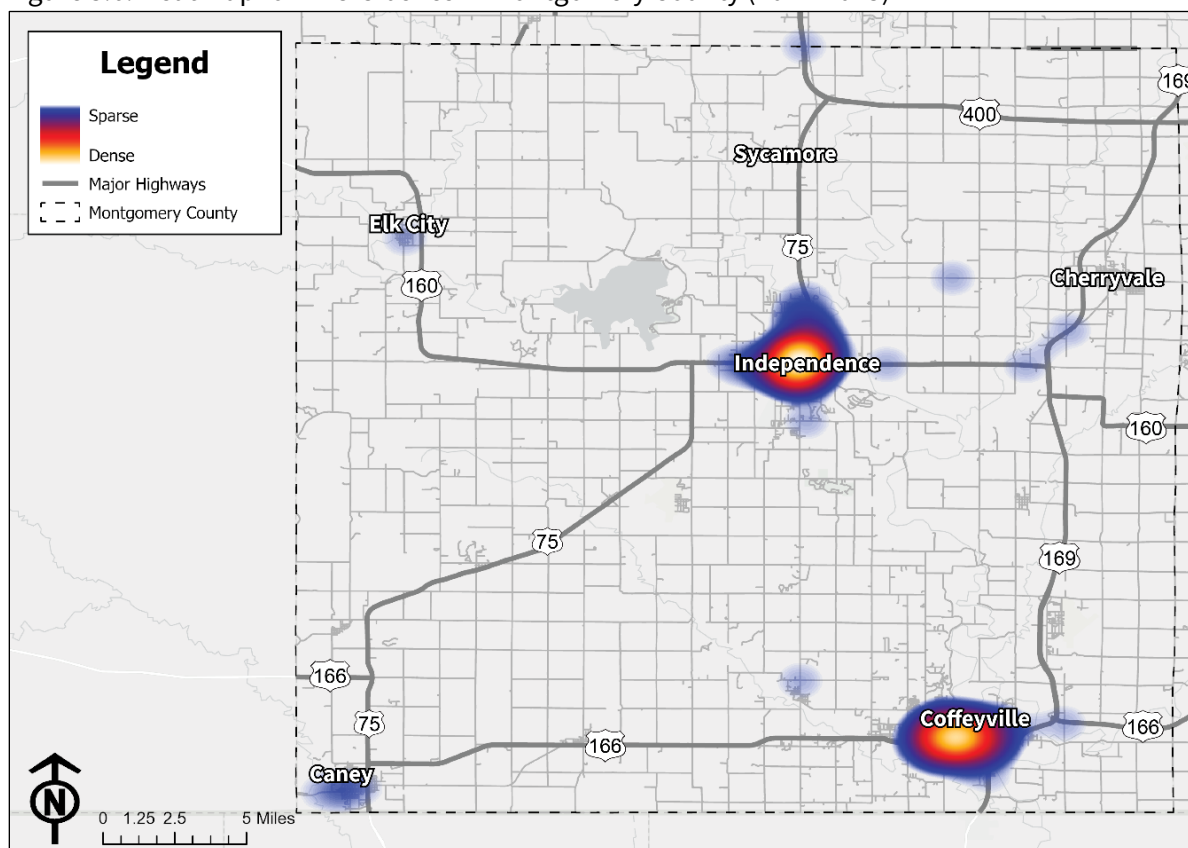

Figure 3.6: Heat Map for VRU Crashes in Montgomery County (2014-2023)

CHAPTER 4 | EQUITY ANALYSIS

Equity is a concept that centers on the idea of fairness and justice. Advancing the Safe System Approach and the Vision Zero goal of eliminating fatal and serious injury crashes requires providing safe transportation options that meet the needs of all community members. To help accomplish this, an equity analysis identifies any populations that are underserved and/or under-resourced to understand the implications of any safety risk disparities in the community.

The Safety Action Plan uses criteria for areas of persistent poverty and historically disadvantaged communities (as identified by USDOT) and the Social Vulnerability Index (as defined by the Centers for Disease Control and Prevention). The SS4A program defines an Underserved Community consistent with the USDOT definition of a disadvantaged community using two sources:

- **Equitable Transportation Community (ETC) Explorer:** The tool provides a percentile rank by census tract based on five components related to climate, environmental burden, health vulnerability, social vulnerability, and transportation factors.

- **Climate and Economic Justice Screening Tool (CEJST):** The tool identifies census tracts that demonstrate burdens in eight categories: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development.

4.1 Community Profile

The demographic profiles in **Table 4.1** and **Table 4.2** provide a snapshot of population characteristics and commuting patterns in Montgomery County. Based on the equity analysis, 9 of 12 census tracts in Montgomery County are designated as disadvantaged. This represents 56.7% of the county population and 66.8% of the land area in the county. The designation for each census tract is shown in **Figure 4.1**.

Table 4.1: Demographic Profile in Montgomery County

| Characteristic	Montgomery County	12-County Region
Population	31,486	190,320
Median Household Income	$53,242	$57,904
Race and Ethnicity		
White	24,297	162,337
American Indian and Alaska Native	1,023	3,318
Asian	201	1,213
Black or African American	1566	4,397
Hispanic or Latino	2,414	9,327
Native Hawaiian and Other Pacific Islander	24	275
Some Other Race	949	3,456
Population of Two or More Races	3,426	15,324

Source: 2021-2022 American Community Survey 5-Year Estimates, 2020 Decennial Census

Table 4.2: Commuting Profile in Montgomery County

Characteristic	Montgomery County	12-County Region
Commuting Patterns		
Drove Alone	80.7%	79%
Carpool	10.1%	11%
Walked/Biked	4.3%	3%
Telecommute	3.3%	6%
Other	1.7%	1%
Average Travel Time to Work	18.9 minutes	20.7 minutes

Source: 2021-2022 American Community Survey 5-Year Estimates, 2020 Decennial Census

Figure 4.1: Disadvantaged Designation by Census Tract in Montgomery County
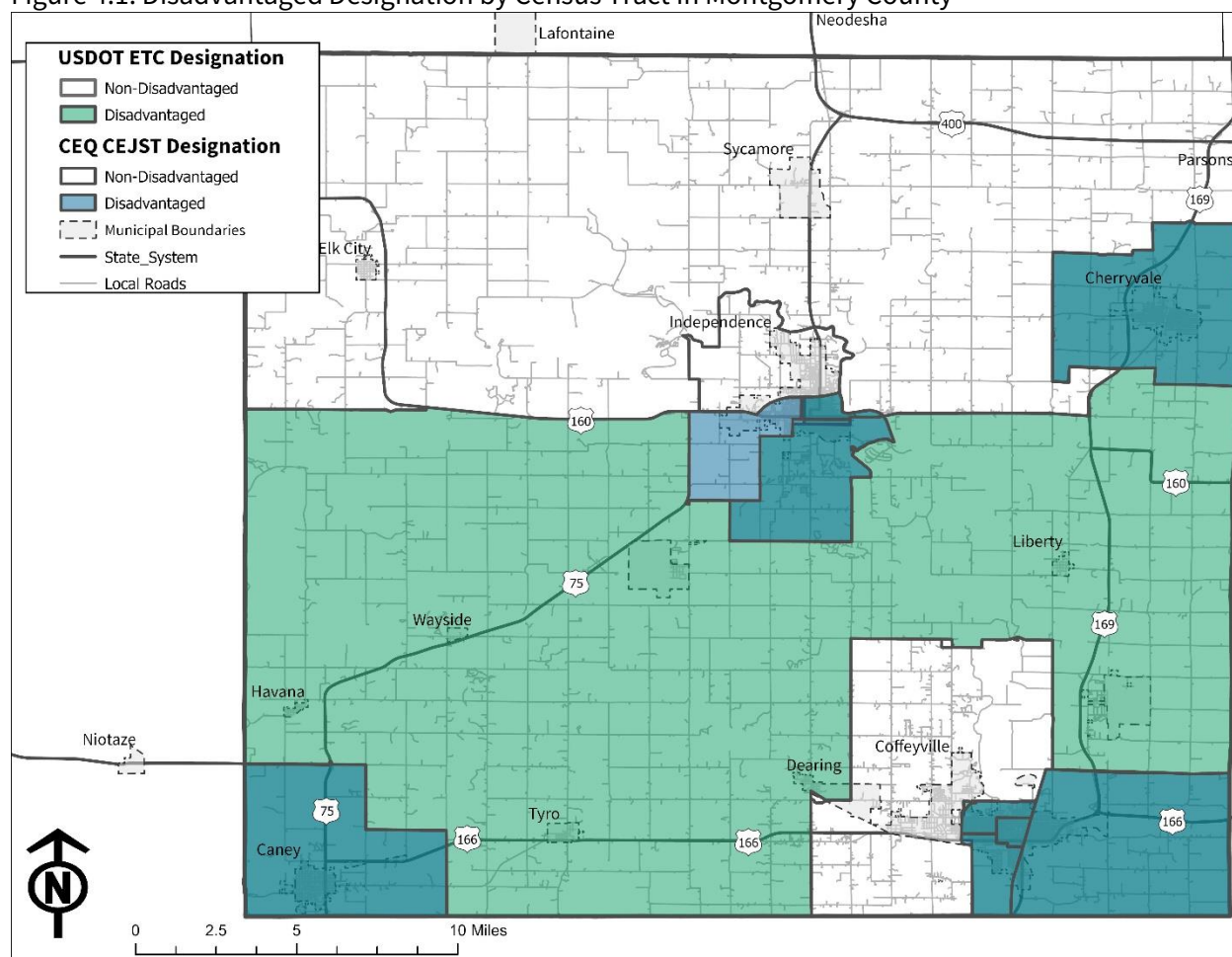
4.2 Equity Analysis

During the 10-year safety analysis study period (2014-2023), Montgomery County recorded 6,140 crashes with 66.5% of crashes occurring in disadvantaged communities. These areas also encompass most of the county's population, land area, and road miles. Therefore, the analysis did not indicate a disproportionate distribution of crashes.

Approximately 52.7% of the county population lives within an incorporated city and 54.6% of crashes occurred within city limits, demonstrating a generally even distribution of crashes within and outside incorporated areas. A summary of the equity analysis is outlined in *Table 4.3*.

Table 4.3: Equity Analysis Summary for Montgomery County

Crash Characteristics	Disadvantaged Communities		Non-Disadvantaged Communities	
	Count	Percent	Count	Percent
Crash Location				
Inside City Limits	2,390	38.9%	845	13.8%
Outside City Limits	1,693	27.6%	1,212	19.7%
Crash Severity				
Fatal	56	0.9%	18	0.3%
Serious Injury	74	1.2%	43	0.7%
Injury	509	8.3%	225	3.7%
Property Damage Only	3,444	56.1%	1,771	28.8%
Total Crashes	4,083	66.5%	2,057	33.5%

CHAPTER 5 | EMPHASIS AREAS

5.1 Background

Emphasis areas help focus crash reduction efforts on specific crash factors with the highest risk of serious injury or death, and greatest potential for improvement. By focusing on these areas, decision makers can address the most critical crash-related issues in their community, such as intersections with high crash rates or corridors with frequent roadway departures, leading to a more effective and targeted safety strategy. Additionally, emphasis areas provide a clear framework for measuring the success of a road safety strategy, allowing for data-driven decision-making and continuous improvement in crash prevention.

Grouping crashes together based on crash factors and location is a good basis for understanding which emphasis areas deserve extra consideration. Some emphasis areas are focused on engineering and design-related solutions (location or systemic-based crashes) while others rely on changing the behaviors associated with the crashes using enforcement, education, and/or emergency response.

Emphasis Area Methodology

Emphasis areas for the 12-county region were determined by understanding community concerns around roadway safety and through a review of 10 years of crash data. The review of local crash data sorted the emphasis areas by (1) frequency of emphasis area for all crashes and (2) frequency of emphasis area for fatal and serious injury crashes. Emphasis area crashes were clustered when four or more crashes occurred in the 10-year period within approximately 300 feet of each other. Fatal and serious injury crashes by emphasis area are shown in ***Figure 5.1*** with crash clusters mapped in ***Figure 5.2***. This review of the data revealed that roadway departure, intersection-related, and distracted driving were the most frequent crash types for all crashes. Roadway departure, unrestrained occupant, and intersection-related were the most frequent crash types for fatal and serious injury crashes.

Taking into consideration the results from the data analysis and community and stakeholder input, three key emphasis areas were selected by the regional Safety Task Force for review: *roadway departure*, *intersection-related*, and *unrestrained occupant* crashes. Other emphasis areas for consideration include vulnerable road users, distracted driving, and alcohol or drug-related crashes.

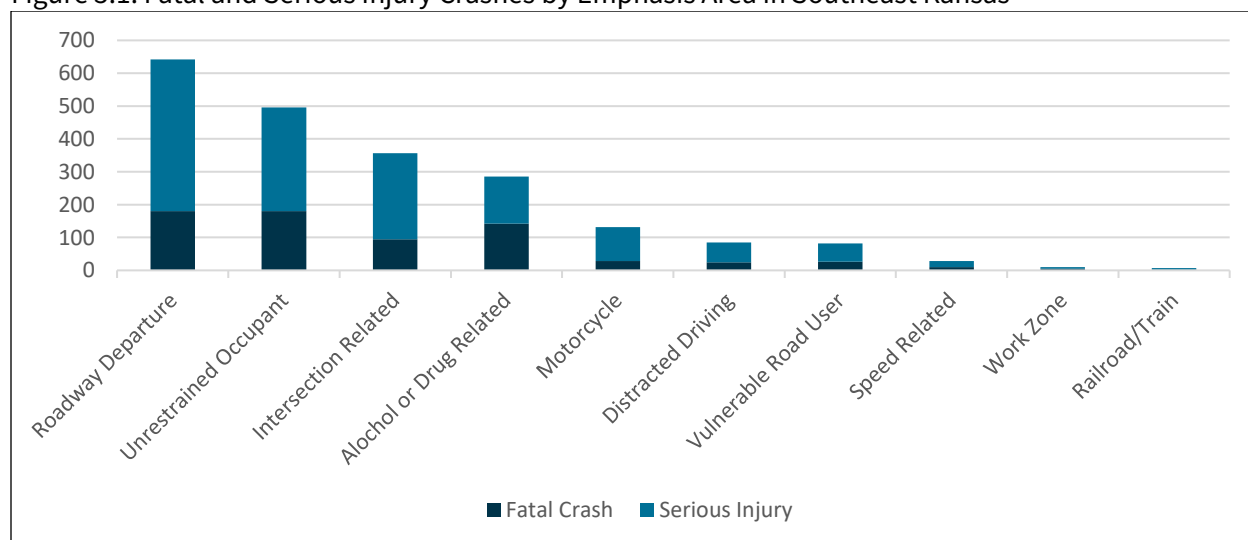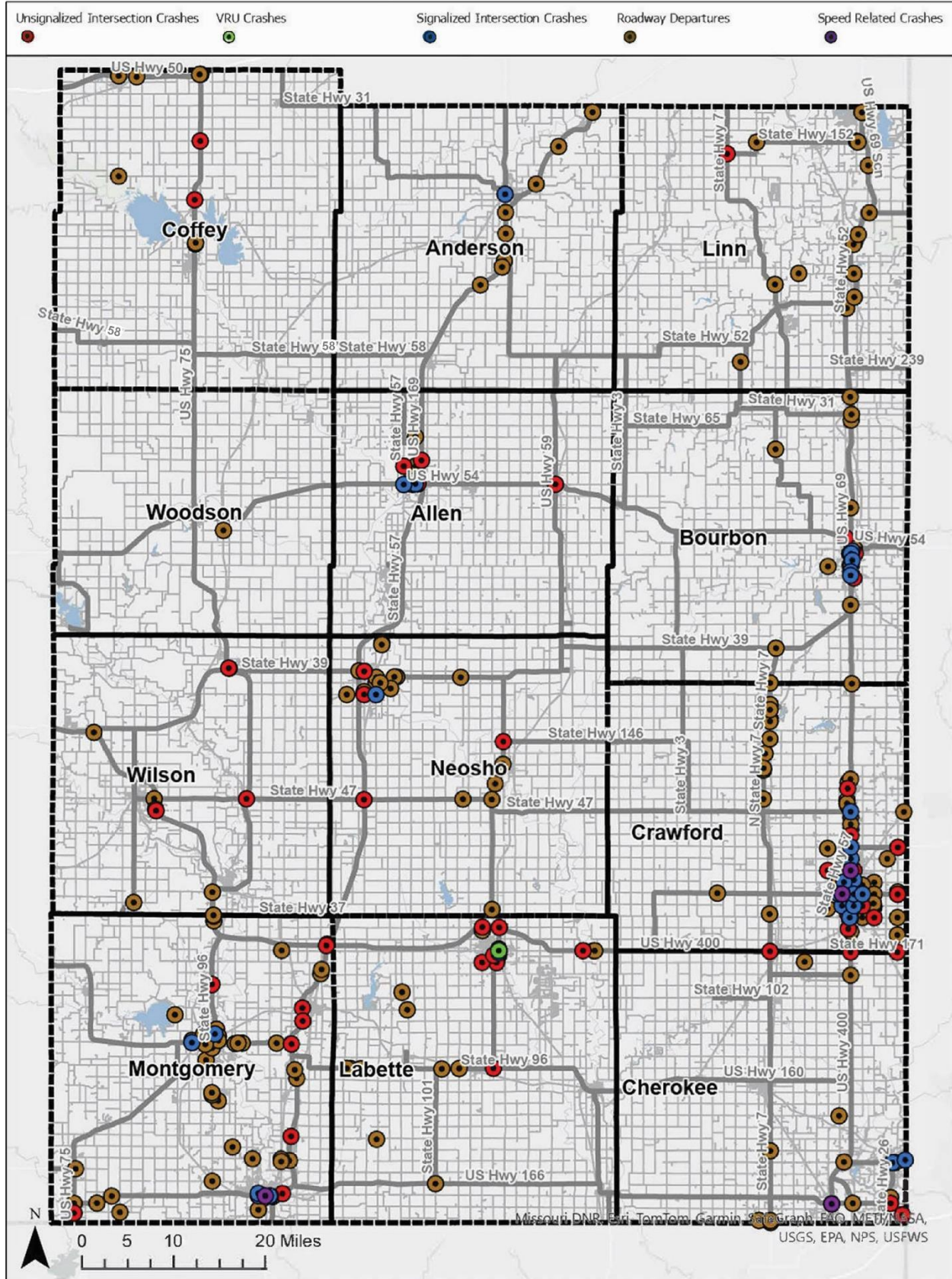Figure 5.1: Fatal and Serious Injury Crashes by Emphasis Area in Southeast Kansas

Figure 5.2: Fatal and Serious Injury Crash Clusters in Southeast Kansas

5.2 Top Crash Emphasis Areas

Roadway Departure

Roadway departure crashes are a leading cause of highway fatalities, accounting for over half of the deaths on roads in the United States each year. These crashes occur when a vehicle deviates out of its designated lane, either crossing the edgeline or centerline. Roadway departures can include head-on collisions, rollovers, or collisions with objects such as utility poles, trees, or other objects located off the roadway. Factors contributing to these incidents include excessive speed, roadway geometry such as shoulder width and curve radii, impaired driving, distracted driving, and failure to use seatbelts. Addressing these factors is critical to reducing the frequency and impact of roadway departure crashes.

During the study period, there were 43 roadway departure crash clusters identified in Montgomery County. These clusters accounted for 4 fatal crashes and 16 serious injury crashes, making it the second most frequent fatal/serious injury emphasis area in the county. Clusters of roadway departure crashes in Montgomery County are displayed in **Figure 5.3**.

Figure 5.3: Crash Clusters for Roadway Departures in Montgomery County
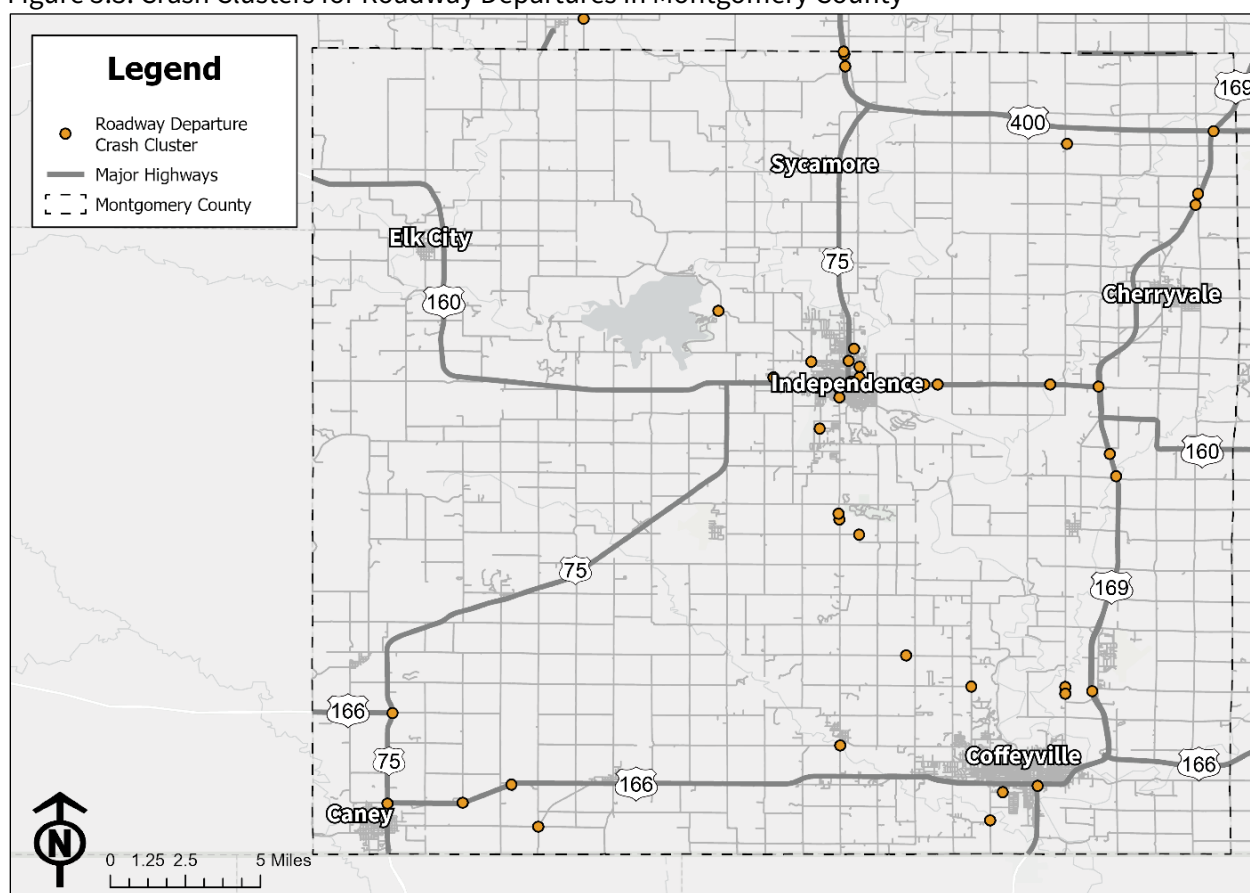
Intersection-Related

Intersections result in increased conflict between roadway users. Approximately one-quarter of traffic fatalities and one-half of all traffic injuries in the United States are attributed to intersections. Unsignalized intersections are the most common type of intersection in Southeast Kansas and can include stop sign-controlled, yield sign-controlled, or uncontrolled intersections. Signalized intersections are more frequently used within urban areas or at the intersection of higher volume

corridors. Almost any other crash type can occur at intersections, so intersection crashes may also be attributed to other crash types or factors. Understanding which factors frequently contribute to crashes can help decision makers focus on effective countermeasures.

During the study period, there were 17 crash clusters related to intersection crashes. Ten (10) fatal crashes and 15 serious injury crashes occurred within these intersection-related crash clusters, making intersection-related crashes the most frequently occurring fatal/serious injury emphasis area in the county. Clusters of signalized and unsignalized intersection crashes in Montgomery County are displayed in **Figure 5.4**.

Figure 5.4: Crash Clusters for Intersection-Related Crashes in Montgomery County
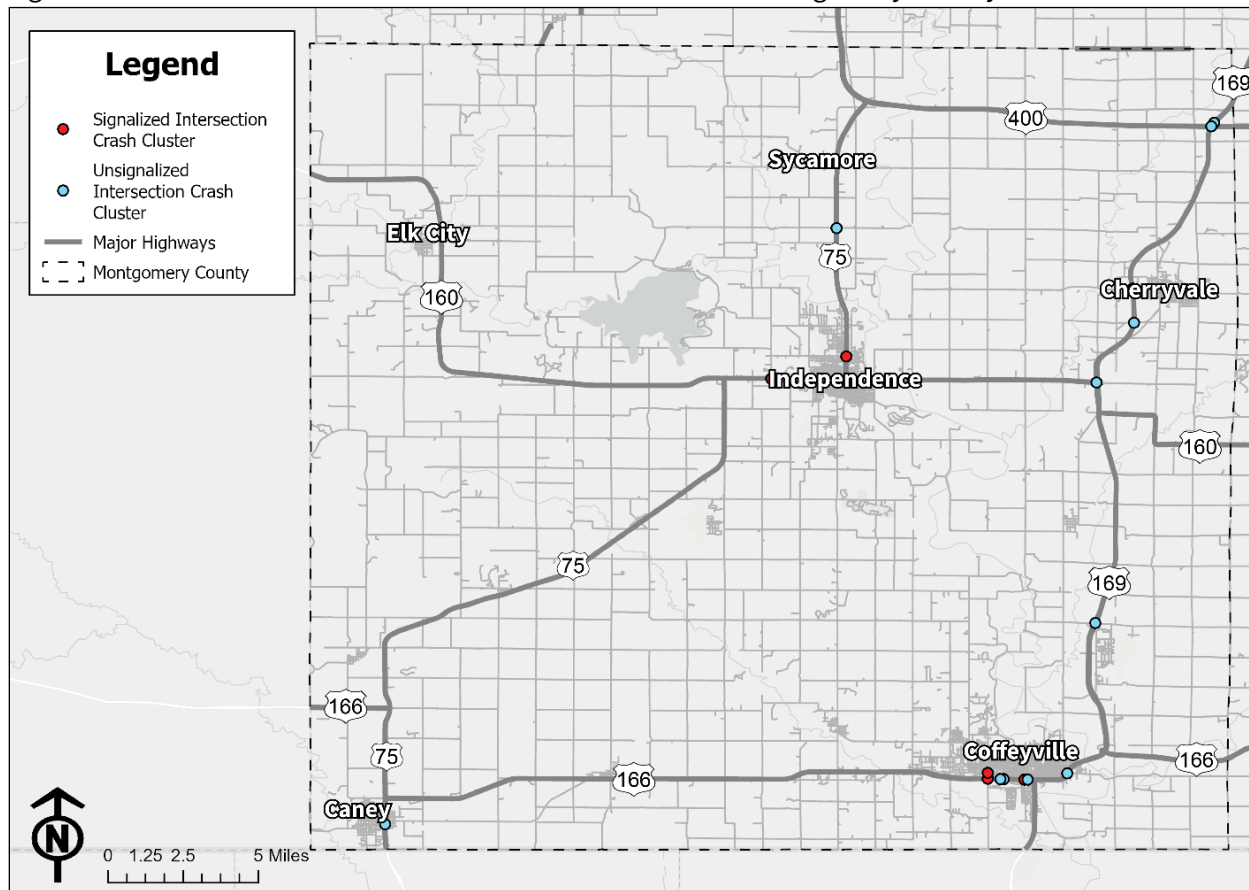
Unrestrained Occupant

Restraint devices such as seatbelts are critical to protecting vehicle occupants in a crash. The simple act of wearing a seatbelt is one of the most effective ways to reduce the risk of death or serious injury in a crash. This is especially evident in roadway departures and intersection crashes where unrestrained occupants are far more likely to suffer catastrophic outcomes, including being ejected from the vehicle.

The Safety Task Force indicated seatbelt use as a concern in Southeast Kansas and Montgomery County specifically. Statewide data from the National Highway Traffic Safety Administration (NHTSA) indicates that approximately 85% of Kansans wear a seat belt, and Montgomery County has a below average seat belt usage rate among children (ages 0-17) at 75%.

Note: For this analysis, crashes with unrestrained occupants are not mapped as the act of being unrestrained is not related to the cause or location of the crash.

5.3 Other Areas for Review

Vulnerable Roadway Users

A Vulnerable Road User (VRU) is a person using the transportation system that is unprotected, such as a pedestrian, cyclist, or roadway worker. Crashes between a VRU and a vehicle more frequently result in an injury or fatality. Common risk factors for VRU crashes include undivided four lane roads, roads with over 10,000 vehicles per day, roads with 30-35 mph speed limits, disadvantaged areas, and areas with higher levels of pedestrian activity.

Despite not being a major crash type in Montgomery County, VRU safety is a key component of the Vision Zero initiative to provide safe and convenient transportation options for all people regardless of mode of transportation. Therefore, it is a best practice to incorporate VRU safety strategies in specific areas such as near schools or downtown areas to help reduce crashes.

Speed-Related

Speeding – exceeding posted speed limits or traveling too fast for conditions – is a contributing factor to nearly one-third of fatal crashes in the United States. Speeding is one of the most dangerous crash factors as higher speeds can increase the risk of and severity of a crash. Managing speed is a complex issue involving engineering, driving behavior, education, and enforcement. It is likely that the number of fatal and serious injury crashes attributed to speeding in Southeast Kansas is underreported.

Distracted Driving

Distracted driving occurs when the driver of a vehicle performs any activity that takes their attention from driving. Ongoing education programs, as well as initiatives that promote safe driving habits, can reduce the number of distracted driving related crashes. Changes to the road environment that reduce the impact of other crash types – such as separating VRUs from motor vehicles or providing opportunities to recover from roadway departures – can also help minimize the effects of mistakes due to distracted driving. Like speeding, distracted driving may be underreported in crash data.

Alcohol or Drug Related

Impaired driving is when a vehicle is being operated under the influence of any substance or in any condition that may reduce the ability to drive safely. This includes driving under the influence of alcohol, drugs, or other controlled substances that diminish your mental or physical capabilities.

The Safety Task Force indicated driving under the influence as a significant concern in Southeast Kansas as drivers may overestimate their capacity or have limited alternative options to traveling home safely. The legalization of recreational marijuana in neighboring states was specifically mentioned by counties along state borders as an increasingly challenging issue.

Overlapping Emphasis Areas

In many crashes, multiple emphasis areas are identified as contributing factors. Identifying contributing factors can help us understand why crashes occur and identify appropriate safety interventions. *Table 5.1* demonstrates overlapping circumstances among all crashes in Southeast Kansas during the 10-year study period.

Common crash patterns include:

- Crashes involving unrestrained occupants or alcohol and/or drug impairment are frequently also roadway departures.
- Crashes involving VRUs such as bicyclists or pedestrians typically occur at intersections.
- Crashes involving speeding tend to also be affected by distracted driving.

Table 5.1: Overlapping Emphasis Areas in Southeast Kansas

Step 2: Evaluate Overlapping Emphasis Area	Roadway Departure Related	Vulnerable Road User Related	Intersection Related	Speed Related	Distracted-Driver Related	Unrestrained Occupant Related	Alcohol or Drug Related	Work Zone Related	Motorcycle Related	Railroad Train Related
Roadway Departure Related	100.0%	0.0%	10.8%	26.6%	25.7%	51.3%	64.3%	20.2%	4.7%	0.0%
Vulnerable Road User Related	0.0%	100.0%	1.2%	0.7%	0.9%	0.2%	0.4%	0.0%	0.0%	0.0%
Intersection Related	9.8%	37.6%	100.0%	22.8%	21.2%	25.8%	18.2%	28.2%	24.6%	3.0%
Speed Related	3.0%	2.7%	2.8%	100.0%	8.5%	2.8%	3.9%	0.8%	3.2%	6.1%
Distracted-Driver Related	10.1%	12.5%	9.1%	29.9%	100.0%	8.1%	10.5%	4.8%	9.1%	12.1%
Unrestrained Occupant Related	10.6%	1.4%	5.8%	5.2%	4.3%	100.0%	22.1%	7.3%	30.8%	12.1%
Alcohol or Drug Related	9.5%	2.0%	2.9%	5.2%	4.0%	15.9%	100.0%	3.2%	7.5%	3.0%
Work Zone Related	0.2%	0.0%	0.4%	0.1%	0.1%	0.4%	0.3%	100.0%	0.4%	0.0%
Motorcycle Related	2.4%	0.0%	1.4%	1.5%	1.2%	7.7%	2.6%	1.6%	100.0%	3.0%
Railroad Train Related	0.0%	0.0%	0.0%	0.2%	0.1%	0.2%	0.1%	0.0%	0.2%	100.0%

Step 1: Select Emphasis Area
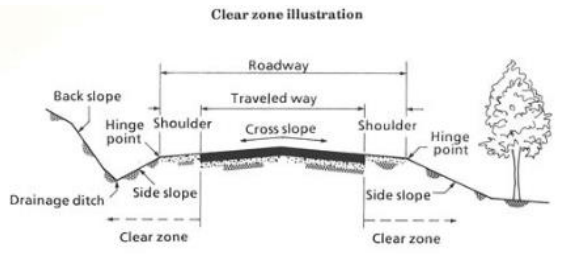
CHAPTER 6 | SAFETY STRATEGIES AND PROJECTS

By understanding the priority emphasis areas for the Southeast Kansas region, and using the Safe System Approach as a framework, safety strategies can be identified to help reduce crashes and decrease crash severity.

6.1 Safety Countermeasures

Using national best practices, FHWA and the National Highway Traffic Safety Administration (NHTSA) developed a series of data-driven, proven safety countermeasures. Countermeasures to address the top emphasis areas in Southeast Kansas and Montgomery County are identified in *Table 6.1* to *Table 6.6*. Each Safe System element (safe roads, safe speeds, safe road users, safe vehicles, and post-crash care) was considered when selecting these safety strategies. A comprehensive list of countermeasures is included in *Appendix E*.

Table 6.1: Safety Countermeasures for **Roadway Departures**

Countermeasure	Description	Example
Advanced Warning Signs	Advanced warning signs around curves, sight limiting areas, or where crash problems exist provide drivers with additional time to make decisions.	
Improved Pavement Markings	Clearly delineating travel lanes and high retroreflectivity allows drivers to better understand where they are located within the roadway.	
Longitudinal Rumble Strips	Milled or raised elements on the pavement alert drivers through vibration and sound that their vehicle has left the travel lane. Commonly installed on the edge line, shoulder, and/or centerline.	

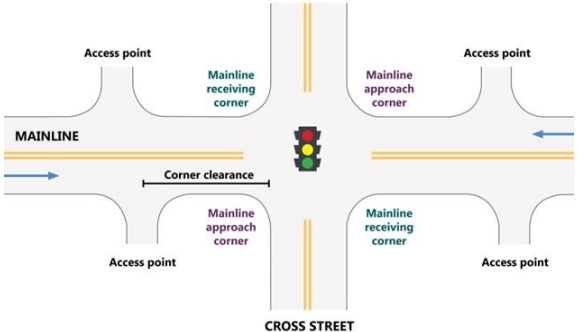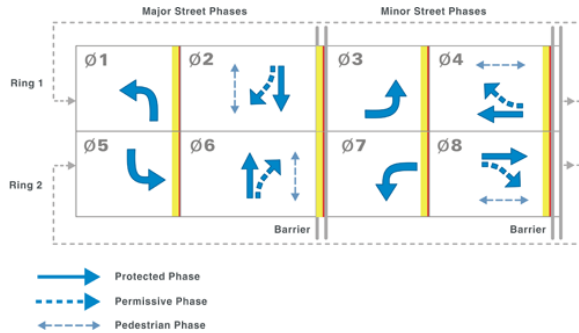|		
Post-Mounted Delineators	Improving curve delineations helps prevent roadway departures from the mainline pavement by showing drivers the edge of shoulder in daytime and night conditions.	
Paved Shoulder with SafetyEdge^{SM}	Shapes the edge of pavement to eliminate the potential for vertical drop-off at the pavement edge, has minimal effect on project cost, and can improve pavement durability.	
Flattening and Widening Foreslopes	Flattening and widening foreslopes allows for a more recoverable slope and may decrease the clear zone distance required. Often combined with culvert extensions or other clear zone work.	
Clear Zones	Improvements to provide a clear zone that is an unobstructed, traversable roadside area that allows a driver to stop safely or regain control of a vehicle that has left the roadway.	
Superelevation Correction	Correcting and reshaping the roadway superelvation to meet posted speed or where crashes have occurred enables increased friction with pavement.	

High Friction Surface Treatment	Higher pavement friction helps motorists maintain better control in both wet and dry conditions.	
Access Management	The design, application, and control of entry and exit points along a roadway, including intersections that serve adjacent properties.	

Table 6.2: Safety Countermeasures for **Intersection-Related**

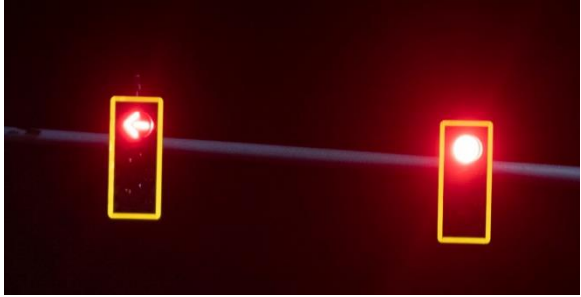| Countermeasure	Description	Example
Improved Signal Phasing/Timing Plans	Traffic signal coordination can decrease the number of crashes and create speed harmonization as drivers learn the length of signal intervals.	
Consistent Yellow and All-Red Timings	Consistent yellow and all-red display intervals allow motorists and pedestrians to anticipate when it will be safe to enter the intersection.	

Backplates with Retroreflective Borders	Backplates improve the visibility of a traffic signal with a controlled-contrast background. A yellow retroreflective border makes it even more visible.	
Add Left Turn Lanes	Left turn lanes provide separation from through traffic, space for deceleration, and space to wait to complete a turn.	
Access Management (restrict left turns)	Restrict the left turns from side streets onto a main street.	
Flashing Beacon Warning Sign	Flashing beacons on warning signs increase driver awareness and recognition of upcoming problems and potential conflicts.	
Enhanced Stop Sign	Larger stop signs, use of flasher on sign, or use of retroreflective markings to increase visibility of stop signs.	

Table 6.3: Safety Countermeasures for **Unrestrained Occupant**

Countermeasure	Description
Enforcement of Seatbelt Safety	Signage to promote higher visibility of seatbelt and child safety enforcement in both short-term situations and sustained seat belt enforcement.
Education Strategies	Employer-based and older children programs.
Child Restraint Inspections	Child Passenger Safety (CPS) technician staffed inspection stations.

Table 6.4: Safety Countermeasures for **Vulnerable Road Users (VRU)**

Countermeasure	Description	Example
Rectangular Rapid Flashing Beacon (RRFB)	Pedestrian-actuated RRFBs flash with an alternating high frequency to enhance driver awareness of pedestrians at the crossing.	
Pedestrian Hybrid Beacons	A traffic control device designed to help pedestrians safely cross higher-speed roadways at midblock crossings and uncontrolled intersections.	
Countdown Pedestrian Signal Heads	These signals provide pedestrians with more information on the remaining crossing time.	

Leading Pedestrian Interval (LPI)	LPIs allow pedestrians to enter the crosswalk 3-7 seconds before parallel vehicles are given a green indication.	
Construct Sidewalks	Construct sidewalks to fill in gaps to allow separation of pedestrians and vehicles along roadways.	
High Visibility Crosswalks	High-visibility crosswalks use patterns (i.e., bar pairs, continental, ladder) visible to both the driver and pedestrian from farther away compared to traditional transverse line crosswalks.	
Advance Yield or Stop Markings	"Yield Here to Pedestrians" and/or "Stop Here for Pedestrians" signs 20 to 50 feet in advance of a marked crosswalk.	

Table 6.5: Safety Countermeasures for **Distracted Driving**

Countermeasure	Description
Distracted Driving Education	Education campaigns (PSAs, social media ads, school/workplace education) can be conducted regarding distracted driving.
Phone/Text Messaging Enforcement	Signage to identify areas with higher cell phone use/text messaging enforcement to effectively deter cell phone use by increasing the perceived risk of a ticket.

Table 6.6: Safety Countermeasures for **Alcohol or Drug Related**

Countermeasure	Description
Enforcement of Drug and Alcohol Impaired Driving	Short-term enforcement checkpoints as well as sustained and consistent DUI enforcement, particularly in key areas.
Impaired Driving Education	Inform the public of the dangers of impaired driving and establish positive social norms that make driving while impaired unacceptable.

6.2 Project Recommendations

Projects were identified by locating fatal/serious injury emphasis area crash clusters within Montgomery County, considering systemic issues for top emphasis areas, reviewing past plans (including the Local Road Safety Plan), and incorporating feedback from public and stakeholder engagement.

The following list includes ten recommended projects in no priority order. Projects are shown in *Figure 6.1* with more detailed information for each project in *Appendix F*. Other potential projects that are not within the top ten recommended list are also listed in *Appendix F*. Implementation of any of these projects would contribute to a safer roadway system in Montgomery County.

Figure 6.1: Project Locations
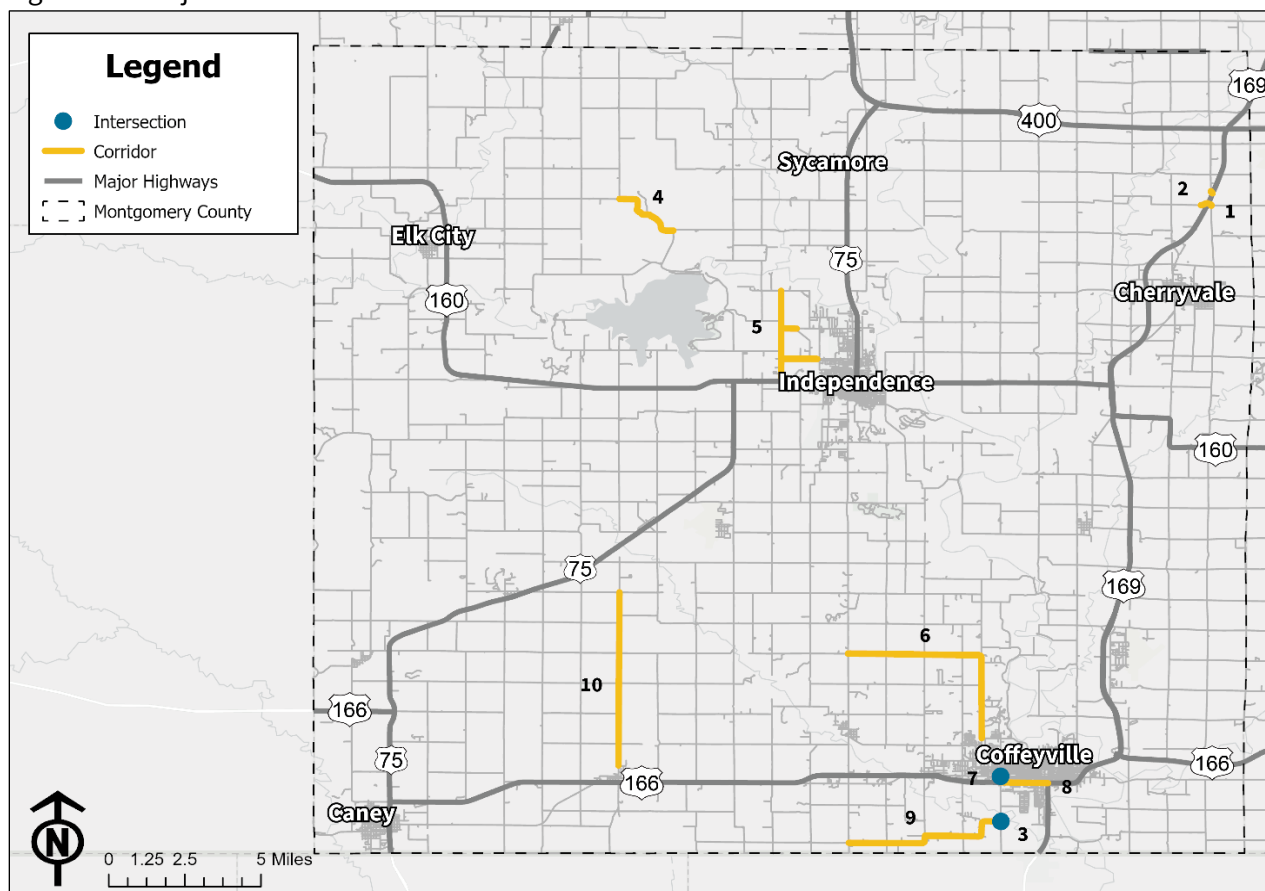
Map ID	Project
1	Olive Street (5700 Road)
2	US-169 / 5700 Road and 5600 Road
3	4700 Road and 1450 Road Intersection
4	5600 Road (Sweeney Hill Drive)
5	Peter Pan Road, 4675 Road/Taylor Road, and W. Oak Street
6	2600 Road and 4550 Road
7	W. 8th Street and S. Buckey Street Intersection
8	US-166 Corridor Intersections
9	1250 Road, 4300 Road, 1400 Road, 4550 Road, and 1450 Road
10	2700 Road

Project 1: Olive Street (5700 Road)
Project Limits: US-169 to 5600 Road (0.05 miles)

Emphasis Area	Short-Term Improvements	Long-Term Improvements
Roadway Departure	Update curve signing, install in-lane curve warning pavement markings, add retroreflective strips on signposts, install center/edge line pavement markings, improve edge drop-off, add post-mounted delineators, and update advance railroad signing and pavement markings. ($10,000)	Install 2-foot paved shoulders, install center/edge line rumble strips, and apply high friction surface treatment on curves. ($800,000)

Project 2: US-169 / 5700 Road and 5600 Road
Project Limits: Intersections (0.4 miles)

Emphasis Area	Short-Term Improvements	Long-Term Improvements
Intersection, Roadway Departure	Update/install curve signing, install in-lane curve warning pavement markings, add retroreflective strips on signposts, install center/edge line pavement markings, improve edge drop-off, and add-post mounted delineators. ($85,000)	Install 18-inch aggregate shoulders, flatten and widen fore slopes, install center/edge line rumble strips, and install transverse rumble strip before curves. ($225,000)

Project 3: 4700 Road and 1450 Road Intersection
Project Limits: Intersection

Emphasis Area	Short-Term Improvements	Long-Term Improvements
Intersection, Roadway Departure	Update/install signing, add retroreflective strips on signposts, and upgrade center/edge line pavement markings. ($19,000)	Reconstruct intersection. ($440,000)

Project 4: 5600 Road (Sweeney Hill Drive)
Project Limits: 2700 Road to 2925 Road (0.5 miles)

Emphasis Area	Short-Term Improvements	Long-Term Improvements
Roadway Departure	Update/install curve signing, install in-lane curve warning pavement markings, add retroreflective strips on signposts, install center/edge line pavement markings, improve edge drop-off, add post-mounted delineators. ($112,000)	Install 2-foot paved shoulders, install center/edge line rumble strips, install transverse rumble strips before the curves, and apply high friction surface treatment on curves. ($550,000)

Project 5: Peter Pan Road, 4675 Road/Taylor Road, W. Oak Street
Project Limits: 5000 Road to Independence city limits (4.25 miles)

Emphasis Area	Short-Term Improvements	Long-Term Improvements
Intersection, Roadway Departure	Update/install curve signing, add retroreflective strips on signposts, install center/edge line pavement markings, improve edge drop-off, and add post mounted delineators. ($96,000)	Install 2-foot paved shoulders with SafetyEdge[SM], install center/edge line rumble strips, flatten and widen foreslopes, install/upgrade guardrail, and extend culverts. ($2.7 million)

Project 6: 2600 Road and 4550 Road
Project Limits: 3900 Road to Coffeyville city limits (6.0 miles)

Emphasis Area	Short-Term Improvements	Long-Term Improvements
Intersection, Roadway Departure	Update/install curve signing, add retroreflective strips on signposts, install center/edge line pavement markings, improve edge drop-off, and add post-mounted delineators. 205,000)	Install 2-foot paved shoulders with SafetyEdge^{SM}, install center/edge line rumble strips, flatten and widen foreslopes, install/upgrade guardrail, extend culverts, and reconstruct tie-in on curve. ($4.0 million)

Project 7: W 8th Street and S Buckeye Street Intersection
Project Limits: Intersection

Emphasis Area	Improvements
Intersection	Upgrade traffic signal, add high-visibility signal backplates, reconfigure signal with Leading Pedestrian Intervals (LPI), and install high-visibility pavement markings for crosswalks. ($600,000)

Project 8: US-166 Corridor Intersections
Project Limits: S. Buckeye Street to US-169

Emphasis Area	Improvements
Intersection, Roadway Departure	Perform a Road Safety Audit (RSA) or traffic engineering study to determine a course of action for the US-166 corridor. The study should consider coordinating signal timing and adding pedestrian improvements (ex: Leading Pedestrian Intervals, high-visibility crosswalks) at both signalized and unsignalized intersections. ($200,000)

Project 9: 1250 Road, 4300 Road, 1400 Road, 4550 Road, 1450 Road
Project Limits: 3900 Road to 4700 Road (4.6 miles)

Emphasis Area	Short-Term Improvements	Long-Term Improvements
Roadway Departure	Update/install curve signing, add retroreflective strips on signposts, install center/edge line pavement markings, improve edge drop-off, and add post-mounted delineators. ($110,000)	Install 18-inch aggregate shoulders, flatten and widen foreslopes, install/upgrade guardrail, and extend culverts. ($1.85 million)

Project 10: 2700 Road
Project Limits: 3000 Road to Tyro city limits (5.75 miles)

Emphasis Area	Short-Term Improvements	Long-Term Improvements
Roadway Departure	Install center/edge line pavement markings, improve edge drop-off, and delineate roadside hazards. ($76,000)	Install 2-foot paved shoulders with SafetyEdge^{SM}, install center/edge line rumble strips, flatten and widen foreslopes, install/upgrade guardrail, and extend culverts. ($3.5 million)

CHAPTER 7 | IMPLEMENTATION PLAN

7.1 Policy and Process Recommendations

Improving roadway safety in communities requires an examination of policies and processes currently in place that contribute to safety on our roadways. Current policies, guidelines, and standards were reviewed to identify opportunities to improve and prioritize transportation safety. The following policy and process recommendations support achieving the Safety Action Plan goals.

Vision Zero Resolution

The Vision Zero goal acknowledges that even one death on our transportation system is unacceptable and focuses on safe mobility for all road users. Some programs, including the federal SS4A Implementation grant program, require jurisdictions to formally adopt this goal to be eligible for funding support. A Vision Zero resolution to target fatal and serious injury crashes was adopted by Montgomery County in 2025. The resolution is included in **Appendix A**.

Advocate for Regional Initiatives

Many smaller communities find solving safety issues on state or federal highways to be difficult to address. State Department of Transportation's have many competing priorities, and smaller projects can easily fall down the priority list as the transportation network has emergent and pressing needs. One solution for this is to take a regional or corridor focused approach to improving state and federal highways. Taking a coalition approach with neighboring communities on the same highway corridors can increase visibility of these issues and help advocate for action. Working with impacted municipalities, counties, community groups, and/or regional planning organizations can increase the county's collective power to bring change. The SEKRPC Safety Task Force can be a vehicle for the coalition approach should the region or multiple counties in the region choose to advocate together for changes on Kansas highways.

*In particular, forming or refreshing a multi-county coalition to advocate for safety improvements along the north-south **US-169 corridor** is supported by both data analysis and public input. Although likely a lower priority, a similar approach could be considered for the east-west **US-160 corridor**.*

Address Post-Crash Care

The timely arrival of emergency responders and well-trained Emergency Medical Services (EMS) providers is a major factor in ensuring an injured person receives the medical care they need to survive a crash. This is especially critical in rural communities, where response times are longer, and EMS resources may be more limited.

Therefore, post-crash care best practices include both advanced planning activities and safety countermeasures. Typical countermeasures include improving emergency medical dispatch and 911 protocols, providing timely on-scene care using model EMS clinical guidelines, providing timely transportation to a trauma center, and then measuring EMS performance over time are important to ensure EMS services are performing optimally.

Montgomery County has two healthcare facilities with the ability to address traumatic injuries: (1) Labette Health in Independence and (2) Coffeyville Regional Medical Center are Level III trauma centers. Additional opportunities to explore to address post-crash care needs include:

- **EMS Telemedicine:** Jurisdictions have explored the use of eCare EMS telemedicine services to improve and expedite post-crash care in rural communities. The program allows first responders and paramedics to connect virtually 24/7 with certified physicians and nurses for peer-to-peer support in the field or during transport. Some agencies have been awarded SS4A funds to support pilot EMS telemedicine programs within their area.

- **Updating Best Practices and Training:** Ensuring first responders are regularly trained on the most up to date best practices in emergency response is critical to maintaining good response times. National resources such as EMS.gov and the National Center for Rural Roadway Safety can help your organization access the most up-to-date emergency response practices and training.

Update Design Policies

Roadway design policies, standards, and best practices change over time. An ongoing review and update of local roadway design policies is critical to ensuring roadway safety best practices are implemented when roadways are maintained, improved, or constructed.

Incorporate Safety into Project Development Process

Include systemic safety improvements in projects developed by Montgomery County and KDOT. Include a review of crashes and potential safety improvements when intersections or roadway segments are maintained or improved.

7.2 Next Steps

The Safety Action Plan is a dynamic document intended to be used by Montgomery County and other partners to continually advance transportation safety. In addition to the recommended projects and policy guidance, the Southeast Kansas region and Montgomery County can utilize these next steps to help achieve the Vision Zero goal.

Plan Leadership

Montgomery County assumes leadership of this plan and will support implementation within the county. As part of this role, Montgomery County will continue to use the Safety Task Force as a mechanism for regional collaboration and updates.

In partnership with SEKRPC, it is recommended that the Safety Task Force convene annually to discuss progress and updates related to the Safety Action Plan. Stakeholders should continue to:
- Be champions for safety in professional and personal roles
- Share information about transportation safety strategies with other organizations
- Assemble annually to share progress on safety activities

Leverage Resources and Funding Opportunities

Funding is critical to implementing the strategies and action items in this Safety Action Plan and may come from a blend of sources: federal, state, local, and private sector or non-profit partners. Some potential sources of funding include:

- **Safe Streets and Roads for All (SS4A) Program:** The Bipartisan Infrastructure Law (BIL) established the SS4A federal discretionary program that will provide over $5 billion in grants over the five-year program period (2022-2026). With completion of this Safety Action Plan, Montgomery County is eligible to apply for SS4A implementation funding.

- **State Coordination:** Coordinate with KDOT to administer annual safety grants funded by the state that are targeted at both roadway design solutions and behavioral programs, including education and enforcement programs.

  - **High Risk Rural Roads (HRRR) Program:** FHWA requires states to define and identify roadways "with significant safety risks" and sets aside federal funding for states to address these safety risks. Funds typically cover low-cost roadway improvements such as pavement markings, rumble strips, and other safety countermeasures. In Kansas, communities can apply for this funding through KDOT's Bureau of Local Projects.

  - **Safe Routes to School Program:** Many other types of agencies can apply for and receive Safe Routes to School funding. These include non-profits, schools and school districts, and regional transportation agencies, among others. In Kansas, communities can apply for this funding through KDOT's Active Transportation Program.

  - **Kansas Infrastructure Hub:** The Kansas Infrastructure Hub provides resources for Kansas communities seeking to improve infrastructure. Communities can apply to the Infrastructure Hub for grant writing assistance and grant matches.

- **Regional Coordination:** Coordinating closely with KDOT, and potentially adjacent counties, can be helpful to achieve safety goals for all parties involved. Taking a coalition approach to improvements may help all counties along a multi-county corridor advocate for funding and advance important safety goals.

- **Local Funding:** Local governments may choose to fund projects from local sources such as the annual budget, Capital Improvement Program (CIP), bonding, user fees, special assessments, or through partnerships with other local entities. Consideration of the Safety Action Plan during the annual budget process can be a cost-effective way of advancing safety goals, particularly for maintenance activities or other planned capital improvement projects where simple safety strategies can be incorporated.

Progress and Transparency

Progress toward meeting the Safety Action Plan goals should be measured over time in an open and transparent manner. Regular progress tracking creates accountability to the public and builds trust between the public and the cities, counties, and agencies that are responsible for roadway safety. This could include posting the Safety Action Plan online and annual reporting on progress toward reducing roadway fatalities and serious injuries.

Progress and transparency also help create an environment of informed decision making based on the effectiveness of selected safety strategies and the ability to modify the approach when necessary. Finally, progress and transparency provide a sense of direction and help document tangible outcomes made toward saving lives.

7.3 Summary

Montgomery County, in partnership with SEKRPC, has taken an important step to complete this Safety Action Plan and adopt a Vision Zero resolution to address fatal and serious injury crashes. The County will continue to build upon this progress to advance priority safety projects and collaborate with project partners to help save lives in Southeast Kansas.

Appendix A

Vision Zero Resolution

[Insert copy of adopted Vision Zero Resolution]

Appendix B

Safety Task Force Meetings

Safe Streets for All
Southeast Kansas Comprehensive Safety Action Plan

SAFETY TASK FORCE MEETING #1

Date: October 3, 2024
Time: 11:00am - 1:00pm
Format: Southeast Kansas Regional Planning Commission (SEKRPC) Office or Teams meeting

Meeting Agenda
- Introductions
- Project Introduction
  - Safe Systems Approach and Vision Zero Background
  - Safety Task Force Role
  - Public Survey
- Crash Review
- Emphasis Areas
- Discussion
- Next Steps

<u>Attendees</u>
Sandy Krider, Labette County Public Works Director (in-person)
Anne Sharp, Cherokee County Sheriff's Office and Columbus School (online)
Anni Beasley, Frontenac High School in Crawford County (online)
Brandon Beurskens, Montgomery County Assistant Public Works Director (online)
Eric Bailey, Bourbon County Public Works Director (online)
Shaun West, Linn County Public Works Director (online)

<u>Consultant Team</u>
Deanne Winkelmann, TranSystems
Slade Engstrom, TranSystems
Payton Smith, TranSystems
Nicole Hood, TranSystems
Tom Hein, TranSystems
Emma Habosky, TranSystems (online)
Tod Salfrank, TranSystems (online)
Anthony Gallo, Kimley-Horn (online)
Riley Mitts, Kimley-Horn (online)
Ashley Winchell, Wilson & Company (online)

MEETING SUMMARY

Introductions
- Consultant team and Safety Task Force member in-person and online introductions.

Project Introduction
- Federal Highway Administration (FHWA) encourages communities to adopt the Vision Zero concept and recently started incorporating the Safe Systems Approach. The SSA goal is to reduce death and serious injuries for all road users.
- Local Road Safety Plans (LRSP) have been completed or are nearly complete in 11 of the 12 counties. Woodson County does not have an LRSP.
- The Safe Streets for All (SS4A) Comprehensive Safety Action Plan (CSAP) incorporates traffic data analysis, stakeholder input, and public engagement into useable safety countermeasures. The CSAP provides information for future implementation funding for individual counties or the southeast Kansas region.
- A "Swiss cheese" model of redundancy is used in the Safe Systems Approach so that all safety systems in place help prevent a system failure resulting in a catastrophic event. Redundancy is a critical piece. Everyone makes mistakes and planning for that is key.
- The project timeline was outlined for August 2024 through February 2025 and includes three Safety Task Force meetings, a public meeting in each county, and a public survey contributing to a CSAP final report.

Role of the Safety Task Force
- The Safety Task Force validates information and data, provides insight on emphasis areas, drafts safety goals, represents the community, serves as a community champion, and evaluates performance measures.
- A public survey (https://arcg.is/1v1Pe00) will be sent to about 400 community organizations and members. It takes less than ten minutes to complete and Safety Task Force members can promote the survey in their communities. They survey also has a mapping component so users can identify specific locations of concern.
- Polling question #1 and discussion: **Why is transportation safety important to you?**
  - Anne Sharp (Cherokee County) said her daughter fell asleep while going home resulting in a crash. She shared, "When it's personal, it makes a big difference."
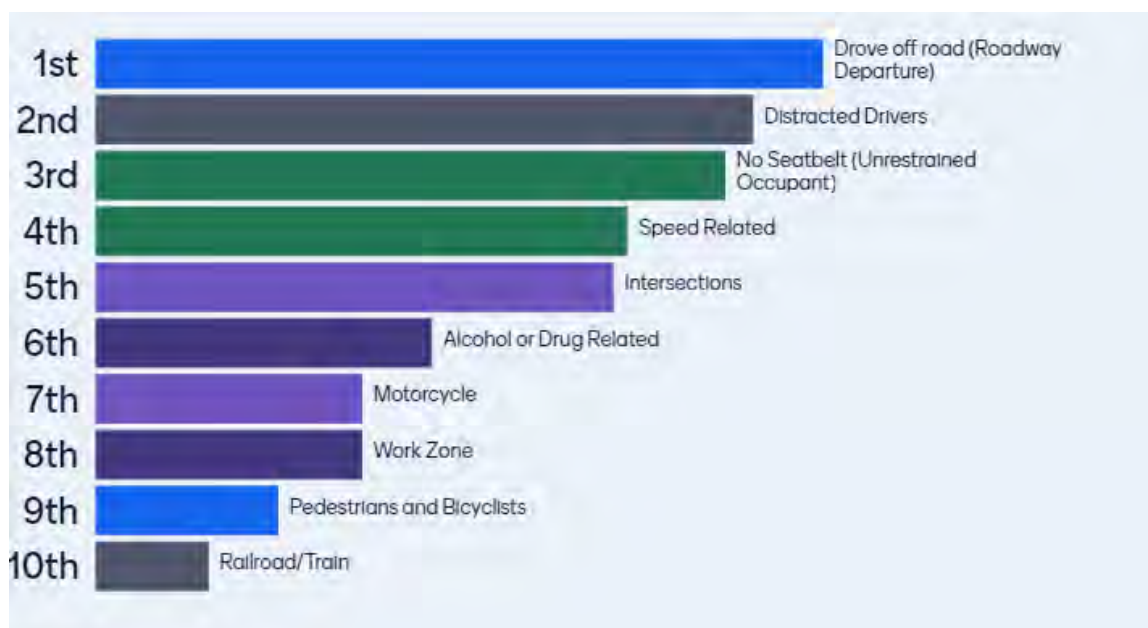
Crash Review

- Slade Engstrom (TranSystems) presented ten-year crash data showing hot spots in the twelve-county study area.

- There were approximately 400 fatalities in the region during that period with a total of 44,295 incidents that includes fatalities, injuries, property damage only crashes plus those involving pedestrians.

- While this is a preliminary overview, it reveals that the state highway system is where a lot of the serious and fatal crashes occur.
    - The Safety Task Force may need to decide whether to work with KDOT on concerns regarding the state highway system or focus in on their own individual communities (county, city, towns).

Emphasis Areas

- Crash emphasis charts showed Roadway Departure as the primary contributing factor followed (in numerical order) by Intersections, Distracted Driver, Unrestrained Occupant, Alcohol or Drug, Speed, Motorcycle, Work Zone, and Railroad.

- Anni Beasley (Crawford County) stated that a designated safety corridor had been established near Frontenac High School. She shared, "It is a scary intersection with big trucks that make crossing for students dangerous."

- US-169 and US-69 were mentioned as a priority corridors.

- Polling question #2 and discussion**: As we focus on solutions, which of these crash types are most important to address?**

1st	Drove off road (Roadway Departure)
2nd	Distracted Drivers
3rd	No Seatbelt (Unrestrained Occupant)
4th	Speed Related
5th	Intersections
6th	Alcohol or Drug Related
7th	Motorcycle
8th	Work Zone
9th	Pedestrians and Bicyclists
10th	Railroad/Train

Discussion

▪ Polling question #3 and discussion: **Tell us about what kinds of transportation related safety programs or involvement your communities have promoted. What went well? What would you improve?**

- Sandy Krider (Labette County) mentioned driver's education should include teaching how to navigate on unmarked and gravel roads.

Distracted driverTeen education Dui enforcement Seat safety Sro bike safety programs	LRSP for project selection	As the SAFE sponsor, we have seen seatbelt usage increase throughout the year. We don't have data on speeding or number of citations written.	DUI check points, drivers ed, car seat programs
SAFE, SROJust talking to them about things	Hard surface roads to medical centers Trains blocking access to medical center		

▪ Polling question #4 and discussion: **What transportation safety concerns have you heard from the community?**

- Anni Beasley (Crawford County) said the SAFE (Seatbelts Are For Everyone) program started in Crawford County because students were in fatal accident.
- Lots of ways to leverage data such as quick emergency response through alerts.
- For reference, Nicole Hood (TranSystems) stated that Missouri Department of Transportation data shows cell usage is 70% older folks.

Distracted Driving CKCO	The increased truck traffic on US 160 from Altamont (Labette) to the new soybean plant in MG CountyLower speed limits on gravel roads	Cell phone use and other distractions while driving	Hard suface roads to medical center
Determine areas of concern			

▪ Polling question #5 and discussion: **What would you like to see implemented in SEK to improve transportation safety?**

- Online driver's education needed.
- Slade Engstrom (TranSystems) commented that rumble strips can seem like a good idea but cannot always be implemented due to road conditions.

More citations may change behavior	Road edging and line of sight clearing	With being on the state line. Kids understand drinking and driving not good, but not the fact of driving under the influence of marijuana.
Have drivers ed teachers focus a bit more on navigating unpaved roads at unmarked intersections Lower speed limits on gravel roadsSight distance issues		

Next Steps

- Public survey will be sent within a few days following the meeting.
- Public meetings will be planned in each county.
- Safety Task Force Meetings
    - Meeting #2 on November 14, 2024 will focus on priorities and countermeasures.
    - Meeting #3 on January 23, 2025.
- Contact: Tom Hein at tdhein@transystems.com with any questions or concerns.

Safe Streets for All (SS4A)

Southeast Kansas Comprehensive Safety Action Plan

Safety Task Force Meeting #1

October 3, 2024

AGENDA

- Introductions

- Project Introduction
  - Safe System Approach and Vision Zero Background
  - Safety Task Force Role
  - Public Survey

- Crash Review

- Emphasis Areas

- Discussion

- Next Steps

INTRODUCTIONS

- Southeast Kansas Regional Planning Commission

- Consultant Teams
    - TranSystems
    - Kimley Horn
    - Wilson & Company

- Safety Task Force Members

POLLING INSTRUCTIONS

Go to:

www.menti.com

Enter the code:

17 08 43 1

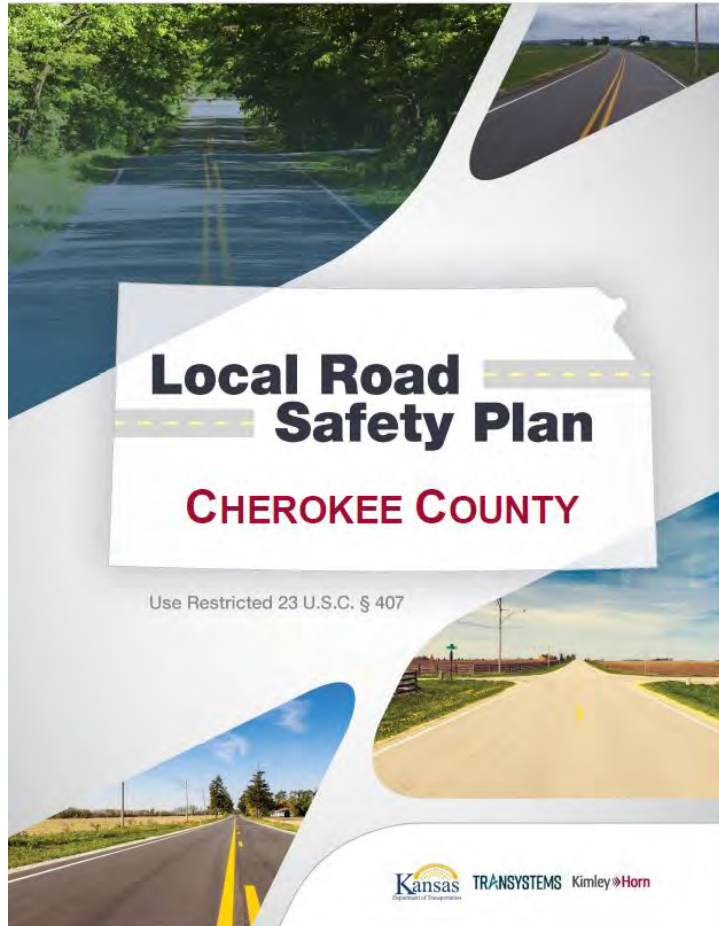Enter your name, organization, and role.

Or use the QR code!

COMPREHENSIVE SAFETY ACTION PLAN

- Imagine and implement safe spaces for all road users

- Discuss safety priority areas and solutions

- Roadmap to reduce and prevent severe crashes

- Utilize plan to pursue funding for implementation to save lives

ZERO IS OUR GOAL
A SAFE SYSTEM IS HOW WE GET THERE

LOCAL ROAD SAFETY PLAN

Local Road Safety Plan — CHEROKEE COUNTY
Use Restricted 23 U.S.C. § 407

- Local Road Safety Plans (LRSPs) provide a framework for identifying safety improvements on local roads

- LRSPs included roadways in unincorporated areas that are classified as collectors or higher
  - Did not include roadways within city limits
  - Did not include rural local roads

LOCAL ROAD SAFETY PLAN

Local Road Safety Plan (LRSP) Applicant Summary 3-28-2022

LRSPs by Federal Fiscal Year (# of applicants in parentheses)
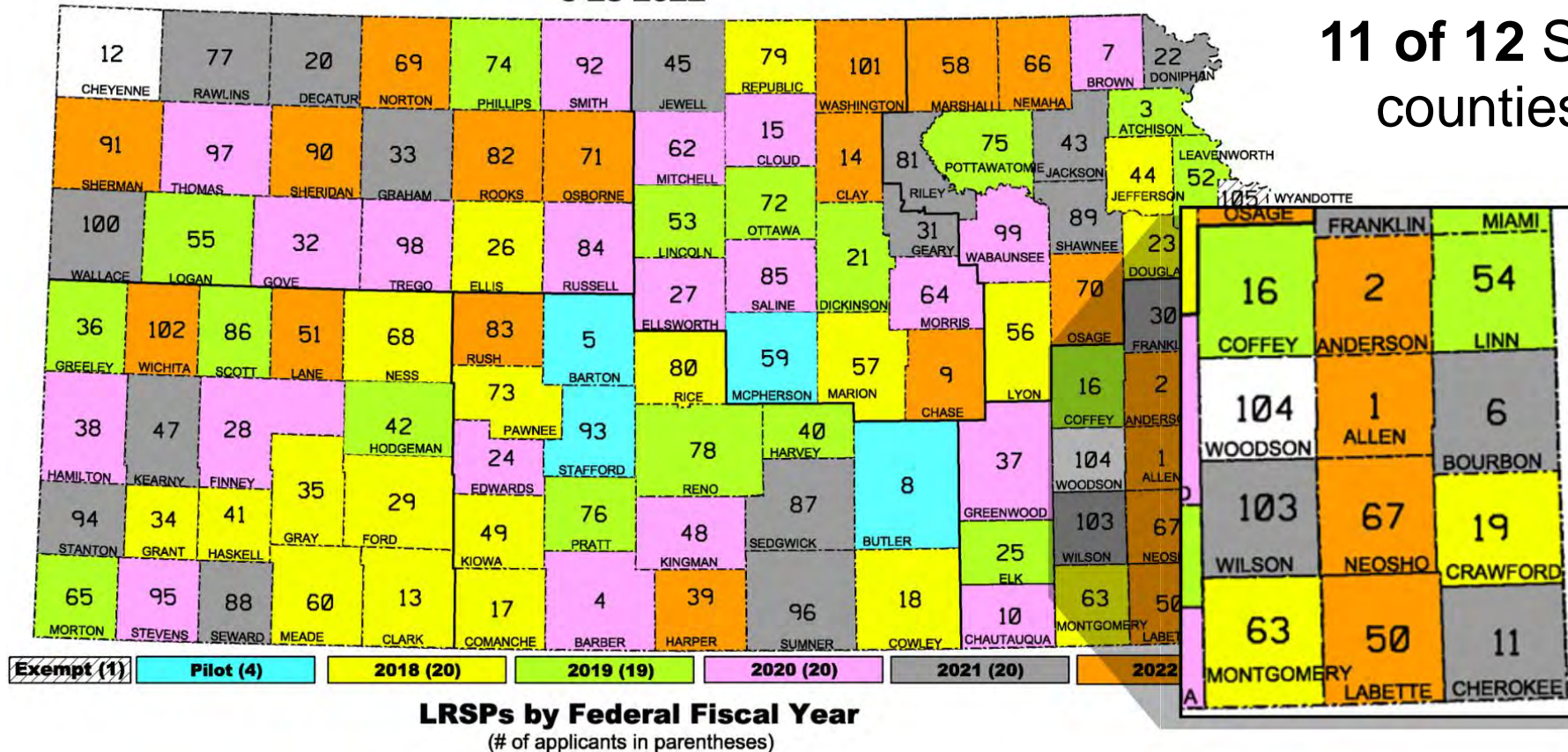
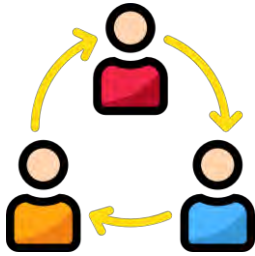**11 of 12** Southeast Kansas counties have a LRSP.

SS4A builds upon LRSPs to include cities and provide a comprehensive look at the entire study area.
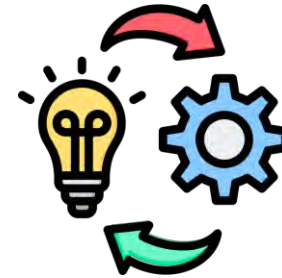
FROM PLAN TO ACTION
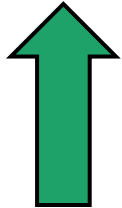
Planning Grant

Implementation Grant

Data Analysis

Strategy and Actions
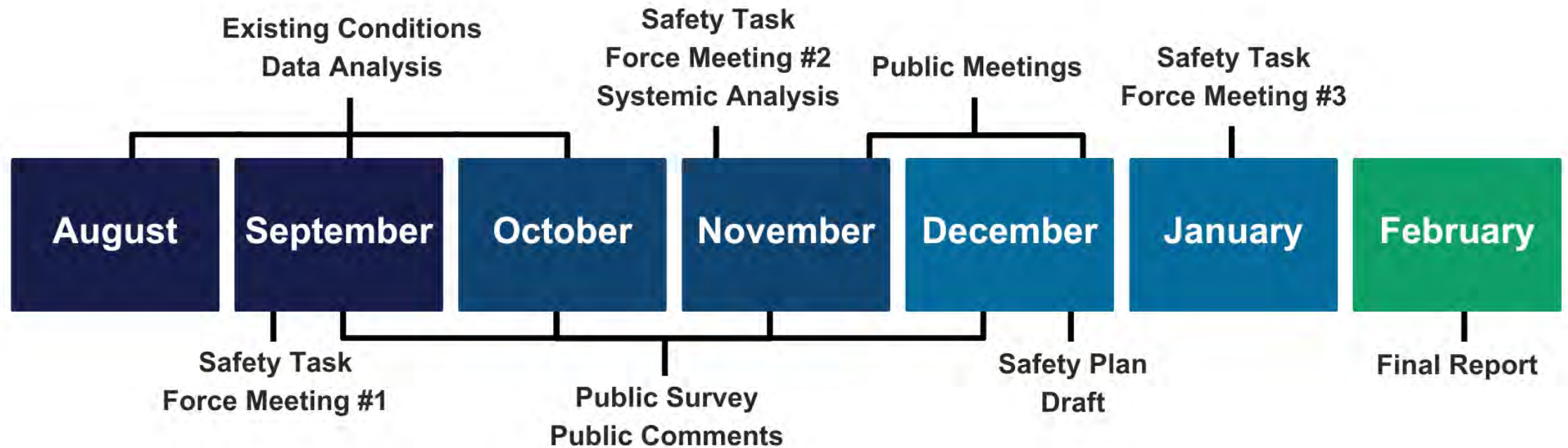
Implementation

Engage Stakeholders

Recommendations

We are here!

PROJECT TIMELINE

SAFE SYSTEMS APPROACH

- **Safer Road Users:** Encourage safe and responsible user behavior

- **Safer Vehicles:** Expand innovation and technology features to enhance safety

- **Safer Speeds:** Promote context-appropriate design, speed setting, and speed enforcement

- **Safer Roads:** Design roadways to mitigate human mistakes and facilitate safe travel for the most vulnerable users

- **Improved Post-Crash Care:** Enhance access to emergency medical care and prevent secondary crashes

NATIONAL ROADWAY SAFETY STRATEGY

Vision for roadway safety is <u>zero</u> fatalities and severe injuries.

- Adopts the **Safe System Approach** to achieve results
- Seeks opportunities to address safety, equity, and climate simultaneously
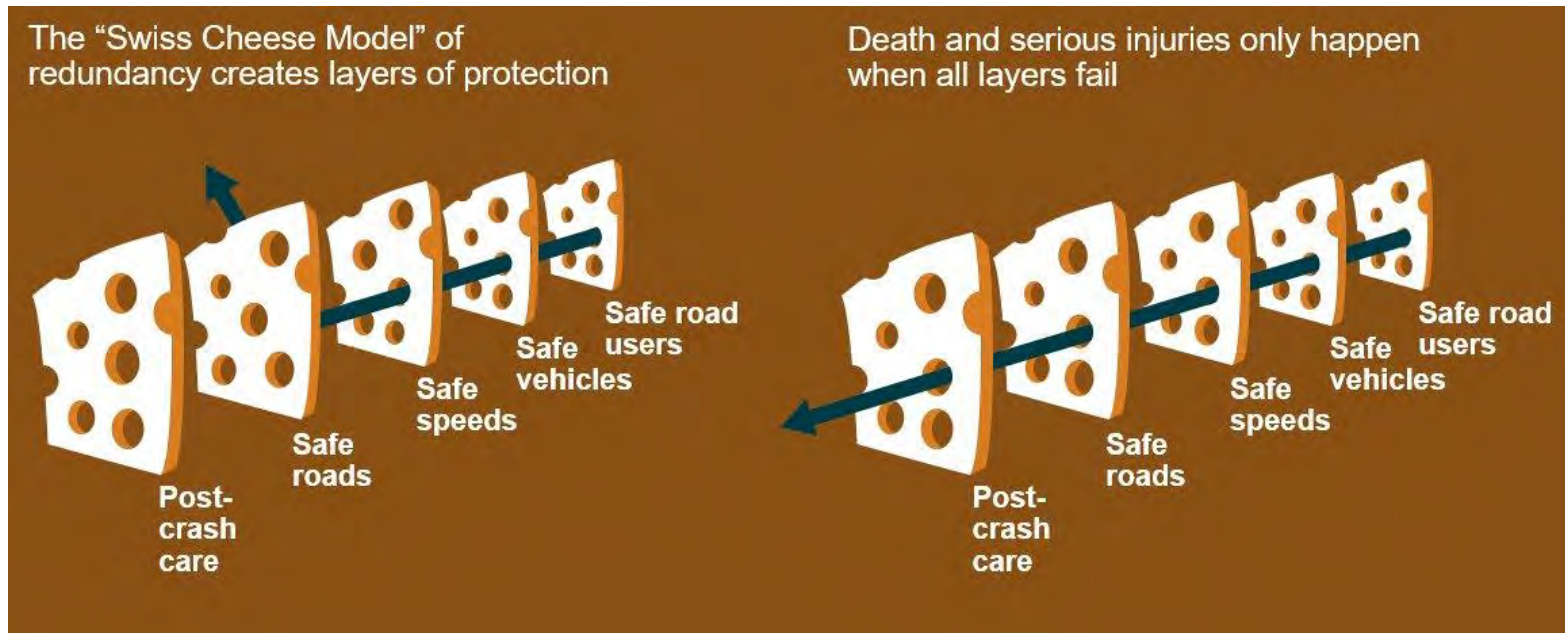
DISCUSSION

Why is transportation safety **important** to you?

Join at menti.com

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SAFETY TASK FORCE

Safety Task Force Role

- Validate information and data

- Provide insight on emphasis areas

- Draft the vision and goals for safety in the region

- Represent the community and solicit feedback

- Serve as trusted community champions

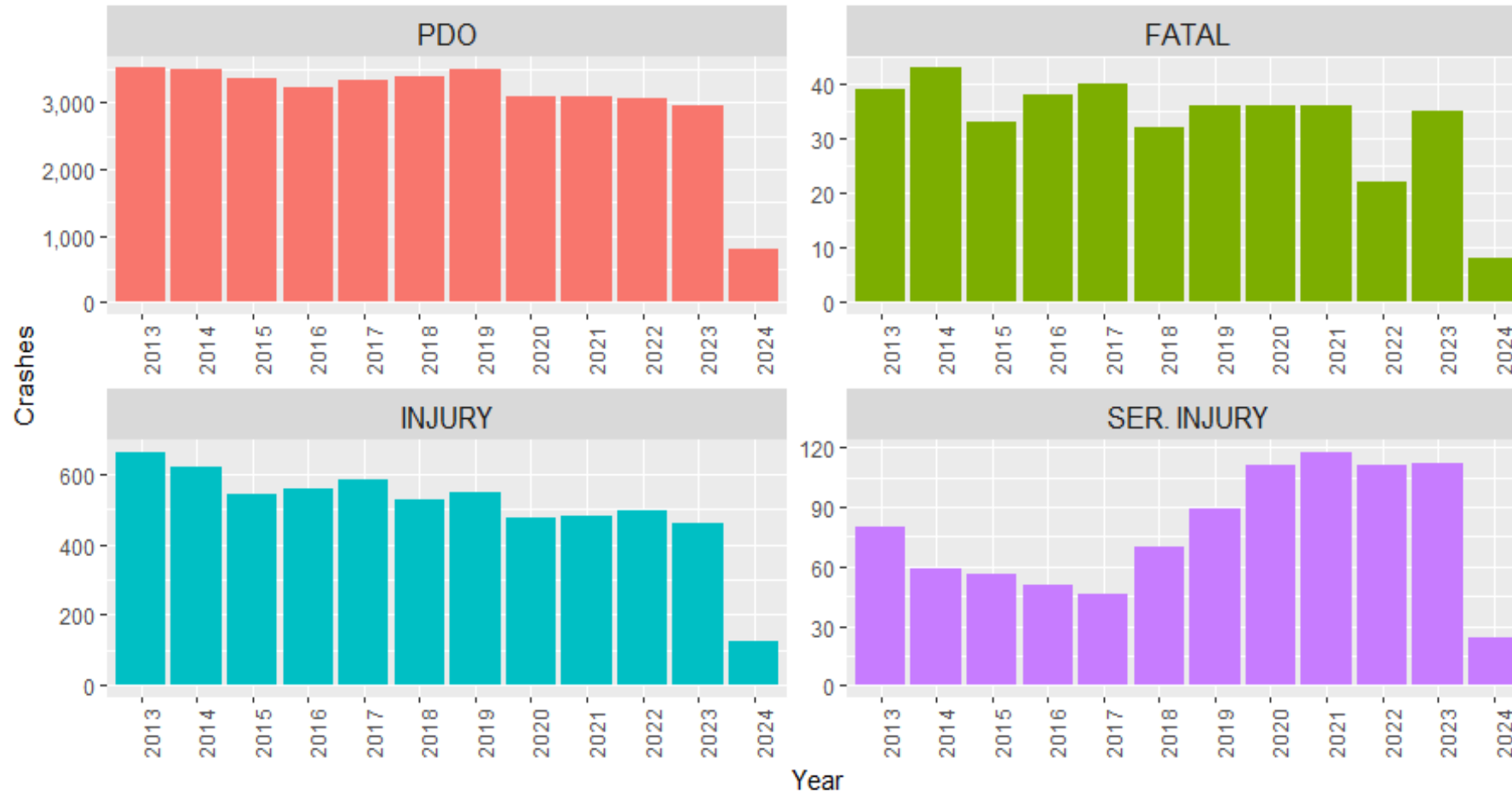- Evaluate performance measures

PUBLIC SURVEY

Advocate in Your Community!

- Press release and survey link will be sent to the Safety Task Force <u>and</u> an extended stakeholder list for greater promotion

- Takes about 5-10 minutes to complete

- Allows respondents to submit location-specific concerns
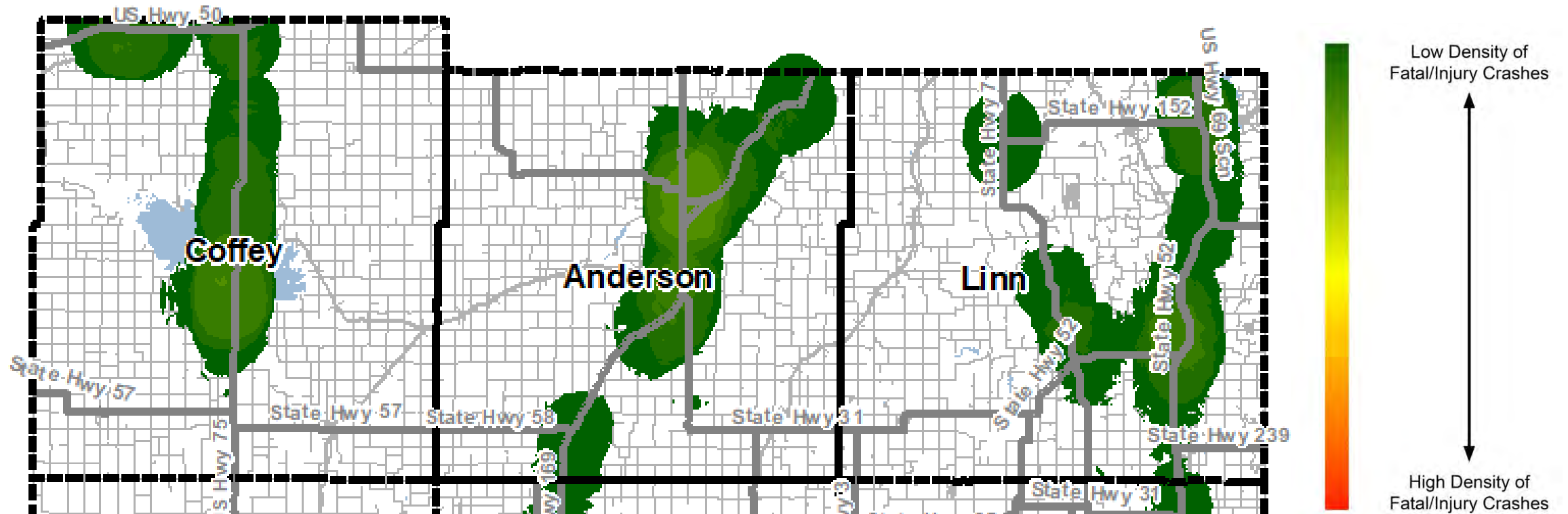

https://arcg.is/1v1Pe00

CRASH REVIEW

Crash Type	Count
Fatal	398
Injury	7014
PDO	36883
Pedestrian	295
Total	44,295

CRASH REVIEW

CRASH REVIEW
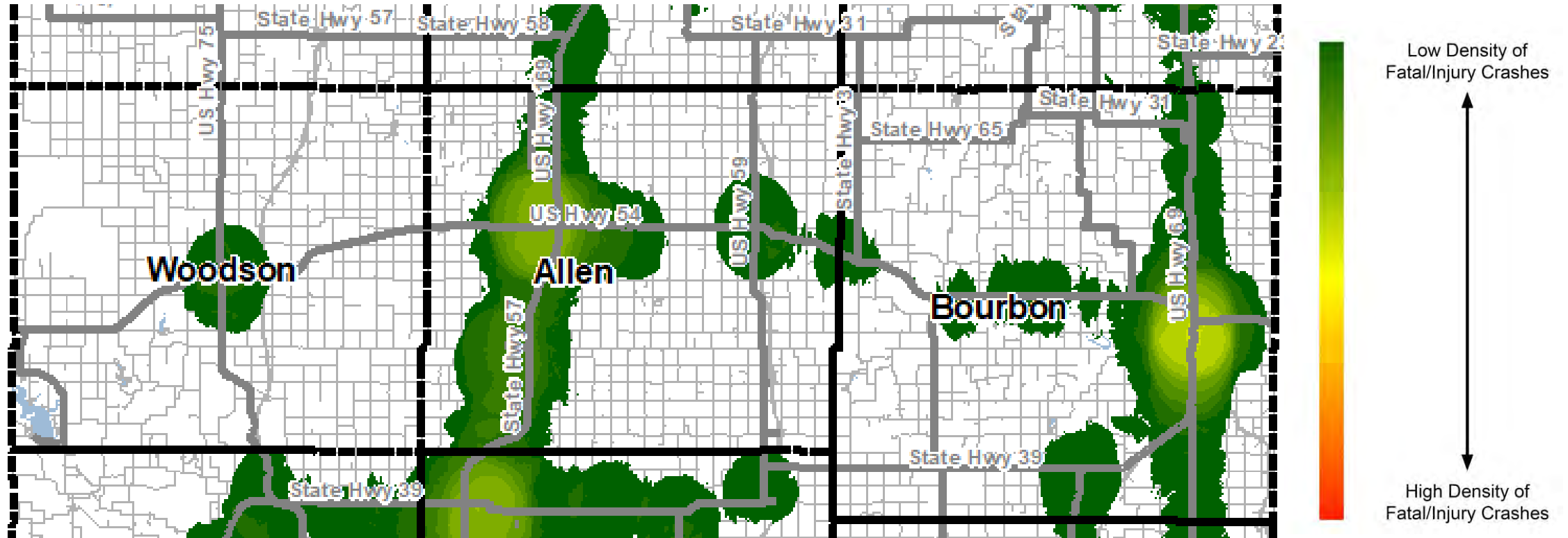
CRASH REVIEW
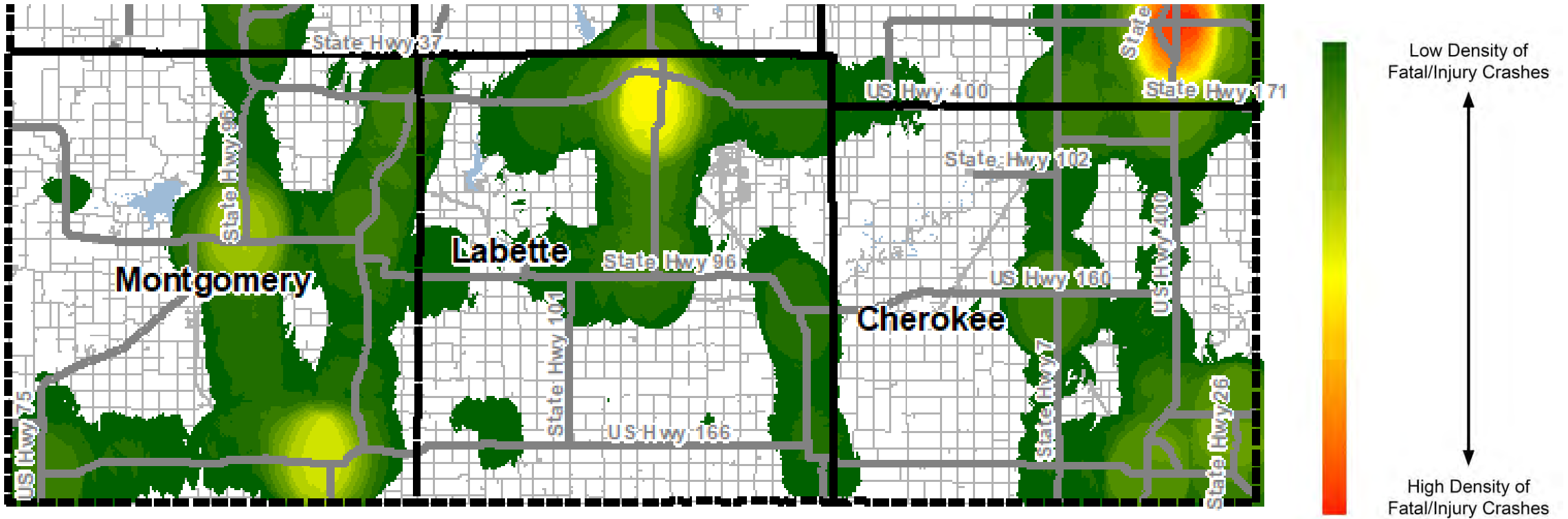
CRASH REVIEW

CRASH REVIEW

Crashes	Fatal	Serious Injury	Injury	Non-Injury (PDO)	Total
State System	249	445	2,645	17,608	20,947
County	116	274	1,527	8,486	10,403
City	33	208	1,915	10,789	12,945
Total	**398**	**927**	**6,087**	**36,883**	**44,295**

BREAK

Step 2: Evaluate Overlapping Emphasis Area

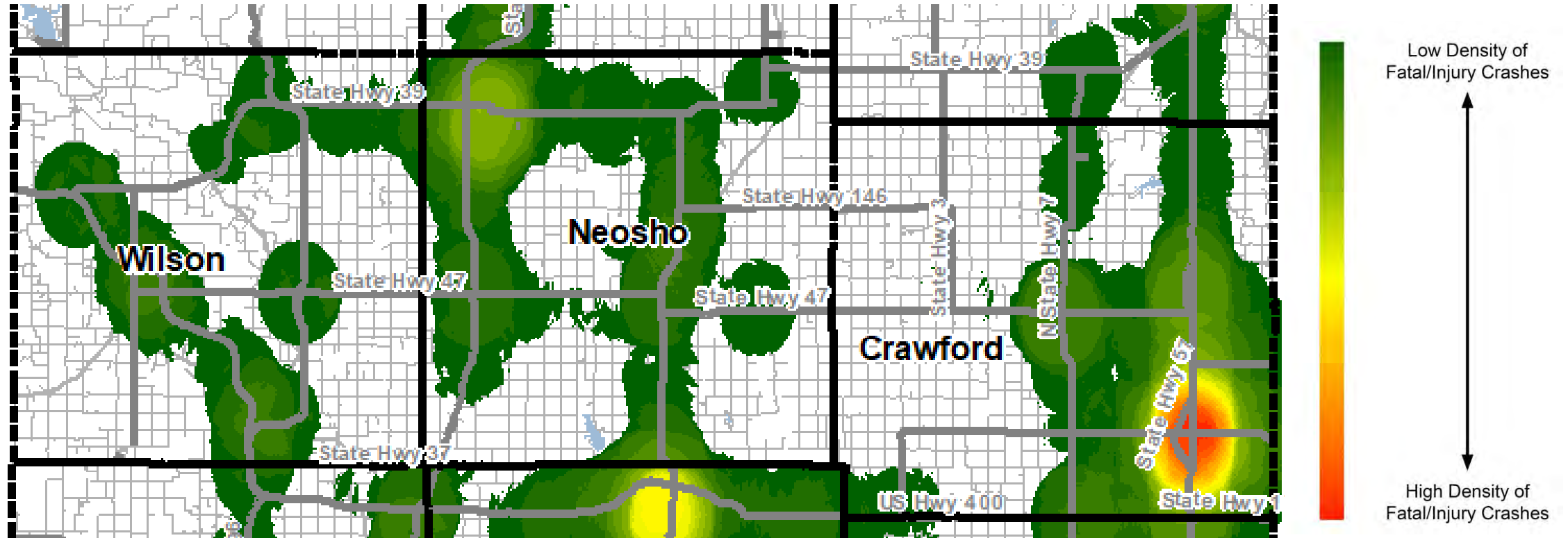|	Roadway Departure Related	Vulnerable Road User Related	Intersection Related	Speed Related	Distracted-Driver Related	Unrestrained Occupant Related	Alcohol or Drug Related	Work Zone Related	Motorcycle Related	Railroad Train Related
Roadway Departure Related	100.0%	0.0%	10.8%	26.6%	25.7%	51.3%	64.3%	20.2%	4.7%	0.0%
Vulnerable Road User Related	0.0%	100.0%	1.2%	0.7%	0.9%	0.2%	0.4%	0.0%	0.0%	0.0%
Intersection Related	9.8%	37.6%	100.0%	22.8%	21.2%	25.8%	18.2%	28.2%	24.6%	3.0%
Speed Related	3.0%	2.7%	2.8%	100.0%	8.5%	2.8%	3.9%	0.8%	3.2%	6.1%
Distracted-Driver Related	10.1%	12.5%	9.1%	29.9%	100.0%	8.1%	10.5%	4.8%	9.1%	12.1%
Unrestrained Occupant Related	10.6%	1.4%	5.8%	5.2%	4.3%	100.0%	22.1%	7.3%	30.8%	12.1%
Alcohol or Drug Related	9.5%	2.0%	2.9%	5.2%	4.0%	15.9%	100.0%	3.2%	7.5%	3.0%
Work Zone Related	0.2%	0.0%	0.4%	0.1%	0.1%	0.4%	0.3%	100.0%	0.4%	0.0%
Motorcycle Related	2.4%	0.0%	1.4%	1.5%	1.2%	7.7%	2.6%	1.6%	100.0%	3.0%
Railroad Train Related	0.0%	0.0%	0.0%	0.2%	0.1%	0.2%	0.1%	0.0%	0.2%	100.0%

DISCUSSION

As we focus on solutions, which of these crash types are most important to address?

- Drove Off Road

- No Seatbelt

- Intersections

- Alcohol or Drug Related

- Distracted Drivers

- Pedestrians and Bicyclists

- Speed Related

- Motorcycle

- Work Zone

- Railroad/Train

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DISCUSSION

Tell us about what kinds of transportation related **safety programs or involvement** your communities have promoted.

What went well?

What would you improve?

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DISCUSSION

What transportation
safety concerns have you heard
from the community?

Join at menti.com

Enter code: **17 08 43 1**

DISCUSSION

What would you like to see **implemented** in Southeast Kansas to improve transportation safety?

Join at menti.com

Enter code: **17 08 43 1**

NEXT STEPS

- Public Survey

- Public Meetings

- Safety Task Force Meeting #2: November 14, 2024

- Safety Task Force Meeting #3: January 23, 2025

- Safety Priority/Cluster Areas

- Countermeasure Review

THANK YOU!

Next Meeting: November 14, 2024

Contact: Tom Hein at tdhein@transystems.com
with any questions or concerns

Safe Streets for All
Southeast Kansas Comprehensive Safety Action Plan

SAFETY TASK FORCE MEETING #2

Date: November 14, 2024
Time: 12:00pm - 2:00pm
Format: Southeast Kansas Regional Planning Commission (SEKRPC) Office or Teams meeting

Meeting Agenda
- Introductions
- Project Background
- Task Force Meeting #1 Overview
- Public Survey Information and Update
- Crash Emphasis Areas
- Countermeasure Review
- Next Steps

Attendees

Kris Hix, City of Garnett Community Development Director
Darin Wilson, City of Garnett Planning & Zoning Administrator
Chasity Ware, Linn County Economic Development
Terry Weidert, Labette County Commission
Jamie Lynn Blum, Pittsburg State University (online)
Katelyn Young, USD 257 Transportation (Iola) (online)
Aaron Cole, USD 257 Transportation (Iola) (online)
Jessica Hightower, SEKRPC

Consultant Team

Deanne Winkelmann, TranSystems
Slade Engstrom, TranSystems
Shawn Turner, TranSystems
Tom Hein, TranSystems
Payton Smith, TranSystems
Taylor Cunningham, TranSystems
Nicole Hood, TranSystems (online)
Tod Salfrank, TranSystems (online)
Jeff McKerrow, Kimley-Horn (online)
Anthony Gallo, Kimley-Horn (online)
Riley Mitts, Kimley-Horn (online)
Aaron Prichard, Kimley-Horn (online)
Ashley Winchell, Wilson & Company (online)
Drew Pearson, Wilson & Company (online)
Kristen Manthei, Wilson & Company (online)

MEETING SUMMARY

Introductions
- Consultant team and Safety Task Force member in-person and online introductions.

Project Background
- Per the project schedule, the consultant team has partially completed the data analysis and targeting February 2025 for completion.
- Each of the 12 counties will receive a Comprehensive Safety Action Plan (CSAP) making them eligible to pursue SS4A Implementation grant funds. Federal funding is scheduled for the next two years with two rounds of funding opportunities. Individual counties can pursue funding or a coalition from the SEKRPC group can also apply.

Task Force Meeting #1 Overview
- The Safe Systems Approach and the "Swiss Cheese Model" of safety redundancy was reviewed. An ordinance adopted by local governments supporting Vision Zero is needed to apply for future SS4A federal funding.
- A graph showing fatal and serious injury crash numbers was shown and compared to the top three emphasis areas selected by the Safety Task Force: roadway departure, unrestrained occupant, and distracted driving.

Public Survey Information and Update
- A public survey (https://arcg.is/1v1Pe00) was sent to about 300 community stakeholders and groups. To date, about 55 responses have been received. The survey is scheduled to stay open until January when public meetings are anticipated to be held in each county.
- Emphasis areas identified by survey participants to date include intersections, alcohol or drug related, distracted driving, and speed.
- To blend the input from the crash analysis, Safety Task Force, and public survey, the proposed emphasis areas are roadway departure, intersection related, and unrestrained occupant. Other areas for review are Vulnerable Road Users (VRU), distracted driving, and alcohol or drug related.

Crash Emphasis Areas
- A map of clustered crash occurrences was presented with color-coded dots showing multiple occurrences for signalized Intersections, unsignalized Intersections, VRUs, roadway departures, and speed related incidents.
- Specific cluster maps will be developed for each of the 12 counties.
- Follow-up meetings will be scheduled to discuss these with city and/or county stakeholders.
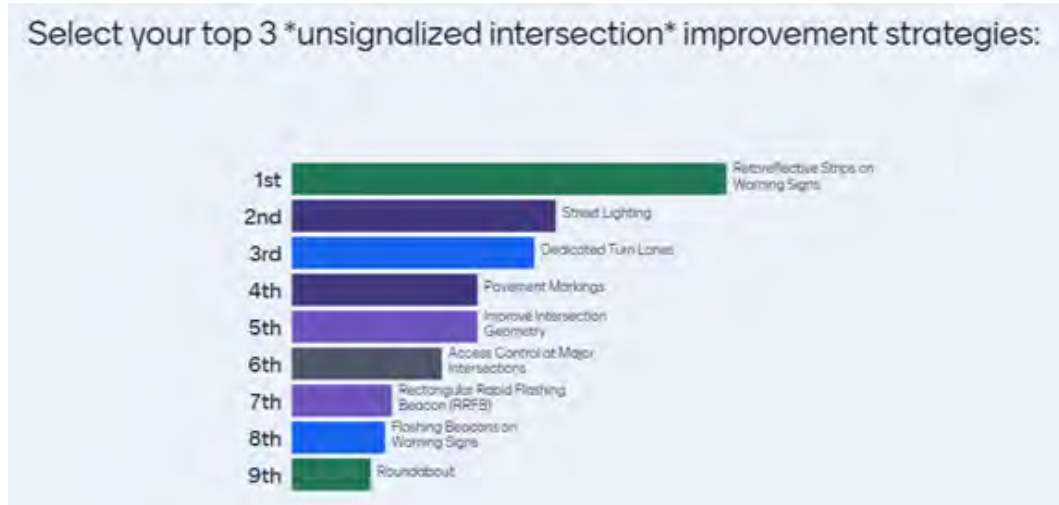
Countermeasure Review

- Countermeasure for **roadway departure** include edge-line and centerline treatments, curve signage, various delineators, clear zone obstruction removal, improved pavement markings, and a two-foot shoulder.
  - Polling question: **Select your top roadway departure improvement strategies.**
  - Additional overhead lighting could be helpful. Franchise agreements with electric companies sometimes make placement free.
  - Terry Weidert (Labette County) shared information about a 90-degree curve that was created with US-400 construction at old US-59 near Parsons. Adjacent to the curve is a pond on private land. Four weeks ago, a young driver missed the curve and crashed but could not be found. He was underwater in the pond. There have been five incidents in this location including this fatal crash. Shawn Turner (TranSystems) said a similar situation occurred on US-169 and KDOT purchased and filled the borrow pit.

Select your top 3 *Roadway Departure *improvement strategies:

- Countermeasures for **signalized intersections** include signal backplates with retroreflective borders, protected left turns (some with flashing yellow arrows), and improvements for signal phasing and timing plans.

- Countermeasures for **unsignalized Intersections** include flashing beacons on warning signs, retroreflective strips on warning signs, Rectangular Rapid Flashing Beacons (RRFB), improved pavement markings, access control at major intersections, dedicated turn lanes, roundabouts, improved intersection geometry, and overhead lighting.
  - Polling question: **Select your top unsignalized intersection improvement strategies.**
  - The group discussed roundabout functionality and geometry. Slade Engstrom (TranSystems) indicated that larger roundabouts, low curbs, or roundabouts with colored concrete aprons can help large trucks navigate them easier.

- The group discussed diverging diamond interchanges (DDI). Slade Engstrom (TranSystems) said geometry is important and DDIs must fit the individual situation of the interchange. They are useful where lots of left turn traffic exists. There are currently seven in Kansas with more coming. Future improvements to K-96 in northeast Wichita will have DDIs.

Select your top 3 *unsignalized intersection* improvement strategies:

Rank	Strategy
1st	Retroreflective Strips on Warning Signs
2nd	Street Lighting
3rd	Dedicated Turn Lanes
4th	Pavement Markings
5th	Improve Intersection Geometry
6th	Access Control at Major Intersections
7th	Rectangular Rapid Flashing Beacon (RRFB)
8th	Flashing Beacons on Warning Signs
9th	Roundabout

- Countermeasures for **unrestrained occupant** include behavior changing programs and enforcement communications and outreach.
    - Polling question: **What are some of the best education outlets for unrestrained occupants?**
    - The group discussed successful campaigns that play to human emotions regarding family, friends, and pets.
    - Large employers can implement safety programs at work. Cornejo in Wichita has trouble keeping CDL drivers so they offer a company-wide free Uber service. Farmers' meetings are another good place for outreach because farmers generally work alone and socialize with others at meetings.

What are some of the best education outlets for *Unrestrained Occupant*?

10 responses

school   witnesses
rewards   schools   tv   psa in schools   training
commercials
clever billboards
farmers meetings

- Countermeasures for distracted driving include high-visibility cell phone and texting enforcement and enforcement communications and outreach.
  - Polling question: **What are some of the best education outlets for distracted driving?**
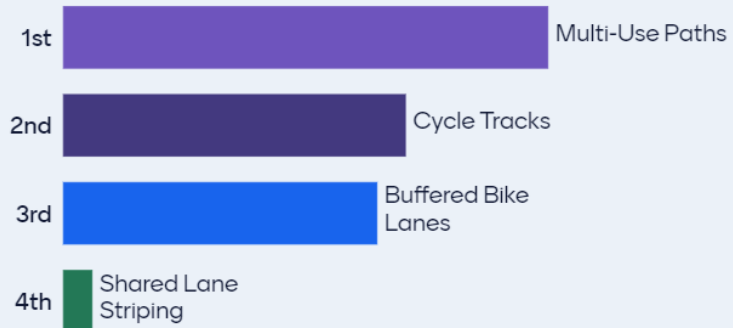

- Countermeasures for **pedestrian safety** include Leading Pedestrian Intervals (LPIs) at intersections, pedestrian crossing signals/hybrid beacons, high visibility crosswalks, signage for vehicles yield to peds, raised crosswalks or intersections, curb extensions or refuge islands, and access control with medians.
  - Polling question: **Select your top pedestrian safety improvement strategies.**

- Countermeasures for **bicycle safety** include buffered bike lanes, shared lanes, multi-use paths, and cycle tracks.
  - Polling question: **Select your top bicycle safety improvement strategies.**

Select your top *bicycle *improvement strategies:

1st	Multi-Use Paths
2nd	Cycle Tracks
3rd	Buffered Bike Lanes
4th	Shared Lane Striping

- Countermeasures for both **bicycle and pedestrian safety** include road diet, Complete Street design, VRU education, optimized street parking, pedestrian safety Zznes, and Safe Routes to School programs.
  - Polling question: **How interested are you in implementing these strategies?**
  - The group mentioned that the Safe Routes to Schools program is popular.
  - Drivers to schools include young (high school) drivers and parents making multiple trips through the day, sometimes to multiple schools.

I am interested in implementing:

Road Diet	2.0
Complete Street Design	3.2
VRU Education	3.4
Optimized Street Parking	4.0
Pedestrian Safety Zones	3.8
Safe Routes to School	4.0

Strongly disagree   3.4   Strongly agree

Next Steps

- Consultant team will follow-up to schedule 1-on-1 conversations with city and county representatives for more detailed discussions. Safety Task Force Meeting #3 is anticipated in late January 2025.
- Public survey will continue to be available until public meetings in each county. The public meetings are anticipated to be planned in coordination with standing County Commission meetings.
- Consultant team continues to monitor the political and funding landscape for future funding announcements.
- Contact: Tom Hein at tdhein@transystems.com with any questions or concerns.

AGENDA

- Welcome and Introductions
- Task Force Meeting #1 Overview
- Public Survey Results
- Emphasis Areas
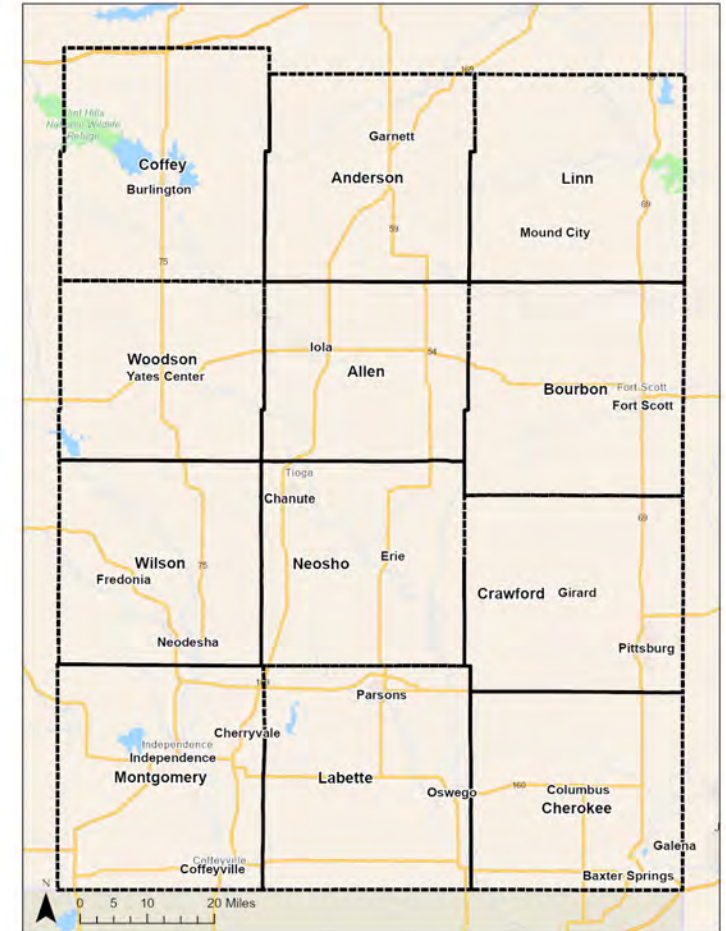- Countermeasures
- Next Steps

INTRODUCTIONS

- Southeast Kansas Regional Planning Commission (SEKRPC)

- Consultant Teams
  - TranSystems
  - Kimley Horn
  - Wilson & Company

- Safety Task Force Members

POLLING INSTRUCTIONS

Go to:

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Enter the code:

4399 8087

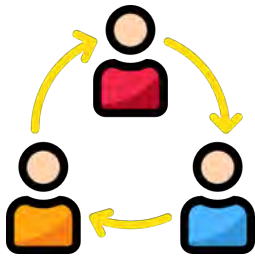Enter your name, organization, and role.
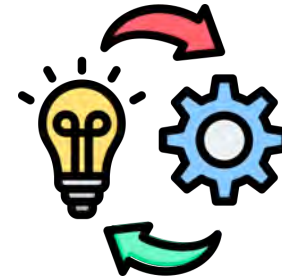
Or use the QR code!

FROM PLAN TO ACTION

Planning Grant

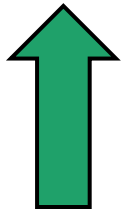**Implementation Grant**

Data Analysis

Strategy and Actions

Engage Stakeholders

Recommendations

Implementation

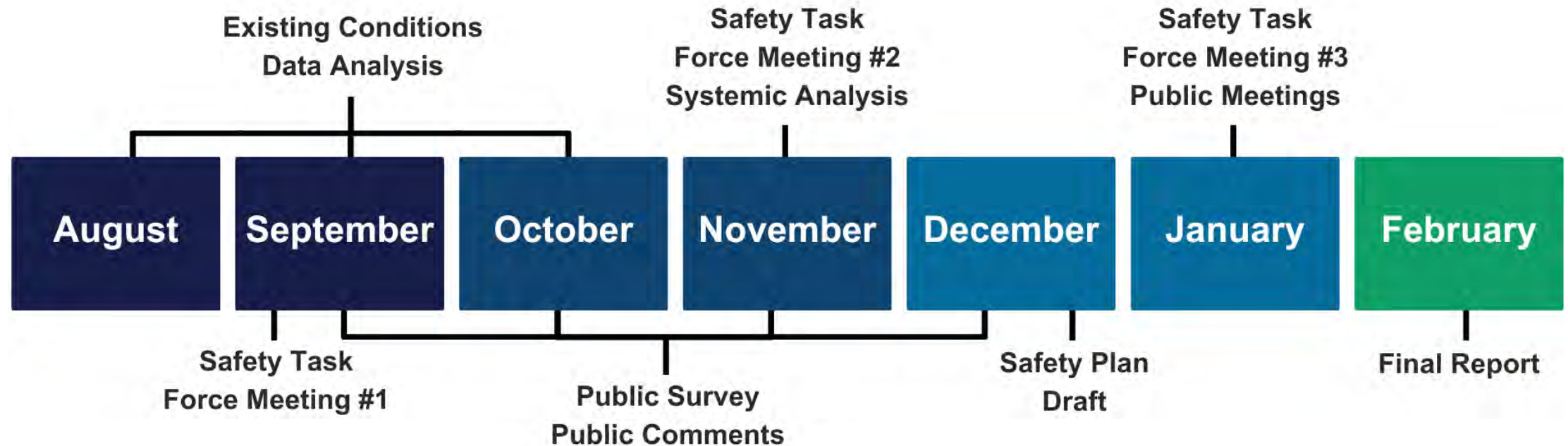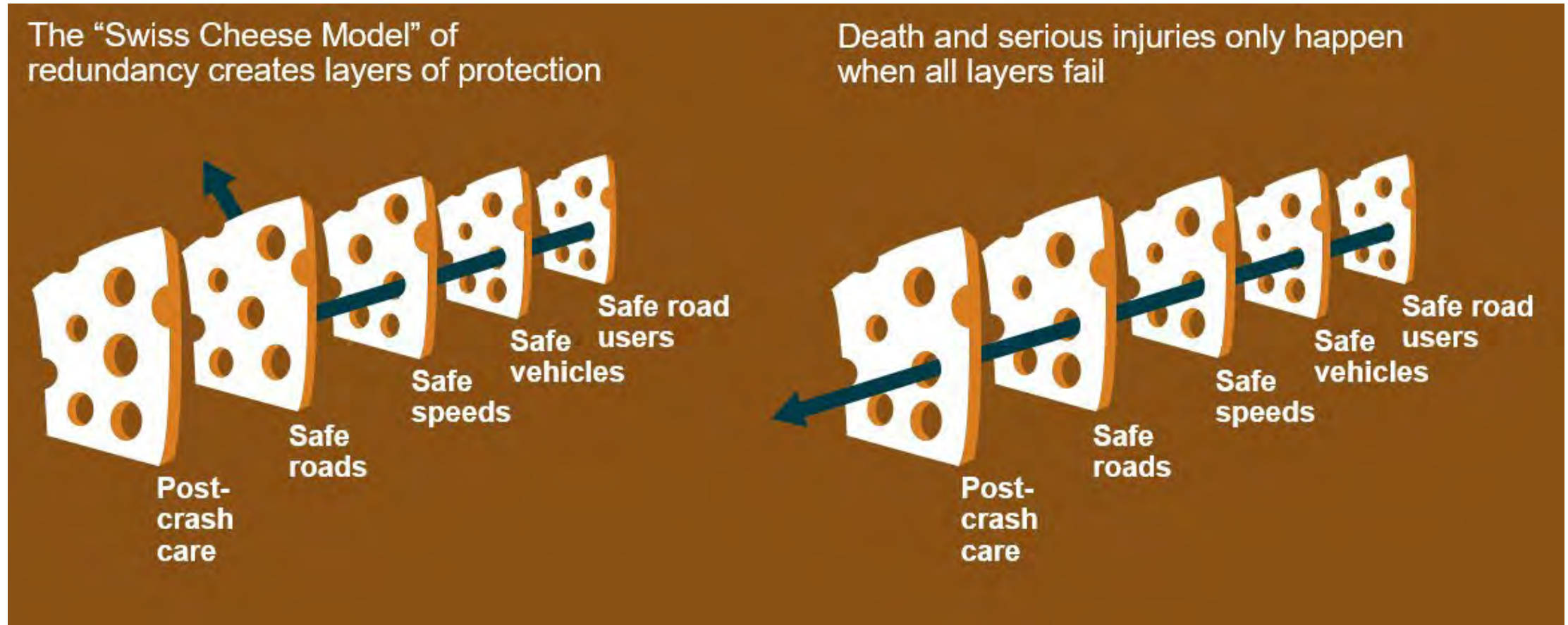**We are here!**
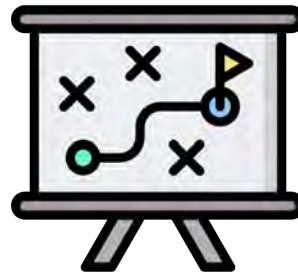
PROJECT TIMELINE

MEETING #1 OVERVIEW

- **SS4A Background**
  - Safe System Approach
  - Vision Zero
  - Focus on fatal and serious injury crashes

- **10-Year Crash Analysis**
  - Nearly 44,300 crashes
  - Approximately 17% were injury or fatal

- **Safety Task Force and public survey will guide study outcomes**

MEETING #1 OVERVIEW

The "Swiss Cheese Model" of redundancy creates layers of protection

Death and serious injuries only happen when all layers fail

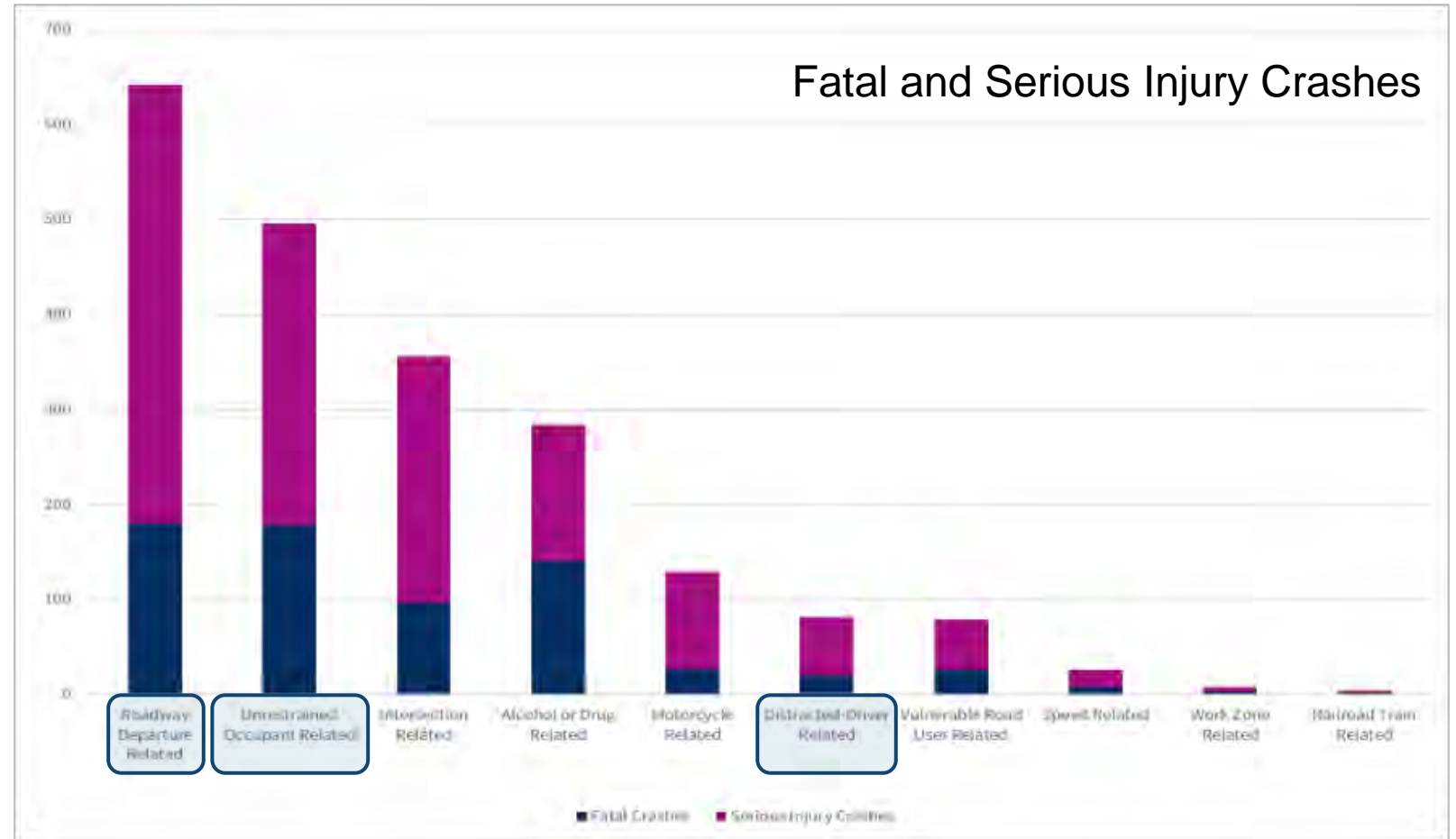Post-crash care | Safe roads | Safe speeds | Safe vehicles | Safe road users

MEETING #1 OVERVIEW

- Fatal and serious injury crashes by emphasis area

- Safety Task Force input
  - Roadway Departure
  - Unrestrained Occupant
  - Distracted Driving

Fatal and Serious Injury Crashes

[ ] = *Emphasis areas prioritized by task force*

MEETING #1 OVERVIEW


Step 1: Select Emphasis Area

Step 2: Evaluate Overlapping Emphasis Area

	Roadway Departure Related	Vulnerable Road User Related	Intersection Related	Speed Related	Distracted-Driver Related	Unrestrained Occupant Related	Alcohol or Drug Related	Work Zone Related	Motorcycle Related	Railroad Train Related
Roadway Departure Related	100.0%	0.0%	10.8%	26.6%	25.7%	51.3%	64.3%	20.2%	4.7%	0.0%
Vulnerable Road User Related	0.0%	100.0%	1.2%	0.7%	0.9%	0.2%	0.4%	0.0%	0.0%	0.0%
Intersection Related	9.8%	37.6%	100.0%	22.8%	21.2%	25.8%	18.2%	28.2%	24.6%	3.0%
Speed Related	3.0%	2.7%	2.8%	100.0%	8.5%	2.8%	3.9%	0.8%	3.2%	6.1%
Distracted-Driver Related	10.1%	12.5%	9.1%	29.9%	100.0%	8.1%	10.5%	4.8%	9.1%	12.1%
Unrestrained Occupant Related	10.6%	1.4%	5.8%	5.2%	4.3%	100.0%	22.1%	7.3%	30.8%	12.1%
Alcohol or Drug Related	9.5%	2.0%	2.9%	5.2%	4.0%	15.9%	100.0%	3.2%	7.5%	3.0%
Work Zone Related	0.2%	0.0%	0.4%	0.1%	0.1%	0.4%	0.3%	100.0%	0.4%	0.0%
Motorcycle Related	2.4%	0.0%	1.4%	1.5%	1.2%	7.7%	2.6%	1.6%	100.0%	3.0%
Railroad Train Related	0.0%	0.0%	0.0%	0.2%	0.1%	0.2%	0.1%	0.0%	0.2%	100.0%

PUBLIC SURVEY RESULTS

- Press release and survey was sent to the Safety Task Force <u>and</u> an extended stakeholder list for greater promotion

- About 55 survey responses to date*
  - Survey reminder to be sent this month
  - Survey to remain open until public meetings in January

Survey Respondents By County

*Responses as of 11/7/24
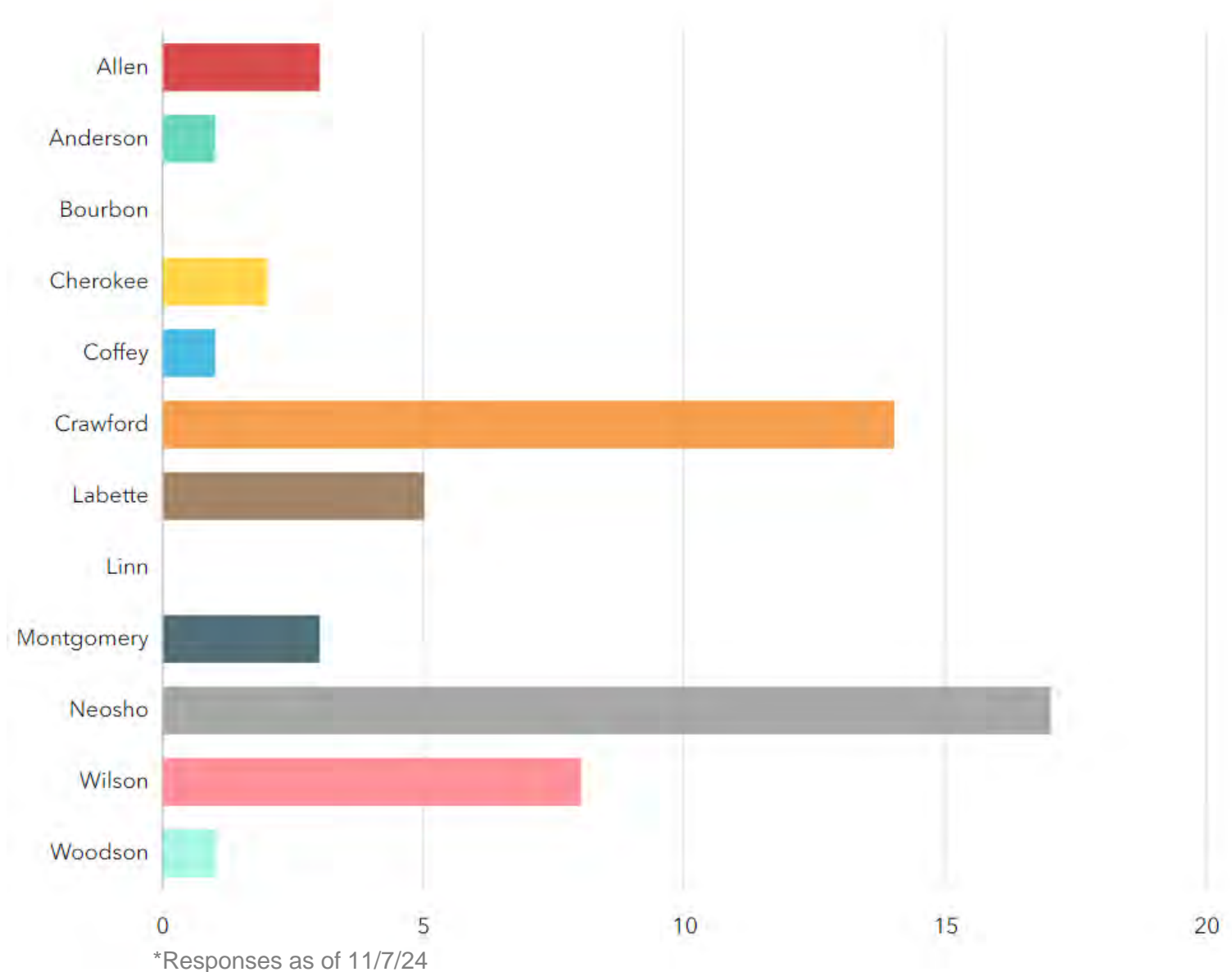
PUBLIC SURVEY RESULTS

What are your safety concerns?

- Infrastructure maintenance
  - Poor roadway conditions
  - Narrow roadways

- Intersection improvements
  - Turn lanes
  - Unsafe unsignalized intersections

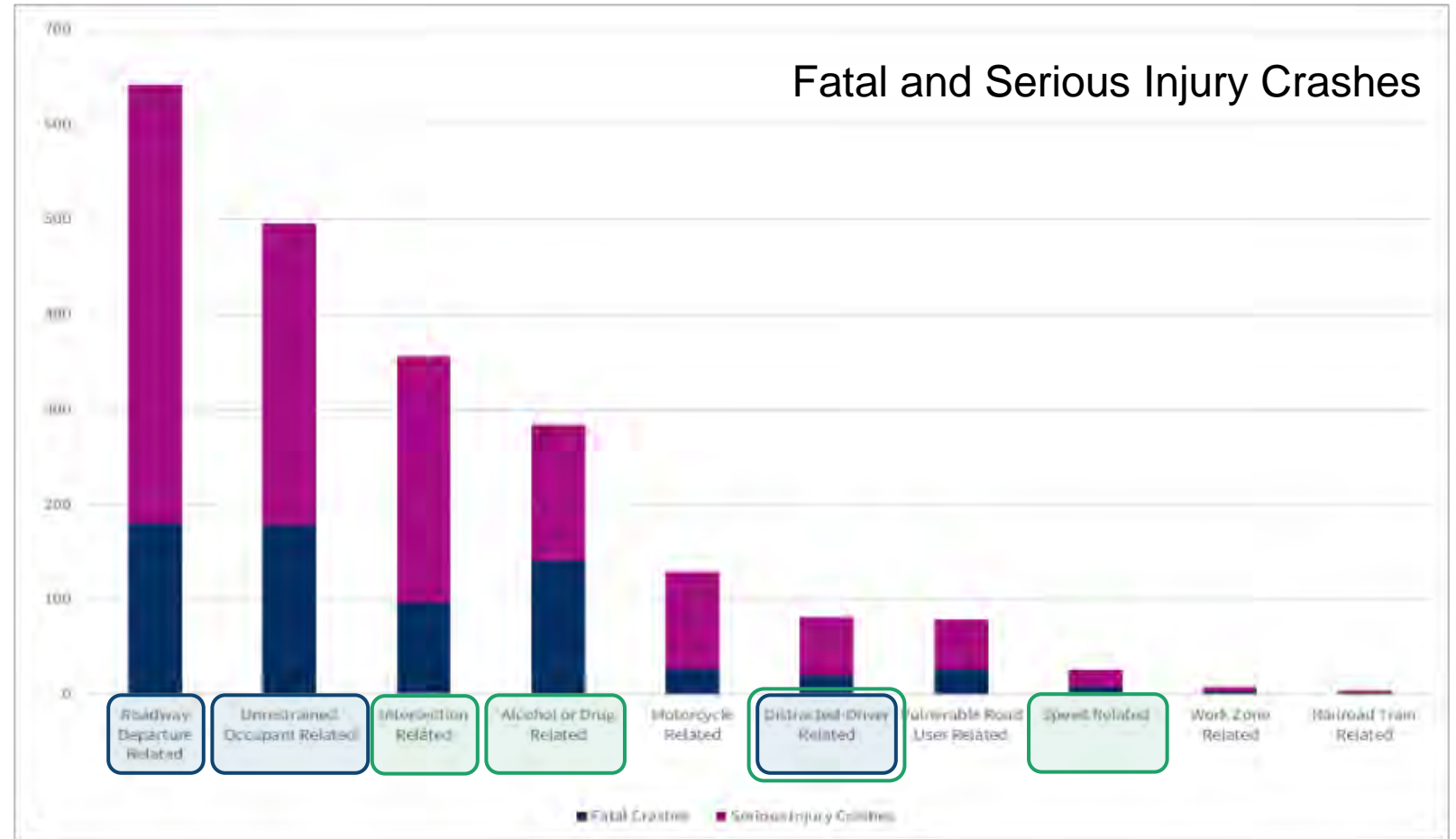- Pedestrian and bicyclist safety
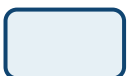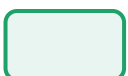- Safe routes to school
- Speeding

https://arcg.is/1v1Pe00

PUBLIC SURVEY RESULTS

Emphasis Areas

- Roadway Departure
- Unrestrained Occupant
- Intersection Related
- Alcohol or Drug Related
- Distracted Driving
- Speed Related

Fatal and Serious Injury Crashes

☐ = *Emphasis areas prioritized by task force*

☐ = *Emphasis areas prioritized by survey respondents*

WHAT WE HEARD FROM YOU:

Proposed Key Emphasis Areas

Emphasis Area	Study Input		
	Data Review	Task Force	Public Survey
Roadway Departure	●	●	
Intersection Related	●		●
Unrestrained Occupant	●	●	

Other Areas for Review

Emphasis Area	Study Input		
	Data Review	Task Force	Public Survey
Vulnerable Road Users	●		●
Distracted Driving		●	●
Alcohol or Drug Related	●		●

LOCATION-BASED EMPHASIS AREAS

- Cluster crash occurrences for emphasis areas
  - Signalized Intersection
  - Unsignalized Intersection
  - Vulnerable Road Users (VRU)
  - Roadway Departure
  - Speed Related

- Specific cluster maps will be developed for each county

- Follow-up 1-on-1 meetings with county and/or city representatives
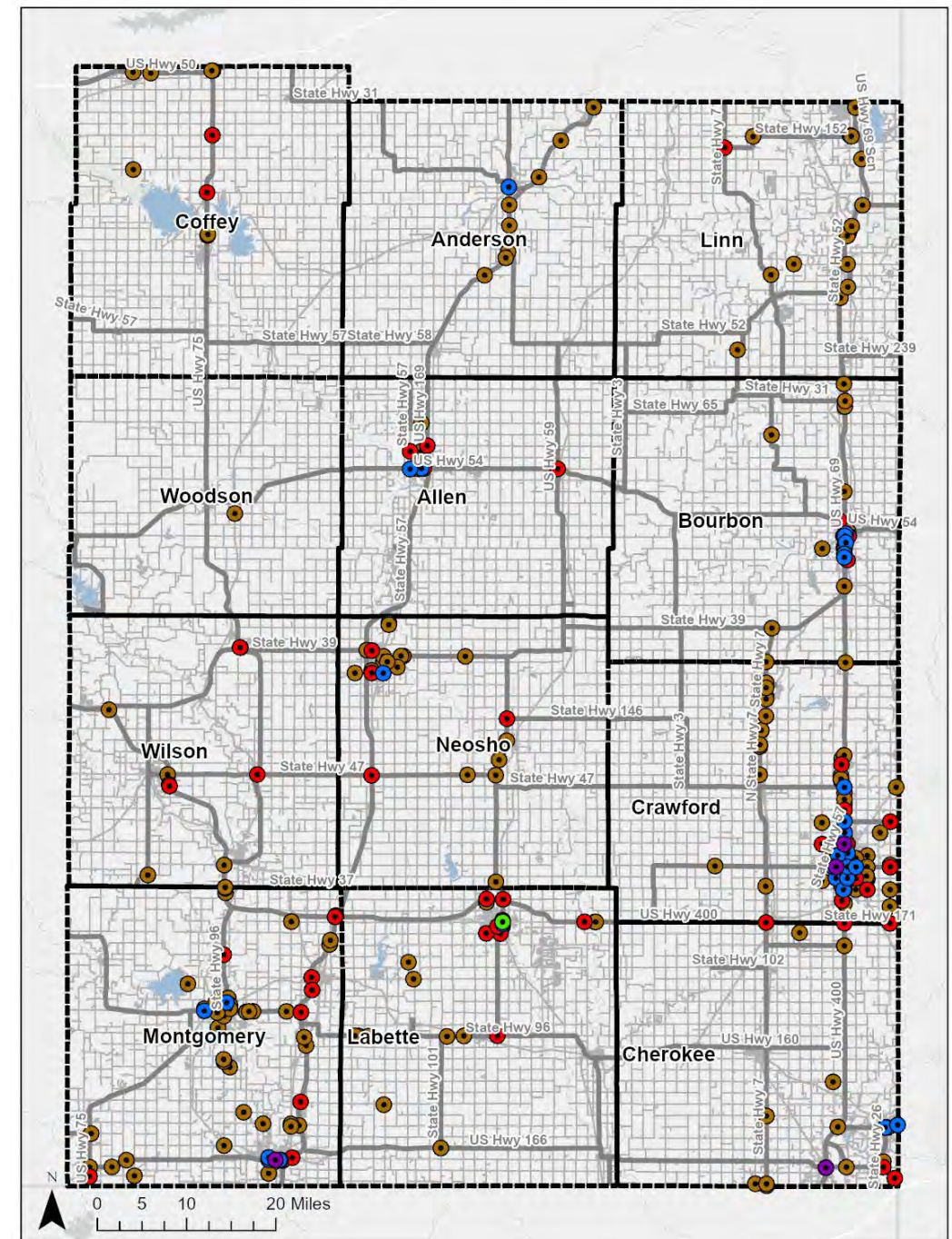
COUNTERMEASURE DISCUSSION

COUNTERMEASURES: *Roadway Departure*

Edgeline Treatment

Centerline Treatment

Curve Signage

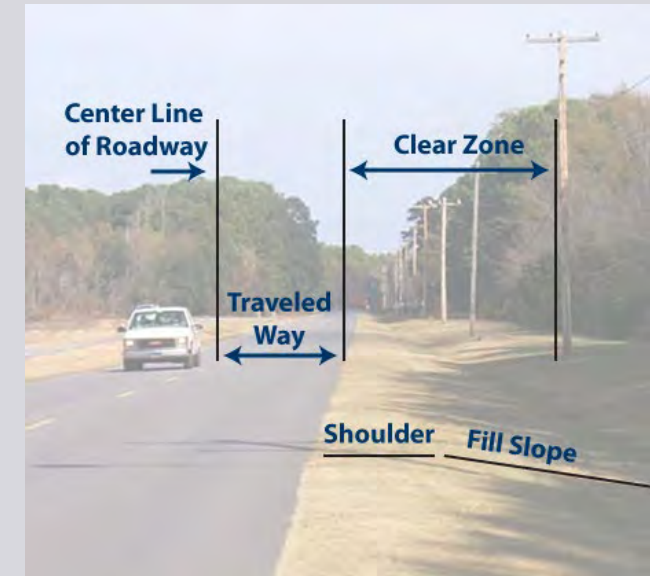# COUNTERMEASURES: *Roadway Departure*

Post-Mounted Delineators

Delineate Roadside Hazards

Remove Fixed Objects in Clear Zone

COUNTERMEASURES: *Roadway Departure*

Improved Pavement Markings

2-Foot Shoulder

POLLING INSTRUCTIONS

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COUNTERMEASURES: *Signalized Intersection*

Signal Backplates with Retroreflective Borders

Protected Left Turns and Flashing Yellow Arrows

Improve Signal Phasing and Timing Plans

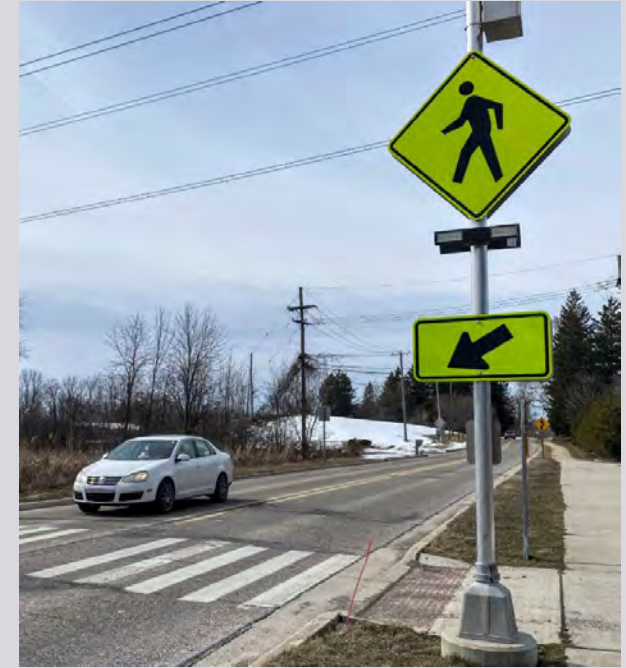# COUNTERMEASURES: *Unsignalized Intersection*

Install Flashing Beacons on Warning Signs

Install Retroreflective Strips on Warning Signs

Rectangular Rapid Flashing Beacon (RRFB)

COUNTERMEASURES: *Intersections*

Pavement Markings

Access Control At Major Intersections

BEFORE

AFTER
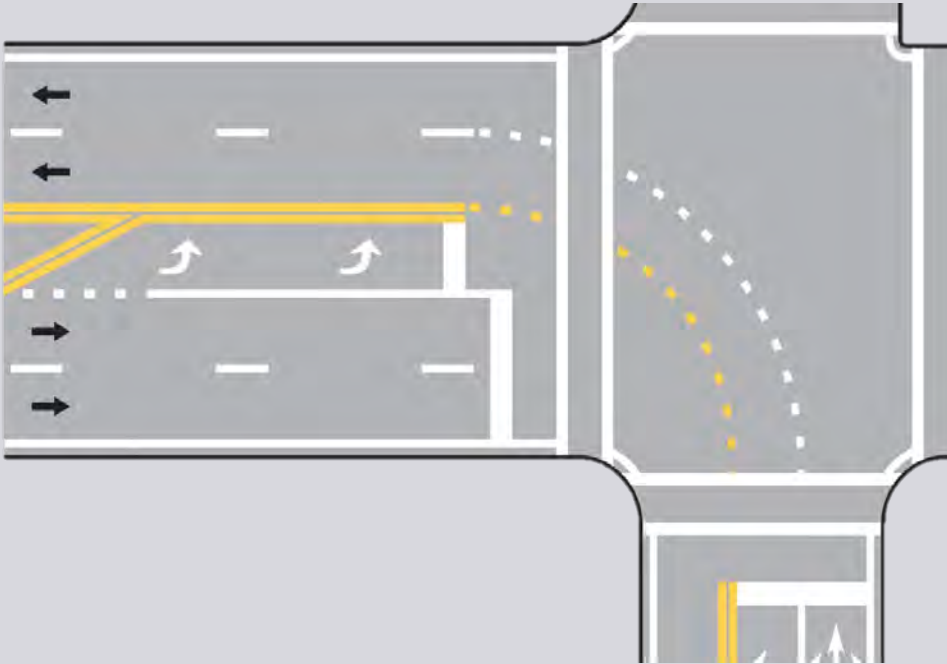
COUNTERMEASURES: *Intersections*

Install Dedicated Turn Lanes

Install Roundabout

COUNTERMEASURES: *Intersections*

Improve Intersection Geometry

Large Turning Radius
55 Feet
BEFORE

Small Turning Radius
40 Feet
AFTER
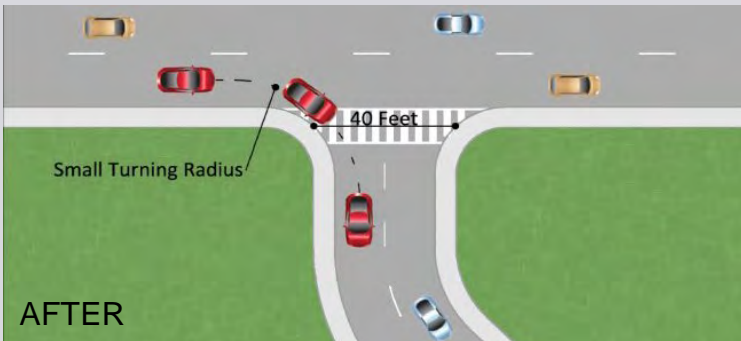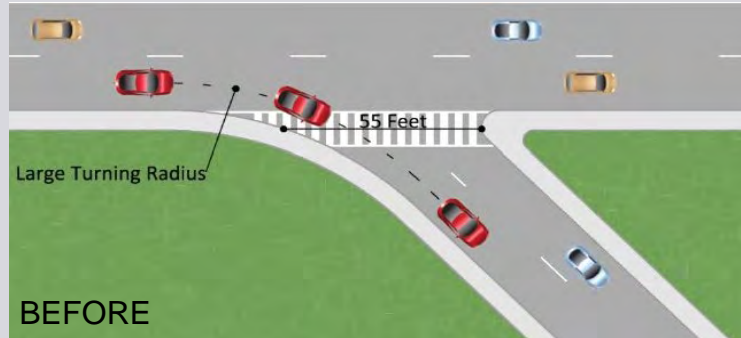
Install Street Lighting

POLLING INSTRUCTIONS

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COUNTERMEASURES: *Unrestrained Occupant*

Behavior Change Programs

Enforcement Communications and Outreach

POLLING INSTRUCTIONS

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4399 8087

Enter your name, organization, and role.

Or use the QR code!

COUNTERMEASURES: *Distracted Driving*

High-Visibility Cell Phone/ Text Messaging Enforcement
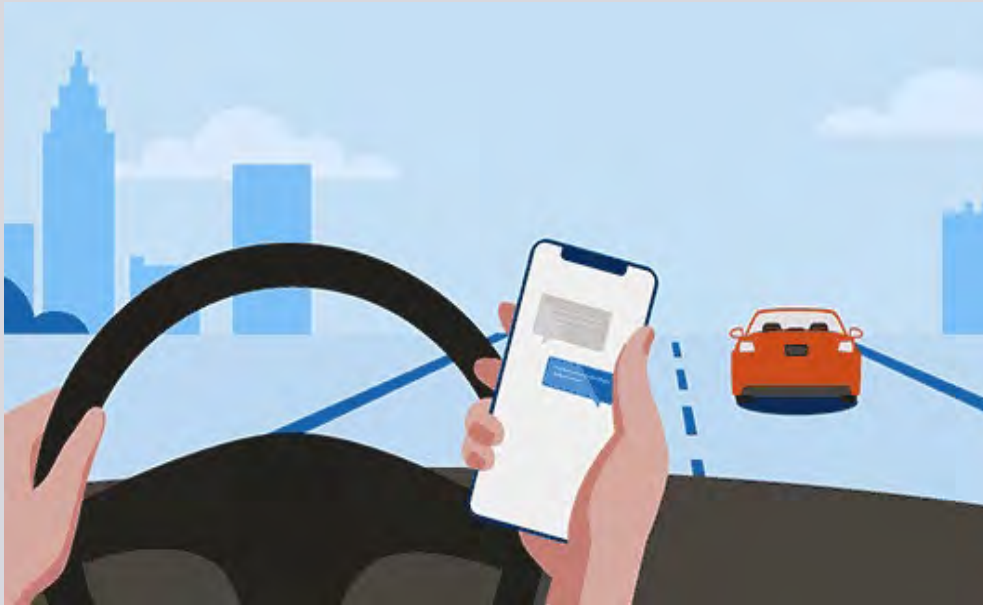
Enforcement Communications and Outreach

THREE PRIMARY FORMS OF DRIVER DISTRACTION

OPTIC DISTRACTION — Anything that takes your visual attention off the road

MANUAL DISTRACTION — Anything that requires you to take your hands off the steering wheel

MENTAL DISTRACTION — Anything that diverts your mind from the task of driving

POLLING INSTRUCTIONS

Go to:

www.menti.com

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Enter your name, organization, and role.

Or use the QR code!

COUNTERMEASURES: *Pedestrians*

Leading Pedestrian Intervals (LPIs)

Pedestrian Crossing Signals/ Hybrid Beacons

COUNTERMEASURES: *Pedestrians*

High Visibility Crosswalks

Vehicle Yield to Pedestrian Signage

Raised Crosswalks or Intersections

COUNTERMEASURES: *Pedestrians*

Curb Extensions and Refuge Islands

Access Control Through Medians

POLLING INSTRUCTIONS

Go to:

www.menti.com

Enter the code:

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Enter your name, organization, and role.

Or use the QR code!

COUNTERMEASURES: *Bicyclists*

(Buffered) Bike Lanes

Shared Lanes

COUNTERMEASURES: *Bicyclists*

Multi-Use Paths
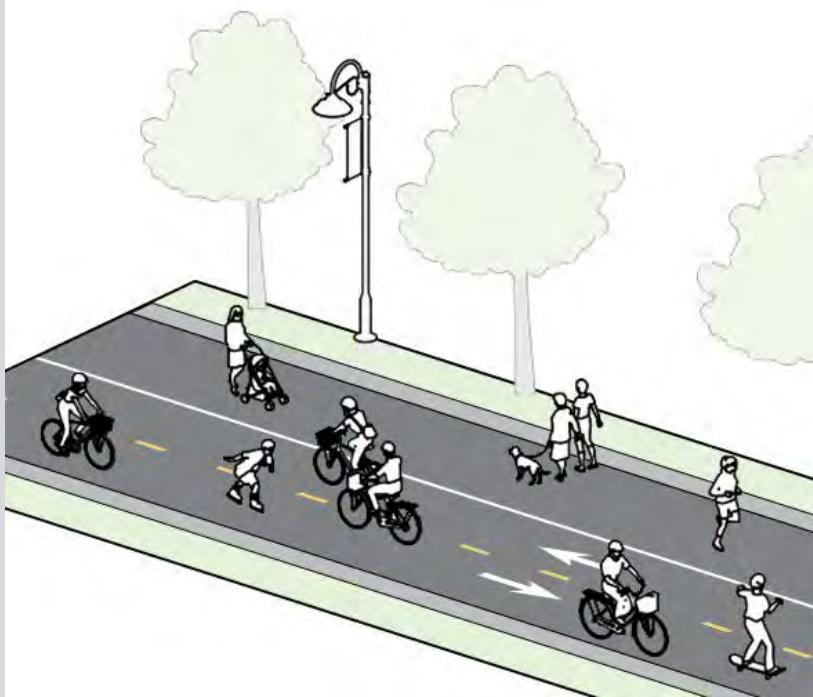
Cycle Tracks

POLLING INSTRUCTIONS

Go to:

www.menti.com

Enter the code:

4399 8087

Enter your name, organization, and role.

Or use the QR code!

COUNTERMEASURES: *Bicycle & Pedestrian*

Road Diet

Before
A four-lane road behaving like a three-lane road.

After
A Road Diet providing a two-way left-turn lane.
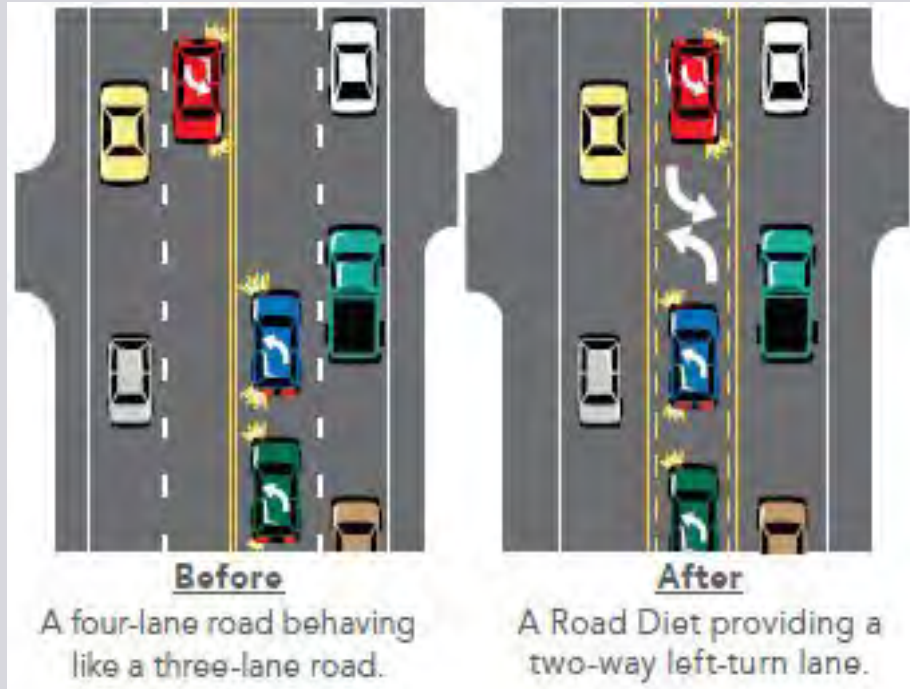
Complete Street Design

COUNTERMEASURES: *Bicycle & Pedestrian*

Vulnerable Road User Education

Optimized Street Parking

COUNTERMEASURES: *Bicycle & Pedestrian*

Pedestrian Safety Zones

Safe Routes to School Program

POLLING INSTRUCTIONS

Go to:

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Enter the code:

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Enter your name, organization, and role.

Or use the QR code!

NEXT STEPS

- Follow-up 1-on-1 meetings: November and December 2024

- Public Open House in each county: January 2025

- Safety Task Force Meeting #3: January 23, 2025
  - Review draft recommendations
  - Discuss generalized vs. spot improvements

- Final Plans: February 2025
  - Monitoring funding cycle for SS4A Implementation Funds

THANK YOU!

Next Meeting: January 23, 2025

Contact: Tom Hein at tdhein@transystems.com
with any questions or concerns

Safe Streets for All
Southeast Kansas Comprehensive Safety Action Plan

SEKRPC
SOUTHEAST KANSAS REGIONAL
PLANNING COMMISSION

SAFETY TASK FORCE MEETING #3

Date: April 24, 2025
Time: 10:30am - 12:00pm
Format: Memorial Building, 101 S. Lincoln, Chanute Kansas or Teams meeting

Meeting Agenda
- Introductions
- Project Background
- Crash Data Summary
- Public Engagement Summary
- Project Types
- Policy Recommendations
- Next Steps

<u>Attendees</u>
Carey Spoon, SEKRPC
Terry Weidert, Labette County
Chari Bauman, Coffey County
Cole Herder, City of Humboldt
Jenny Tatman, Coffey County
Chris Bauman, City of Neodesha
Janet Miller, Network Kansas
Jimmy Holt, City of Cherryvale
Gracie Myers, City of Cherryvale
Anthony Mersman, Anderson County
Bruce Blair, Crawford County
Bill Kavanaugh, Crawford County
Kris Marple, Wilson County
Jessica Mills, Anderson County
Vickie Moss, Thrive Allen County
Paul Westhoff, Neosho County
John Brocker, Allen County
Brandon Beurskens, Montgomery County (online)
Eric Bailey, Bourbon County (online)

<u>Consultant Team</u>
Deanne Winkelmann, TranSystems
Payton Smith, TranSystems
Shawn Turner, TranSystems
Tom Hein, TranSystems
Nicole Hood, TranSystems (online)
Matt Davis, TranSystems (online)
Taylor Cunningham, TranSystems (online)
Anthony Gallo, Kimley-Horn (online)
Aaron Prichard, Kimley-Horn (online)
Emily Pietrantone, Kimley-Horn (online)
Drew Pearson, Wilson & Company (online)
Kristen Manthei, Wilson & Company (online)
Rachel Thomas, Wilson & Company (online)
Brian Ortiz, Wilson & Company (online)

MEETING SUMMARY

Introductions
- Consultant team and Safety Task Force member in-person and online introductions.

Project Background
- Review of the project format with three consulting firms working together. Explanation of the Safe System Approach, Vision Zero, and the role of the Safety Task Force and public input via meetings and survey.
- Each of the 12 counties will receive a Comprehensive Safety Action Plan (CSAP) making them eligible to pursue SS4A Implementation grant funds. Draft versions of the 12 CSAPs will be sent out in May. Funding is scheduled for the next two years with two rounds of funding opportunities. Individual counties can pursue funding or a coalition from the SEKRPC group can also apply.

Crash Data Summary
- The three priorities from the Safety Task Force (STF) input were shown: Roadway Departures, Unrestrained Occupants, and Distracted Driving.
- Hotspot locations were categorized as signalized intersections, unsignalized intersections, vulnerable road users (VRUs), roadway departures, and speed related. Follow-up one-on-one meetings were held with various officials from each of the 12 counties to identify new and confirm known hotspot locations.

Public Engagement Summary
- The public survey generated 899 total responses. The majority of responses were from Montgomery County. The areas of emphasis identified in the survey were Distracted Driving, Speed, and Intersections. Importance of using tax dollars for intersection improvements, enforcement strategies, and traffic enforcement was identified in the survey responses. The survey was open from late 2024 until mid-April 2025.
- Open house public meetings were held in each county. Personal discussions were held as members of the public identified areas of concern in their county. The colored dots on specific locations and their suggestions were noted. Examples of public comments included the lack of adequate sidewalks, especially near schools, specific crash locations, roadway and infrastructure characteristics that need improvement, and lack of lighting in some areas.
- In summary, the public meetings and survey reinforced findings from the crash data analysis. The data showed emphasis needs in Roadway Departures, Intersections, and Unrestrained Occupants plus other areas to review include VRUs, Distracted Driving, and Alcohol/Drug-related crashes.

Project Types
- Each county will be provided with a potential project list that addresses hotspots and emphasis areas. Many align with those identified in previous studies such as Local Road Safety Plans (LRSP) and other comprehensive studies.

- Valuable input was also received from county sheriffs and other law enforcement agencies, county officials, and the public.
- Some on the list have a blend of jurisdictions. Where local and state routes intersect are common areas of concern and will require discussions with the Kansas Department of Transportation (KDOT).
- Examples of specific projects plus short-term and long-term solutions:
  - Roadway departures in Crawford County east of Pittsburg
  - Roadway departures in Wilson County
  - Signalized intersections in Mongomery County
  - Unsignalized intersections in Montgomery County
  - VRUs in Anderson County
  - USBR / KDOT bike routes

Policy Recommendations
- Advocate via regional coalitions (i.e. US-169 Corridor).
- Update design policies and incorporate safety into maintenance programs and projects.
- Enforcement campaigns for behavioral changes including Seat Belts for Everyone (SAFE) and other saturation enforcement programs.

Next Steps
- Project team representative will share each county's specific projects sheets in the next 1-2 weeks.
- Draft Safety Action Plans are nearing completion. Each county will receive a draft plan for review in May.
  - Anderson, Allen, Neosho, and Labette counties are in the last cycle of the LRSP program and the project team aligning those efforts with the Safety Action Plans. Therefore, project sheets and draft plans for those four counties may be on a slightly slower timeline to finalize.
- A resolution adopted by local governments supporting Vision Zero is required for future Federal project funding. The project team will provide draft resolutions to each county.
- The current SS4A funding cycle has a submittal deadline of June 26, 2025. Another funding cycle will occur next year and is anticipated in March 2026.
- Other funding opportunities include Kansas Infrastructure Hub, Highway Safety Improvement Program (HSIP), Safe Routes to Schools, and partnering with community health organizations.

Carey Spoon (SEKRPC) commented that counties should identify their pet projects and work on passing the Vision Zero resolution.

Deanne Winkelmann (TranSystems) stated that Safety Action Plans can be accelerated if a county is planning to pursue SS4A implementation funds this cycle. Please notify us if this is the case for your jurisdiction.

Questions

- **Who will receive the draft report to review?** County Public works directors, Safety Task Force members, and larger city representatives. We will include Commissioners on the SEKRPC Board.

- **What does funding look like in Kansas this year?** Kansas has a local matching program that tries to help with up to 20% of the local match if certain criteria is met. It helps if applications are multi-jurisdictional and possibly within identified equity areas.

- **Regarding the federal SS4A program, has there been a shift in funding or eligibility?** There is an increased set-aside of funding in rural funds and less of an emphasis on equity.

Safe Streets for All (SS4A)

Southeast Kansas
Comprehensive Safety Action Plan

**Safety Task Force
Meeting #3**

April 24, 2025

SEKRPC

SOUTHEAST KANSAS REGIONAL
PLANNING COMMISSION

AGENDA

- Welcome and Introductions
- Safe Systems Approach
- Crash Data Summary
- Public Engagement Summary
- Project Types
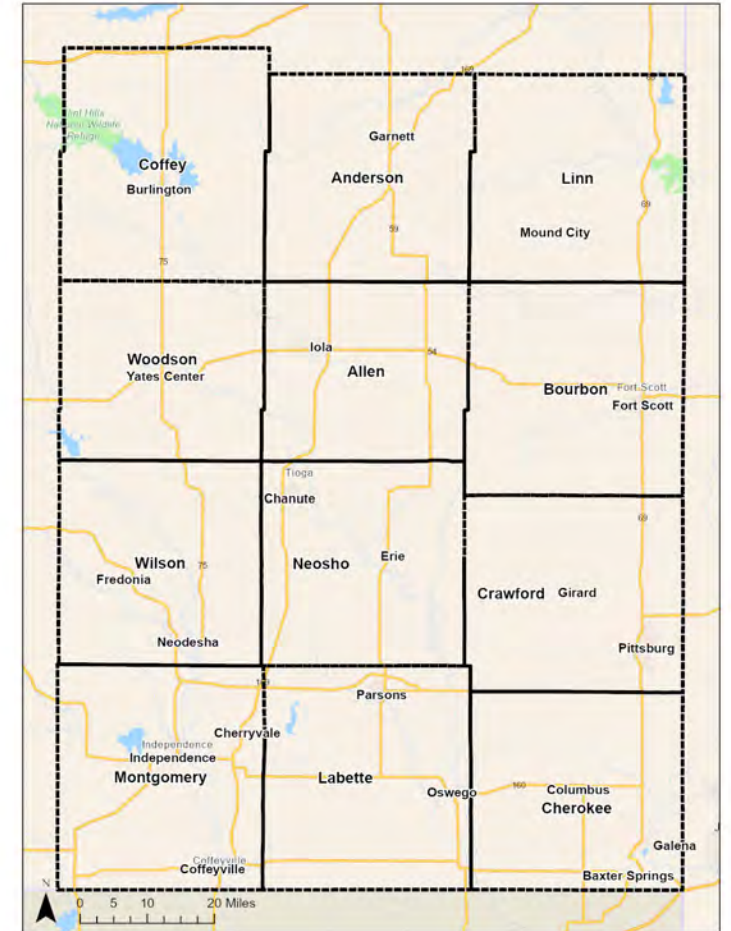- Policy Recommendations
- Next Steps

INTRODUCTIONS

- Southeast Kansas Regional Planning Commission (SEKRPC)

- Consultant Teams
  - TranSystems
  - Kimley-Horn
  - Wilson & Company

- Safety Task Force Members
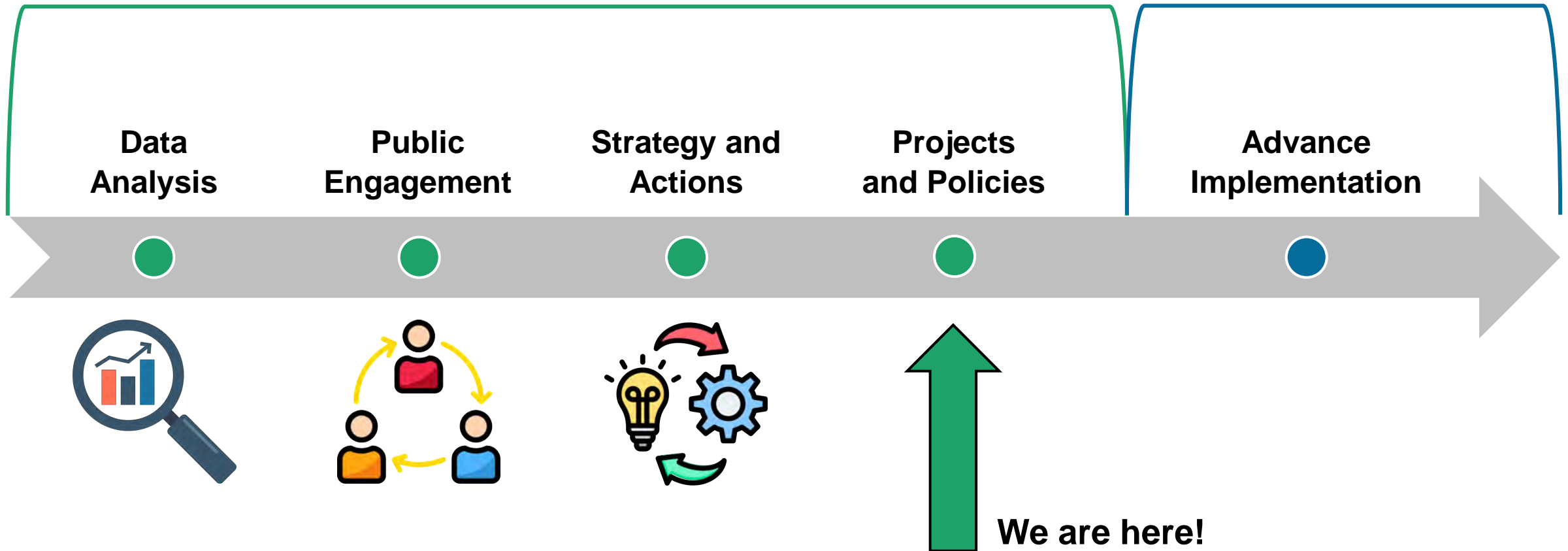
SAFE SYSTEM APPROACH

- **SS4A Background**
  - Safe System Approach
  - Vision Zero
  - Focus on fatal and serious injury crashes

- **10-Year Crash Analysis**
  - Nearly 44,300 crashes
  - Approximately 17% were injury or fatal

- **Safety Task Force and public input helps guide study outcomes**

PLAN TO ACTION

Planning Grant

Implementation Grant

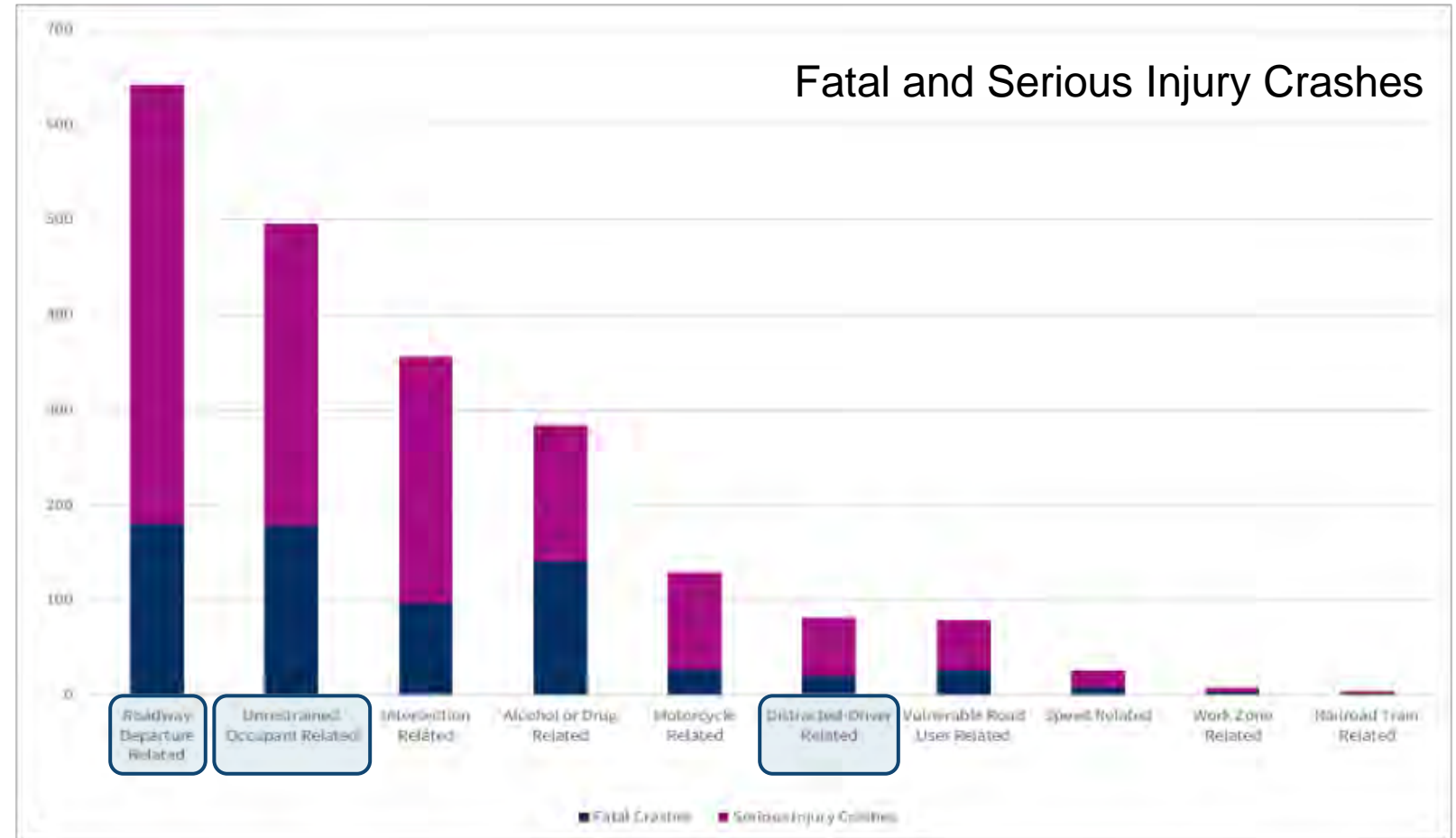Data Analysis — Public Engagement — Strategy and Actions — Projects and Policies — Advance Implementation

We are here!

CRASH DATA: Emphasis Areas

- Fatal and serious injury crashes by emphasis area

- Safety Task Force input
  - Roadway Departure
  - Unrestrained Occupant
  - Distracted Driving

Fatal and Serious Injury Crashes

☐ = *Emphasis areas prioritized by task force*

CRASH DATA:
Hotspot Locations

- Cluster crash occurrences for emphasis areas
  - 🔵 Signalized Intersection
  - 🔴 Unsignalized Intersection
  - 🟢 Vulnerable Road Users (VRU)
  - 🟤 Roadway Departure
  - 🟣 Speed Related

- Follow-up 1-on-1 meetings with county and/or city representatives
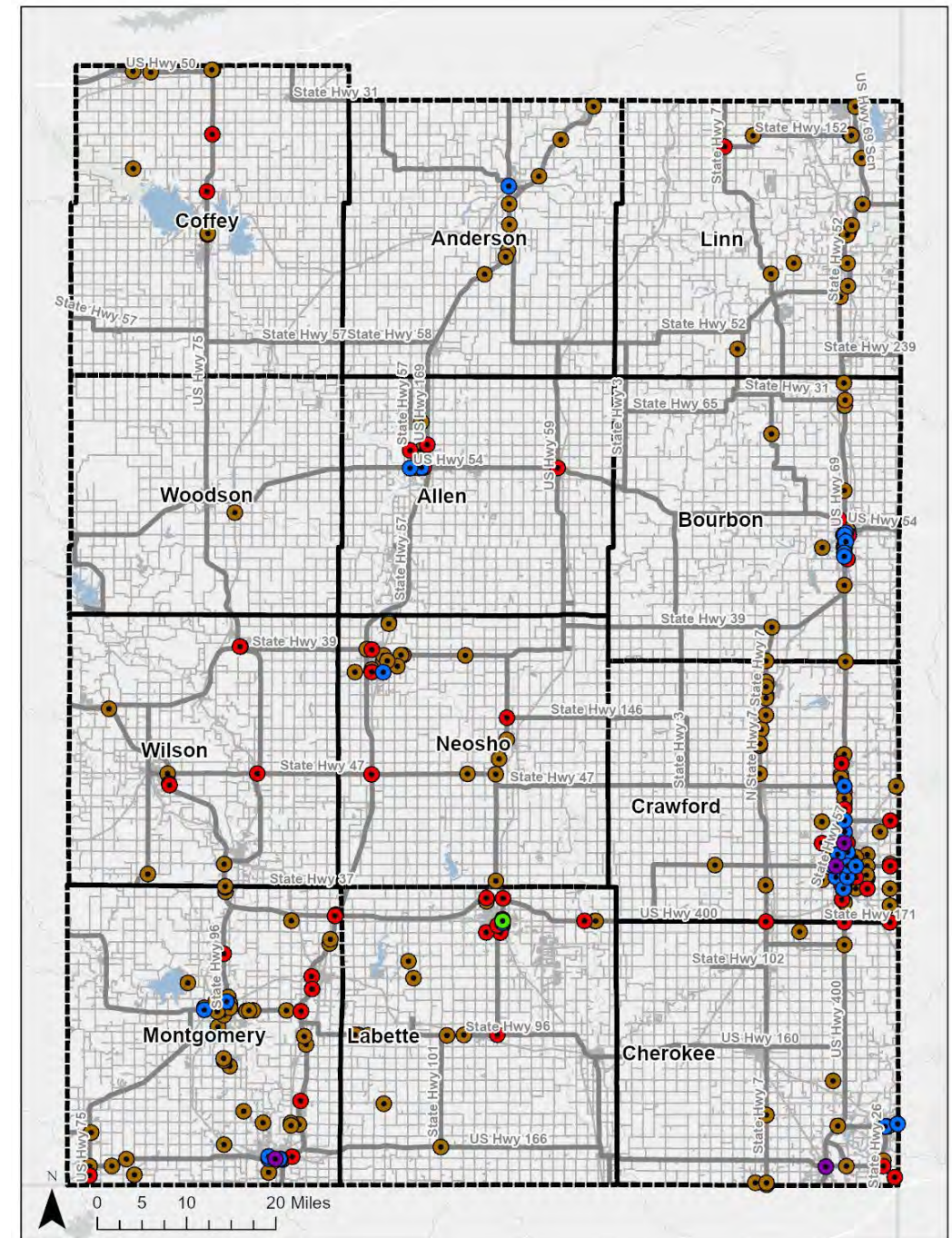
PUBLIC INPUT: Survey Results

- Press release and survey were sent to the Safety Task Force <u>and</u> an extended stakeholder list for greater promotion

- 899 total survey responses

Survey Respondents By County

Survey Participation By County
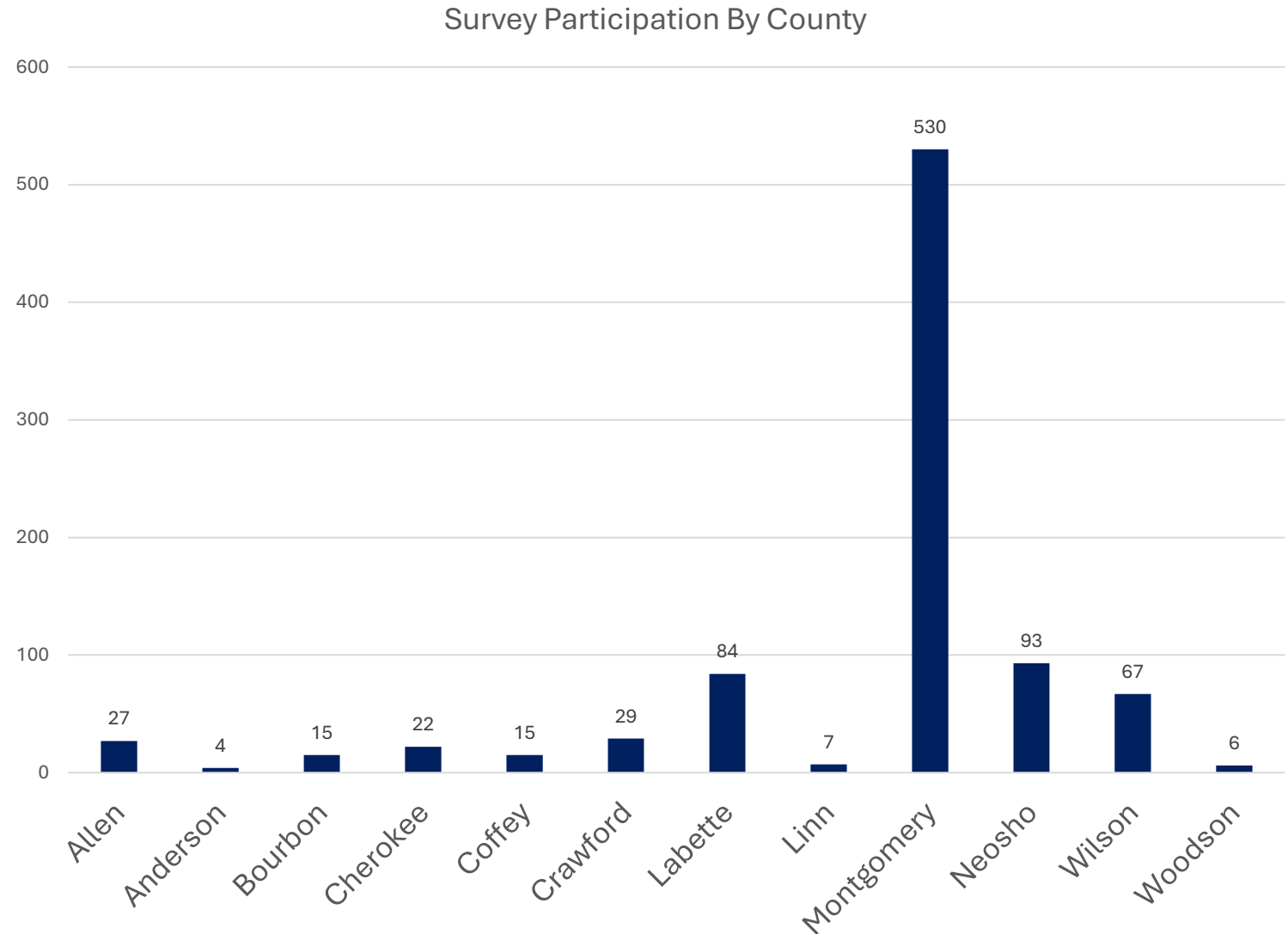
PUBLIC INPUT: Emphasis Areas

- Public Survey Input

  - Distracted Driving

  - Speeding Vehicles

  - Intersections

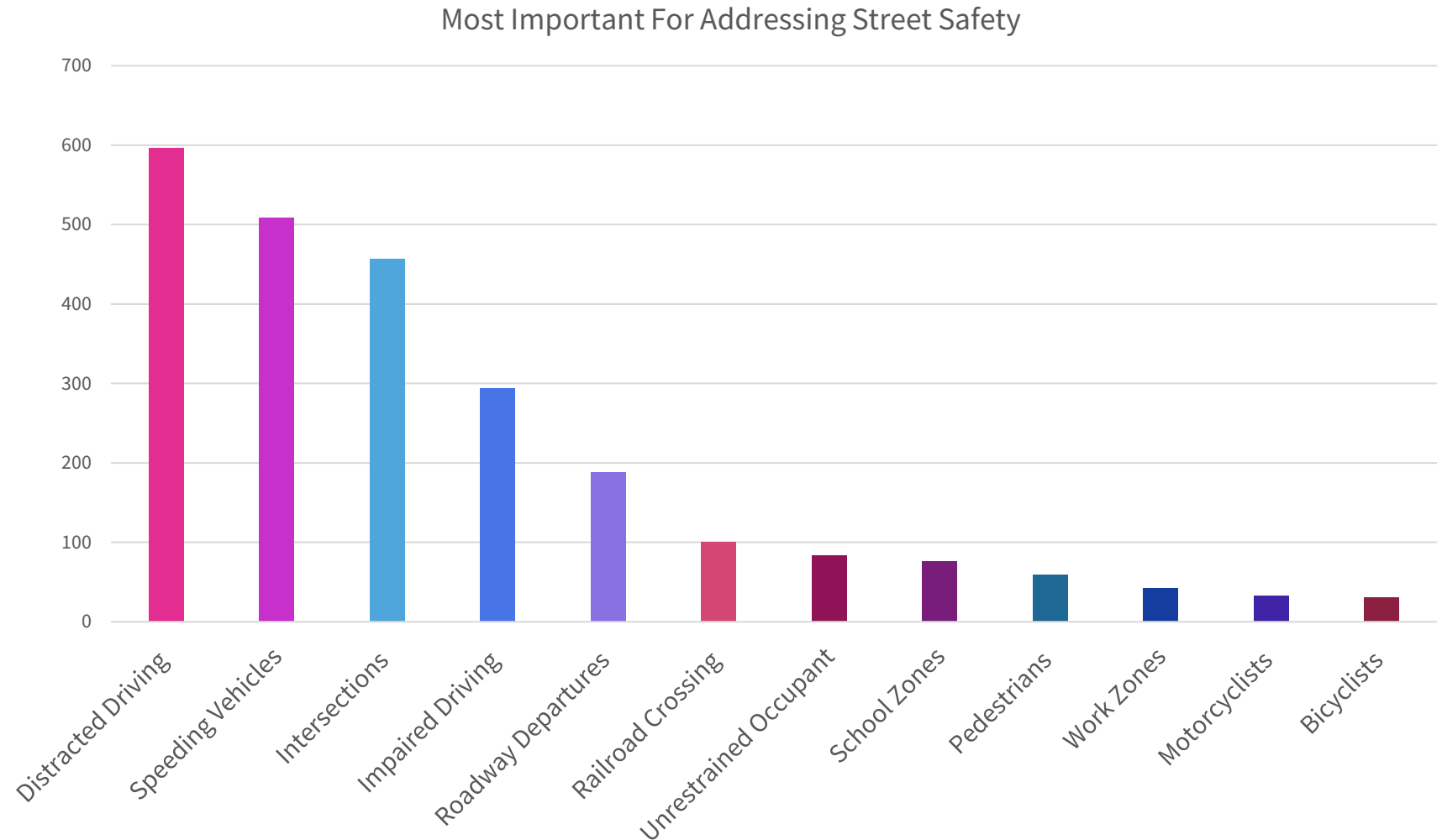**Most Important For Addressing Street Safety**

PUBLIC INPUT: Safety Improvements

- **Public Survey Input**
  - Intersection Improvements
  - Infrastructure Maintenance
  - Traffic Enforcement

Most Important Safety Improvements with Tax Dollars

Improvement	Value
Improvements at Public Tranposrtation Stops	~15
Safe Pedestrian Crossing Locations	~40
Bicycle Infrastructure	~45
Other Improvements	~55
Public Education/campaigns	~60
Sidewalks	~70
Improvements Around Schools	~80
Street Lighting	~160
Accessible Infrastrucutre	~175
Emergency Response	~215
Vehicle Speed Reduction	~255
Traffic Enforcement	~300
Infrastructure Maintenance	~475
Intersection Improvements	~550

PUBLIC INPUT: Public Meetings

- 12 Public Open House meetings held from February to April 2025.
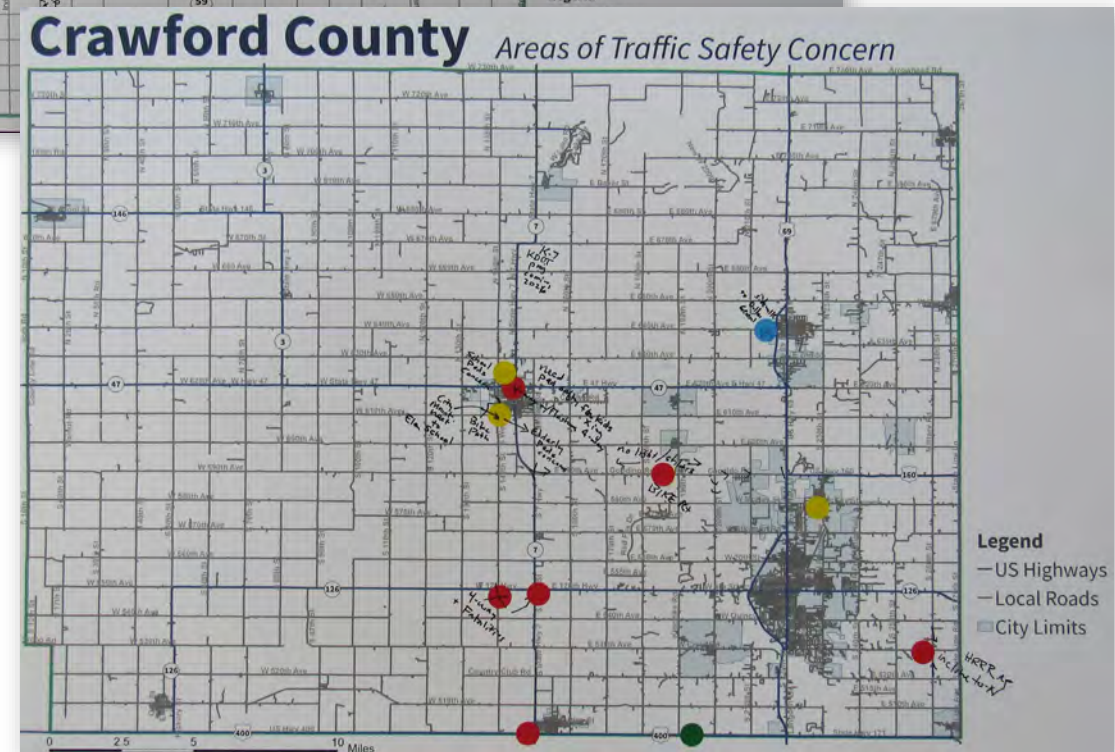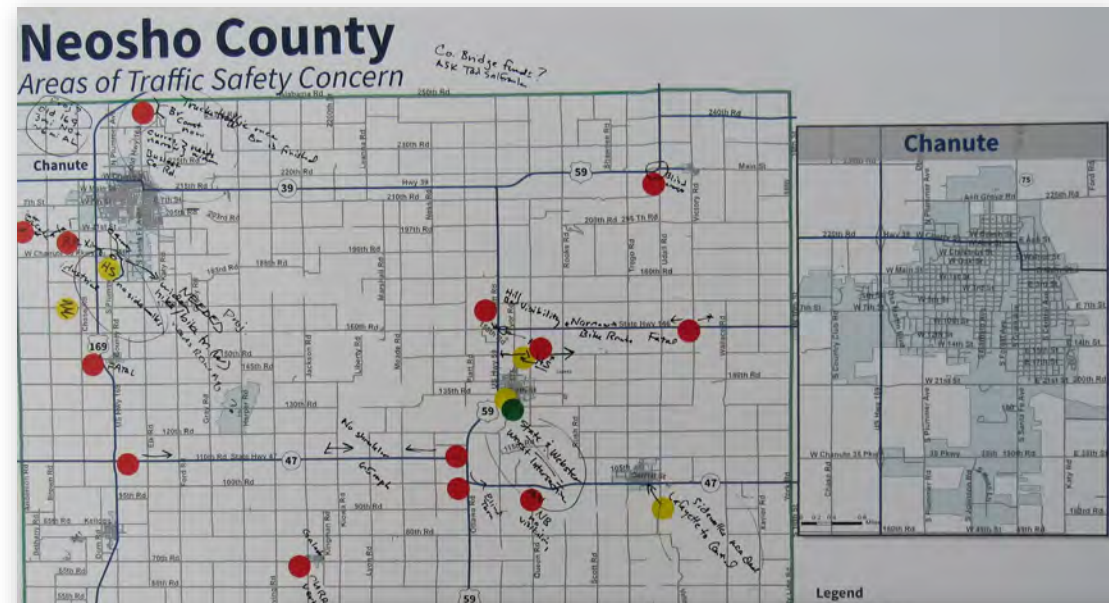
- Gather feedback through public comment cards and mapping activity.

PUBLIC INPUT: Public Meetings

■ Public Feedback and Safety Concerns

   ■ VRU safety (bicycle and pedestrian facilities, school zones)

   ■ State highway system and intersections

   ■ Guardrails, narrow shoulders, visibility and lighting concerns

SUMMARY

Proposed Key Emphasis Areas

Emphasis Area	Study Input		
	Data Review	Task Force	Public Survey
Roadway Departure	●	●	●
Intersection Related	●		●
Unrestrained Occupant	●	●	

Other Areas for Review

Emphasis Area	Study Input		
	Data Review	Task Force	Public Survey
Vulnerable Road Users	●		●
Distracted Driving		●	●
Alcohol or Drug Related	●		●

PROJECTS AND POLICIES

PROJECT TYPES

- **Prioritization Methodology**
  - Key Emphasis Area
  - Crash Hotspot on Heat Map
  - Identified in Related Document (ex: LRSP)
  - Local Priority from Stakeholder Interview
  - Public Input
  - Consideration for Local vs. State Routes

- **Project Type Examples**
  - Roadway Departure
  - Signalized and Unsignalized Intersections
  - Vulnerable Road Users (VRU)
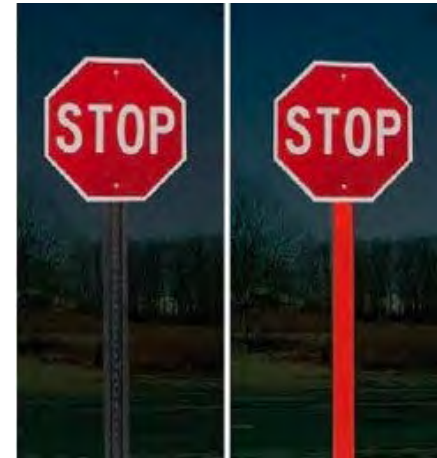
PROJECT TYPE: Roadway Departure

Project	S. 260th Street
Limits	US-160 to K-126 (4.0 miles)
Location	Crawford County
Short-Term	Delineate roadside hazards Install edge/center rumble strips
Long-Term	Install 2-foot paved shoulders Flatten and widen foreslopes Install/upgrade guardrail Extend culverts Consider KDOT intersections

PROJECT TYPE: Roadway Departure

Project	New Albany Road
Limits	Decatur Road to Mill Street (0.1 miles)
Location	Wilson County
Short-Term	Add pavement markings Install edge/center rumble strips Improve curve warning signage Add post-mounted delineators
Long-Term	Add aggregate shoulder Add transverse rumble strips Improve curve superelevation

PROJECT TYPE: Signalized Intersection

Project	8th Street & Buckeye Street
Limits	Intersection
Location	Montgomery County (Coffeyville)
Short-Term	Install high-visibility backplates Add high-visibility pavement markings Add crosswalk markings
Long-Term	Upgrade traffic signals Reconfigure traffic signal with Leading Pedestrian Intervals (LPIs)

PROJECT TYPE: Unsignalized Intersection

| Project	4700 Road & 1450 Road
Limits	Intersection
Location	Montgomery County
Short-Term	Update signage Add retroflective strips to sign posts Upgrade pavement markings
Long-Term	Reconstruct intersection

PROJECT TYPE: Vulnerable Road Users

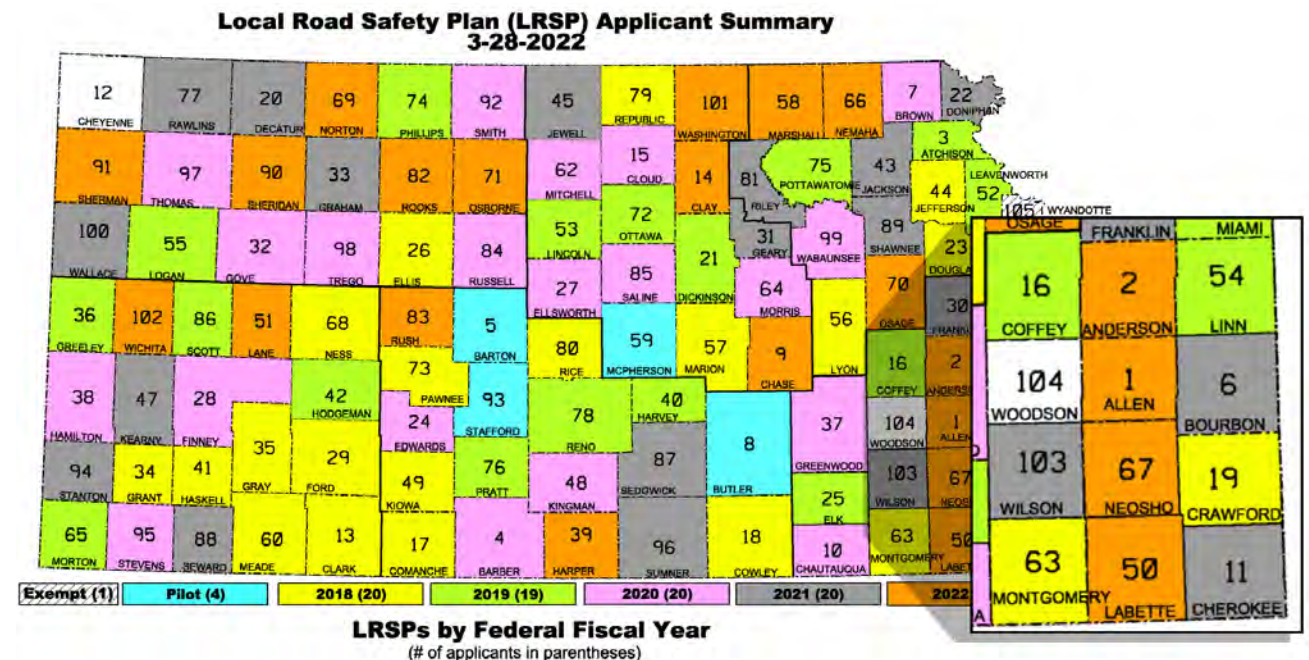| Project	Prairie Spirit Trail Crossings
Limits	4th Avenue & Main Street
Location	Anderson County (Garnett)
Short-Term	Increase signage Upgrade crosswalk markings Add pedestrian crossing signal
Long-Term	Reconfigure roadway to reduce crossing width

POLICIES

- Advocate with Regional Coalitions
  - US-169 in Anderson, Allen, Neosho, Labette, and Montgomery counties

- Update Design Policies

- Incorporate Safety into Maintenance Programs

- Enforcement Campaigns for Behavioral Changes
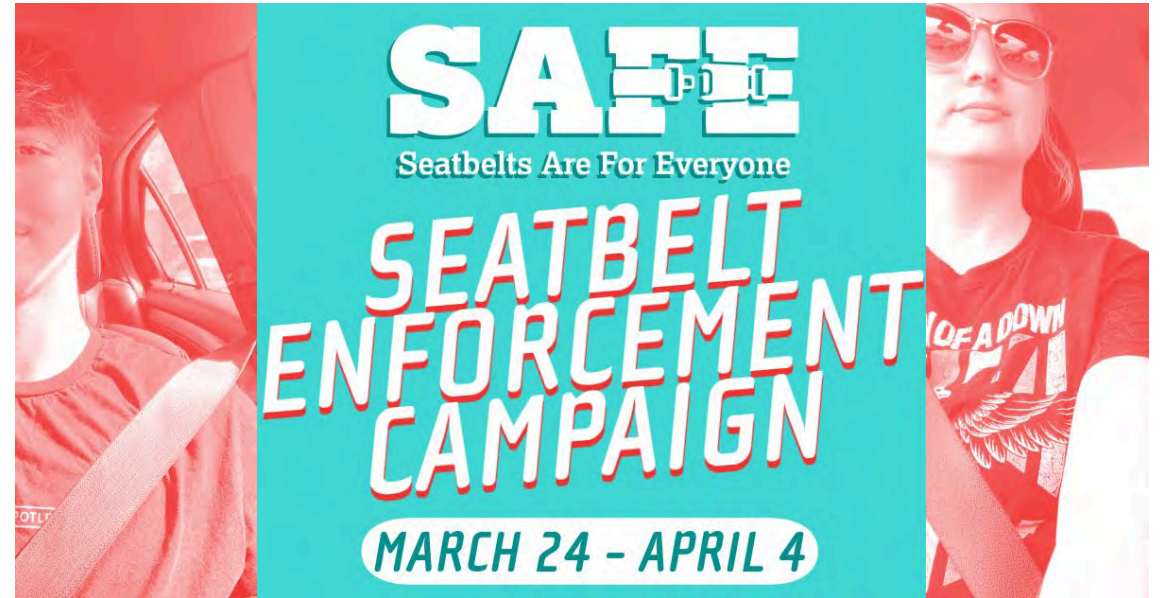
NEXT STEPS

NEXT STEPS: Draft Plans

- **Priority Projects:** A project team representative will contact each county in the next 1-2 weeks to share your draft project list.

- Safety Action Plans

  - Draft plans will be completed in May and sent for review.

  - Efforts are being aligned in counties with an active LRSP project.

Local Road Safety Plan (LRSP) Applicant Summary
3-28-2022

Exempt (1)   Pilot (4)   2018 (20)   2019 (19)   2020 (20)   2021 (20)   2022

LRSPs by Federal Fiscal Year
(# of applicants in parentheses)

NEXT STEPS: Vision Zero Resolution

- Regional commitment to the goal of zero roadway fatalities and serious injuries

- Vision Zero Resolution

  - Percentage reduction goal by a specific date

  - Target date for achievement of zero roadway fatalities and serious injuries

NEXT STEPS: Implementation Funding

- **Safe Streets and Roads for All (SS4A) Program**

    - A Safety Action Plan and Vision Zero Resolution make you eligible

    - Deadline: June 26, 2025

    - Additional round of funding available in 2026 under the current federal infrastructure bill

- **Use the Kansas Infrastructure Hub as a resource**

- **Other Funding Mechanics**

    - High Risk Rural Roads (HRRR)

    - Highway Safety Improvement Program - Intersections (HSIP)

    - Safe Routes to School

    - Community Health programs

THANK YOU!

Contact: Tom Hein at tdhein@transystems.com
with any questions or concerns

Appendix C
Community Engagement Plan

TRANSYSTEMS

Southeast Kansas: Comprehensive Safety Action Plan
Community Engagement Plan

Introduction

The Southeast Kansas Regional Planning Commission (SEKRPC) has partnered with twelve counties in Southeast Kansas to develop a Comprehensive Safety Action Plan. The twelve counties encompass Coffey, Anderson, Linn, Woodson, Allen, Borbon, Wilson, Neosho, Crawford, Montgonery, Labette, and Cherokee counties. The Comprehensive Safety Action Plan (CSAP) will identify an array of lifesaving measures to improve safety for motorists, pedestrians, cyclists, transit passengers, and other transportation users.

The Action Plan reviews roadway use trends, identifies issues, and then outlines steps to improve transportation safety. The Action Plan is aimed at reducing and eliminating serious injury and fatal crashes affecting transportation users. The eight components of the Action Plan are:

- Leadership commitment and goal setting
- Planning structure
- Safety analysis
- Engagement and collaboration
- Equity
- Policy and process changes
- Strategy and project selections
- Progress and transparency

The Action Plan will be developed using the U.S. Department of Transportation (USDOT) Safe System Approach. The Safey System Approach is based on the fundamental concept that fatal and serious injury traffic crash outcomes are preventable. Rather than blaming road users for crashes, this approach recognizes that the responsibility for road safety lies with multiple stakeholders, including policymakers, road designers, vehicle manufacturers, law enforcement, and emergency response. By designing a forgiving road system that accommodates human error, the Safe System Approach aims to prevent fatal crashes and minimize the severity of injuries.

To create the Action Plan, information will be gathered from many sources, including study partners and the public to find solutions that address current and future issues that can be supported by most stakeholders. Varied methods of community engagement will help develop positive outcomes not only for this process but also instill a more inclusive transportation infrastructure decision-making process. The project team will use the UUSDOT model for meaningful public involvement.
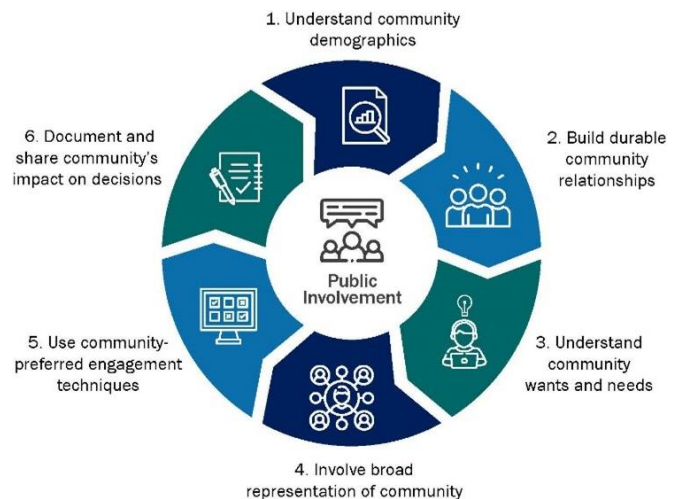
Public Involvement

The project team will proactively seek meaningful public involvement from study partners, residents, and communities impacted by the past and current limitations of the roadway system and its users. Feedback and suggested improvements will be documented and presented in a draft Action Plan. Communication with interested parties will be ongoing throughout the study period with a final Comprehensive Safety Action Plan produced for each of the twelve counties in early 2025.

Three fundamental areas of project public involvement will be created:

1. ***Information and Communications:*** Information regarding the study background, process, methods, schedule, key messages, and project updates will be communicated.
2. ***Stakeholder Input:*** Community leaders, elected and appointed officials, government staff members, and other stakeholder groups will be engaged throughout the planning process.
3. ***Community Outreach:*** Community members will be informed, educated, and engaged with the intent of providing an interactive dialogue for input and considerations as the study evolves.

Key Audiences

Key audiences are anticipated to include:
- Residents of the twelve counties in the Southeast Kansas study area.
- Businesses and employees that use the transportation system in the study area.
- Governmental units for each of the twelve counties, including incorporated cities and unified school districts in the study area.
- First responders serving the study area including law enforcement, fire departments, emergency management, medical services, and others.
- Civic organizations interested in discussing transportation safety in their communities.
- Representatives of relevant regional or statewide agencies, such as SEKRPC and the Kansas Department of Transportation (KDOT).

Community Engagement Methods

Community engagement methods will include:

- **Kick-Off Meeting:** A project kick-off meeting with SEKRPC will outline the community engagement plan and process of creating a Safety Task Force team of key regional stakeholders to guide the study.
- **Project Update Meetings:** Monthly updates will be shared virtually with the SEKRPC Executive Board and staff at regularly scheduled meetings.
- **Stakeholder Meetings:** Three (3) Safety Task Force meetings will be organized to review crash history, solicit local input, share possible safety countermeasures, and discuss potential priorities and recommendations. Stakeholder meetings will be held in a hybrid format with both in-person and virtual attendance options.
- **Public Meetings:** One in-person open house style meeting will be held within each county to inform the public of the study's progress, gather public input regarding safety needs, and share features of the proposed Action Plan.
- **Public Survey:** An online survey will be distributed that allows respondents to note specific areas of concern via a mapping tool and share other issues and opportunities. Demographic information will be collected to assign responses to specific counties and/or communities.
- **Public Comments:** Public comments will be compiled from meetings, online surveys, phone calls, and face-to-face conversations as well as any written comments received during the study.
- **Public Information:** Updates and announcements for news media, county websites, and social media outlets will be provided to SEKRPC for distribution.
- **Translation Services:** Translation of project documents into Spanish is possible, if needed. Other language translations may be necessary. To ensure that people with disabilities and diverse needs and experiences are aware of and can participate in community engagement activities, a wide range of engagement tools will be used.

Schedule

The overall project schedule is included in the Project Management Plan. Highlights related to community engagement include:

- The project Community Engagement Plan was initially developed in July 2024 and will be updated as needed throughout the study.
- Safety Task Force meetings are planned for September 2024, November 2024, and January 2025. The project team will monitor the anticipated release of the Notice of Funding Opportunity for SS4A implementation funds and will adjust the schedule if needed.
- Open house public meetings are scheduled for November 2024 and early December 2025
- Public comments will be accepted and compiled throughout the study period.

Follow-Up Activities

- Assist SEKRPC, as needed, with meeting invitations, meeting notes, news release copy, public survey methods, website text, social media content, and a final Community Engagement report.

Study Contacts

SEKRPC Project Manager: Carey Spoon
TranSystems Project Manager: Deanne Winkelmann
TranSystems Project Lead: Slade Engstrom
TranSystems Communications Lead: Tom Hein

Updated: August 20, 2024

Appendix D
Public Survey Results

Safe Streets for All
Southeast Kansas Comprehensive Safety Action Plan

SEKRPC
SOUTHEAST KANSAS REGIONAL
PLANNING COMMISSION

Public Survey

To gather greater community input, an online public survey was distributed throughout the 12-county region from October 2024 to April 2025, including distribution to the expanded stakeholder list of over 300 organizations. The survey allowed participants to provide feedback on location-specific and systemic safety concerns, road user behavior, and vulnerable road user protection. The responses provided direction towards top priorities in the Southeast Kansas region and specific jurisdictions.

The survey was distributed through city and county websites, social media, and advertised at public engagement events. This approach ensured broad participation and diverse perspectives resulting in a total of 899 survey respondents from across the 12-county region.

What county do you live in?

Survey Participant By County

County	Participants
Anderson	4
Woodson	6
Linn	7
Coffey	15
Bourbon	15
Cherokee	22
Allen	27
Crawford	29
Wilson	67
Labette	84
Neosho	93
Montgomery	530
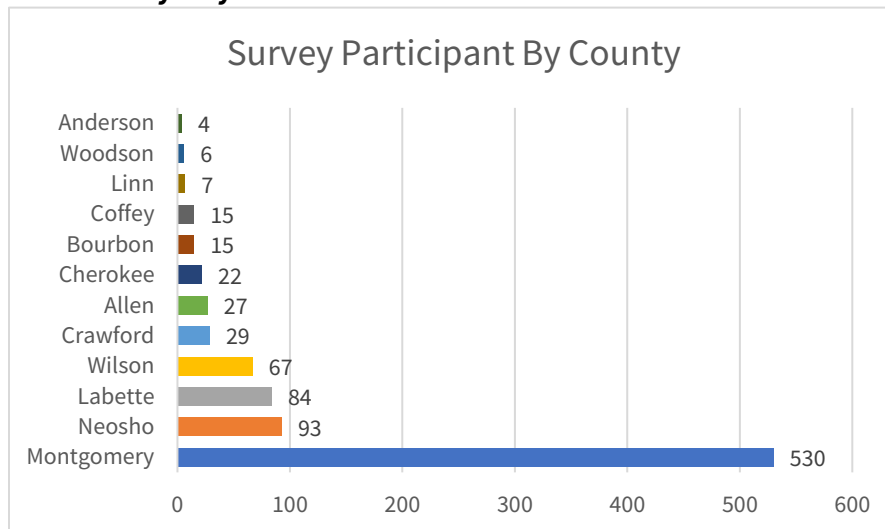
How long have you lived in your jurisdiction?

Years in Jurisdiction

Category	Value
10 or more years	651
5 to 9 years	105
1 to 4 years	108
Less than 1 year	15
Prefer not to answer	20

What is your age?

Respondent Age

Category	Value
75 or older	14
65-74	65
45-64	312
25-44	413
18-24	79
18 and under	6
Prefer not to answer	10
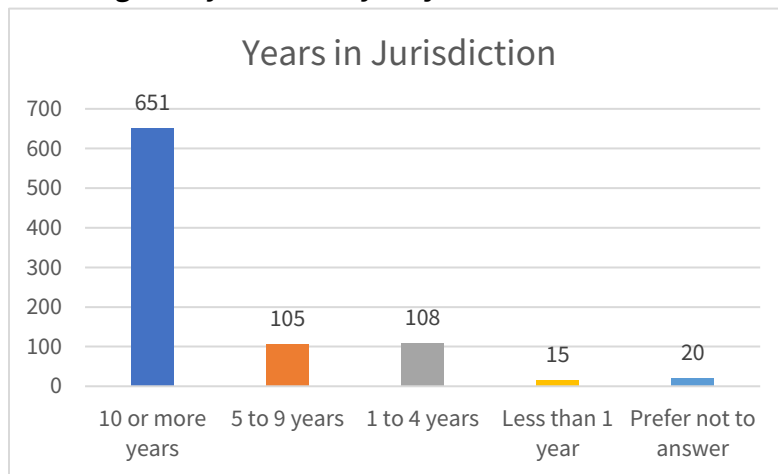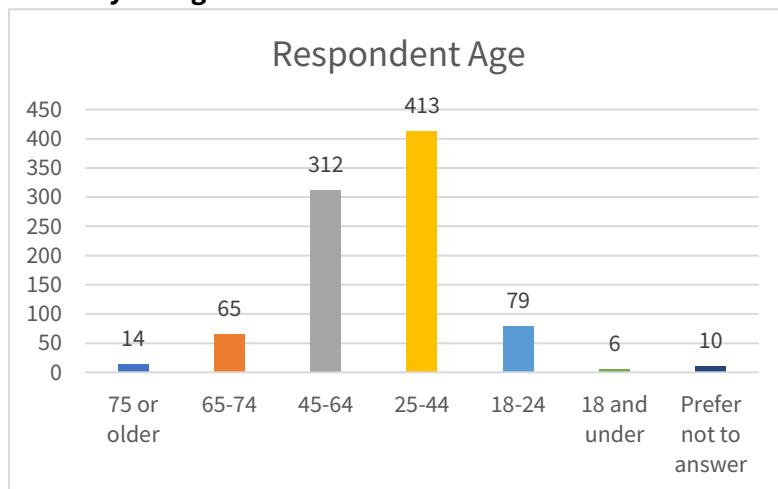
Select the racial or ethnic group with which you identify.

Racial and Ethnic Identity

Category	Value
Prefer not to answer	47
White	828
Native Hawaiian or Other Pacific Islander	2
Multiracial	7
Haspanic, Latino or Spanish	17
Black or African American	2
Asian	1
American Indian or Alaskan Native	39
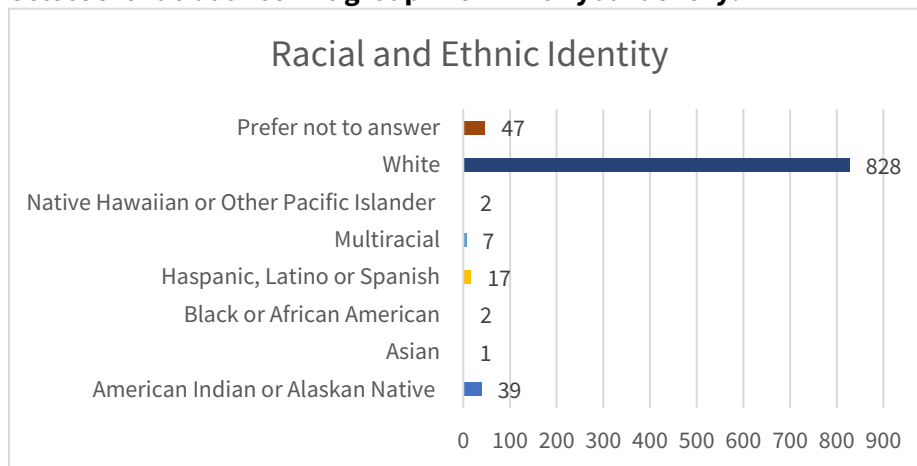
What is your gender identity?

Gender Identity

- Female
- Male

24
254
621
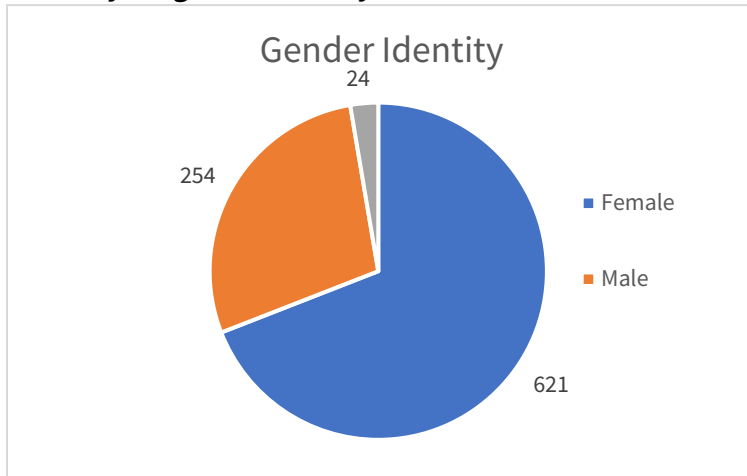
What is your household income?

Household Income

- 100k or more
- 75k-100k
- 50k-75k
- 25k-50k
- Less than 25k
- Prefer not to answer

140
219
64
162
162
152
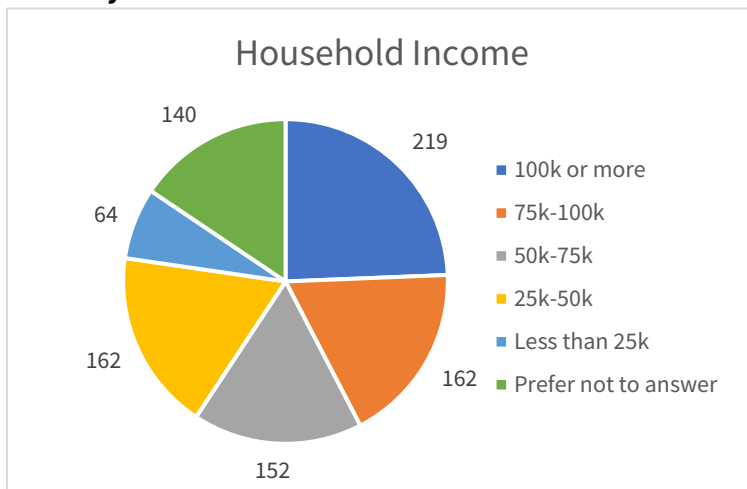
Including yourself, how many people live in your household?

Household Size

- 5 or more
- 4
- 3
- 2
- 1
- Prefer not to answer

53
166
84
166
235
195
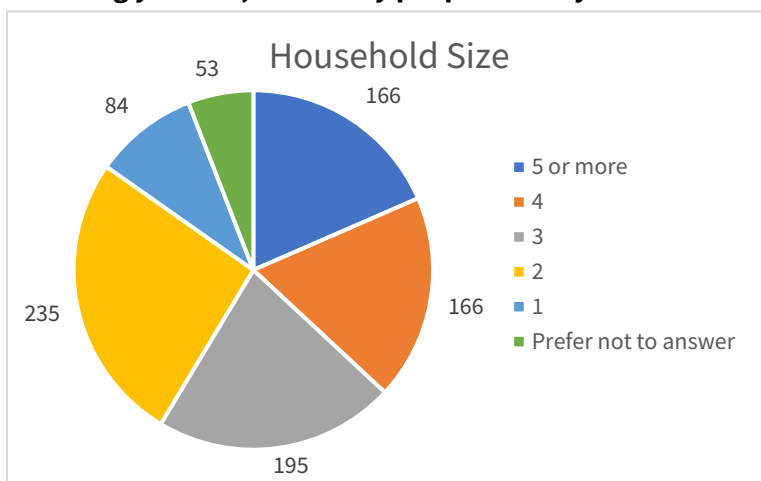
What is the primary language spoken at home?

Language Spoken at Home

Language	Count
Prefer not to answer	21
Other Language	2
Spanish	1
English	875
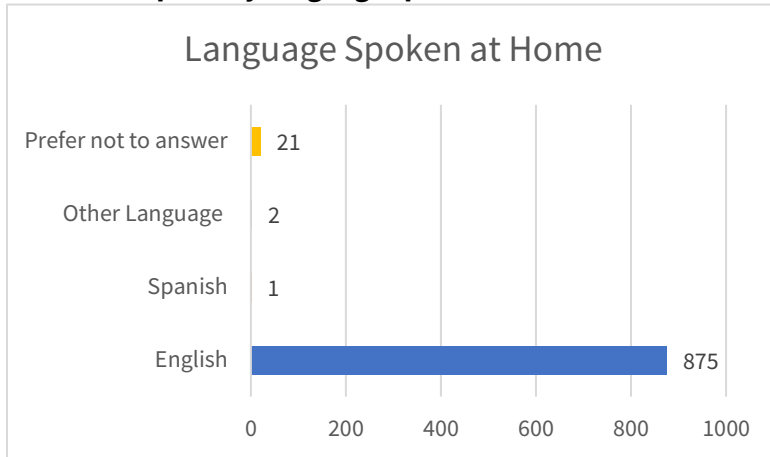
Select the option that best fits your current occupation:

Employment Status

Status	Count
Prefer not to answer	53
Student	28
Retired home	117
Part time employment	41
Full time employment	660
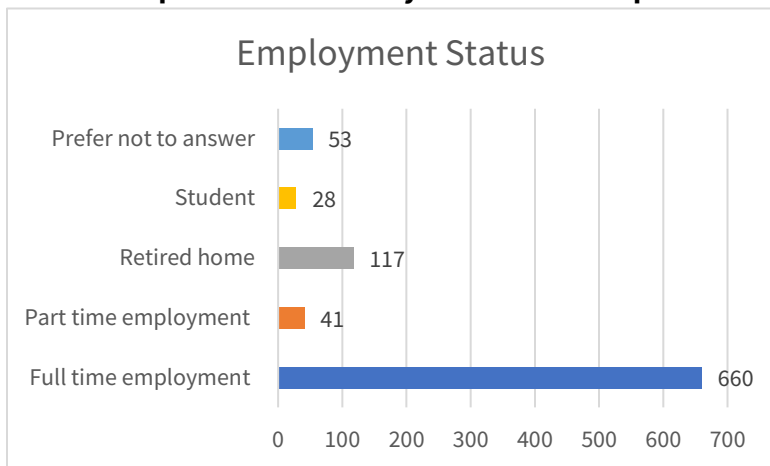
Do you have any physical limitations? (Select all that apply)

Physical Limitations

Limitation	Count
Prefer not to answer	80
Other Limitations	16
Wheelchair User	21
Deaf	23
Blind	23
None	747
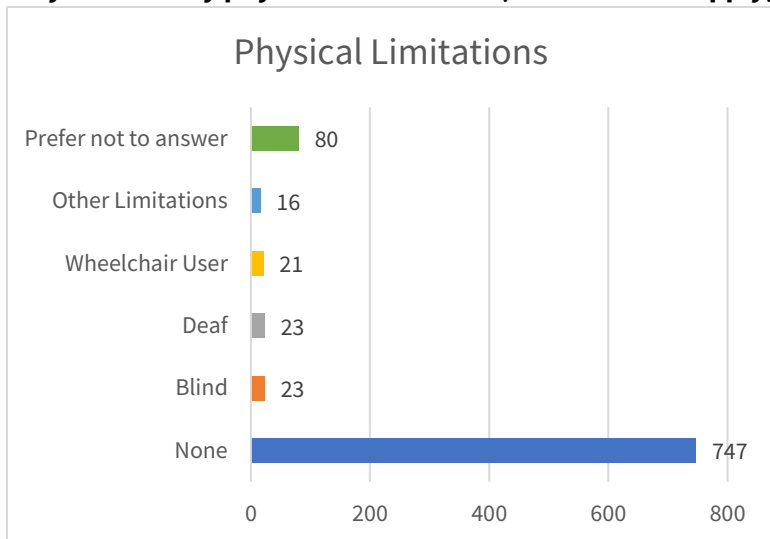
Mapping Activity

Each dot corresponds with a location-specific safety concern or comment.
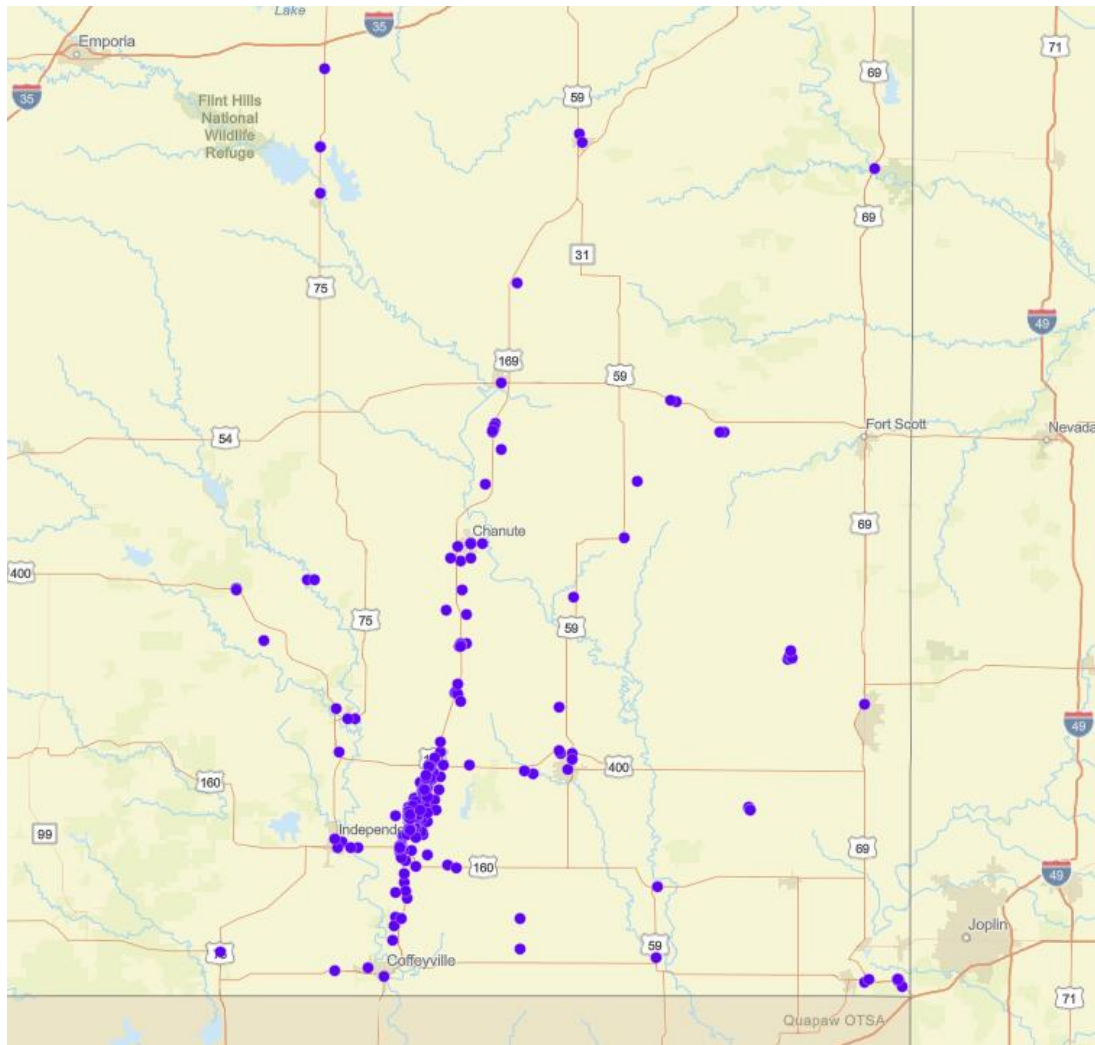
Rank the following safety concerns from most (1) to least (5) concerned.

Safety Concern Prioritization
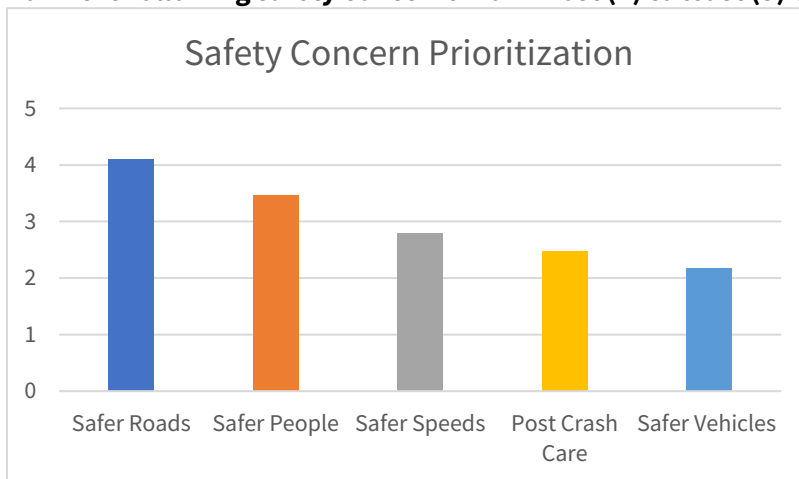
What safety areas are the most important to you in addressing street safety? (Select the top 3)

Safety Area Rankings

Bar chart showing rankings (0–700 scale):
- Distracted Driving: ~595
- Speeding Vehicles: ~510
- Intersections: ~460
- Impaired Driving: ~295
- Roadway Departures: ~185
- Railroad Crossing: ~105
- Unrestrained Occupant: ~85
- School Zones: ~75
- Pedestrians: ~60
- Work Zones: ~45
- Motorcyclists: ~35
- Bicyclists: ~35
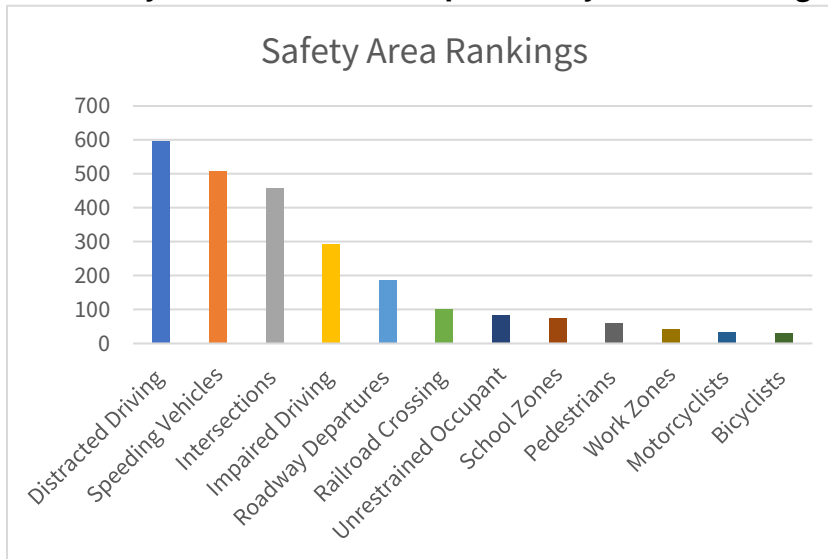
Pick the three most important safety improvements that your tax dollars help pay for, which affect your safety in the transportation system.

Safety Improvements

Horizontal bar chart (0–600 scale):
- Improvements at Public Tranposrtation Stops: ~15
- Safe Pedestrian Crossing Locations: ~45
- Bicycle Infrastructure: ~50
- Other Improvements: ~55
- Public Education/campaigns: ~60
- Sidewalks: ~75
- Improvements Around Schools: ~85
- Street Lighting: ~160
- Accessible Infrastrucutre: ~175
- Emergency Response: ~215
- Vehicle Speed Reduction: ~260
- Traffic Enforcement: ~300
- Infrastructure Maintenance: ~480
- Intersection Improvements: ~555

How do you usually travel in a typical week? (Select all that apply)

Travel Mode

Travel Mode	Count
Other Travel Type	4
Roll	1
Transit	2
Bike	29
Carpool	43
Walk	71
Drive	884
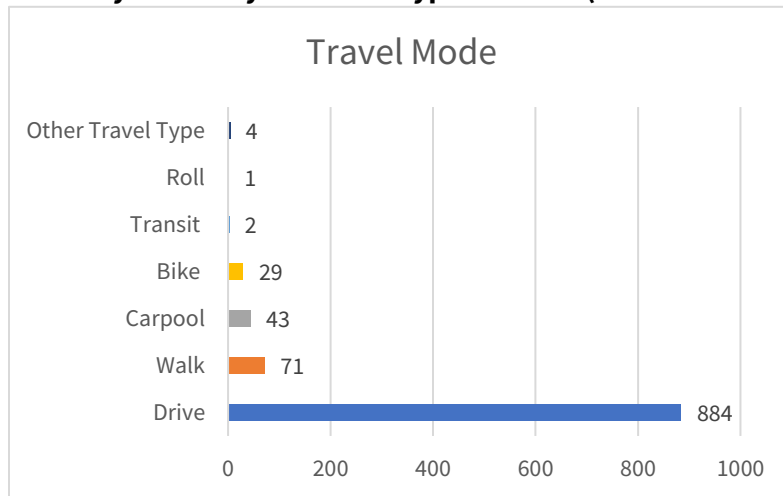
If you walk or bike in your jurisdiction, what is your destination?

Walking or Biking Destinations

Destination	Count
Public Transportation Stop	3
Other Destinations	19
Medical or Social Services	36
School	53
Retail	64
Downtown Businesses	106
Work	128
Recreation	205
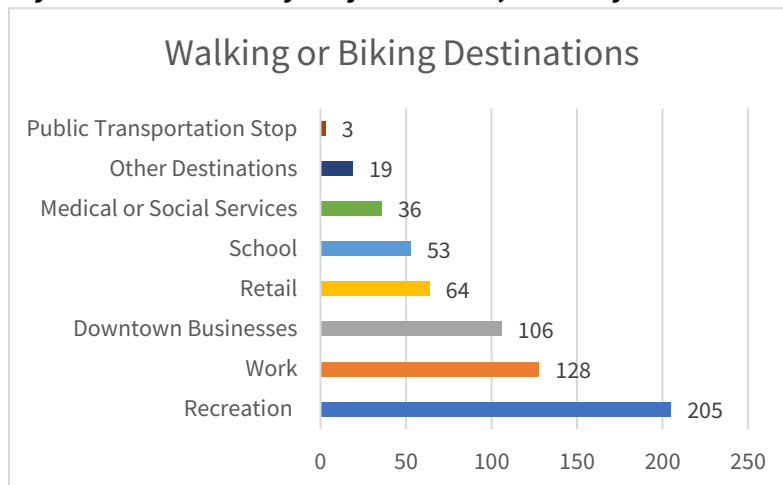
What outlets would you prefer to receive transportation safety Information? (Select all that apply)

Preferred Informational Outlet

Outlet	
Other Outlet	
Public Meeting	
Television	
Radio	
Website	
Newspaper	
Email	
Social Media	
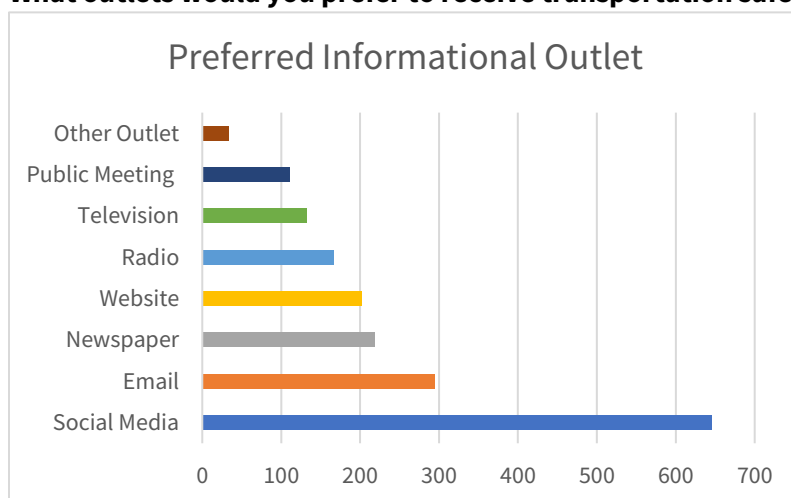
Appendix E

Countermeasures Toolbox

COUNTERMEASURES for moving toward Vision Zero goals

Intersections

Roundabouts
Roundabouts can safely and efficiently move traffic. They reduce vehicle speed, provide entry yield control, and minimize conflict points.

Consistent Yellow & All-Red Timings
Consistent yellow and all-red display intervals allow motorists and pedestrians to anticipate when it will be safe to enter the intersection.

Improved Geometry
Positive offset of left turn lanes, skew elimination, or sight distance improvements can decrease the number of crashes in an intersection.

Improved Signal Phasing/ Timing Plans
Traffic signal coordination can decrease the number of crashes and create speed harmonization as drivers learn the length of signal intervals.

Reduced Conflict U-Turn (RCUT)
Cross-street traffic makes a right turn followed by a U-turn at a designated location—either signalized or unsignalized—to continue in the desired direction.

Median U-Turn (MUT)
Vehicles proceed through the main intersection, make a U-turn a short distance downstream, followed by a right turn at the main intersection.
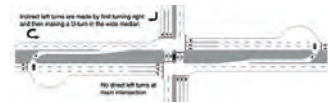
Turbo Roundabouts
Turbo roundabouts utilize different geometrics to address the conflicts associated with the common crash types in multilane roundabouts.

Diverging Diamond Interchange (DDI)
The crossing (or channelizing) of traffic on the crossroad to the left side between the ramp terminals is a variation of the diamond interchange.

Rectangular Rapid Flashing Beacon
Pedestrian-actuated RRFBs flash with an alternating high frequency to enhance driver awareness of pedestrians at the crossing.

Traffic Calming
Reduces vehicle speeds or volumes to improve quality of life by increasing the safety and comfort of walking and bicycling.
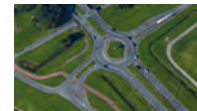
Backplates with Retroreflective Borders
Backplates improve the visibility of a traffic signal with a controlled-contrast background. A 1-3 inch yellow retroreflective border makes it even more conspicuous.

Intersection Conflict Warning System
Drivers are informed of available gaps for turning or crossing. Vehicle detectors alert motorists of conflicting vehicles on an adjacent approach.

Street Lighting
At nighttime, lighting can be applied continuously along segments and at spot locations to increase visibility.
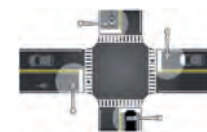
Flashing Beacons on Warning Signs
Flashing beacons on warning signs increase driver awareness and recognition of upcoming problems and potential conflicts.

Dedicated Turn Lanes
Auxiliary turn lanes provide separation from through traffic, space for deceleration, and space to wait to complete a turn.

Curves

Advanced Warning Signs
Advanced warning signs around curves or other sight-limiting areas or where crash problems exist allow drivers time to make decisions based on changing conditions.

Install or Update Signage & Chevron Placement
Enhanced delineation and signage at horizontal curves can be implemented in advance of or within curves.
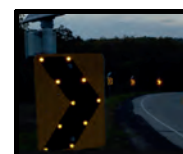
Speed Activated Flashers
Speed activated flashers on chevrons in a curve have shown huge decreases in crashes.

Retroreflective Strips on Signposts
Increasing the retroreflectivity of the signpost, as well as changing the height and angle of the retroreflectivity, increases viewability.

Superelevation Correction
Correcting and reshaping the roadway superelevation allows increased friction with the pavement.

TRANSYSTEMS

COUNTERMEASURES for moving toward Vision Zero goals

Roadway Departures

Transverse Rumble Strips

Transverse rumble strips alert drivers to slow down, stop, or adjust to upcoming changes that may not be anticipated by an inattentive driver.

Clear Zones

These zones are unobstructed, traversable roadside areas that allow drivers to stop safely or regain control of a vehicle that has left the roadway.

High Friction Surface Treatment

Higher pavement friction helps motorists maintain better control in both wet and dry conditions.

Enhanced Signing & Delineation

Enhanced delineation treatments can alert drivers to upcoming curves, the direction and sharpness of the curve, and the appropriate operating speed.

Road Safety Audits (RSAs)

RSAs consider all road users, account for human factors and road user capabilities, are documented in a formal report, and require a formal response from the road owner.

6" Retroreflective Edgeline

Wider edge lines enhance the visibility of travel lane boundaries compared to traditional edge lines.

Flattening & Widening Foreslopes

Flattening and widening foreslopes allows a more recoverable slope and potentially can decrease the clear zone distance required.

Paved Shoulders

Paved shoulders allow better recovery for roadway departures and are often combined with edgeline rumble strips.

Median Barrier

Median barriers redirect vehicles striking either side of the barrier. They significantly reduce the number of cross-median crashes.

2' Paved Shoulder with Safety Edge

Eliminates the potential for vertical drop-off at the pavement edge, has minimal effect on project cost, and can improve pavement durability.

6" Retroreflective Centerline

Wider centerlines enhance the visibility of travel lane boundaries compared to traditional edge lines.

On-Pavement Markings for Speed Control

Transverse pavement markings or chevrons placed progressively closer provide a visual illusion of increased speed causing drivers to slow down.

Post-Mounted Delineators

Improving curve delineations helps prevent roadway departures from the mainline pavement.

Access Management

The design, application, and control of entry and exit points along a roadway, including intersections that serve adjacent properties.

Longitudinal Rumble Strips
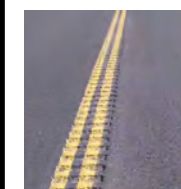
Milled or raised elements on the pavement alert drivers through vibration and sound that their vehicle has left the travel lane.

Improved Pavement Markings

Clearly delineating travel lanes and high retroreflectivity allows drivers to better understand where they are located within the roadway.

TRANSYSTEMS

COUNTERMEASURES for moving toward Vision Zero goals

Pedestrians & Bicycles

Leading Pedestrian Intervals (LPI)
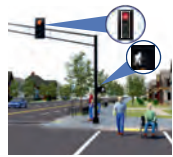
LPIs allow pedestrians to enter the crosswalk 3-7 seconds before parallel vehicles are given a green indication.

High-visibility Crosswalks

Patterns and reflective materials visible to both drivers and pedestrians from farther away, as well as lighting, signs, and pavement markings, improve visibility.

Vehicles Yield to Pedestrian Signage

Signage to increase driver awareness of high volume pedestrian movements works in a similar manner to LPIs.

Curb Extensions/Bulb Outs & Refuge Islands

These decrease the time pedestrians are in the roadway and increase pedestrian visibility.

Complete Streets/Designing for All Users

An approach to planning, designing, building, operating, and maintaining streets that enables safe access for all people using them.

Pedestrian Crossing Signals

Pedestrians crossing signals allow traffic gaps to be forced by stopping traffic and allowing pedestrians to cross.

Raised Crosswalk/Raised Intersection/Speed Table

These allow pedestrians to cross at grade with the sidewalk, reducing vehicle speeds and enhancing the pedestrian crossing environment.

Pedestrian Hybrid Beacons (PHB)

PHBs are traffic control devices that help pedestrians safely cross higher-speed roadways at midblock crossings and uncontrolled intersections.

Multi-Use Paths

Shared-use paths supplement a system of on-road bike lanes, wide outside lanes, paved shoulders, and bike routes.

Shared Lane Markings

Sharrows are road markings that designate a space to be shared by both motorists and bicyclists.

Road Diet

A Road Diet reconfigures traditional four-lane undivided highways for improved safety, traffic calming, and better access for all road users.

Back-In Angle Parking

Back-in angle parking provides motorists with better vision of pedestrians, bicyclists, motor vehicles, and other road users as they exit a parking space and enter moving traffic.

Bike Lanes & Buffered Bike Lanes

Bike lanes can mitigate or prevent interactions between bicyclists and motor vehicles, and create a network of safer roadways for bicycling.

Bike Boulevards

Signs and pavement markings indicate that a roadway is intended as a shared, slow street, and reinforce the intention of priority for bicyclists along a given route.

Calibrated Bike Detection for Bike Lanes

Bicycle detection occurs either through the use of push buttons or by automated means. Inductive loop vehicle detection can be adjusted for bicycle metallic mass.

Access Control Through Medians

Management of the entry and exit points along a corridor can enhance safety for all modes, facilitate walking and biking, and reduce trip delay and congestion.

Cycle Tracks

Cycle tracks are bikeways that are at street level and use a variety of methods for physical protection from passing traffic.

Vulnerable Road User (VRU) Education

Share the Road programs aim to increase drivers' awareness of the rights of VRUs to improve the safety of all road users.

TRANSYSTEMS

COUNTERMEASURES for moving toward Vision Zero goals

Improved ADA Accessibility

Curb Ramps
These provide access between the sidewalk and roadway for people using wheelchairs/wheeled devices and pedestrians with limited mobility.

Countdown Signals
These signals provide pedestrians with more information on the remaining crossing time.

Audible Pedestrian Signals
These devices provide auditory information to pedestrians who are blind or have low vision by signaling when it is safe to cross the roadway.

Education

Safe Routes to School (SRTS)
SRTS programs increase the amount of bicycling and walking to and from school while improving safety for children bicycling or walking to school.

Pedestrian Safety Zones
These zones target engineering, education, and enforcement measures to geographic areas and audiences where significant pedestrian crash problems exist.

Enforcement Communications & Outreach
Effective, high-visibility communications and outreach are an essential part of successful seat belt law High Visibility Enforcement programs.

Outreach Strategies for Low-Belt Use Groups
Communications and outreach directed at low-belt-use groups can be effective for targeted programs that support and are supported by enforcement.

Enforcement

Reduce & Enforce Speed Limits
Reducing travel speeds increases reaction time for drivers and pedestrians to avoid crashes, as well as reduces the severity of pedestrian injuries when these crashes occur.

Communication & Outreach Supporting Enforcement
Effective, high-visibility communications and outreach are essential parts of successful speed and aggressive-driving enforcement programs.
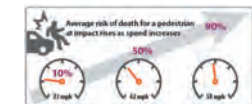
High-Visibility Cell Phone/Text Messaging Enforcement
HVE can effectively deter cell phone use by increasing the perceived risk of a ticket.

Short Term, High-Visibility Seat Belt Law Enforcement
High-visibility seat belt law enforcement consists of short, intense, highly-publicized periods of increased enforcement using checkpoints, saturation patrols, or enforcement zones.

TRANSYSTEMS

Countermeasure	Description	CMF
Roadway Departure		
Advanced Warning Signs	Advanced warning signs around curves or other sight limiting areas or where crash problems exist all drivers more time to make decisions based on changing conditions.	0.65
Improved Pavement Markings	Clearly delineating travel lanes and high retroreflectivity allows drivers to better understand where they are located within the roadway.	0.64-0.88 (6" edge line), 0.76 (4" edge line)
Longitudinal Rumble Strips	Longitudinal rumble strips are milled or raised elements on the pavement intended to alert drivers through vibration and sound that their vehicle has left the travel lane. They can be installed on the shoulder, edge line, or at or near the center line of an undivided roadway.	Varies
Transverse Rumble Strips	Transverse rumble strips are used to alert drivers of a need to slow down or stop, or to other upcoming changes that may not be anticipated by an inattentive driver. These rumble strips are placed in the travel lane perpendicular to the direction of travel.	0.66-0.73
Flattening and widening foreslopes	Flattening and widening foreslopes allows a more recoverable slope , and potentially can decrease the clear zone distance required. Often combined with culvert extensions or other clear zone work.	Varies
2' paved shoulder with safety edge	The SafetyEdge^{SM} technology shapes the edge of the pavement at approximately 30 degrees from the pavement cross slope during the paving process. This safety practice eliminates the potential for vertical drop-off at the pavement edge, has minimal effect on project cost, and can improve pavement durability by reducing edge raveling of asphalt.	0.65 – 0.9

Relocating/Moving/shielding Fixed objects	Roadside Design Improvements to Provide for a Safe Recovery such as providing a clear zone that is an unobstructed, traversable roadside area that allows a driver to stop safely or regain control of a vehicle that has left the roadway.	0.56
Superelevation Correction	Correcting and reshaping the roadway superelvation to meet posted speed, or where crashes have occurred allows an increased friction with pavement.	Varies: Formula based
High Friction Surface Treatment	Pavement friction treatments, such as High Friction Surface Treatment (HFST), can be better targeted and result in more efficient and effective installations when using continuous pavement friction data along with crash and roadway data.	0.37
Post mounted delineators	Improving curve delineations helps prevent roadway departures from the mainline pavement by showing drivers where the edge of shoulder is. This is also helpful at night.	0.72 – 0.82
Access Management	The design, application, and control of entry and exit points along a roadway, including intersections that serve adjacent properties.	.77 to .95
Reflective Strips on Posts	Retroreflective Strips on signposts increase the retroreflectivity of the signpost, as well as changing the height and angle of the retroreflectivity, increase viewability.	No yet determined

Countermeasure	Description	CMF
Intersection Related		
Improved Signal Phasing/Timing Plans	Traffic signal coordination can decrease the number of crashes and create speed harmonization as drivers learn the length of signal intervals.	0.79
Consistent Yellow and All-Red Timings	Consistent yellow and all-red display intervals allow motorists and pedestrians to anticipate when it will be safe to enter the intersection.	0.86
Backplates with Retroreflective Borders	Backplates improve the visibility of a traffic signal with a controlled-contrast background. A yellow retroreflective border makes it even more conspicuous.	0.85
Add Left Turn Lanes	Left turn lanes provide separation from through traffic, space for deceleration, and space to wait to complete a turn.	.6 (for LT) .75 (all)
Access Management (restrict left turns)	Restrict the left turns from side streets onto a main street.	.30 (for LT)
Flashing Beacon Warning Sign	Flashing beacons on warning signs increase driver awareness and recognition of upcoming problems and potential conflicts.	0.9
Improved Geometry	Geometry improvements can have great effects on the safety of an intersection, positive offset of left turn lanes, Skew elimination, sight distance improvements all can have great effects on the number of crashes in the intersection.	Varies
Add Left Turn Lanes	Left turn lanes provide separation from through traffic, space for deceleration, and space to wait to complete a turn.	0.4
Enhanced Stop Signs	Larger stop signs, use of flasher on sign or use of retroreflective markings to increase visibility of stop signs.	0.9

Countermeasure	Description	CMF
Vulnerable Road Users		
Rectangular Rapid Flashing Beacon	Pedestrian-actuated RRFBs flash with an alternating high frequency to enhance driver awareness of pedestrians at the crossing.	.53 (Ped)
Pedestrian Hybrid Beacons	A traffic control device designed to help pedestrians safely cross higher-speed roadways at midblock crossings and uncontrolled intersections.	.45 (Ped)
Countdown Pedestrian Signal Heads	These signals provide pedestrians with more information on the remaining crossing time.	.92 (Ped)
Leading Pedestrian Interval (LPI)	LPIs allow pedestrians to enter the crosswalk 3-7 seconds before parallel vehicles are given a green indication.	0.87
Construct Sidewalks	Construct sidewalks to fill in gaps to allow separation of pedestrians and vehicles along roadways.	.11-.35 (Ped)
High Visibility Crosswalks	High-visibility crosswalks use patterns (i.e., bar pairs, continental, ladder) that are visible to both the driver and pedestrian from farther away compared to traditional transverse line crosswalks.	.60 (Ped)
Advance Yield or Stop markings	YIELD Here to Pedestrians" or "STOP Here for Pedestrians" signs 20 to 50 feet in advance of a marked crosswalk.	0.62 (Ped)
SRTS Program	The goal of Safe Routes to School programs is to increase the amount of bicycling and walking trips to and from school while simultaneously improving safety for children bicycling or walking to school.	***

Countermeasure	Description	NHTSA Star Rating
Unrestrained Occupant		
High Visibility Enforcement of Seatbelt	Both Short Term and Sustained Seat Belt Enforcement, including child passenger safety.	*****
Education Strategies	Employer based and Older Children programs.	***
Child Restraint Inspection Stations	Child Passenger Safety (CPS) Technician staffed Inspection Stations.	***

Countermeasure	Description	NHTSA Star Rating
Distracted Driving		
Distracted Driving Education	Education campaigns (PSAs, social media ads, school/workplace education) can be conducted regarding distracted driving.	Needs further evaluation
Impaired Driving Education	Inform the public of the dangers of impaired driving and establish positive social norms that make driving while impaired unacceptable.	**

Countermeasure	Description	NHTSA Star Rating
Alcohol or Drug Related		
Enforcement of Drug and Alcohol Impaired Driving	Increased enforcement of impaired-driving laws can be a major factor in reducing impaired-driving deaths.	***
Impaired Driving Education	Inform the public of the dangers of impaired driving and establish positive social norms that make driving while impaired unacceptable.	**

Appendix F

Project Sheets

Montgomery County
Priority Project List

Map ID	Project	Type
1	Olive Street (5700 Road)	Systemic Roadway
2	US-169 / 5700 Road and 5600 Road	Systemic Roadway
3	4700 Road and 1450 Road Intersection	Intersection
4	5600 Road (Sweeney Hill Drive)	Systemic Roadway
5	Peter Pan Road, 4675 Road/Taylor Road, and W. Oak Street	Systemic Roadway
6	2600 Road and 4550 Road	Systemic Roadway
7	W. 8th Street and S. Buckey Street Intersection	Intersection
8	US-166 Corridor Intersections	Intersection
9	1250 Road, 4300 Road, 1400 Road, 4550 Road, and 1450 Road	Systemic Roadway
10	2700 Road	Systemic Roadway
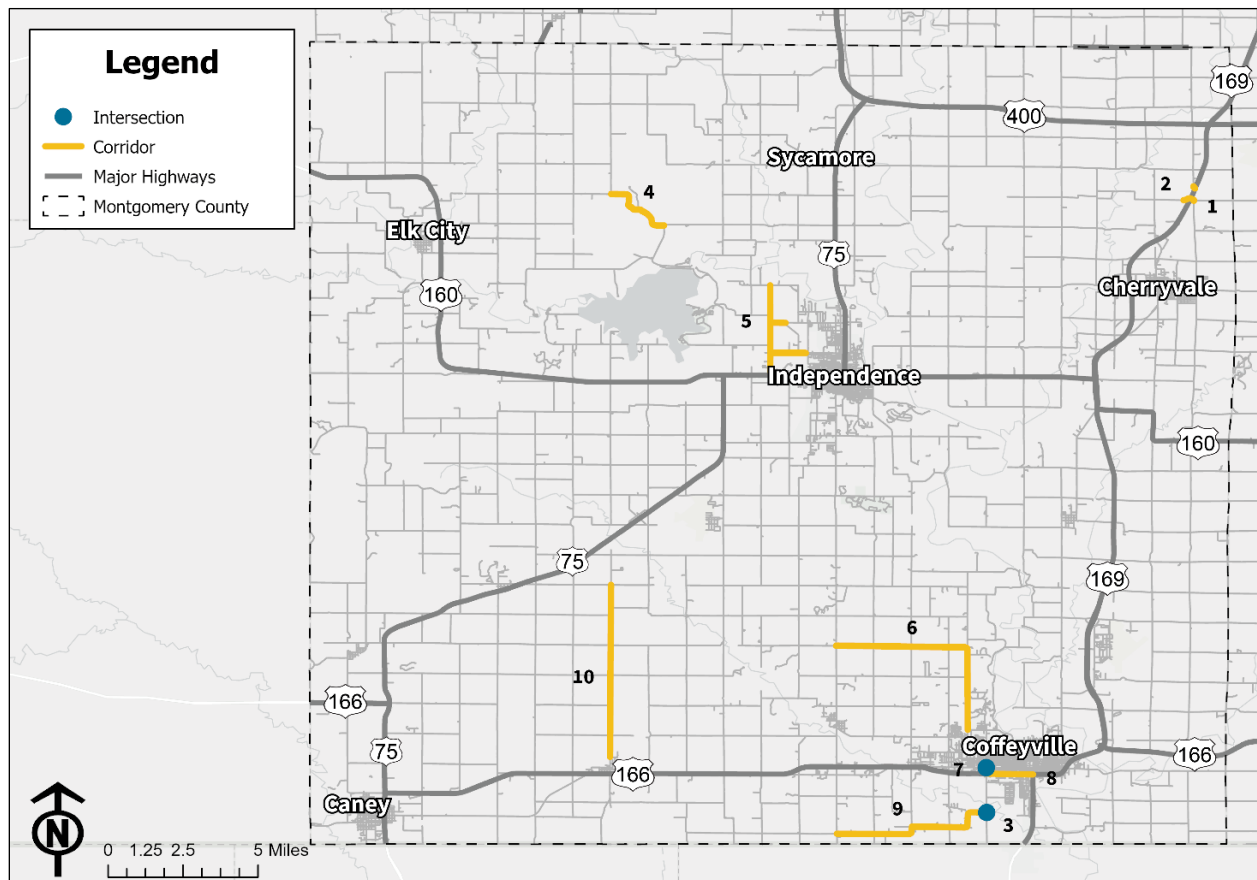
Olive Street (5700 Road)
Montgomery County

Location: Olive Street (5700 Road) from US-169 to 5600 Road (0.05 miles)

Project Information:

Description	Systemic Roadway Improvements
Project Selection Criteria	Priority Emphasis Area, High Public Interest, Local Road Safety Plan (LRSP), Crash Data
Short-Term Improvements	Update/install curve signing, install in-lane curve warning pavement markings, add retroreflective strips on signposts, install center/edge line pavement markings, improve edge drop-off, add post-mounted delineators, and update/install advance railroad signing and pavement markings.
Long-Term Improvements	Install 2-foot paved shoulders, install center/edge line rumble strips, and apply high friction surface treatment on curves.

Project Cost:

Short-Term Improvements	$10,000
Long-Term Improvements	$800,000

Project Images:

US-169 / 5700 Road and 5600 Road
Montgomery County

Location: US-169 / 5700 Road and 5600 Road (both intersections) (0.4 Miles)

Project Information:

Description	Systemic Roadway Improvements
Project Selection Criteria	Priority Emphasis Area, High Public Interest, Crash Data
Short-Term Improvements	Update/install curve signing, install in-lane curve warning pavement markings, add retroreflective strips on signposts, install center/edge line pavement markings, improve edge drop-off, and add-post mounted delineators.
Long-Term Improvements	Install 18-inch aggregate shoulders, flatten and widen fore slopes, install center/edge line rumble strips, and install transverse rumble strip before curves.

NOTE: Additional improvements are possible by partnering with KDOT for potential reconfiguration of US-169.

Project Cost:

Short-Term Improvements	$85,000
Long-Term Improvements	$225,000

Project Images:

4700 Road and 1450 Road Intersection
Montgomery County

Location: 4700 Road and 1450 Road intersection

Project Information:

Description	Intersection Improvements
Project Selection Criteria	Priority Emphasis Area, High Public Interest, Local Road Safety Plan (LRSP), Crash Data
Short-Term Improvements	Update/install signing, add retroreflective strips on signposts, and upgrade center/edge line pavement markings.
Long-Term Improvements	Reconstruct intersection.

Project Cost:

Short-Term Improvements	$19,000
Long-Term Improvements	$440,000

Project Images:

5600 Road (Sweeney Hill Drive)
Montgomery County

Location: 5600 Road (Sweeney Hill Drive) from 2700 Road to 2925 Road (0.5 miles)
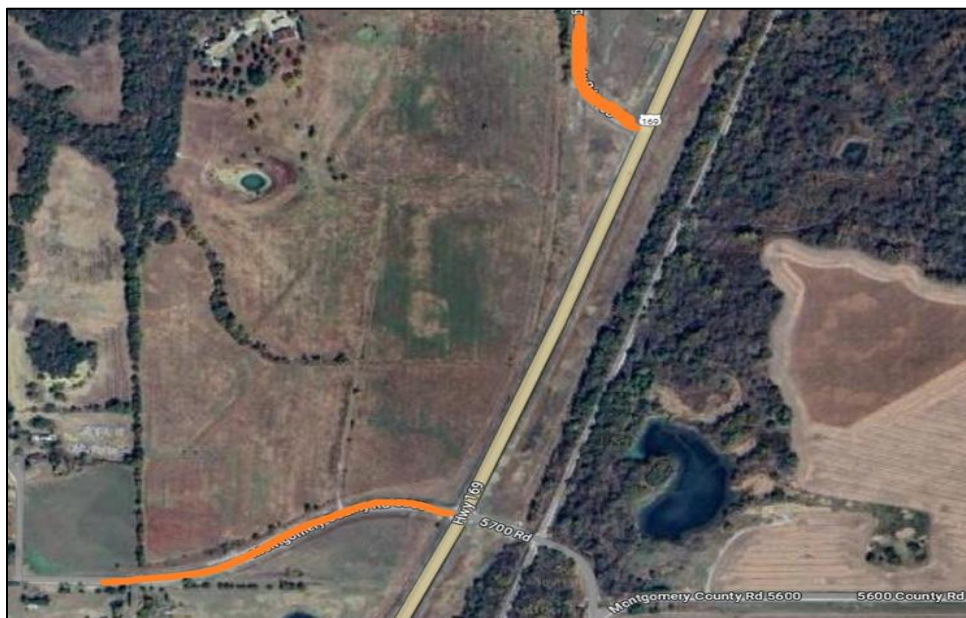
Project Information:

Description	Systemic Roadway Improvements
Project Selection Criteria	Priority Emphasis Area, High Public Interest, Crash Data
Short-Term Improvements	Update/install curve signing, install in-lane curve warning pavement markings, add retroreflective strips on signposts, install center/edge line pavement markings, improve edge drop-off, add post-mounted delineators.
Long-Term Improvements	Install 2-foot paved shoulders, install center/edge line rumble strips, install transverse rumble strips before the curves, and apply high friction surface treatment on curves.

Project Cost:

Short-Term Improvements	$112,000
Long-Term Improvements	$550,000

Project Images:

Peter Pan Road, 4675 Road/Taylor Road, and W. Oak Street
Montgomery County

Location: Peter Pan Road, 4675 Road/Taylor Road, and W. Oak Street from 5000 Road to City of Independence north city limits (4.25 miles)

Project Information:

Description	Systemic Roadway Improvements
Project Selection Criteria	Priority Emphasis Area, LRSP, Crash Data
Short-Term Improvements	Update/install curve signing, add retroreflective strips on signposts, install center/edge line pavement markings, improve edge drop-off, and add post mounted delineators.
Long-Term Improvements	Install 2-foot paved shoulders with SafetyEdge^{SM}, install center/edge line rumble strips, flatten and widen foreslopes, install/upgrade guardrail, and extend culverts.

Project Cost:

Short-Term Improvements	$96,000
Long-Term Improvements	$2.7 million

Project Images:

2600 Road and 4550 Road
Montgomery County

Location: 2600 Road and 4550 Road from 3900 Road to City of Coffeyville north city limits (6.0 miles)

Project Information:

Description	Systemic Roadway Improvements
Project Selection Criteria	Priority Emphasis Area, Local Road Safety Plan (LRSP), Crash Data
Short-Term Improvements	Update/install curve signing, add retroreflective strips on signposts, install center/edge line pavement markings, improve edge drop-off, and add post-mounted delineators.
Long-Term Improvements	Install 2-foot paved shoulders with SafetyEdge^{SM}, install center/edge line rumble strips, flatten and widen foreslopes, install/upgrade guardrail, extend culverts, and reconstruct tie-in on curve.

Project Cost:

Short-Term Improvements	$205,000
Long-Term Improvements	$4.0 millin

Project Images:
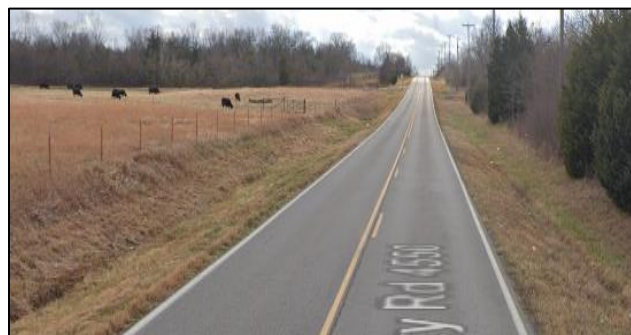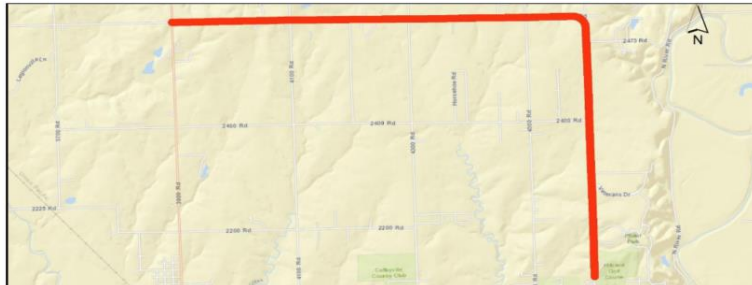
W. 8th Street and S. Buckeye Street Intersection
Montgomery County - City of Coffeyville

Location: W. 8th Street and S. Buckeye Street intersection in City of Coffeyville

Project Information:

Description	Intersection Improvements
Project Selection Criteria	Priority Emphasis Area, Crash Data
Short-Term Improvements	Upgrade traffic signal, add high-visibility signal backplates, reconfigure signal with Leading Pedestrian Intervals (LPI), and install high-visibility pavement markings for crosswalks.
Long-Term Improvements	N/A

Project Cost:

Short-Term Improvements	$600,000
Long-Term Improvements	N/A

Project Images:

US-166 Corridor Intersections
Montgomery County - City of Coffeyville

Location: Intersections along US-166 from S. Buckeye Street to US-169 in City of Coffeyville
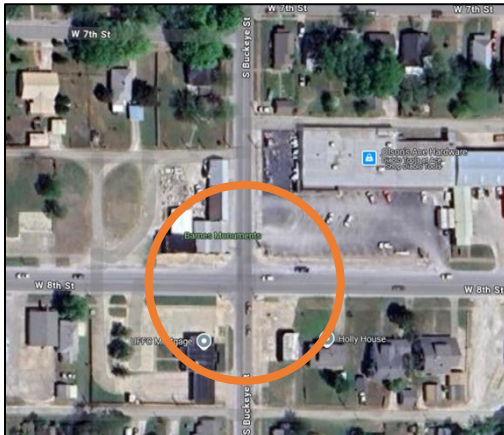
Project Information:

Description	Intersection Improvements
Project Selection Criteria	Priority Emphasis Area, Crash Data
Short-Term Improvements	Perform a Road Safety Audit (RSA) or traffic engineering study to determine a course of action for the US-166 corridor. The study should consider coordinating signal timing and adding pedestrian improvements (ex: Leading Pedestrian Intervals, high-visibility crosswalks) at both signalized and unsignalized intersections.
Long-Term Improvements	TBD by Road Safety Audit

Project Cost:

Short-Term Improvements	$200,000
Long-Term Improvements	TBD by Road Safety Audit

Project Images:
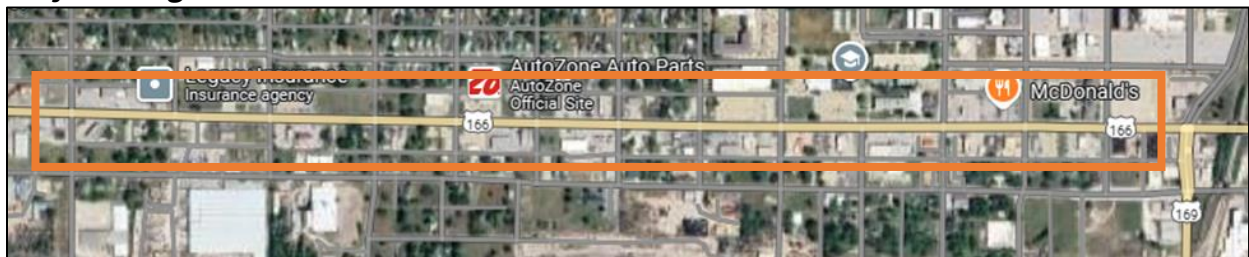
1250 Road, 4300 Road, 1400 Road, 4550 Road, and 1450 Road
Montgomery County

Location: 1250 Road, 4300 Road, 1400 Road, 4550 Road, 1450 Road from 3900 Road to 4700 Road (4.6 miles)

Project Information:

Description	Systemic Roadway Improvements
Project Selection Criteria	Priority Emphasis Area, Local Road Safety Plan, Crash Data
Short-Term Improvements	Update/install curve signing, add retroreflective strips on signposts, install center/edge line pavement markings, improve edge drop-off, and add post-mounted delineators.
Long-Term Improvements	Install 18-inch aggregate shoulders, flatten and widen foreslopes, install/upgrade guardrail, and extend culverts.

Project Cost:

Short-Term Improvements	$110,000
Long-Term Improvements	$1.85 million

Project Images:

2700 Road
Montgomery County

Location:
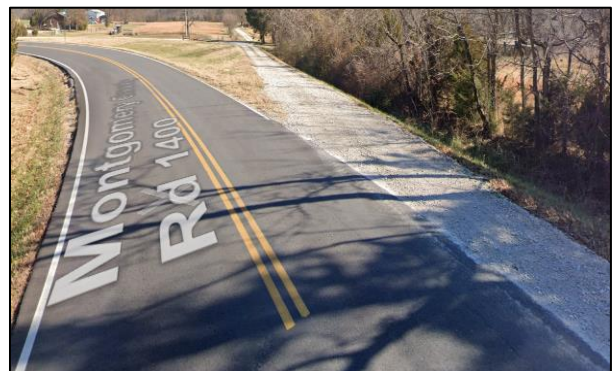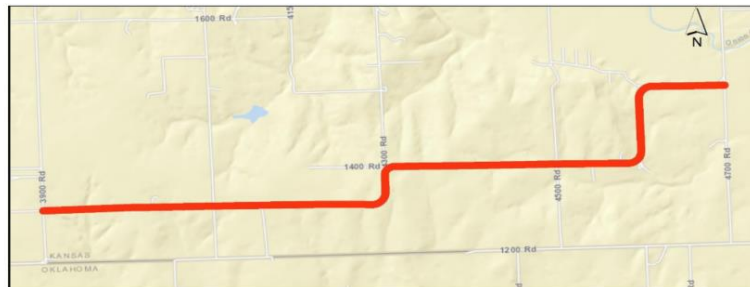2700 Road from 3000 Road to City of Tyro north city limits (5.75 miles)

Project Information:

Description	Systemic Roadway Improvements
Project Selection Criteria	Priority Emphasis Area, Local Road Safety Plan (LRSP), Crash Data
Short-Term Improvements	Install center/edge line pavement markings, improve edge drop-off, and delineate roadside hazards.
Long-Term Improvements	Install 2-foot paved shoulders with SafetyEdge^{SM}, install center/edge line rumble strips, flatten and widen foreslopes, install/upgrade guardrail, and extend culverts.

Project Cost:

Short-Term Improvements	$76,000
Long-Term Improvements	$3.5 million

Project Images:

Location	Type	County/City	Description	Source	KDOT Facility	Notes
Olive Street 005 mile north of 5600 Road	Segment	Montgomery County	upgrade signs and pavement markings, clear and grub, curve improvements, reconstruct side road tie in, add edge and center rumble strips, high friction surface treatment on curve, reconstruct culvert	LRSP, 1-on-1	No	no injury crashes 2013-2017, the intersection with US 169 near this location is a high priority location for County
US-169/ 5700 Road/5600 Road (both N and S intersections)	Intersection	Montgomery County	upgrade curve signage, clear and grub, delineators, reflective strips on posts, edge and center rumble strips	Cluster, 1-on-1	Yes	1 serious injury at N junction, 2 injury at S junction 2014-2023, County noted recent crashes
4700 Road & 1450 Road	Intersection	Montgomery County	upgrade signs and pavement markings, clear and grub, curve improvements, reconstruct side road tie in	LRSP, 1-on-1, Cluster	No	no injury crashes 2013-2017, bridge to north has been replaced, intersection remains unchanged
5600 Road (Sweeney Hill Drive) between 2700 Road and 2925 Road	Segment, Curve	Montgomery County	upgrade curve signage, clear and grub, delineators, reflective strips on posts, high friction surface treatment, edge and center rumble strips, transverse rumble strips	1-on-1	No	recent crashes noted by County
Peter Pan Road, 4675 Road/Taylor Road, W Oak Street from 5000 Road to Independence North City Limit	Segment	Montgomery County	pavement markings, delineate roadside hazards, pave 2' shoulder w/ safety edge, install/improve guardrail, add edge and center rumble strips, flatten foreslopes, extend culverts	LRSP	No	4.25 miles, 1 injury crash 2013-2017
2600 Road and 4550 Road between 3900 Road and Coffeyville North City Limit	Segment	Montgomery County	pavement markings, delineate roadside hazards, pave 2' shoulder w/ safety edge, install/improve guardrail, add edge and center rumble strips, flatten foreslopes, extend culverts, reconstruct curve tie in	LRSP, Cluster	No	6 miles, 3 injury crashes 2013-2017, intersection at 2400 Road (T intersection) is cluster location, 1 injury crash 2014-2023
8th and Buckeye	Signalized Intersection	Coffeyville	upgrade signal, add ped heads, LPI, back plates, high visibility crosswalks	Cluster	No	1 serious injury, 11 injury crashes 2014-2023
Complete Study of US 166-Corridor	Intersections	Coffeyville	perform Road Safety Audit (RSA) or Traffic Engineering Assistance Program (TEAP) study to determine course of action for US-166 corridor; include study of both signalized and unsignalized intersections for consideration of update/coordinate signal timing, add ped improvements such as LPI, high visibility crosswalks	Cluster	Yes	multiple clusters along corridor

1250 Road, 4300 Road, 1400 Road, 4550 Road, 1450 Road between 3900 Road and 4700 Road	Segment	Montgomery County	pavement markings, delineate roadside hazards, pave 2' shoulder w/ safety edge, install/improve guardrail, flatten foreslopes, extend culverts	LRSP	No	4.6 miles, 3 injury crashes 2013-2017
1425 Road between Caney East City Limit and 2300 Road	Segment	Montgomery County	pavement markings, delineate roadside hazards, pave 2' shoulder w/ safety edge, install high friction surface treatment on curve, add edge and center rumble strips, flatten foreslopes, extend culverts	LRSP	No	3.75 miles, 1 injury crash 2013-2017
4700 Road between Coffeyville South City Limit and 1200 Road	Segment	Montgomery County	pavement markings, delineate roadside hazards, pave 2' shoulder w/ safety edge, install/improve guardrail, add edge and center rumble strips, flatten foreslopes, extend culverts	LRSP	No	2.16 miles, 2 injury crashes 2013-2017
2700 Road between 3000 Road and Troy North City Limit	Segment	Montgomery County	pavement markings, delineate roadside hazards, pave 2' shoulder w/ safety edge, install/improve guardrail, add edge and center rumble strips, flatten foreslopes, extend culverts	LRSP	No	5.74 miles, 1 serious injury, 6 injury crashes 2013-2017
5600 Road and 5700 Road near US-169	Curve	Montgomery County	upgrade curve signage, clear and grub, delineators, reflective strips on posts, edge and center rumble strips, reconstruct tie in on curve	1-on-1	No	
11th Street (US 166) & S Elm Street	Unsignalized Intersection	Coffeyville	study for possible signalization (ex: TEAP study)	Cluster	Yes	9 injury crashes 2014-2023
1800 Road between Coffeyville East City Limit and 5900 Road	Segment	Montgomery County	pavement markings, delineate roadside hazards, pave 2' shoulder w/ safety edge, install/improve guardrail, flatten foreslopes, extend culverts, bridge replacement	LRSP	No	3.7 miles, 1 serious Injury crash, 3 injury crashes 2013-2017, bridge replacement alone is $5M construction cost
5000 Road between 4900 Road and US-169	Segment	Montgomery County	pavement markings, delineate roadside hazards, pave 2' shoulder w/ safety edge, install/improve guardrail, add edge and center rumble strips, flatten foreslopes, extend culverts	LRSP	No	2.9 miles, 1 serious injury and 2 injury crashes 2013-2017
3300 Road (Table Mound Road) between Squaw Creek Road and 5500 Road	Segment, Curve	Montgomery County	review upgrade curve signing, add 18" agg shoulder, add rumble strips center and edge	Cluster, 1 on1	No	5 PDO, no injury crashes, roadway departure

US-166 from Sunflower to 4th Street	Intersection	Coffeyville	work with KDOT to perform access management study for segment from Sunflower to 4th Street, including a review of turning movements	1-on-1	Yes	differs from the study above as the focus is access to Sunflower Road and the refinery in the NE corner of Coffeyville
Road 4675 (Taylor Road) from RR Crossing east to 21st Street	Segment	Montgomery County	pavement markings, delineate roadside hazards, pave 2' shoulder w/ safety edge, install/improve guardrail, add edge and center rumble strips, flatten foreslopes, extend culverts	1-on-1	No	0.75 miles
3900 Road between 3400 Road and 3600 Road	Segment, Curve	Montgomery County	upgrade curve signage, add rumble strips center and edge, review guardrail for upgrade	Cluster	No	2 serious injury crashes 2014-2023
3400/3950/3275 Roads between 3900 Road and 4100 Road	Curves	Montgomery County	upgrade curve signage, clear and grub, delineators, reflective strips on posts, edge and center rumble strips, reconstruct tie in on curve	Cluster	No	4 crashes, no injury crashes 2014-2023
6000 Road and 5100 Road	Curve, Intersection	Montgomery County	upgrade curve signage, clear and grub, delineators, reflective strips on posts, edge and center rumble strips, reconstruct tie in on curve	Cluster	No	3 injury crashes 2014-2023
2300 Road & 1425 Road	Intersection	Montgomery County	add yield or stop control to minor leg	Cluster	No	5 crashes, no injury crashes 2014-2023
Sunflower Road/5100 Road, 2 miles N of Coffeyville	Curve	Montgomery County	add advance curve signing, advance RR signing including speed warning, rumble strips, center and edge, in lane pavement markings	Cluster	No	sharp curves over RR crossing, guardrail around RR signals hit on both sides, 14 crashes, 2 injury crashes 2014-2023
3900 Road & 2000 Road	Intersection	Montgomery County	add advance warning signing, clear and grub	Cluster	No	no advance warning, poor sight distance, 5 crashes, 1 injury crash 2014-2023