PROJECT OVERVIEW

The City of Lawrence, the Lawrence - Douglas County Metropolitan Planning Organization and partners Baldwin City and City of Eudora received federal funding from the US Department of Transportation (USDOT) to complete a Vision Zero Safety Action Plan for Lawrence, Eudora, and Baldwin City.

THIS PLAN WILL...

- Establish a roadmap for how a community can eliminate traffic deaths and serious injuries on its streets.
- Give details on goals, emphasis areas, and action items.
- Adopt evidence-based technologies and solutions to promote safety and equity for those traveling in the Lawrence, Eudora, and Baldwin City area.

VISION

United for Safety

A spirit of mutual care shapes a transportation system that works towards eliminating all deaths and serious injuries on our roadways. Promoting collaboration and proactive engagement, we work to ensure our transportation networks are safe, accessible, accommodating, and comfortable for every community member, especially the most vulnerable

GOALS

Enhanced Multimodal Connectivity

Upgrade our infrastructure to provide safe, efficient, continuous, accessible, and comfortable routes across the city for all modes, with a special focus on protecting vulnerable users.

Community-Driven Safety Initiatives

Leverage local culture and community insights to enrich street safety designs, utilizing artistic elements and innovative, smart technology that encourage everyone to participate in maintaining a safe environment.

Data-Driven, Proactive Community Safety

Employ advanced analytics to identify changing safety needs, track improvement over time, encourage transparency, and allow public feedback to shape a pro-active, adaptable, and inclusive transportation system.

WHAT IS THE SAFE SYSTEMS APPROACH?

The Safe Systems Approach is a framework of six principles:

1. Deaths and serious injuries are unacceptable
2. Humans make mistakes
3. Humans are vulnerable
4. Responsibility is shared
5. Safety is proactive
6. Redundancy in safety measures is crucial

Each principle aims to meet five objectives:

- Safer people
- Safer vehicles
- Safer speeds
- Safer roads
- Post-crash care

CONSIDERATIONS

- **Anticipating Human Error.** The road system should be designed to anticipate human mistakes.
- **Limiting Impact Energy.** The road system should be designed to keep the impact of energy on the human body at a tolerable level.
- **Prioritizing Safety.** Safety should be the primary concern in the road transport system, above other issues.
- **Making Safety Equitable.** Everyone should have access to safety and comfort, not just certain people or parts of town.
- **Adapting to people's limitations.** The system should be adapted to understand people's vulnerabilities and limitations, rather than prioritizing speed and throughput.

TERMS TO KNOW

Vulnerable Road Users

Vulnerable Road Users (VRUs) are people who walk, bike, roll, or use assistive mobility devices.

High Injury Network

A High Injury Network (HIN) are areas where dangerous crashes are concentrated and can include corridors and intersections throughout the community. The HIN is based on crash density, crash severity, and crash frequency.

Serious Injury

Serious injuries are injuries that require hospitalization or surgery (e.g., fractures, traumatic brain injuries (TBIs), or other internal injuries).

WHAT IS THE PROJECT TIMELINE?

CRASH ANALYSIS

Project Launch
(March 2024)

Vision and Goal Development
(April 2024)

PUBLIC ENGAGEMENT

Public Open House #1
(May 2024)

Public Survey Available
(May - July 2024)

Pop-Up Meetings
(June - July 2024)

Public Open House #2
(October 2024)

PLAN

Plan Development
(August - September 2024)

Draft Plan
(November 2024)

Final Plan Adoption
(January 2025)

SURVEY HIGHLIGHTS

The survey was promoted online and at pop-up events in Lawrence, Eudora, and Baldwin City.

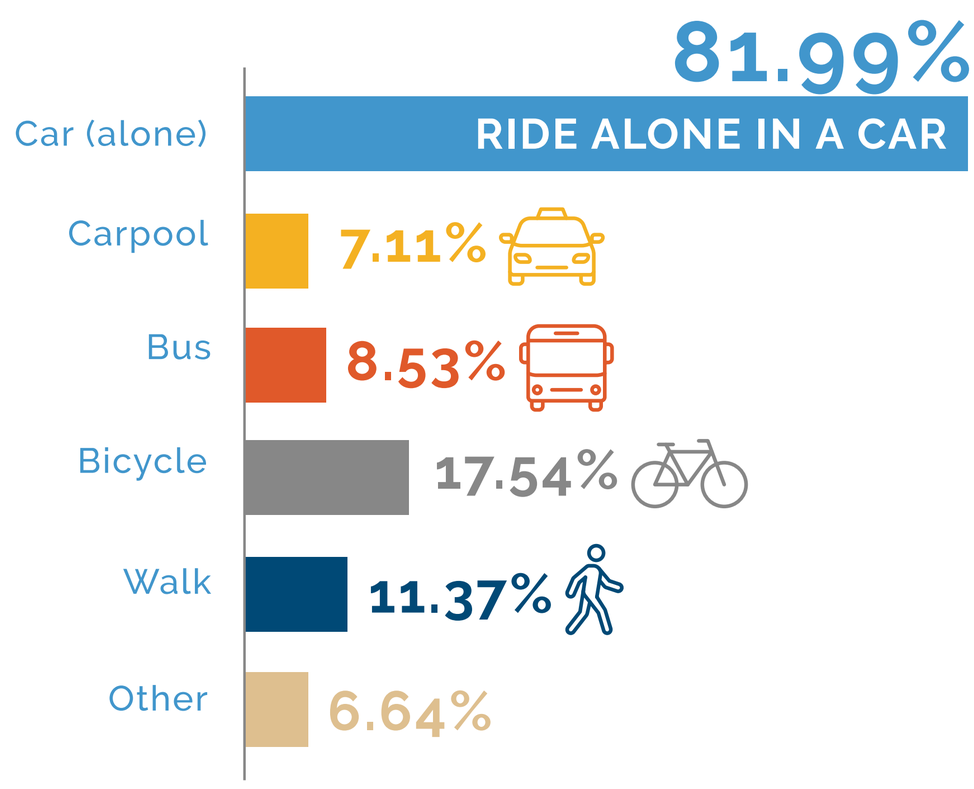
KEY TAKEAWAYS

- Majority of respondents choose to ride in a car alone.
- Safety is of importance to the respondents and distracted driving is the top concern.
- Respondents are most interested in design or engineering solutions.

HOW DO YOU USUALLY GET TO WORK OR SCHOOL?

(Select up to two answers)

Total Respondents: 211

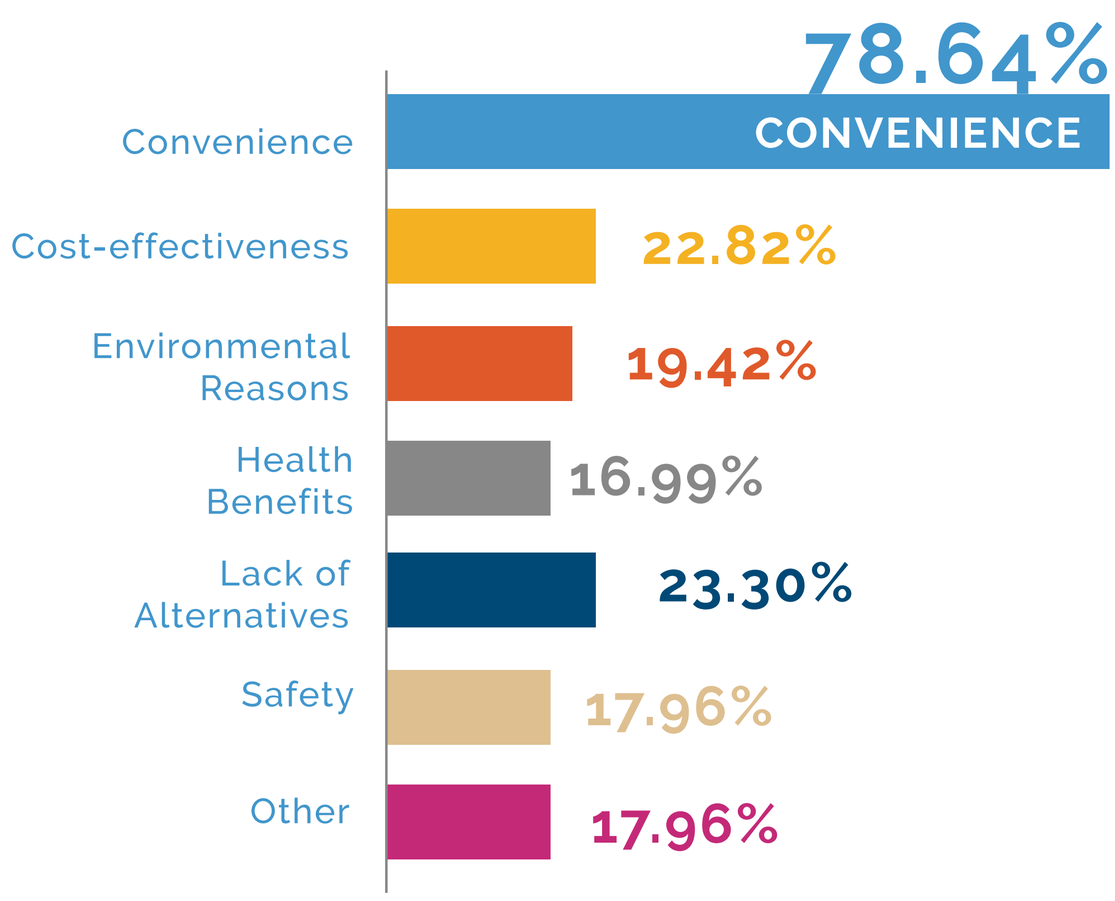


- **173 respondents** indicated they use a car (alone)
    - 40 respondents indicated another mode in addition to the car
- **36 respondents** did not choose car
- Other modes selected individually or in combinations included:
    - Carpool
    - Walking
    - Bicycle
    - Bus

WHY DO YOU CHOOSE THIS MODE OF TRANSPORTATION?

(Select all that apply)

Total Respondents: 206

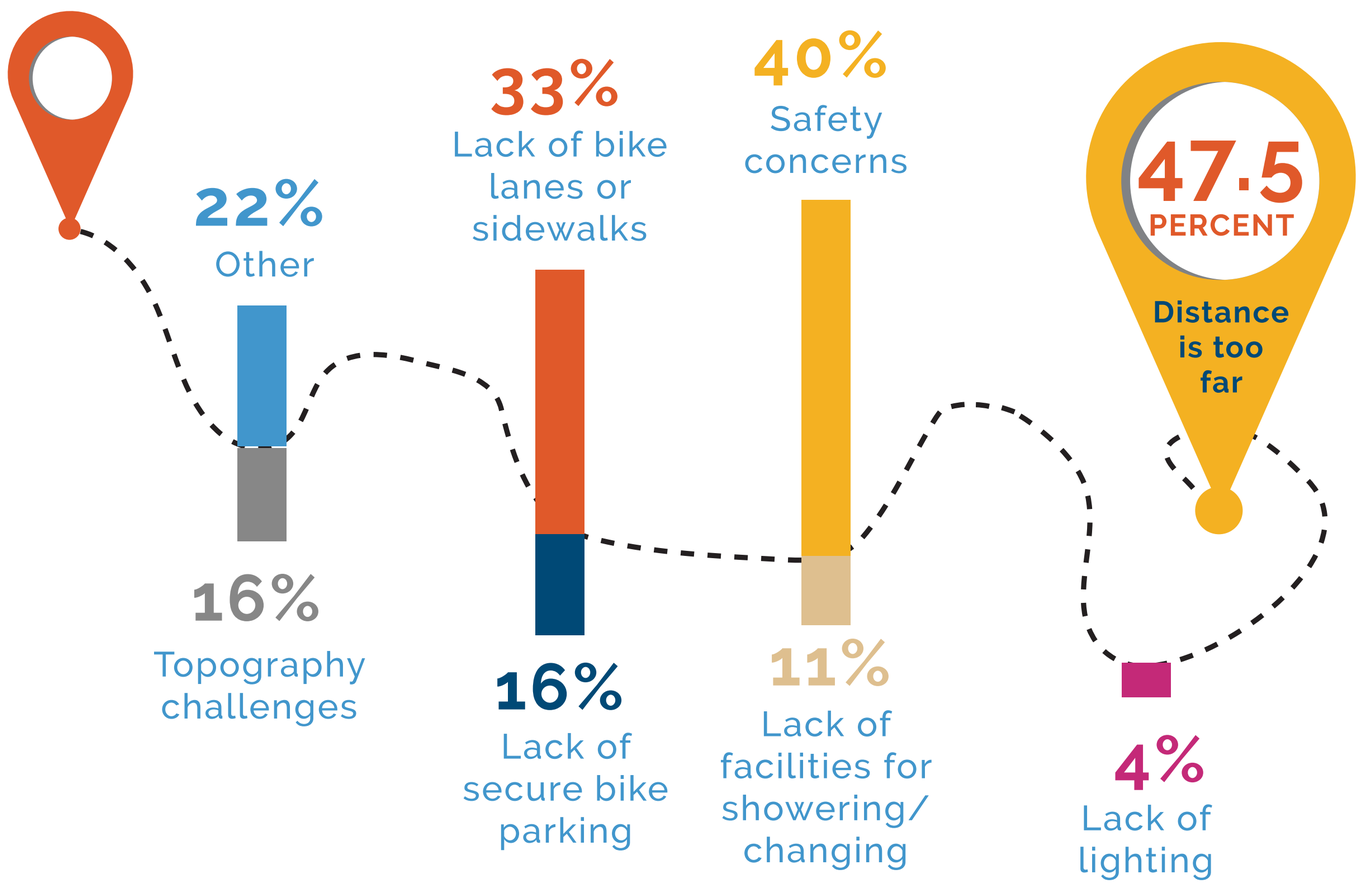


- Convenience is the main factor influencing people's transportation choices.
- Other factors reflect respondent's preferences, needs, opportunities and values regarding their travel.
- Gives us an understanding of what's most important to the community when designing and implementing effective solutions.

SURVEY HIGHLIGHTS

WHAT BARRIERS PREVENT YOU FROM BIKING OR WALKING TO YOUR DESTINATION? (Select up to two)

Total Respondents: 200

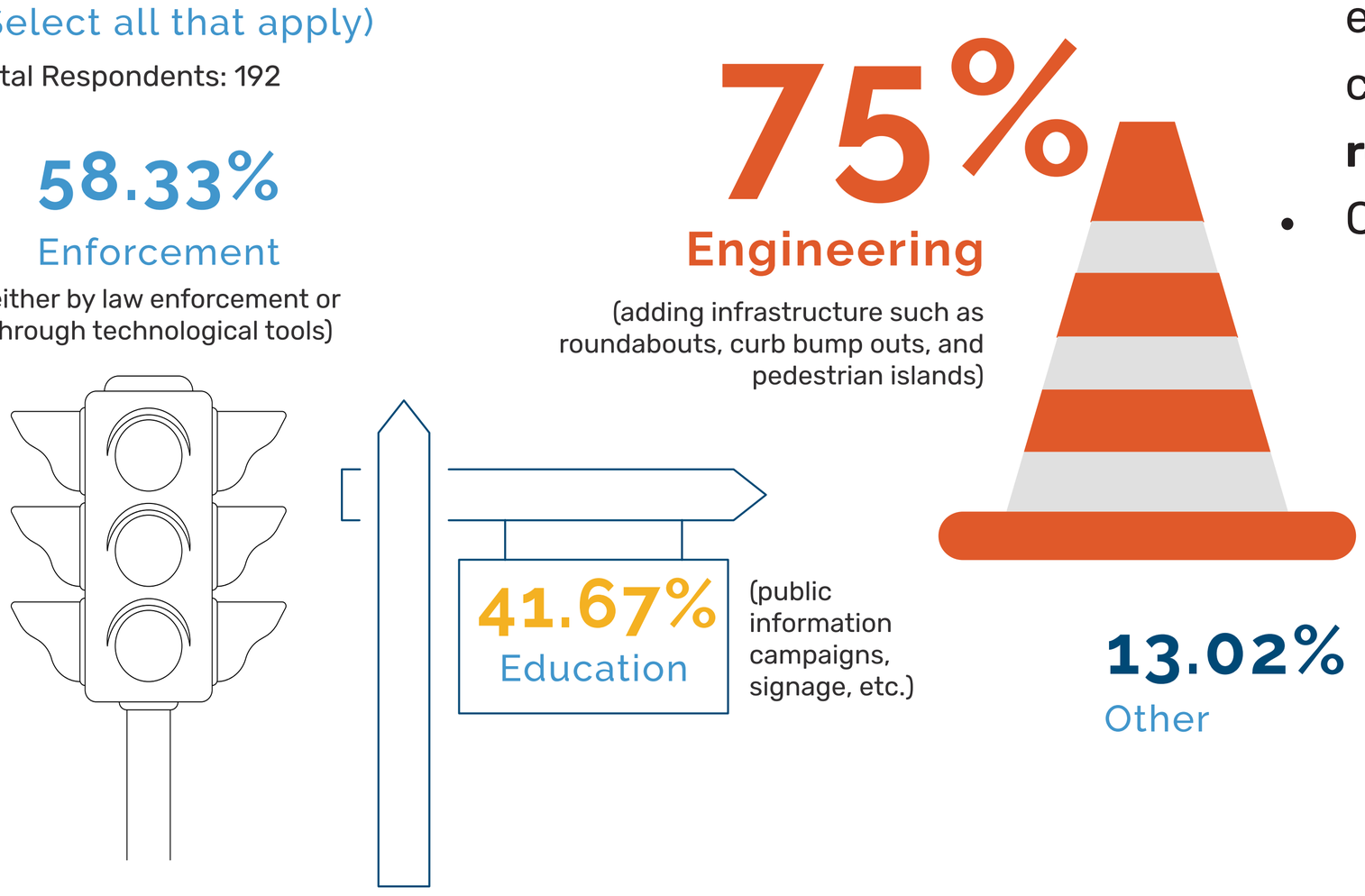


- Most common response was the distance of their destination being too far. **(95 respondents)**
- Safety concerns **(80 respondents)**
- Lack of bike lanes/sidewalks **(66 respondents)**
- Other factors included:
  - Physical abilities
  - Weather
  - Convenience or need for a car
  - Motivation

WHAT TYPE OF SAFETY TREATMENTS WOULD YOU SUPPORT IN YOUR COMMUNITY?

(Select all that apply)

Total Respondents: 192



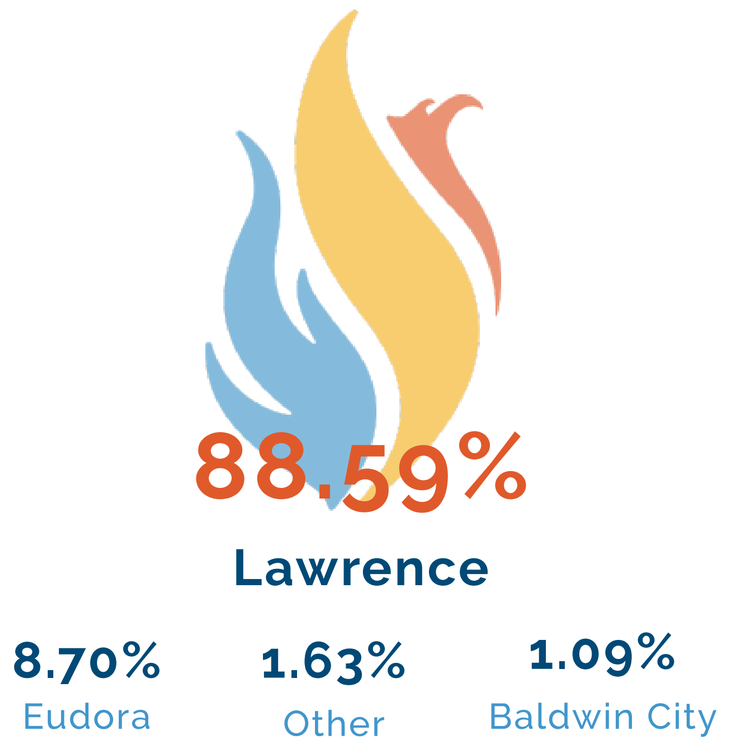
- Engineering solutions are highly supported by **144 respondents**
- Enforcement by either law enforcement or technology tools closely followed engineering. **(112 respondents)**
- Other factors included:
  - Specific engineering solutions
  - Education on the engineering solutions
  - Desire for less roundabouts
  - Increased driving requirements/testing

SURVEY HIGHLIGHTS

SURVEY DEMOGRAPHICS

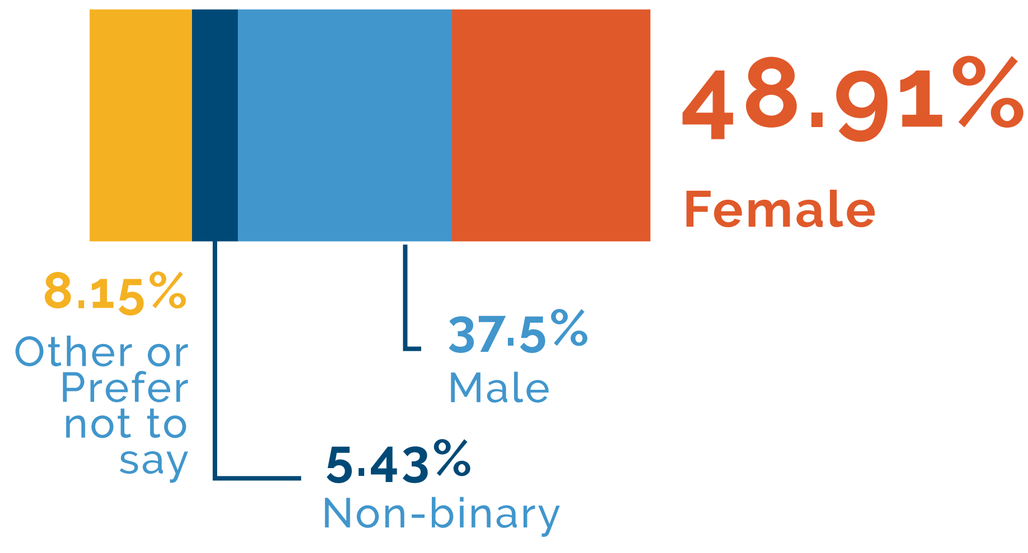
WHAT CITY DO YOU LIVE IN?

Total Respondents: 184



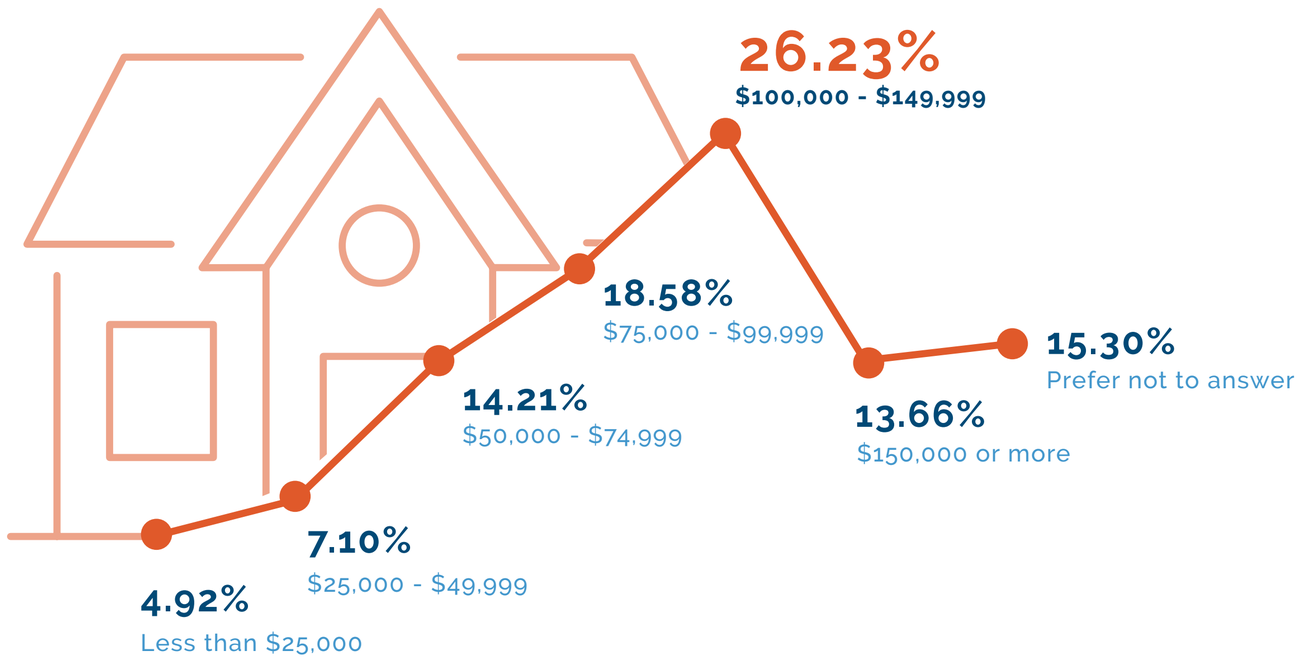
WHAT IS YOUR GENDER?

Total Respondents: 184



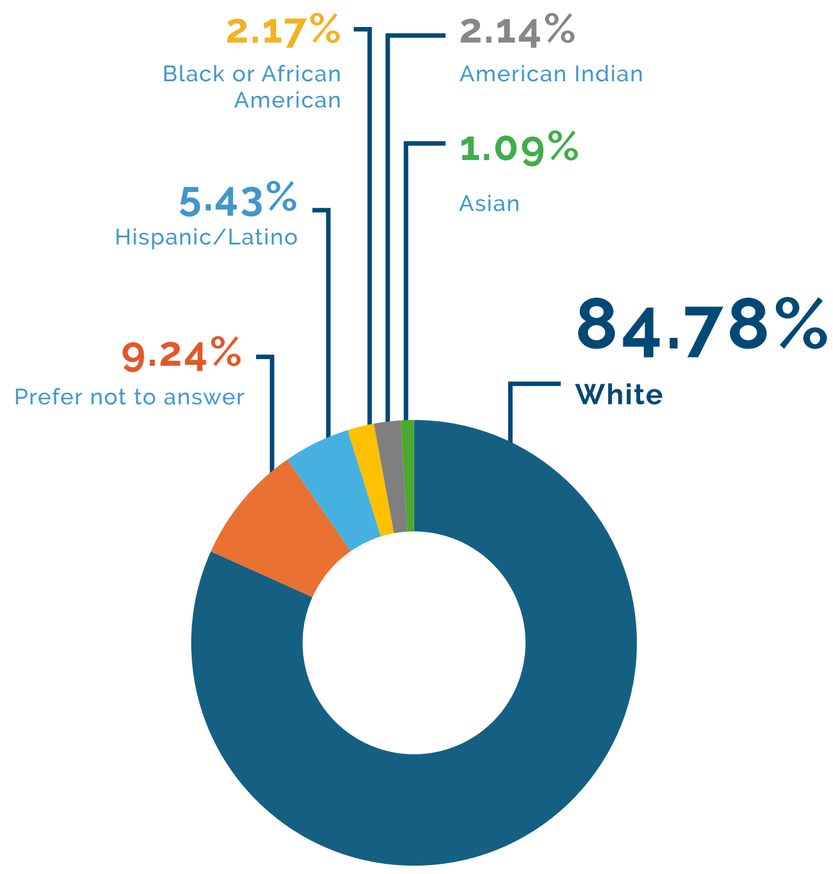
WHAT IS YOUR HOUSEHOLD INCOME RANGE?

Total Respondents: 183



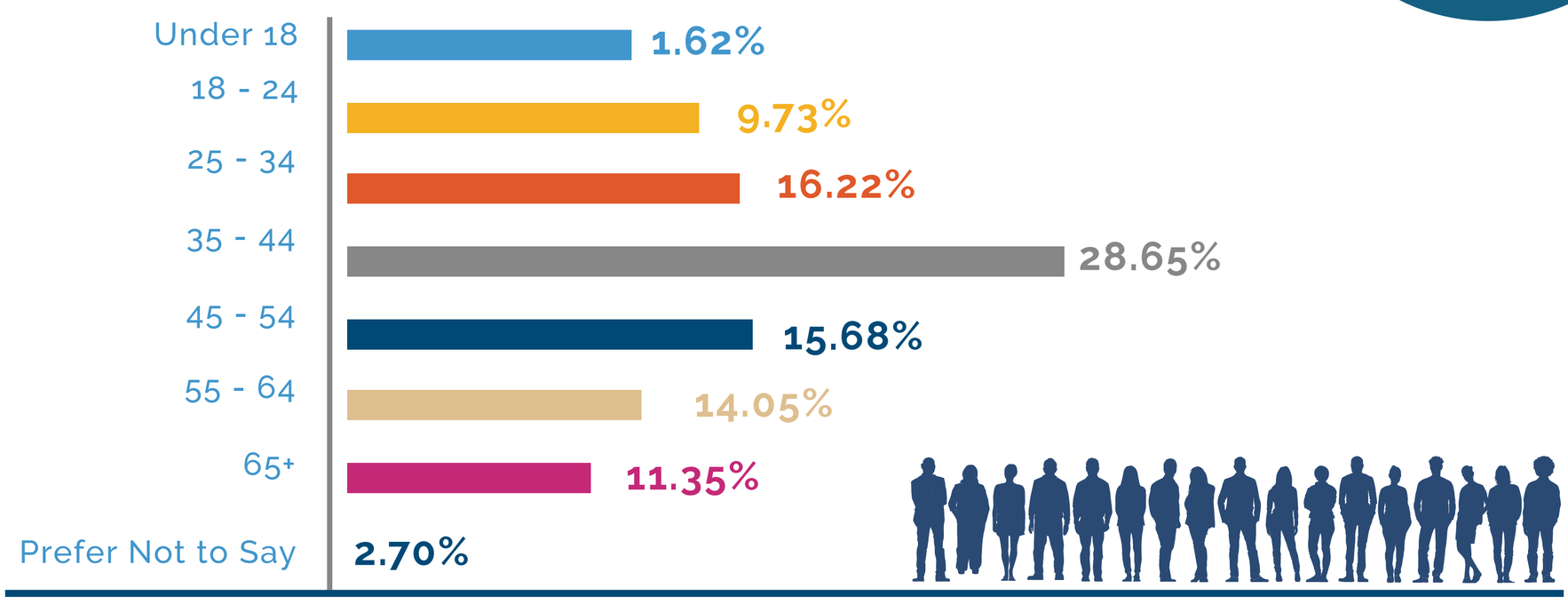
WHAT IS YOUR ETHNICITY?

Total Respondents: 184



WHAT IS YOUR AGE GROUP?

Total Respondents: 185



INTERACTIVE DASHBOARD

COMING SOON!

OVERVIEW

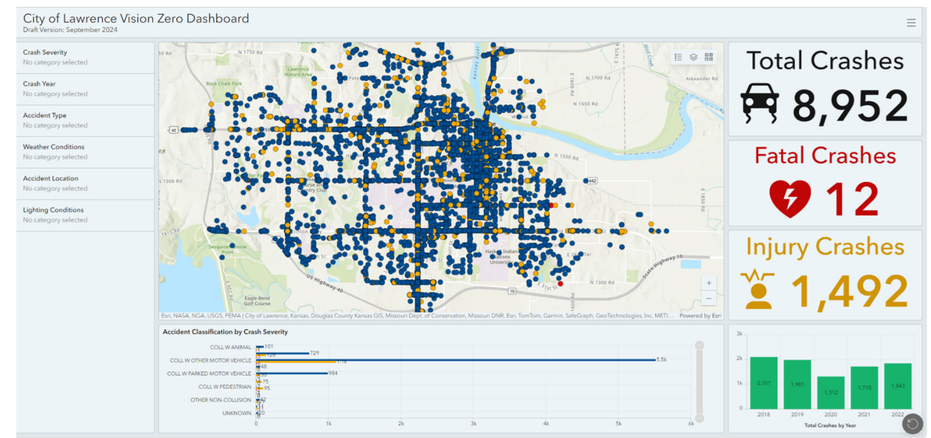
- The public dashboard will serve as an interactive tool for tracking the progress of the Vision Zero Transportation Safety Action Plan efforts.

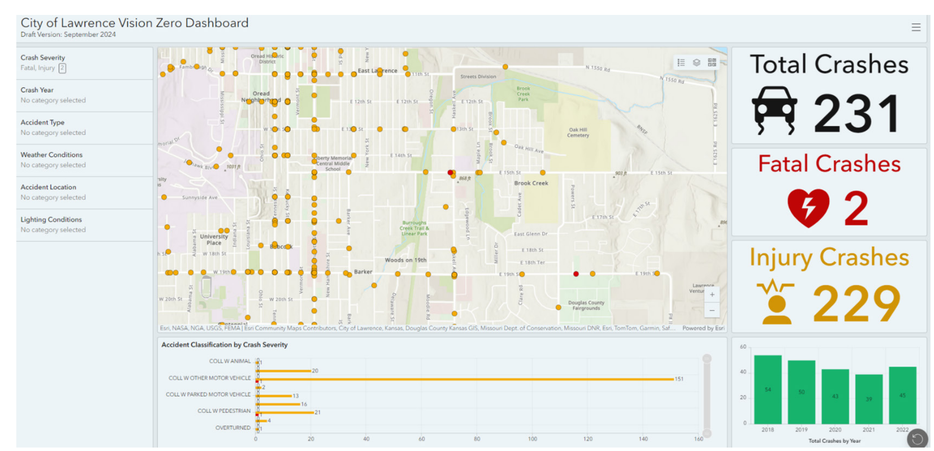
DATA DISPLAYED

- Crash Data: Information on crash frequency, severity, and location within each city (Lawrence, Eudora, Baldwin City), including vehicle, pedestrian, and bicycle crashes.
- Crash Density: Visual heatmaps will illustrate crash hotspots, helping users identify areas of concern.
- High Injury Network (HIN): The dashboard will highlight corridors and intersections with the highest concentration of severe and fatal crashes, specific to each city.

SAFETY PROJECTS

- The dashboard will allow users to track safety improvement projects.
- Performance metrics will show whether cities Vision Zero goals are on track.





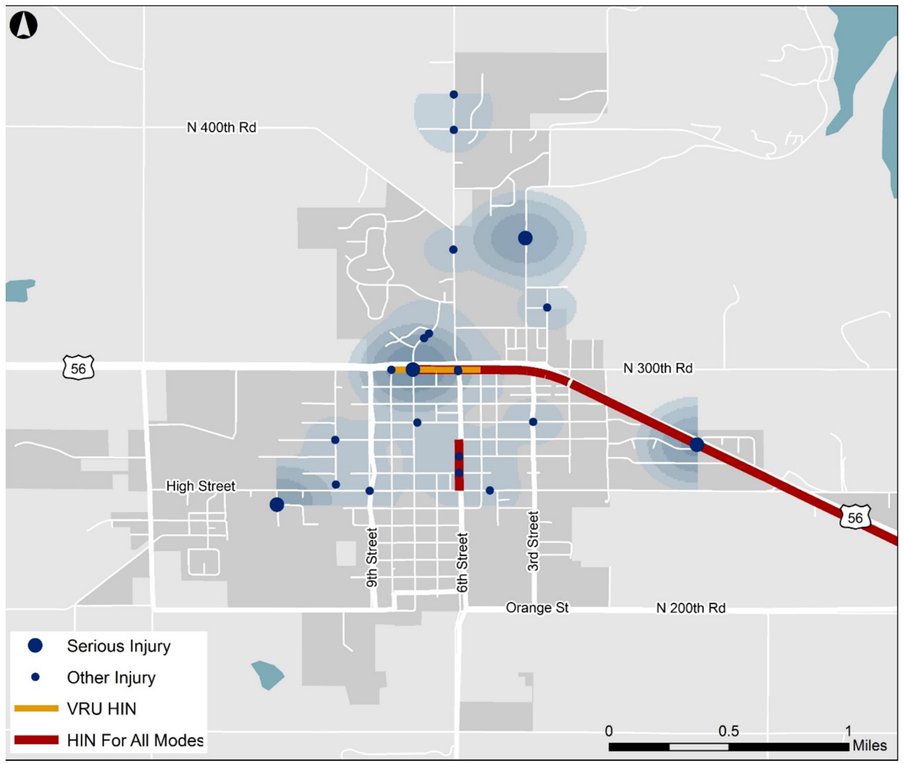
HIGH INJURY NETWORKS (HIN)

HIN OVERVIEW

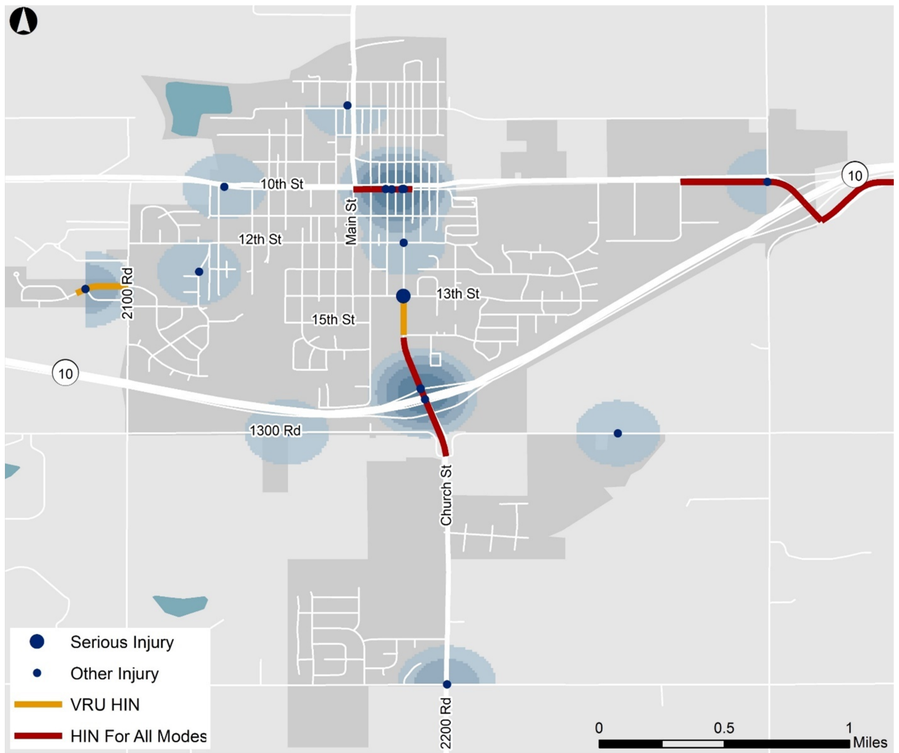
- The High Injury Network (HIN) identifies the corridors and intersections within each city where the highest number of serious injury and fatal crashes occur.
- The HIN guides decision makers on where to focus safety improvement, such as lane reconfigurations, roundabouts and/or other bicycle and pedestrian improvements.

METHODOLOGY & PURPOSE

- This approach focuses resources on areas with the greatest need for safety improvements.
- The network is based on a detailed analysis of crash frequency, severity, and other contributing factors (speed, traffic volume, road design).
- Each city has its own unique HIN, reflecting localized crash patterns and risks. This includes an overall HIN, based on all crashes, and a Vulnerable Road User (VRU) HIN, focused on bike and pedestrian crashes.

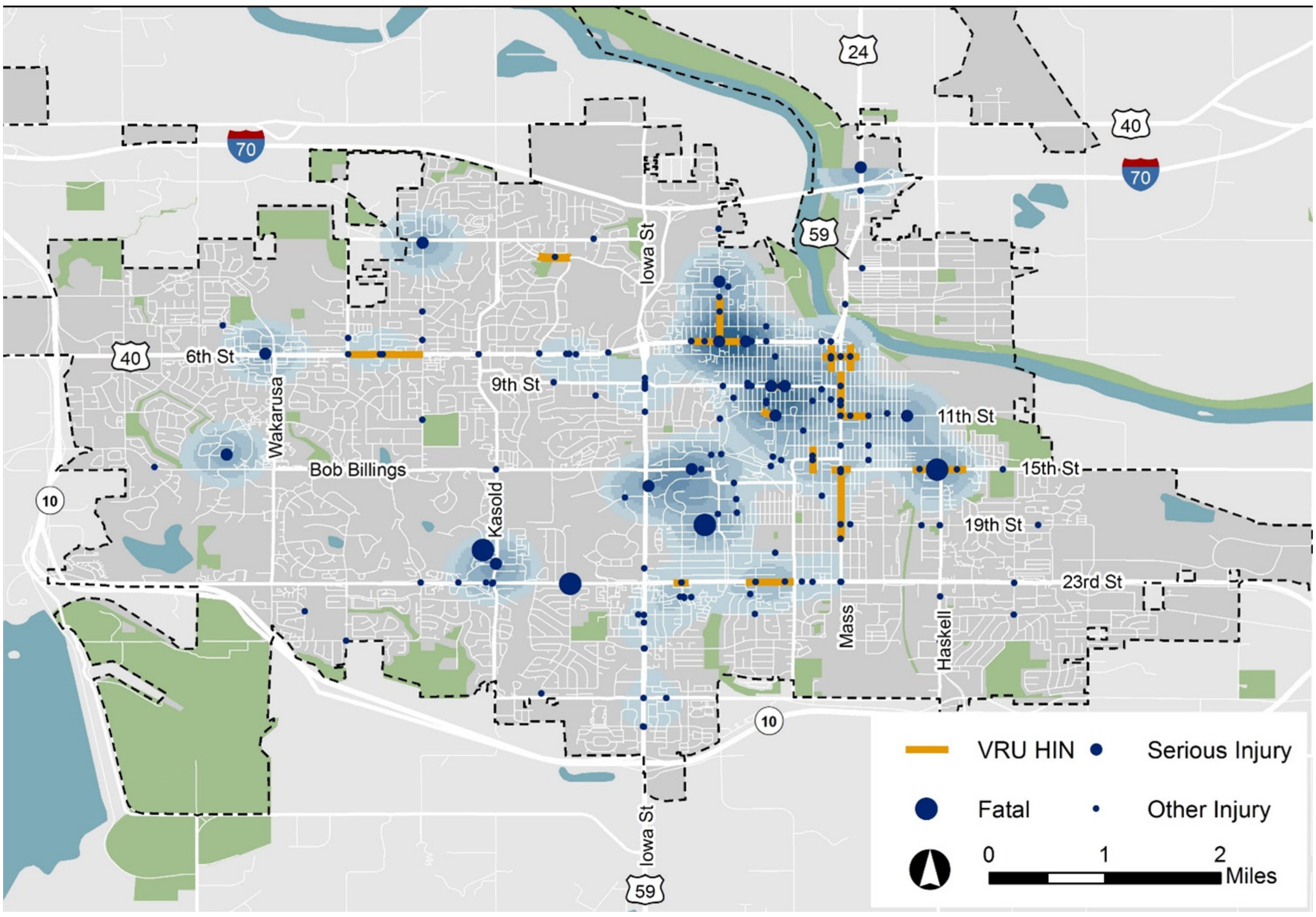


Baldwin City HIN



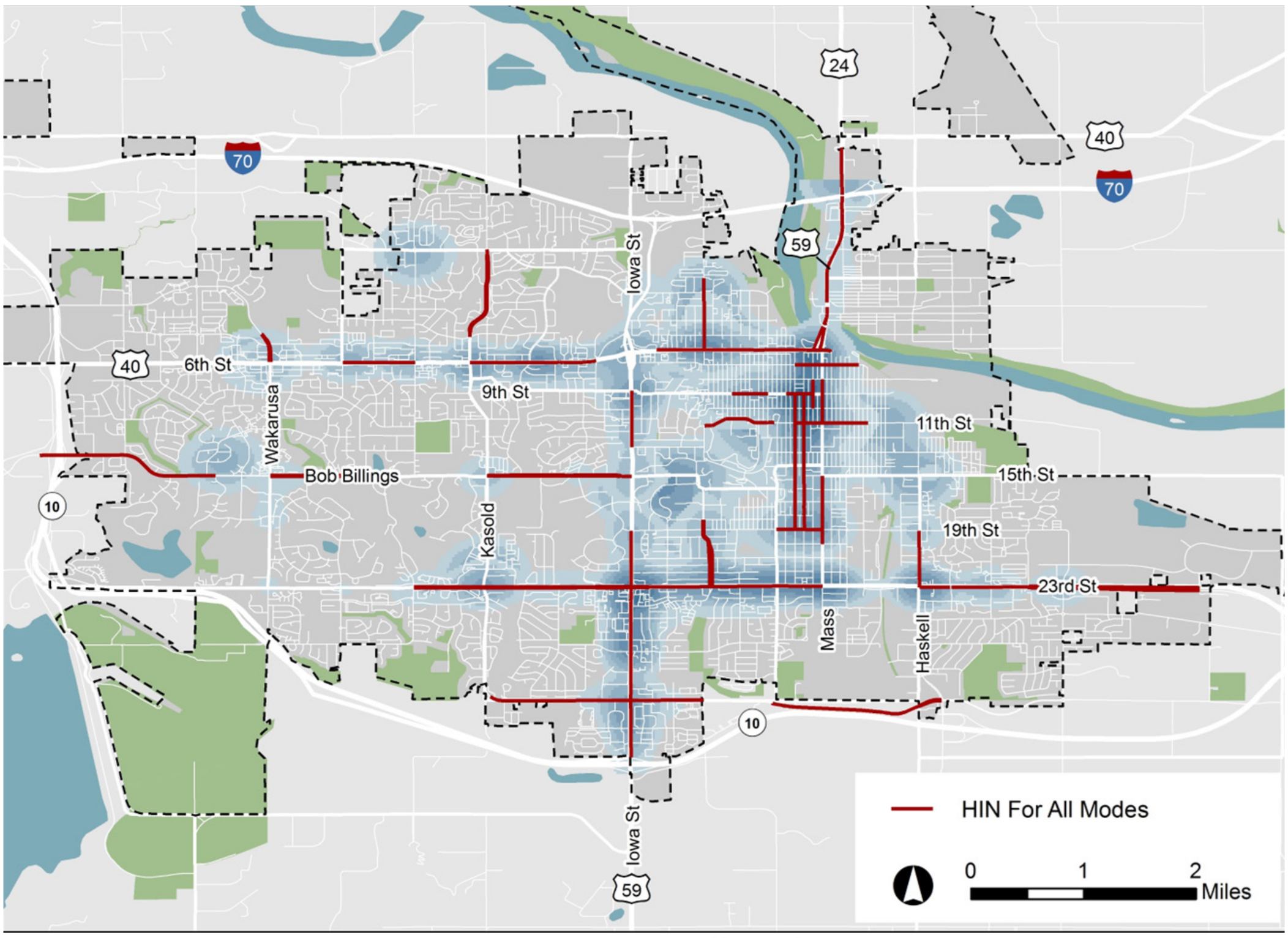
Eudora HIN

HIGH INJURY NETWORKS (HIN)



Lawrence HIN - Vulnerable Road Users

30% of fatal and serious injury VRU crashes have occurred on just 1% of the roadways.



Lawrence HIN - All Modes

65% of fatal and serious injury crashes have occurred on just 7% of the roadways.

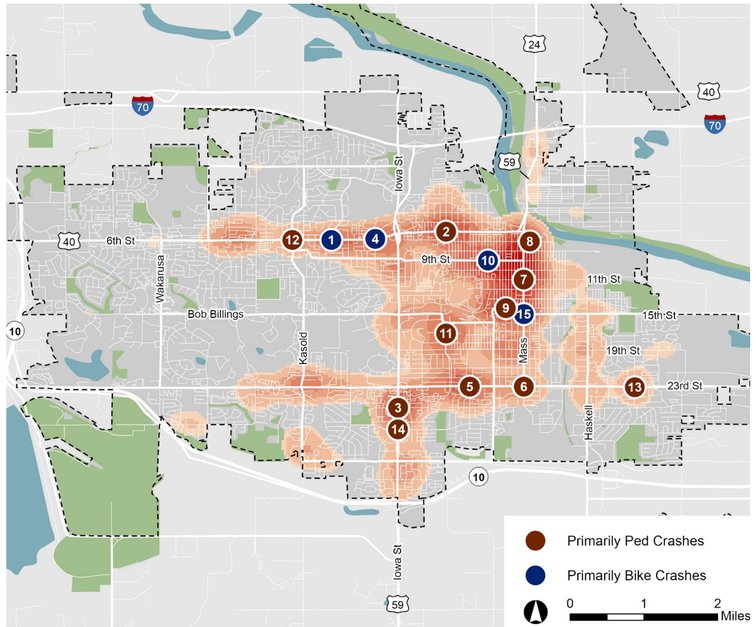
HIGH RISK LOCATION RANKINGS

OVERVIEW

- Corridors and intersection locations are identified based on crash data, ranking by severity and frequency.
- The ranking helps prioritize locations for improvements, focusing on areas with the greatest need for intervention.

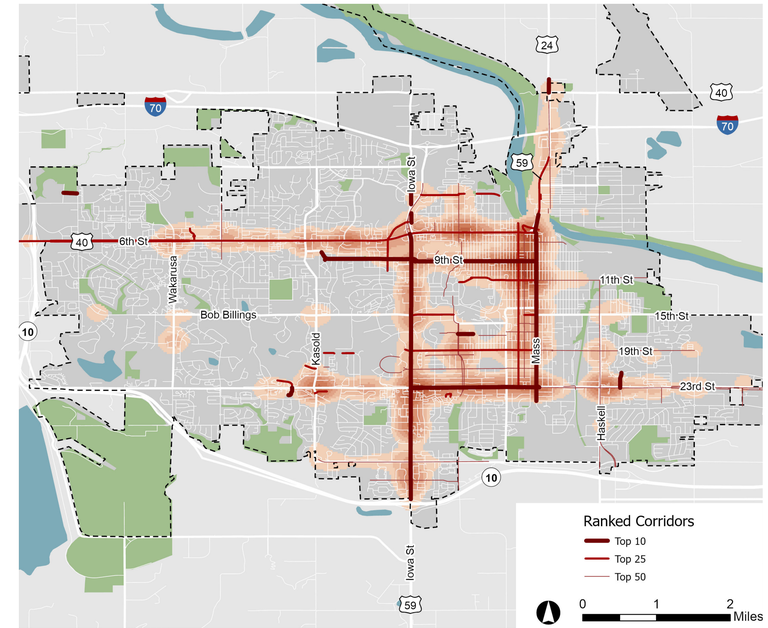
METHODOLOGY & PURPOSE

- The rankings are determined using a combination of crash frequency, severity (injuries and fatalities), and risk factors such as speed limits, traffic volume, and road design.
- Each ranked corridor and intersection are mapped for easy visualization.
- The ranked locations serve as a starting point for selecting safety projects, guiding decisions on interventions like lane reconfiguration, roundabouts, raised crosswalks, and other traffic calming measures.



Rank	Intersection	Bike	Pedestrian	Total Crashes	Fatal	Disabling	Other Injury	Traffic Count
1	6th & Lawrence	7	1	8	-	1	7	27,000
2	6th & Michigan	2	6	8	-	1	7	26,000
3	25th & Iowa	-	8	8	-	-	8	24,000
4	6th & Rockledge	5	2	7	-	1	6	27,000
5	23rd & Alabama	2	4	6	-	-	6	28,000
6	23rd & Massachusetts	1	4	5	-	1	4	27,000
7	11th & Massachusetts	1	4	5	-	-	5	13,000
8	7th & New Hampshire	1	4	5	-	-	5	12,000
9	14th & Tennessee	-	5	5	-	-	5	3,000
10	9th & Indiana	3	1	4	-	1	3	17,000
11	Naismith & Schwegler	-	4	4	-	1	3	8,000
12	6th & Kasold	1	3	4	-	-	4	23,000
13	23rd & Harper	-	4	4	-	-	4	22,000
14	27th & Iowa	0	4	4	-	-	4	15,000
15	15th & Massachusetts	3	1	4	-	-	4	13,000

Corresponding Table for ranked VRU Intersections (left)



EDUCATION STRATEGIES

Objective

Empower the community with knowledge and tools to promote safe driving behaviors and reduce crashes.

Impact on Safety

Education improves understanding of each road user's rights and responsibilities. Encouraging each user to do their part in creating and maintaining a safe transportation system.

KEY EDUCATION TOOLS

Public Awareness Campaigns. Educate drivers, pedestrians, and cyclists on safety rules, crash risks, and the importance of following traffic laws.

- Focus on speeding, distracted driving, and intersection safety.
- Utilize social media, billboards, and community events to reach a broad audience.

Partnership with Non-Profit Organizations. Collaborate with local non-profits to enhance educational outreach in schools, neighborhoods, and high-risk areas.

- Non-profits can lead workshops, organize community events, and distribute safety materials.
- Focus on vulnerable groups like children, seniors, and cyclists.

School Programs and Curriculum Integration. Implement traffic safety education in local schools to teach students safe behaviors as pedestrians, cyclists, and future drivers.

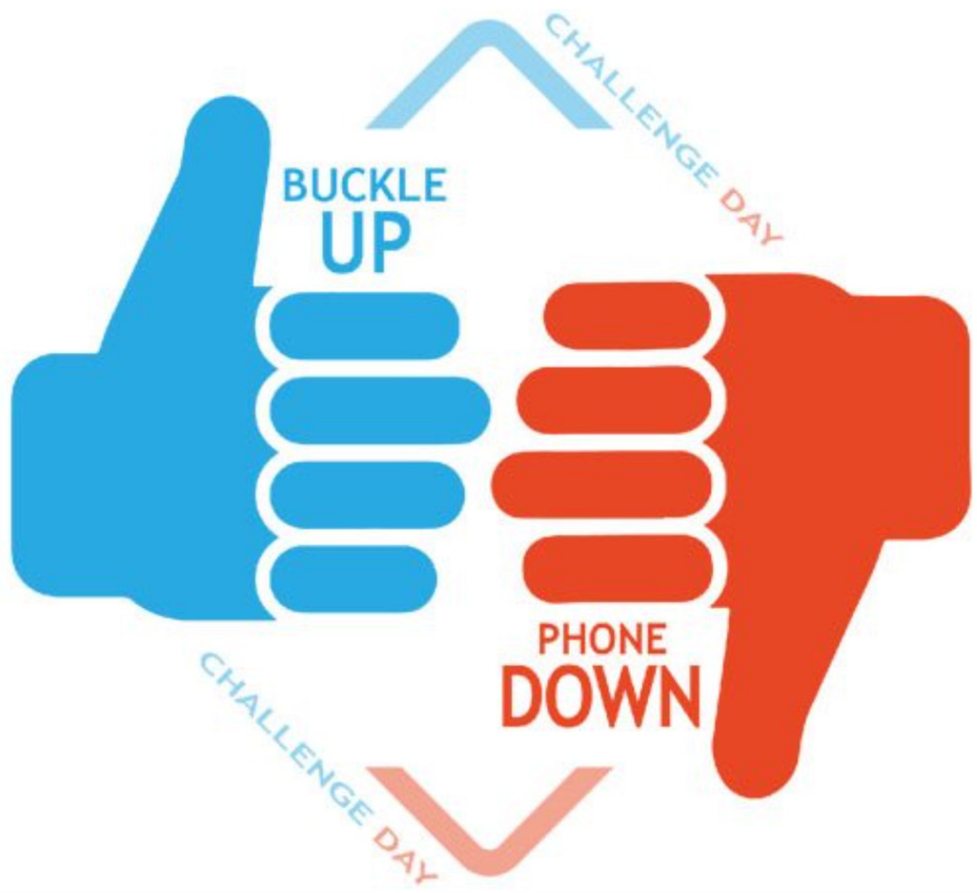
- Include hands-on workshops, safety demonstrations, and bike safety rodeos.

Community Workshops and Engagement. Host workshops and town hall meetings to engage with the community, sharing information on safe street design, pedestrian safety, and responsible driving habits.

- Encourage participation through interactive activities and local involvement.

Media and Digital Outreach. Launch a digital campaign using videos, infographics, and testimonials to raise awareness about crash risks and promote Vision Zero's goals.

- Feature stories from individuals affected by crashes to personalize the safety message.



ENFORCEMENT STRATEGIES

Objective

Use data-driven, equitable enforcement to reduce dangerous driving behaviors.

Impact on Safety

By addressing these challenges and starting with an enforcement pilot program, Lawrence, Eudora, and Baldwin City can move toward safer streets and more effective enforcement, ultimately reducing crashes.

KEY ENFORCEMENT TOOLS

- **Speed Cameras**: Monitor and reduce excessive speeding in high-crash areas.
- **Red-Light Cameras**: Target dangerous intersection behavior.
- **Texting Detection**: Address distracted driving by detecting mobile phone use.
- **Increased Patrols**: Focus enforcement on high-injury corridors.

CURRENT HURDLES

1. **Legal Restrictions:** Kansas law limits red-light and speed cameras due to privacy and ticket accuracy concerns.
2. **Challenges in Texting Enforcement:** Drivers can claim non-prohibited phone use, making violations difficult to prove.
3. **Public Resistance:** Concerns about privacy and government overreach impact the acceptance of automated enforcement.

PILOT PROGRAM PROPOSAL

Driver Notification Program: Install speed and red-light cameras that notify vehicle owners of violations without issuing fines. The focus is on education and awareness.

> **Goal**: Inform drivers about dangerous behaviors, with the potential for future fines if the program transitions into formal enforcement.

ADDITIONAL ACTIONS

Advocacy for Legal Reforms: Work with state legislators to revisit the potential benefits of red-light cameras and push for updated hands-free driving laws.

Enhanced Officer Training: Equip officers with tools and training to better detect texting and distracted driving violations.

School Speed Zone Safety Camera, Arlington County, VA

ENGINEERING STRATEGIES

Objective

Design safer streets to reduce crash risk and protect all road users.

Impact on Safety

Redesigning streets to prioritize safety helps prevent crashes and protect vulnerable road users. Engineering solutions like lane reconfigurations, protected bike lanes, and traffic calming measures are key steps toward achieving Vision Zero goals.

KEY ENGINEERING APPROACHES

- **Lane Reconfigurations:** Adjust the number or width of lanes to reduce vehicle speeds and improve safety for all road users. This may involve turning a four-lane road into three lanes (one in each direction with a center turn lane) to calm traffic and create space for other uses, like bike lanes.

- **Protected Bike Lanes:** Separate cyclists from vehicle traffic using physical barriers. These lanes improve safety and encourage more people to bike.

- **Pedestrian Safety Enhancements:**
  - **High-Visibility Crosswalks:** Use bold markings and flashing beacons to make pedestrians more visible to drivers.
  - **Curb Extensions (Bulb-outs):** Reduce crossing distances and slow down vehicles at intersections.
- **Roundabouts:** Replace traditional signalized intersections with roundabouts to slow vehicle speeds and reduce crash severity.

ENGINEERING STRATEGIES *(Continued)*

- **Traffic Signal Timing Adjustments:**
  - **Leading Pedestrian Intervals (LPIs):** Pedestrians get a head start when crossing, improving visibility and safety at intersections.
  - **Adaptive Signal Control:** Signals adjust in real-time based on traffic conditions to reduce congestion and improve traffic flow.
- **Speed Humps and Raised Crosswalks:** Slows down vehicles in areas with high pedestrian activity, like near schools and parks.

CURRENT CHALLENGES

1. **Funding and Resources.** Implementing large-scale engineering changes requires investment and collaboration.
2. **Right-of-Way Constraints.** In some areas, there may be limited space for lane reconfigurations or protected bike lanes.
3. **Public Perception of Changes.** Lane reconfigurations and other changes can sometimes be met with resistance from local residents or businesses concerned about altered traffic flow.

PROPOSED SOLUTIONS

- **Prioritization Based on Data:** Focus on High-Injury Networks (HIN) to ensure changes are made where they are needed most.
- **Quick-Build Projects:** Start with temporary solutions like paint-and-post bike lanes, then make adjustments based on results.
- **Community Engagement:** Work with residents and business owners to explain the safety benefits and ensure transparency in the planning process.