



ARKANSAS

STRATEGIC HIGHWAY SAFETY PLAN



2022-2027



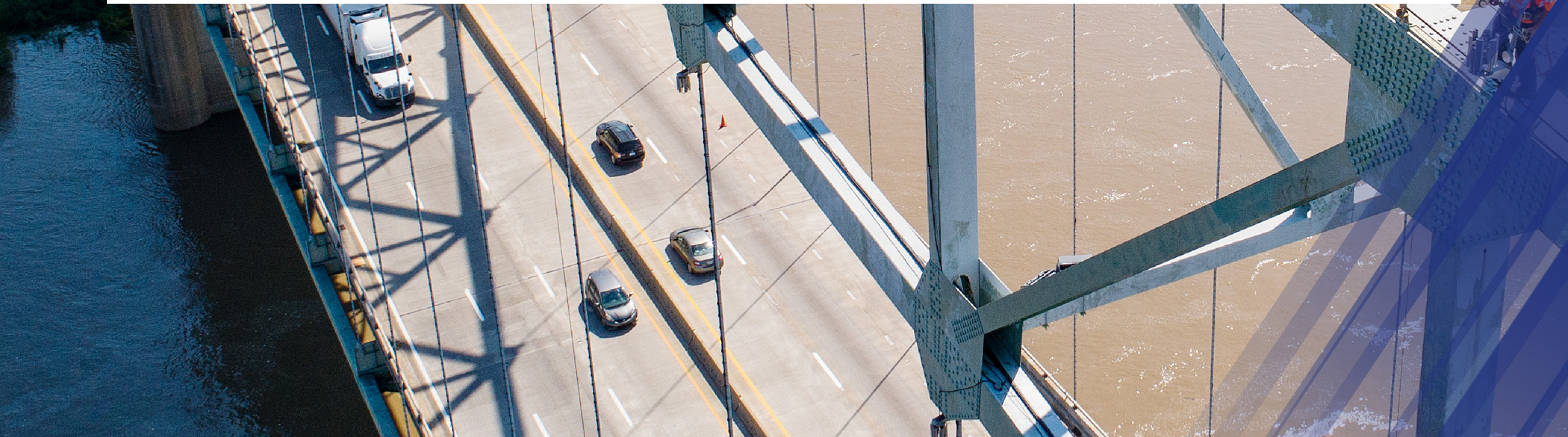
ARKANSAS DEPARTMENT OF TRANSPORTATION

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LETTER FROM ARKANSAS DEPARTMENT OF TRANSPORTATION

Dear Safety Partner,

The Arkansas Department of Transportation (ARDOT), Arkansas Highway Safety Office (AHSO), and its safety partners are pleased to present the 2022–2027 Strategic Highway Safety Plan (SHSP). It is our goal to provide safe and efficient transportation solutions to support Arkansas’ economy and enhance the quality of life for generations to come. To reach that goal, even one death on our roadways is too many.

The goal of the 2022–2027 SHSP is to make significant strides in achieving Arkansas’ vision and goal of a fatality-free transportation system. While a zero death goal is not new, Arkansas has decided to pursue a more holistic approach to achieving that goal—the Safe System approach. The Safe System approach focuses on five key elements: safe people, safe roads, safe vehicles, safe speeds, and post-crash care.

This collaboration involved consultation with the appropriate federal partners and state agency heads, as well as representatives of ARDOT, AHSO, metropolitan planning organizations, cities and counties, state and local law enforcement agencies, those involved in highway safety education and engineering efforts, and community organizations responsible for addressing safety challenges for various transportation users.

Thank you for your contributions to safety in Arkansas. To achieve our vision of a fatality-free transportation experience for everyone whether driving, taking transit, walking, or biking, we will need to use all available tools including education, outreach, engineering solutions, enforcement, and emergency response. We are committed to leveraging the collective efforts of our safety community to reach a zero fatality reality.

Sincerely,



Lorie H. Tudor, P.E.

Director, Arkansas Department of Transportation

TRANSPORTATION SAFETY PARTNERS/PARTNER PLEDGE

ONE DEATH ON OUR ROADWAYS IS TOO MANY

That's why we are working together to eliminate traffic fatalities and serious injuries. To reach this goal the Arkansas Strategic Highway Safety Plan has implemented a Safe System approach to address the safety needs of all users of Arkansas' transportation system.

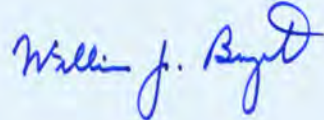
As a Partner Organization involved in the Arkansas Strategic Highway Safety Plan, I pledge to the best of my ability to:

- ✓ **ENSURE OUR ORGANIZATION PARTICIPATES IN THE PLANNING AND IMPLEMENTATION PROCESS** to integrate our specific capabilities and resources into an actionable plan to serve the citizens of Arkansas;
- ✓ **DEVELOP INTERNAL POLICIES AND PROCEDURES** that support the SHSP and its goals;
- ✓ **PROVIDE STAFF AND RESOURCES, AS APPROPRIATE TO LEAD AND/OR SUPPORT THE ACTIONS, STRATEGIES, AND GOALS** outlined in the SHSP;
- ✓ **ENCOURAGE AND EXPAND COLLABORATION AMONG OUR AGENCIES AND STAKEHOLDERS** and reinforce that responsibility is shared in ensuring crashes don't lead to deaths or serious injuries;
- ✓ **ADDRESS CHALLENGES AND BREAK DOWN INSTITUTIONAL BARRIERS** that impede implementation of the SHSP strategies;
- ✓ **ACT WITH A SENSE OF URGENCY** to implement and evaluate new and innovative programs, proven strategies, and investments that could help save lives; and
- ✓ **CREATE A CULTURE WHERE EVERYONE, including the public, BELIEVES RESPONSIBILITY IS SHARED AND DEATHS AND SERIOUS INJURIES ON OUR TRANSPORTATION SYSTEM ARE UNACCEPTABLE.**



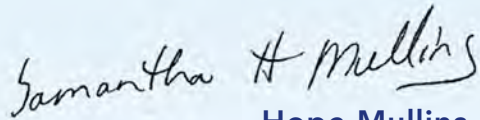
Lorie H. Tudor, P.E.,

Arkansas Department of Transportation



Colonel William J. Bryant,

Arkansas State Police and
Governor's Highway Safety Representative



Hope Mullins,

Injury Prevention Center



Chief Gary Sipes,

Arkansas Association of Chiefs of Police



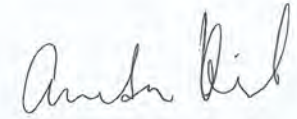
Reese Brewer,

Frontier Metropolitan Planning Organization



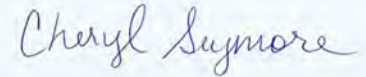
Larry Reynolds,

Southeast Arkansas Regional Planning Commission



Amanda Hicks,

West Memphis Metropolitan Planning Organization



Cheryl Seymore,

Services for the Deaf and Hard of Hearing



Vivien Hoang,

Federal Highway Administration




Kevin Breedlove,

Federal Motor Carrier Safety Administration



Susan deCourcy,

National Highway Traffic Safety Administration



Dr. Jose Romero,

Arkansas Department of Health

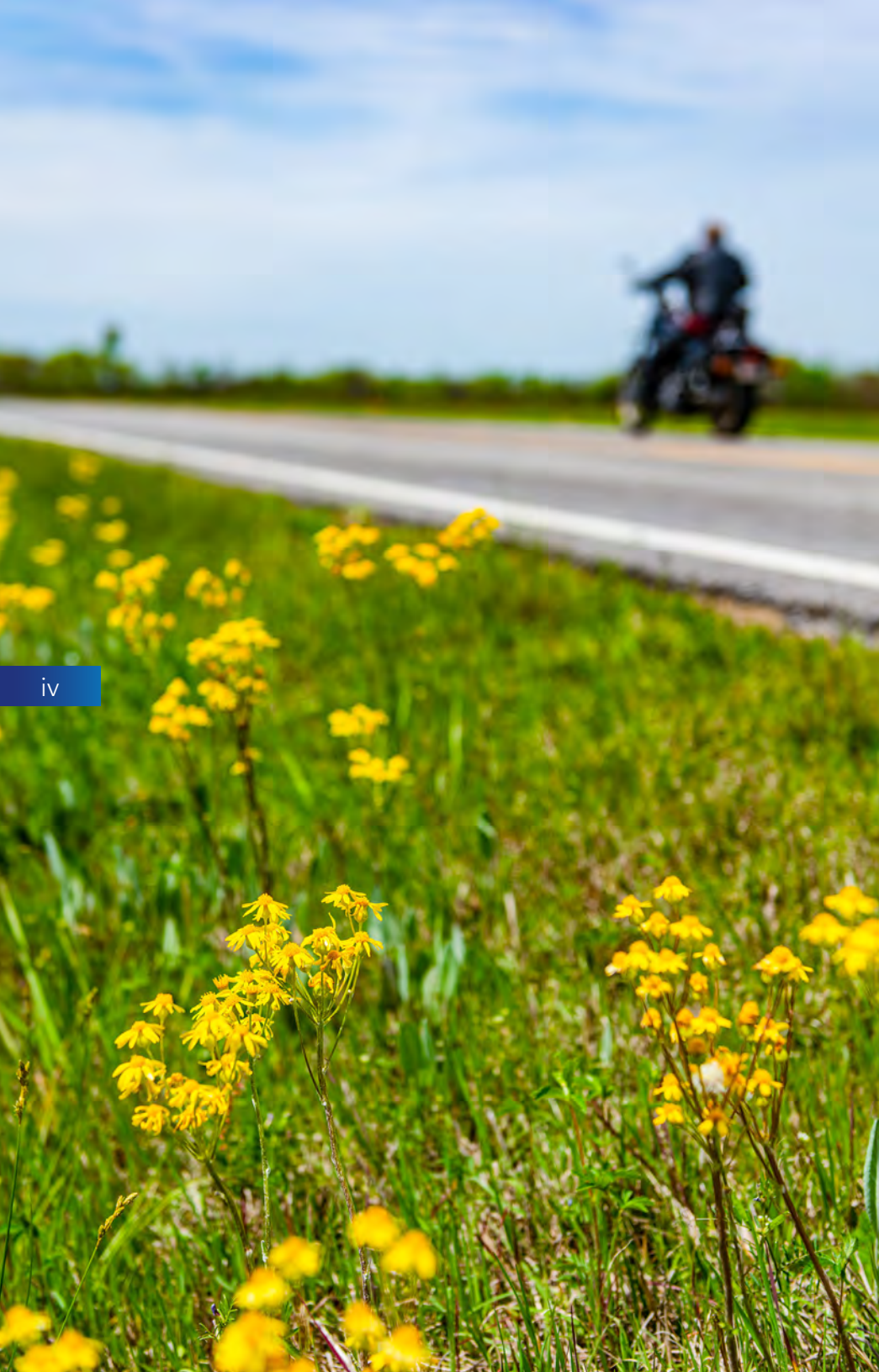


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OVERVIEW

PURPOSE OF 2022–2027 STRATEGIC HIGHWAY SAFETY PLAN

The Strategic Highway Safety Plan (SHSP) is a document that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads. The Arkansas SHSP is a data-driven comprehensive plan that establishes the goals, objectives, and strategies to advance the State’s vision of zero fatalities. The 2022-2027 SHSP is built on the foundation of the Safe System approach¹ and establishes fourteen focus areas representative of Arkansas’ most critical safety challenges. These focus areas will help Arkansas guide investment decisions to implement strategies and countermeasures with the greatest potential to save lives and prevent injuries.

“ The U.S. DOT recognizes the Safe System Approach as encompassing all the roadway safety interventions required to achieve the goal of zero fatalities, including safety programs focused on infrastructure, human behavior, responsible oversight of the vehicle and transportation industry, and emergency response. ”

– U.S. DOT National Roadway Safety Strategy

¹ https://safety.fhwa.dot.gov/zerodeaths/zero_deaths_vision.cfm

SAFE SYSTEM APPROACH

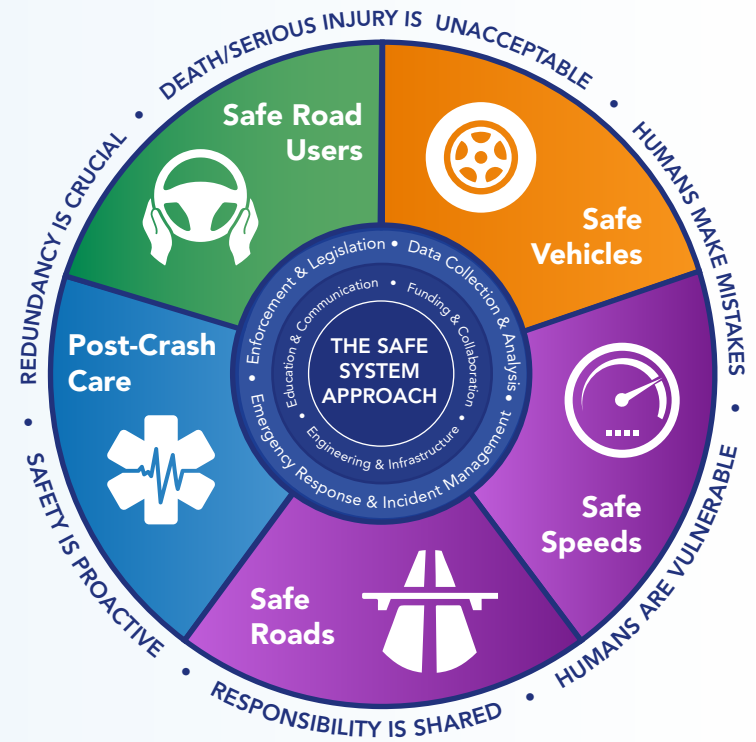
The [U.S. DOT's National Roadway Safety Strategy](#)² outlines the Department's comprehensive approach to significantly reduce serious injuries and deaths on our Nation's highways. **Arkansas has chosen to embrace the Safe System approach and apply Safe System principles to reverse the trend in fatalities and make progress toward achieving zero deaths.** Obviously, no crashes are desirable but the Safe System approach is focused on the most serious crashes—those involving fatalities and serious injuries.

The **SIX principles of the Safe System approach** include:

1 DEATHS AND SERIOUS INJURIES ARE UNACCEPTABLE—No one should be killed or injured when using the road system. Successfully adopting the Safe System approach requires a safety culture that unequivocally places safety first in our transportation system investment decisions.

2 HUMANS MAKE MISTAKES—The Safe System approach expects the road system is planned, designed, and operated to be forgiving of inevitable human errors, so that injury outcomes are unlikely to occur.

3 HUMANS ARE VULNERABLE—People have a limited ability to tolerate crash impacts. The Safe System approach focuses on managing the kinetic energy of crashes to avoid injury outcomes.



² <https://www.transportation.gov/NRSS>

4 RESPONSIBILITY IS SHARED—Road users, vehicle manufacturers, road designers and operators, law enforcement, and post-crash care providers all share responsibility to ensure that crashes do not lead to fatal or serious injuries. As part of a shared responsibility for safety, road users are expected to comply with traffic laws and drive responsibly. Education, enforcement, and vehicle feedback components (e.g., speedometer and automated driving systems) are all critical in enabling and encouraging safe road use.

5 SAFETY IS PROACTIVE—Tools can be used to identify and mitigate risks in the road system to proactively prevent crashes, rather than react after crashes occur.

6 REDUNDANCY IS CRUCIAL—With shared responsibility comes inter-relationships and opportunities for synergy. Weaknesses in one area of the system may be compensated with enhancements in other areas. Redundancy helps ensure that if one part of the system fails, other parts still protect road users from death or serious harm.



It is clear a holistic approach is the only way Arkansas will reach zero deaths. **The following FIVE elements create that holistic approach**, allowing for multiple layers of redundancy and protection for the State's transportation users.

SAFE ROAD USERS

The Safe System approach addresses the safety of all road users, whether they walk, bike, drive, ride transit, or travel by other modes.



SAFE SPEEDS

Reducing speeds addresses human-injury tolerances in three ways: reducing impact forces, providing additional time for drivers to stop, and improving visibility.



POST-CRASH CARE

People injured in collisions rely on emergency first responders to quickly locate and stabilize their injuries and transport them to medical facilities. Post-crash care also includes forensic analysis at the crash site, traffic incident management, and other activities.



SAFE VEHICLES

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



SAFE ROADS

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



Arkansas has identified **SIX** core implementation areas to ensure each Safe System principal is considered and each of the five elements are addressed in all projects that have an impact on safety. The action plans shown in the Appendix identify the primary implementation area for the listed strategies and actions.

- » **ENGINEERING AND INFRASTRUCTURE** directly impacts the Safe Roads element. Arkansas commits to designing and constructing infrastructure that discourages unsafe behaviors and accounts for the mistakes users will inevitably make.
- » **EDUCATION AND COMMUNICATION** is Arkansas' primary tool for establishing and promoting a safety culture among state agencies, safety partners, and the public. This is a critical step to quickly and effectively disseminate important safety information, especially about new and emerging safety technologies and practices, while getting buy-in from the partners and public on Arkansas' safety vision and all road users' shared responsibility to achieve a Safe System.
- » **FUNDING AND COLLABORATION** dictates how Arkansas will prioritize and allocate resources to the projects and supporting safety efforts designed to advance the State's vision of zero traffic fatalities and serious injuries. No single agency or safety partner can resolve the State's traffic safety challenges; it takes direct effort from all traffic safety partners and the public working toward a common goal of zero.
- » **ENFORCEMENT AND LEGISLATION** will become the foundation for necessary behavioral changes. It is important to provide objective information in support of legislative change that aligns with proven safety countermeasures and promote high visibility law enforcement as a way to generate cultural change that favors safer driving behaviors.
- » **DATA COLLECTION AND ANALYSIS** are crucial to understanding Arkansas' traffic safety challenges and identifying specific safety solutions and where/how to apply them.
- » **EMERGENCY RESPONSE AND INCIDENT MANAGEMENT** is how Arkansas addresses the inevitable traffic crashes that do occur. Efficient and effective emergency response and incident management are the best ways to prevent a serious injury crash from becoming a fatal crash and reduce the likelihood of secondary crashes.

INCORPORATING EQUITY IN TRANSPORTATION SAFETY

A core tenant of the Safe System approach is to **PROVIDE A SAFE TRANSPORTATION SYSTEM FOR ALL USERS, WHETHER THEY DRIVE, TAKE TRANSIT, BIKE, WALK OR ROLL.** It is equally important to ensure the system supports the safety of all users whether they are disabled, transportation disadvantaged, or otherwise identified as an underserved group.

The ARDOT SHSP includes strategies and action steps that focus on opportunities to address traffic safety challenges for historically underserved groups. Strategies and action steps are included to address younger and older drivers, drivers with disabilities, and system users such as pedestrians, bicyclists, and motorcyclists that are more vulnerable to fatalities and serious injuries as a result of little or no physical protection from motor vehicles during a crash. The plan also includes strategies and action steps to integrate equity analysis into safety improvement analysis processes and implement systemic safety improvements based on risks. This approach allows for more equitable distribution of safety improvements.

³ <https://www.federalregister.gov/documents/2021/01/25/2021-01753/advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government>.



The Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (EO 13985)

PURSUES A COMPREHENSIVE APPROACH TO ADVANCING EQUITY FOR ALL, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality.³

PARTNER PARTICIPATION

This SHSP was developed in close coordination with state, regional, and local traffic safety partners. ARDOT understands that the goals of this plan cannot be achieved without dedicated support from both traffic safety partners and the public. ARDOT convened the SHSP Steering Committee to provide a core group of stakeholders to energize partners and provide tactical input throughout the plan development process. Members of the Steering Committee represented a variety of agencies and organizations with critical roles in all modes of transportation safety in Arkansas and representing the four E's of safety: **EDUCATION, ENFORCEMENT, ENGINEERING, AND EMERGENCY SERVICES**. A list of Steering Committee members is included in the Partners List in the Appendix.



EDUCATION	ENFORCEMENT	ENGINEERING	EMERGENCY SERVICES
<ul style="list-style-type: none">■ Educators■ Advocacy Groups■ Prevention Specialists■ Communication Professionals■ Marketing■ Universities	<ul style="list-style-type: none">■ State and Local Law Enforcement Agencies■ Department of Motor Vehicles■ Law Enforcement Associations■ Court System	<ul style="list-style-type: none">■ Highway Design■ Traffic■ Maintenance■ Operations■ Planning and Policy	<ul style="list-style-type: none">■ First Responders■ Paramedics■ Fire and Rescue■ Aging and Elderly Services

HOW TO USE THIS DOCUMENT

The following sections provide context for traffic safety challenges in Arkansas, a framework for the process used to update the SHSP, and highlight data, challenges, and key strategies for emphasis and focus areas.

How is Each Focus Area Organized?

Trend data from 2016-2020 and forecasted fatalities and serious injuries for 2021-2025 are provided.

Each focus area **objective** is shown to provide context and to show how progress will be measured.

Top focus area strategies are listed to explain how Arkansas will work to reduce fatalities and serious injuries.

Safe System approach highlights provide opportunities to view the Focus Area through a Safe System approach lens.

Safe Roads

ROADWAY DEPARTURES

Roadway departures, also known as lane departures, occur when a motor vehicle crosses an edge line or a center line, leaving their travel lane. Roadway departure crashes include instances where the driver runs off the road into an adjacent travel lane or completely off the roadway, and head-on collisions when a vehicle enters an opposing lane of traffic. In Arkansas, between 2016 and 2020, **2,089 PEOPLE WERE KILLED AND AN ADDITIONAL 8,655 PEOPLE WERE SERIOUSLY INJURED IN ROADWAY DEPARTURE CRASHES.** Arkansas remains committed to preventing and mitigating the consequences of roadway departure crashes primarily using engineering and infrastructure solutions.

According to FHWA, **AN ESTIMATED 19,158 PEOPLE WERE KILLED DURING ROADWAY DEPARTURE CRASHES** nationwide between 2016 to 2018.²¹ In addition, **AN ESTIMATED 12,000 PEOPLE DIE EACH YEAR WHEN THEIR VEHICLE LEAVES ITS LANE ON A RURAL ROAD**.²² In Arkansas, roadway departures made up 67 percent of all fatalities and serious injury crashes between 2016 to 2020. The State is focused on implementing innovative design solutions to keep motor vehicles in their travel lane to reduce fatalities and serious injuries.

Year	Fatalities	Serious Injuries
2016	1,954	4,321
2017	1,783	3,866
2018	1,560	4,115
2019	1,521	3,519
2020	1,837	5,066
2021	1,582	460
2022	1,533	473
2023	1,483	467
2024	1,433	501
2025	1,384	515

²¹ FHWA, Roadway Departure Safety: https://safety.fhwa.dot.gov/roadway_dept/
²² FHWA, Roadway Departure Safety: https://safety.fhwa.dot.gov/roadway_dept/

From 2016 to 2020, **74%** of **TRAFFIC FATALITIES** and **65%** of **SERIOUS INJURIES** in Arkansas occurred while **DEPARTING A TRAVEL LANE.**

ROADWAY DEPARTURE FATALITIES increased **20%**, while **SERIOUS INJURIES** decreased **6%**.

OBJECTIVE: **REDUCE** roadway departure **FATALITIES** and **SERIOUS INJURIES** by **2%** annually.

TOP ROADWAY DEPARTURE STRATEGIES

- ✓ **USE PROVEN SAFETY COUNTERMEASURES** and low cost systemic improvements to prevent or mitigate the consequences of roadway departures.
- ✓ **INCREASE ENFORCEMENT** in problem areas to reduce roadway departure crashes.
- ✓ **CONDUCT ROAD SAFETY AUDITS** to address areas with high roadway departure crashes.

For a complete list of strategies and action steps, please see *Roadway Departure Action Plan* (in the Appendix).

SAFE SYSTEM: SAFE ROADS

Safe roads prioritizes safety in all aspects of the roadway system, including design, construction, maintenance and operation to minimize the consequences of driving errors such as inadvertently leaving the roadway. According to FHWA, **RURAL ROADWAY DEPARTURE CRASHES MADE UP 34 PERCENT OF ALL ROADWAY DEPARTURE DEATHS BETWEEN 2014 TO 2016.**²³ Roadway departure crashes continue to be a major problem on rural roadways, most of which are locally owned roads. ARDOT is committed to using a systemic approach to reduce roadway crashes by implementing best practices such as rumble strips, friction treatments, and clear zones to help keep vehicles in their travel lanes. With safety included in all aspects of roadway planning, roadway departure crashes can be significantly reduced on state and local roadways.

²³ FHWA, Focus on Reducing Rural Roadway Departures: <https://safety.fhwa.dot.gov/EoR88v12/>

On average, **41 people** **DIED** or were **SERIOUSLY INJURED** due to **ROADWAY DEPARTURE CRASHES** in Arkansas **EACH WEEK.**

Nearly **37%** of roadway departure **FATALITIES** and **SERIOUS INJURIES** involved drivers **29 years old or younger.**

30% of **RURAL ROADWAY DEPARTURE CRASHES** in the United States resulted in a **MOTOR VEHICLE ROLLOVER** between **2014 and 2016.**
(FHWA, Focus on Reducing Rural Roadway Departures)

51% of **ALL TRAFFIC FATALITIES** occurred due to **ROADWAY DEPARTURES** between **2016 and 2018.**
(FHWA, Roadway Departure Safety)

Arkansas Strategic Highway Safety Plan

INTRODUCTION TO SAFETY IN ARKANSAS

SETTING THE STAGE— CRASHES AND OTHER TRENDS

Several factors frame the context of traffic safety in Arkansas and understanding these factors and their impact on fatalities and serious injuries is critical to identifying effective safety countermeasures. Changes in Arkansas' population, economy, and vehicle miles traveled each play a role in the amount of vehicles on the road and increase the odds of crashes occurring. Other factors, like changing modal preferences and emerging technologies and innovations also impact where people live and how they choose to travel.

Growing Population—Since 2015, Arkansas' population has increased to just over 3 million people and populations have expanded in urban areas while contracting in rural areas.⁴

Increasing Vehicle Miles Traveled (VMT)—From 2015 to 2019 Arkansas' statewide VMT increased six percent. However from 2019 to 2020, VMT decreased eight percent as a result of the COVID-19 pandemic. VMT is expected to rebound and continue to increase. More vehicles on the road and longer distance trips create additional opportunities for conflicts on the roadways and lead to more crashes.⁵

⁴ US Census Bureau, 2022.

⁵ Arkansas Department of Transportation, 2021.

MORE CRASHES EVERY YEAR—Since 2015, the number of crashes on Arkansas’ roadways have gone up by 18 percent. The State’s growing population and increasing VMT both play a role in additional crashes and everyone must play a role in making decisions to ensure these crashes do not lead to fatalities or serious injuries.⁶

WORKFORCE AND ECONOMY—Between 2015 and 2020, Arkansas’ unemployment rate declined by 29 percent before the impacts of the COVID-19 pandemic led to a 6.08 percent unemployment rate in 2020, the highest since 2013.⁷ The State’s gross domestic product has steadily increased since 2015, despite economic fluctuations brought on by the COVID-19 pandemic.⁸

TECHNOLOGY AND INNOVATION—Emerging technologies, like connected and automated vehicles (CAV) promise to have incredible impacts on traffic safety. As the State’s infrastructure becomes more connected and able to communicate changing conditions to both drivers and vehicles and vehicles become equipped to act and operate efficiently without external inputs, both primary and secondary crashes could be completely eliminated.

⁶ Arkansas Department of Transportation, 2021.

⁷ US Bureau of Labor Statistics, 2022.

⁸ Bureau of Economic Analysis, 2022.

Key Performance Measures

Along with monitoring high-level contextual trends, Arkansas closely tracks fatalities and serious injuries. In fact, Arkansas relies on the following five key performance measures aligned with federally required performance targets to evaluate the State’s progress toward achieving the vision of zero fatalities.

Figure 1. Number of Fatalities

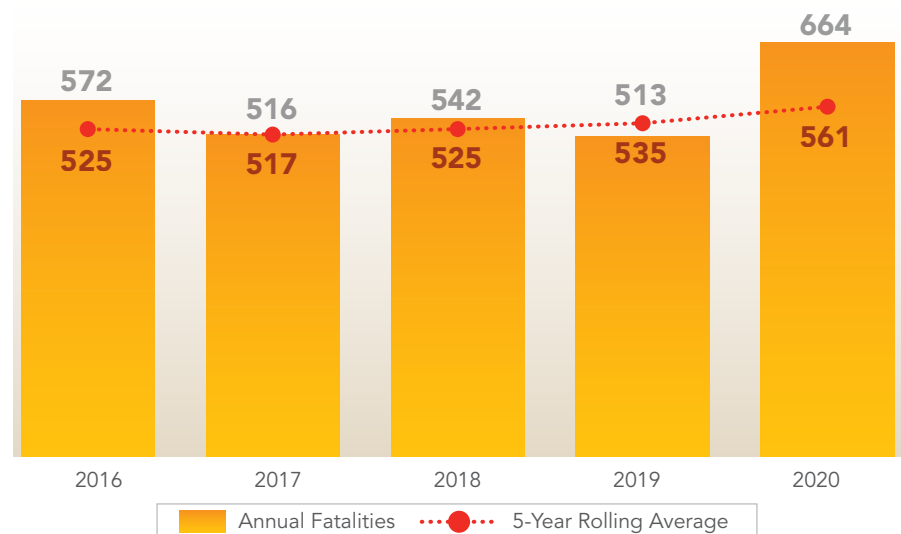


Figure 2. Rate of Fatalities (Per 100 Million VMT)

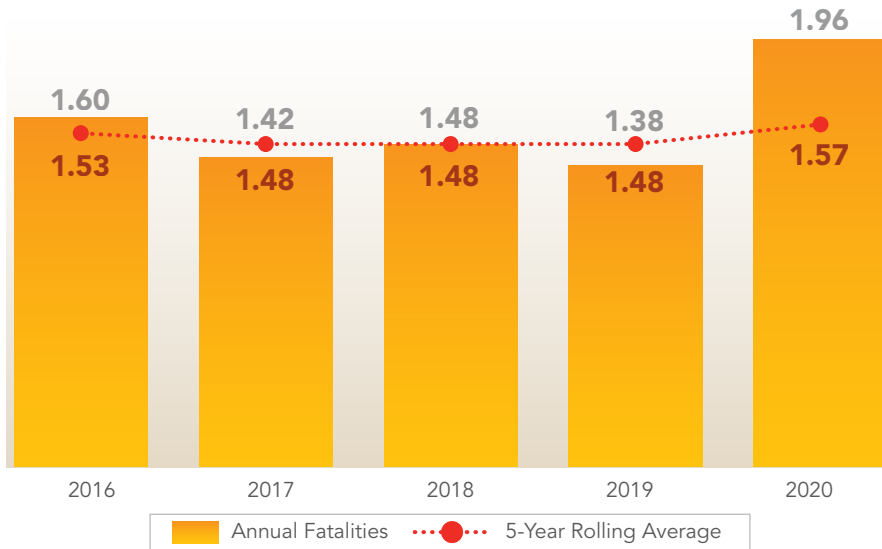


Figure 4. Rate of Serious Injuries (Per 100 Million VMT)

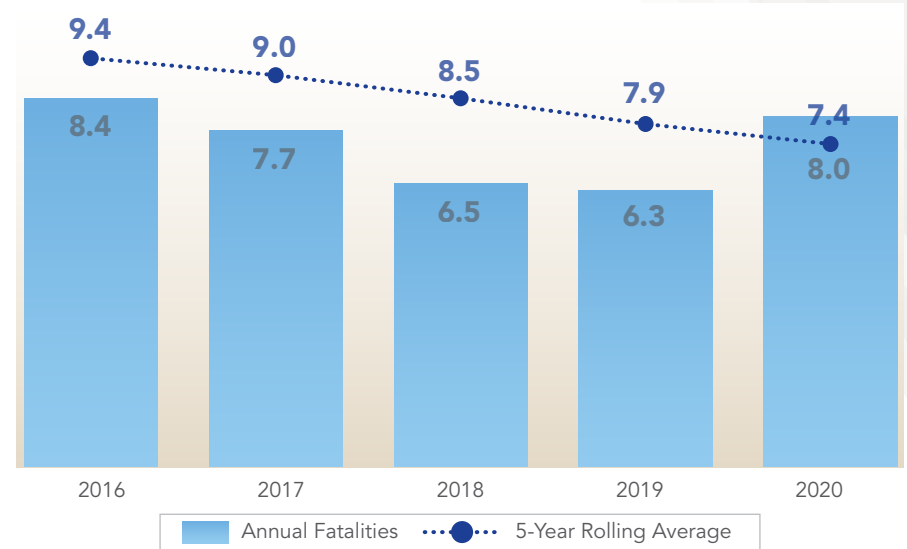


Figure 3. Number of Serious Injuries

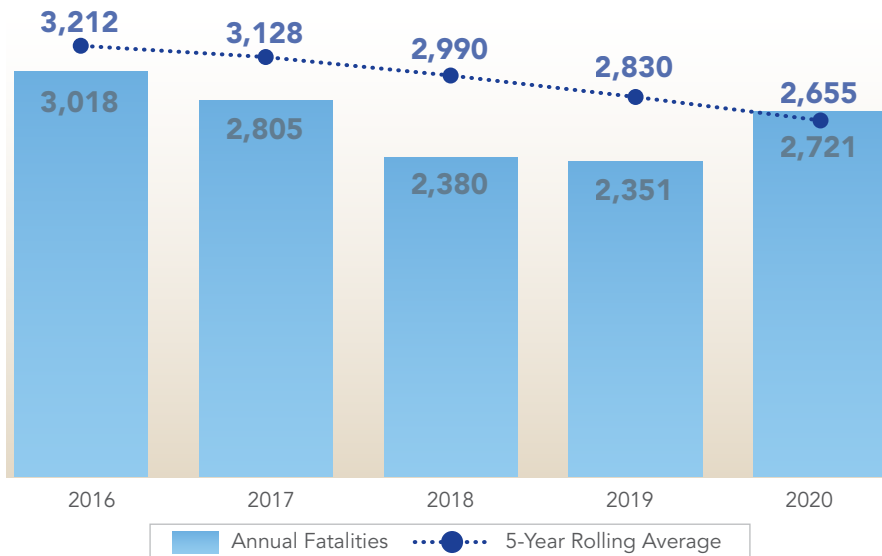
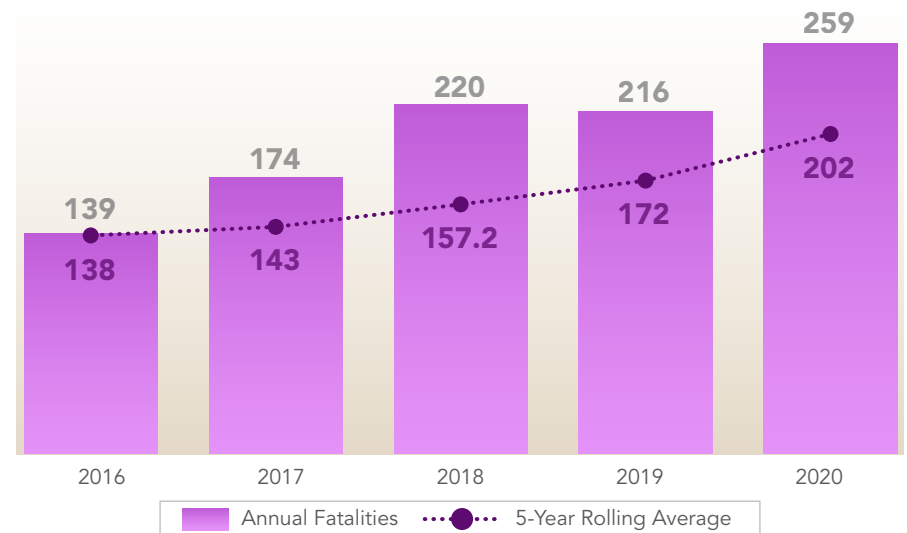


Figure 5. Number of Non-Motorized Fatalities and Serious Injuries



CHALLENGES AND ACCOMPLISHMENTS

Through implementation of the 2017 Strategic Highway Safety Plan, Arkansas has completed several planned activities that have measurably impacted traffic safety in the State. Arkansas will build on these accomplishments and identify new and innovative actions to help further reduce fatalities and serious injuries on the State's transportation system.

ACCOMPLISHMENTS

Programmed installation of 2,519 centerline miles of rumble strips on state highways to help reduce impaired/drowsy driving crashes as well as roadway departure crashes.

Installed oversize signs and enhanced pavement markings at interchanges along routes with high rates of wrong-way driving.

Conducted a pilot study to identify new wrong-way driving countermeasures.

Provided equipment to law enforcement agencies to increase participation in electronic crash reporting which increased reporting from 43 percent to 87 percent of the agencies reporting electronically.

Stationed patrol vehicles at construction zones to slow entering vehicles.

Funded Driving While Intoxicated (DWI) Courts and aided the development of DWI courts in additional jurisdictions statewide.

Established High Risk Rural Road Program to identify the top 50 rural crash locations and prioritize countermeasures.

Developed Arkansas Crash Analytics Tool to help safety stakeholders identify traffic safety challenges in their areas.

Completed All Roads Network of Linear Referenced Data (ARNOLD) to more accurately represent crashes on the roadway network.

While these accomplishments have helped improve safety on Arkansas' roadways, there have been other challenges Arkansas must address to continue making progress toward zero.

CHALLENGES

Inconsistent historical traffic records data due to fewer law enforcement agencies reporting crashes electronically and changes in the definition of a serious injury.

Growing number of fatalities and serious injuries involving a **non-motorist**.

Growing number of fatalities involving **speeding** and/or **aggressive driving**.

Difficulties accurately capturing distracted driving crashes due to challenges proving distraction was the cause of the crash.

Increase in fatalities during the COVID-19 pandemic—at the time of publication of this plan, this increasing trend continued based on preliminary 2021 fatality data.



FRAMEWORK TO REDUCE FATALITIES AND SERIOUS INJURIES

SHSP VISION AND GOAL

Arkansas has consistently made progress in reducing the number of fatalities and serious injuries on the State's transportation system every year since 2006. In fact, since 2006, the number of fatalities have declined by 24 percent. Arkansas remains committed to the vision, Toward Zero Deaths, with a long-term goal of zero traffic fatalities and serious injuries.

**TOWARD
ZERO
DEATHS**



One is too many.

This is certainly a bold vision and difficult goal to achieve but when considering that every fatality or serious injury is to someone's parent, spouse, child, significant other, friend, coworker, or business partner, it is clear that zero is the only acceptable goal.

EMPHASIS AND FOCUS AREA SELECTION PROCESS

On July 15, 2021, ARDOT hosted a virtual Safety Summit to review the purpose and intent of the Arkansas SHSP, reflect on the existing plan's accomplishments, provide an overview of the SHSP update process, and gather input from the State's traffic safety partners who attended the summit. ARDOT followed up with key stakeholders in a series of interviews and an online survey to get additional input on the successes and challenges of the current SHSP implementation process and valuable feedback on the SHSP update.

The Safe System approach aims to eliminate traffic fatalities and serious injuries for all road users by holistically addressing every aspect of crash risks through the system's five elements which include safe road users, safe vehicles, safe speeds, safe roads, and post-crash care.

To implement Arkansas' next SHSP through the Safe System lens, the decision was made to have the following **FOUR EMPHASIS AREAS**:

1. **SAFE ROAD USERS,**
2. **SAFE VEHICLES,**
3. **SAFE ROADS AND SAFE SPEEDS,** and
4. **POST-CRASH CARE.**

ARDOT analyzed traffic records data between 2015 and 2019 (the most recent data available at that time), focusing on fatalities and serious injuries, to identify the State's most critical safety challenges. This data analysis was shared with the SHSP Steering Committee and reaffirmed many of the Emphasis Areas identified in the 2017 SHSP. The Steering Committee used this analysis to identify opportunities to combine or streamline some of the safety challenges to allow for a more focused implementation effort in the 2022–2027 SHSP.



FRAMEWORK TO REDUCE FATALITIES AND SERIOUS INJURIES

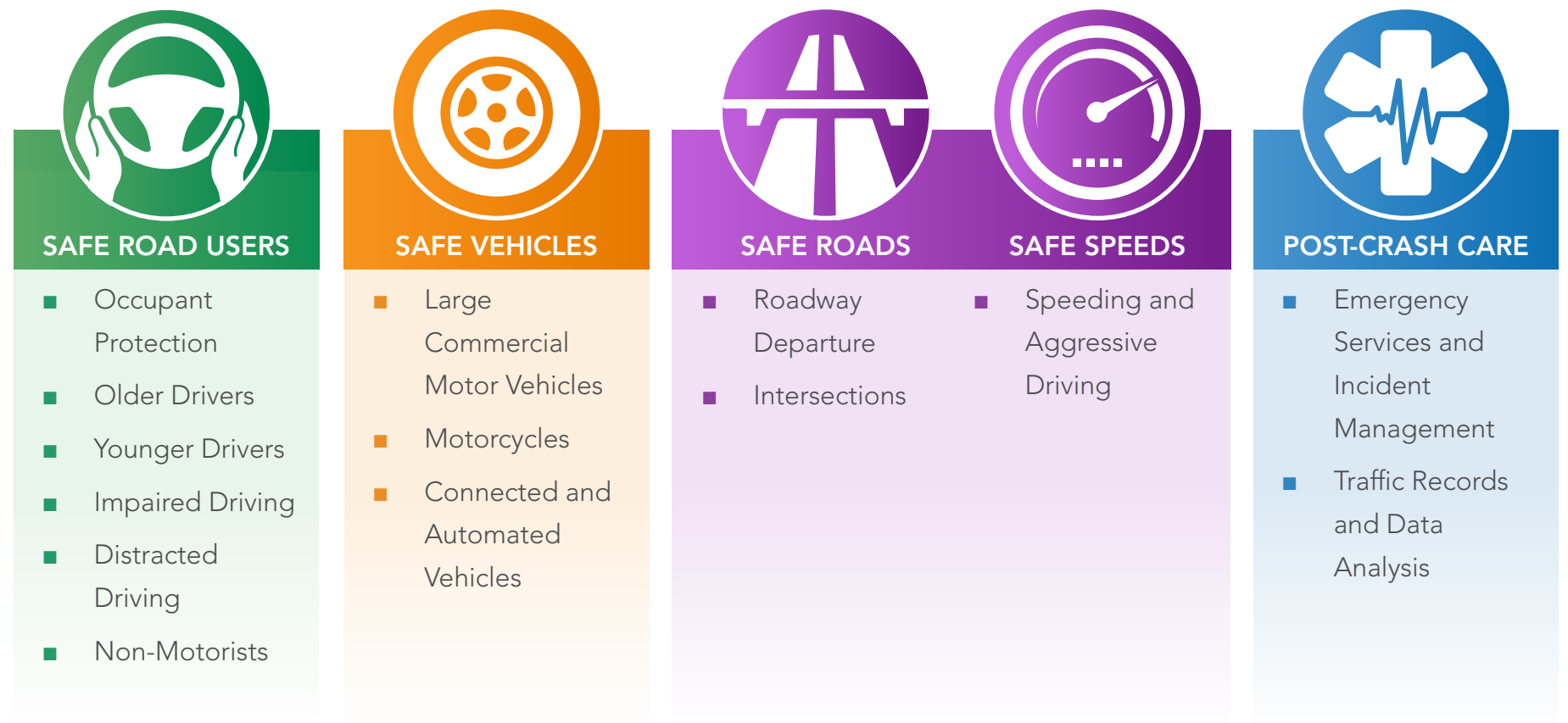
Table 1. 2017 SHSP Emphasis Area Analysis

2017 SHSP Critical Emphasis Areas (CEA)	2017 SHSP Primary Emphasis Areas (PEA)*	TOTAL NUMBER OF FATALITIES AND SERIOUS INJURIES					Percent Change (2015–2019)	Percent of Total Fatalities and Serious Injuries (2015–2019)
		2015	2016	2017	2018	2019		
DRIVER BEHAVIOR	Impaired/Drowsy Driving	491	414	423	370	351	-28.5%	12.9%
	Occupant Protection	582	735	646	598	836	43.6%	21.4%
	Aggressive Driving	463	644	593	538	592	27.9%	17.8%
INFRASTRUCTURE IMPROVEMENT	Roadway Departure	1,780	1,874	2,141	1,838	1,750	-1.7%	59.1%
	Intersections	806	839	807	586	630	-21.8%	23.1%
	Work Zones	52	74	100	59	56	7.7%	2.2%
	Railroad Crossings	21	27	20	26	17	-19.0%	0.7%
SPECIAL ROAD USERS	Large Commercial Motor Vehicles	285	299	258	268	244	-14.4%	8.5%
	Motorcyclists	295	305	238	248	226	-23.4%	8.3%
VULNERABLE ROAD USERS	Younger Drivers	596	654	575	501	492	-17.4%	17.8%
	Older Drivers	594	670	684	526	575	-3.2%	19.2%
	Non-Motorists	119	144	175	192	206	73.1%	5.3%

* Distracted Driving and Drivers with Disabilities were not included in this chart due to challenges tracking this data.

The Steering Committee decided to streamline the organization of the primary emphasis areas for the plan update. Building on this partner input and data analysis, fourteen Focus Areas representing Arkansas' most critical safety challenges were identified and are listed below. To better align resources and focus implementation efforts, the fourteen Focus Areas identified by the SHSP Steering Committee were organized into the four Emphasis Areas based on the five Safe System elements. This approach is similar to the 2017 SHSP emphasis area organization and ensures SHSP objectives, strategies, and implementation actions take a holistic approach to traffic safety, considering the interaction of all five Safe System elements and how they can help the State achieve the goal of zero fatalities and serious injuries.

Figure 6. 2022–2027 Arkansas SHSP Emphasis and Focus Areas



SHSP SUPPORTING OBJECTIVES

Arkansas has identified one overarching statewide objective and an additional 14 objectives for each SHSP Focus Area to support the State's vision and goal of zero fatalities and serious injuries. Each objective identifies a direct, incremental target for reducing the number of fatalities and serious injuries. These objectives also support reductions in the federally required performance targets used to evaluate Arkansas' progress toward achieving a vision of zero fatalities.

To ensure Arkansas continues to make consistent progress toward the **goal of zero fatalities and serious injuries**, the State has identified an **objective to reduce statewide fatalities and serious injuries by 2 percent annually until 2025**. Meeting this objective means that in 2025, a total of 325 fatalities and serious injuries will be eliminated (compared to 2020). The objectives were calculated using methods consistent with those that are used to determine Arkansas' annual safety performance targets but may not be exactly the same because of recent increases in fatalities in 2020, due to the COVID-19 pandemic and increases in crash reporting as a result of the electronic crash reporting system.

OBJECTIVE

REDUCE
STATEWIDE
FATALITIES
and
SERIOUS INJURIES
by **2%**
annually.

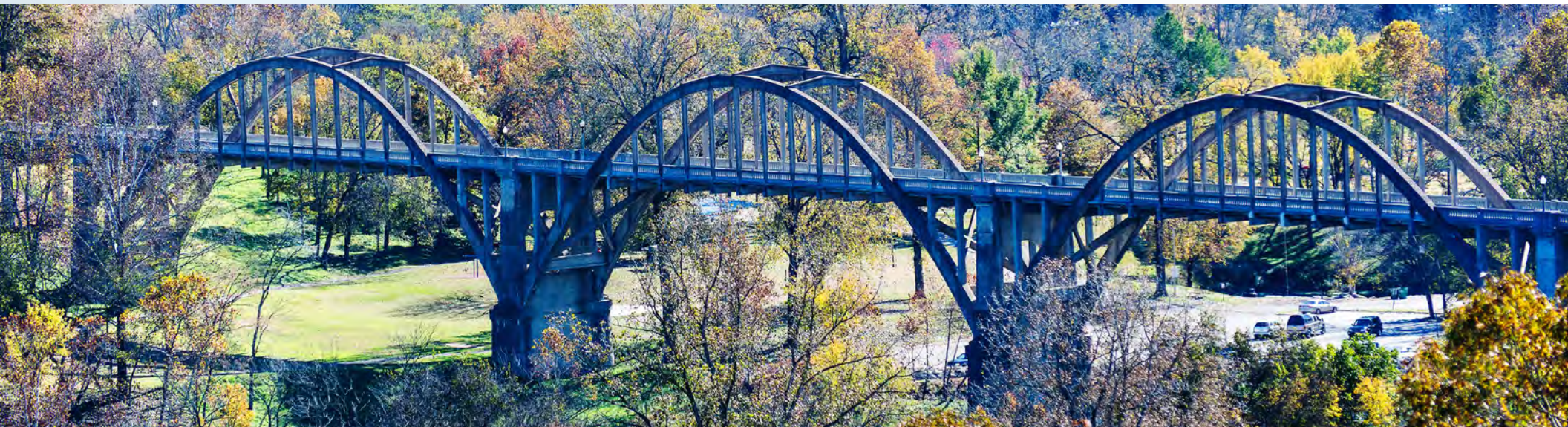
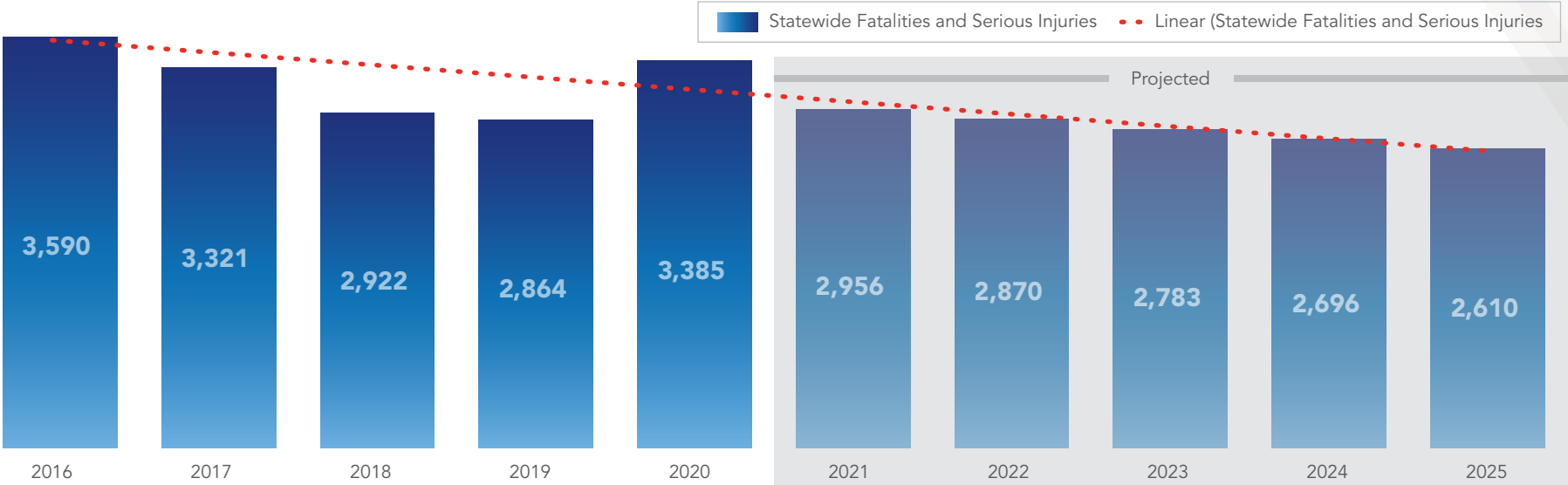


Figure 7 illustrates the fatality and serious injury trend from 2016 to 2020, the most recent data available during the process to set objectives for the plan. A trendline was projected to show anticipated fatalities and serious injuries from 2021 to 2025. Based on this projected trendline, a 5 percent annual reduction could be expected from 2021 to 2025. However, ARDOT adjusted the annual reduction target to 2 percent annually for the following reasons:

Figure 7. Statewide Total Fatality and Serious Injury Trend



- » Due to changes in the serious injury definition in 2017 to meet Model Minimum Uniform Crash Criteria 4th edition requirements, the number of serious injuries has declined rapidly.⁹ The decline has leveled off and is not expected to continue at such a high rate.
- » During the COVID-19 pandemic, total fatalities and serious injuries increased in 2020, and at the time of publication of

this plan, this increasing trend continued based on preliminary 2021 total fatalities and serious injury data.

- » Table 2 shows projected reductions in total fatalities and serious injuries by Focus Area and the percentage of all fatalities and serious injuries each focus area accounts for from 2016 to 2020. **Older Drivers, Large Commercial Motor Vehicles (CMV), Motorcycles and Intersections are projected**

⁹ Suspected Serious Injury” (A) has replaced “Incapacitating Injury” and “Suspected Minor Injury” (B) has replaced “Non-incapacitating Injury.”

FRAMEWORK TO REDUCE FATALITIES AND SERIOUS INJURIES

to achieve annual reductions of at least 5 percent. The Occupant Protection, Younger Drivers, Impaired, Distracted and Roadway Departure Focus Areas are projected to fall short of this 5 percent annual reduction target and Non-Motorists and Speeding and Aggressive Driving are projected to increase during the time period.

- » Given that the focus areas that account for the largest percentage of fatalities and serious injuries (**Roadway Departure—67 percent, Occupant Protection—21 percent, and Speeding and Aggressive Driving—20 percent**) were not projected to achieve the forecasted 5 percent annual reduction, the final target was adjusted.

Table 2. Projected Annual Focus Area Reductions (2020–2025) and Percent of Total Fatalities and Serious Injuries for Focus Areas (2016–2020)

SAFE SYSTEM EMPHASIS AREAS	Focus Areas	Projected Annual Change (2020–2025)	Percent of Total Fatalities and Serious Injuries (2016–2020)
		Fatalities and Serious Injuries	
SAFE ROAD USERS	Occupant Protection	-1.5%	21%
	Older Drivers	-5.4%	18%
	Younger Drivers	-3.5%	17%
	Impaired Driving	-0.3%	12%
	Distracted Driving	-3.8%	11%
	Non-Motorists	10.8%	6%
SAFE VEHICLES	Large CMVs	-4.6%	10%
	Motorcycles	-5.5%	12%
SAFE ROADS AND SAFE SPEEDS	Speeding and Aggressive Driving	2.4%	20%
	Roadway Departure	-3.8%	67%
	Intersections	-5.7%	24%

Projected to meet 5% annual reduction

Projected change is not enough to meet 5% annual reduction

Projected to increase from baseline



FOCUS AREA BRIEFINGS

The Focus Area Briefings included in this plan outline the overall challenges Arkansas faces to eliminate fatalities and serious injuries for each Focus Area. The briefing also shows the extent of fatalities and serious injuries from 2016 to 2020 and forecasted to 2025. Each Focus Area provides specific examples of opportunities for the Safe System approach to be implemented by focusing on crash types and strategies identified. Additional crash data related to county, urban versus rural, and gender is available in the Focus Area Factsheets in the Appendix.

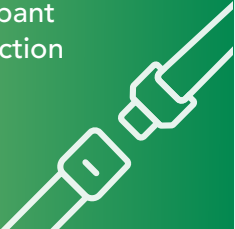

FOCUS AREA ACTION PLANS

Each Safe System Emphasis Area Team worked in close coordination with safety partners from federal and state agencies, Metropolitan Planning Organizations (MPO), regional planning councils, local governments, law enforcement, and many other transportation and safety partners to develop strategies and action steps to guide the implementation process for the SHSP. Action plans were developed for each Focus Area based on proven effective countermeasures, feedback from stakeholders on existing programs and projects, information on existing statewide transportation plans and their strategies relevant to traffic safety, and noteworthy practices from other states. To ensure alignment and coordination with other plans, the Safe System Emphasis Area Team coordinators worked with ARDOT to identify existing plans with strategies to be included in the SHSP such as the Commercial Vehicle Safety Plan (CVSP), Highway Safety Plan (HSP), Traffic Records Strategic Plan, Arkansas Pedestrian and Bicycle Plan, and the Arkansas

Freight Plan. The Safe System Emphasis Area Teams met for a series of meetings in October to November 2021 to develop the plans which were also reviewed by ARDOT and the SHSP Steering Committee.

Focus Area Action Plans are included in the Appendix. Each action plan includes strategies and actions to achieve the focus area objective, agency leadership, potential resources, relevant implementation areas, and an estimated timeframe for the action to be implemented. The following key strategies are expected to reduce fatalities and serious injuries in the Focus Areas expected to potentially increase or fall short of achieving the 2 percent reduction target:

FRAMEWORK TO REDUCE FATALITIES AND SERIOUS INJURIES

FOCUS AREAS	KEY STRATEGIES
<p>Occupant Protection</p> 	<ul style="list-style-type: none">■ Educate the public on the benefits of the use of occupant protection devices as well as the penalties and dangers associated with non-compliance.■ Strengthen the existing occupant protection law and increase seat belt enforcement.■ Continue to improve and expand the availability and accessibility of child restraint system inspection stations.
<p>Impaired Driving</p> 	<ul style="list-style-type: none">■ Increase enforcement of impaired driving laws.■ Use engineering design to help impaired drivers maintain vehicles in the roadway.■ Make the public aware through education of the dangers and penalties involved with impaired driving.
<p>Non-Motorists</p> 	<ul style="list-style-type: none">■ Continue to improve statewide infrastructure and design to protect non-motorists.■ Continue to implement countermeasures, programs, and policies to protect non-motorists.■ Focus education efforts aimed at safety and awareness of laws regarding non-motorist traffic.
<p>Speeding and Aggressive Driving</p> 	<ul style="list-style-type: none">■ Use engineering design and technology to reduce speeds.■ Use a multimedia advertising approach to educate drivers about the dangers of aggressive driving.■ Increase high visibility enforcement to reduce crashes associated with aggressive driving.

FOCUS AREAS



SAFE ROAD USERS

- Occupant Protection
- Older Drivers
- Younger Drivers
- Impaired Driving
- Distracted Driving
- Non-Motorists

SAFE VEHICLES

- Large Commercial Motor Vehicles
- Motorcycles
- Connected and Automated Vehicles

SAFE ROADS AND SAFE SPEEDS

- Roadway Departure
- Intersections
- Speeding and Aggressive Driving

POST-CRASH CARE

- Emergency Services and Incident Management
- Traffic Records and Data Analysis

OCCUPANT PROTECTION

Restraint devices such as seat belts and child safety seats are designed to protect occupants in case of a crash. A simple click of a seat belt or child safety seat can be the difference between walking away from a crash with a minor injury instead of a serious injury, or even the difference between life and death. In Arkansas, between 2016 and 2020, **942 PEOPLE WERE KILLED AND ANOTHER 2,431 WERE SERIOUSLY INJURED IN CRASHES WHERE VEHICLE OCCUPANTS WERE NOT WEARING A SEAT BELT.** Arkansas relies on a variety of enforcement efforts to encourage seat belt usage, but drivers and occupants understanding the importance of seat belt and child safety seat use and embracing that individual responsibility would be the most effective in decreasing unrestrained occupant fatalities and serious injuries.

According to the National Highway Traffic Safety Administration (NHTSA), **SEAT BELT USE IN PASSENGER VEHICLES SAVED NEARLY 15,000 LIVES IN 2017,** and could have saved an additional 2,500 people if they had been wearing seat belts. Another study by NHTSA found that children are restrained 92 percent of the time when the driver is buckled up. Although the statewide seat belt usage rate has increased by 7.5 percent points from 2009 to 2019, the State still experienced a **14 PERCENT AND 7 PERCENT INCREASE IN UNRESTRAINED FATALITIES AND SERIOUS INJURIES** respectively over the past five years. To reduce occupant protection related injuries and fatalities, the State is focused on strengthening education and enforcement efforts to increase seat belt and child restraint usage.

From **2016 to 2020,**

34%

of **traffic fatalities**

and **18%**

of **serious injuries** in Arkansas involved people who were **NOT WEARING SEAT BELTS.**

UNRESTRAINED FATALITIES

increased

14%,

while

SERIOUS INJURIES

increased

7%

OBJECTIVE:

REDUCE

unrestrained

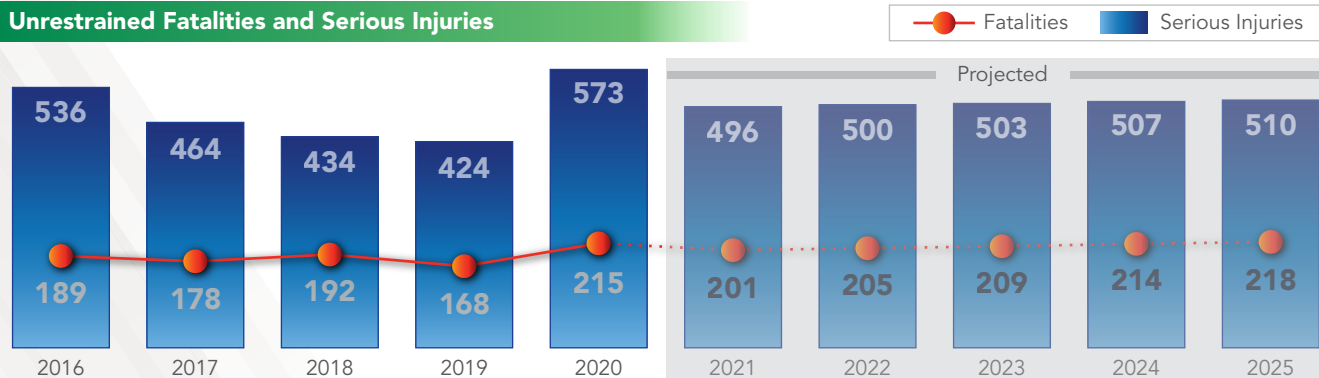
FATALITIES and

SERIOUS INJURIES

by

2% annually.

Unrestrained Fatalities and Serious Injuries



TOP OCCUPANT PROTECTION STRATEGIES

- ✓ **EDUCATE THE PUBLIC** on the benefits of the use of occupant protection devices as well as the penalties and dangers associated with non-compliance.
- ✓ **STRENGTHEN** the existing occupant protection law and increase seat belt enforcement.
- ✓ **CONTINUE TO IMPROVE AND EXPAND** the availability and accessibility of child restraint system inspection stations.

For a complete list of strategies and action steps, please see *Occupant Protection Action Plan* (in the Appendix).

SAFE SYSTEM: SAFE ROAD USERS

As part of the shared responsibility for safety, one simple yet critical step as a road user is to make the safest choice of wearing a seat belt. While seat belts, age-appropriate child restraints, and airbags do not prevent crashes from taking place, they are designed to spread the forces experienced in a crash out and direct them away from the most vulnerable parts of the human body to reduce the severity of injury to vehicle occupants. **SEAT BELTS ARE THE BEST DEFENSE AGAINST IMPAIRED, AGGRESSIVE, AND DISTRACTED DRIVERS.** According to NHTSA, an occupant's chance of survival increases dramatically when appropriately restrained, reducing the risk of fatal injury by 45 percent.¹⁰

¹⁰ NHTSA, Seat Belts, <https://www.nhtsa.gov/risky-driving/seat-belts>



On average, **13** people **DIED** or were **SERIOUSLY INJURED** in **UNRESTRAINED CRASHES** in Arkansas **EACH WEEK.**

CAR SEAT USE
DECREASES the risk of injury in a crash by up to **82%** for **CHILDREN.** (CDC)

ARKANSAS SEAT BELT
USAGE RATE is **84.2%, 90.4%** in **2021.**
against the national average of **90.4%** (NHTSA, 2021)

80% of **UNRESTRAINED** fatalities and serious injuries involved a **ROADWAY DEPARTURE** between **2016** and **2020**, while **32%** involved **SPEEDING** and **28%** involved **BOTH.**

OLDER DRIVERS

The ability to drive is not entirely based on age, however changes in vision, memory or decision-making, and reflexes can affect driving skills. As people age they are at greater risk of being seriously injured or killed in a traffic crash, in fact, older drivers are more than twice as likely to report having a medical problem that makes it difficult to drive safely, compared to people aged 24-64 (CDC).¹¹ Older drivers are less likely to drive while impaired or distracted, but are more likely to have roadway departure or intersection crashes. They are also often reluctant to retire from driving, as it keeps them mobile and independent.

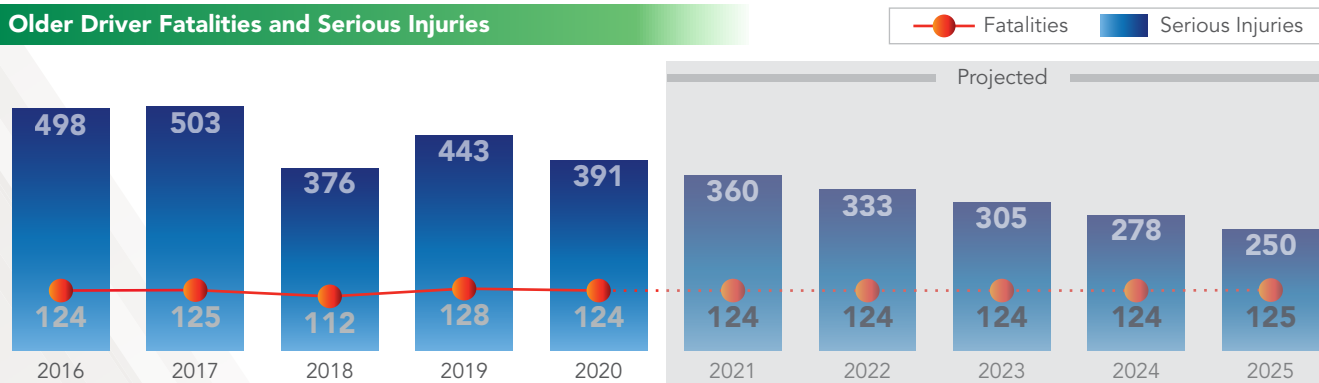
In Arkansas, older drivers are defined as age 65 and older and between 2016 and 2020, **613 PEOPLE WERE KILLED AND 2,211 WERE SERIOUSLY INJURED IN CRASHES INVOLVING OLDER DRIVERS** which represented a **17 PERCENT REDUCTION IN OLDER DRIVER TRAFFIC FATALITIES AND SERIOUS INJURIES** during this 5-year period. To reduce older driver related fatalities and serious injuries, Arkansas is focused on enhancing roadway visibility to accommodate older drivers, providing tools and resources to educate and screen older drivers' ability to drive safely, and expanding transportation alternatives that allow Arkansas seniors to stay mobile.

From **2016 to 2020**, **22%** of **TRAFFIC FATALITIES** and **17%** of **SERIOUS INJURIES** in Arkansas involved **OLDER DRIVERS**. **65+**

OLDER DRIVER FATALITIES remained the same while **SERIOUS INJURIES** decreased **21%** ↓

OBJECTIVE:
REDUCE older driver **FATALITIES** and **SERIOUS INJURIES** by **2%** annually. ↓

Older Driver Fatalities and Serious Injuries



¹¹ CDC, Older Adult Drivers: https://www.cdc.gov/transportationsafety/older_adult_drivers/index.html.

TOP OLDER DRIVER STRATEGIES

- ✓ **CREATE ARDOT STANDARD(S)** to improve visibility to reduce crashes involving older drivers.
- ✓ **IDENTIFY OLDER DRIVERS** who are at an elevated crash risk.
- ✓ **PROMOTE AND EXPAND TRANSPORTATION ALTERNATIVES** that allow older drivers to stay mobile and safe.

For a complete list of strategies and action steps, please see *Older Driver Action Plan* (in the Appendix).

SAFE SYSTEM: SAFE ROAD USERS

As part of the shared responsibility for safety, older drivers can take steps to evaluate their abilities to safely operate a motor vehicle. **OLDER DRIVERS SHOULD DISCUSS THEIR MEDICATIONS AND MEDICAL ISSUES WITH THEIR DOCTOR OR HEALTH CARE PROVIDER ABOUT POSSIBLE IMPACTS ON SAFE DRIVING** and get their eyes checked by a doctor at least once a year. In addition, other individuals (family members, physicians, and other professionals) share the responsibility of talking with older drivers about limiting their driving, assisting with alternative route planning, or transitioning from driving. These conversations can help make informed decisions about how and when to retire from driving and identify alternative transportation options to maintain their mobility in an effort to keep all road users safe.

On average, **11 OLDER DRIVERS DIED** or were **SERIOUSLY INJURED** in Arkansas roadway crashes **EACH WEEK.**

Nearly **61%** of **OLDER DRIVER** related **FATALITIES AND SERIOUS INJURIES** involved drivers between **65** and **69** years old.

An estimated **8,000 OLDER DRIVERS** were **KILLED** in traffic crashes nationwide in **2019.**

ACCORDING TO AAA, there will be more than **70 MILLION** people age **65** and **OLDER** by **2030**, and approximately **85-90%** will be licensed to drive.



YOUNGER DRIVERS

In Arkansas, younger drivers are defined as those 24 years old or younger. As a younger driver, learning how to drive and operate a motor vehicle is an exciting milestone that symbolizes independence and freedom. On the flip side, parents of younger drivers are aware that handing over the keys comes with increased risk of a traffic crash due to the lack of driving experience and knowledge that comes with being a new driver on the roadway. In Arkansas, between 2016 and 2020, **360 PEOPLE WERE KILLED AND 2,394 PEOPLE WERE SERIOUSLY INJURED IN CRASHES INVOLVING YOUNGER DRIVERS.** Arkansas continues to research and implement best practices that aim to reduce younger driver fatalities and serious injuries.

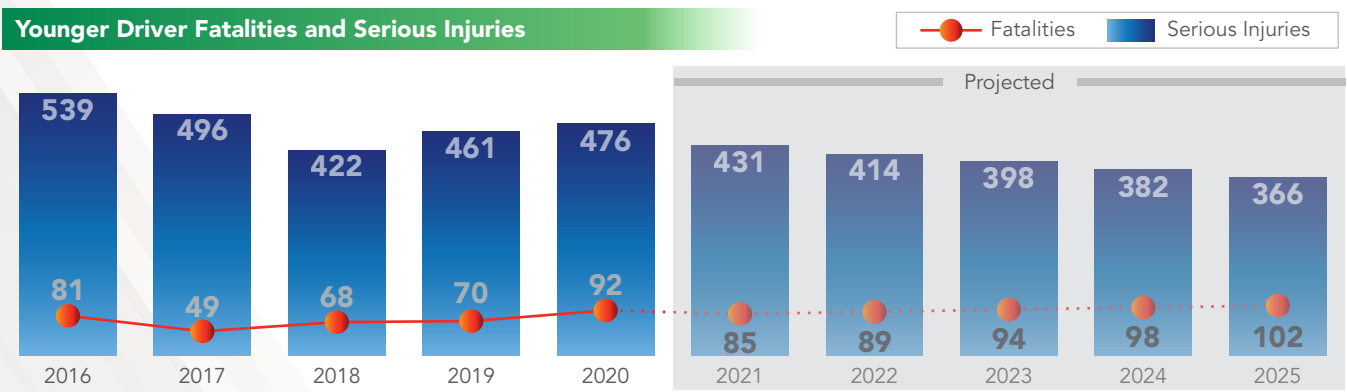
According to the National Highway Traffic Safety Administration (NHTSA), **MOTOR VEHICLE CRASHES ARE A LEADING CAUSE OF DEATH FOR TEENS. IMPAIRMENT, PASSENGERS, DISTRACTIONS FROM MOBILE PHONES AND NAVIGATION SYSTEMS, SPEEDING, AND NOT WEARING A SEAT BELT ARE AMONG THE MAJOR CONTRIBUTING FACTORS TO THE NUMBER OF TEEN INJURIES AND FATALITIES ON OUR NATION'S ROADS EACH YEAR.**¹²

Younger drivers are more susceptible to traffic crashes due to their inability recognize dangerous driving situations, make critical decisions, and stay focused on the task of driving safely. To reduce younger driver fatalities and serious injuries, Arkansas is focused on improving legislation and distributing educational materials focused on increasing awareness of risks to younger drivers and parents.

From **2016 to 2020,** **13%** of **TRAFFIC FATALITIES** and **18%** of **SERIOUS INJURIES** in Arkansas involved **YOUNGER DRIVERS.**

YOUNGER DRIVER FATALITIES increased **14%** while **SERIOUS INJURIES** decreased **12%**

OBJECTIVE:
REDUCE younger driver **FATALITIES** and **SERIOUS INJURIES** by **2%** annually.



¹² NHTSA, Teen Driving: <https://www.nhtsa.gov/road-safety/teen-driving>

TOP YOUNGER DRIVER STRATEGIES

- ✓ **INCREASE AWARENESS** of Arkansas' Graduated Driver Licensing (GDL) Law.
- ✓ **INCREASE AWARENESS OF RISKS** to younger drivers amongst teens, college age students, parents, and community members.
- ✓ **REVISE OR ADD ADDITIONAL LEGISLATION** for younger drivers.

For a complete list of strategies and action steps, please see *Younger Driver Action Plan* (in the Appendix).

SAFE SYSTEM: SAFE ROAD USERS

The Safe System approach aims to reduce fatalities and serious injuries by adopting a holistic view of road safety that anticipates and plans for human mistakes. Younger drivers are prone to mistakes due to their inexperience, making them a danger to themselves and others on the roadway.¹³ **SELF-REPORTED SURVEYS SHOW THAT TEENS WHOSE PARENTS IMPOSE DRIVING RESTRICTIONS AND SET GOOD EXAMPLES TYPICALLY ENGAGE IN LESS RISKY DRIVING AND ARE INVOLVED IN FEWER CRASHES.** Parents of younger drivers have a shared responsibility to set a good example of what safe driving looks like by not engaging in risky driver behaviors such as driving unbuckled, texting while driving, speeding, or driving impaired. Parents can be proactive by educating their younger driver on the rules of the roadway and the consequences of not following the laws.

¹³ NHTSA, Teen Driving: <https://www.nhtsa.gov/road-safety/teen-driving>

On average, **10 YOUNGER DRIVERS**
DIED or were **SERIOUSLY INJURED**
in Arkansas roadway crashes **EACH WEEK.**

35% of **YOUNGER DRIVER**
FATALITIES AND SERIOUS INJURIES
occurred when it was **DARK.**

In the United States, **45%** of **TEEN DRIVERS** who **DIED**
were **UNBUCKLED** in 2019. (NHTSA)

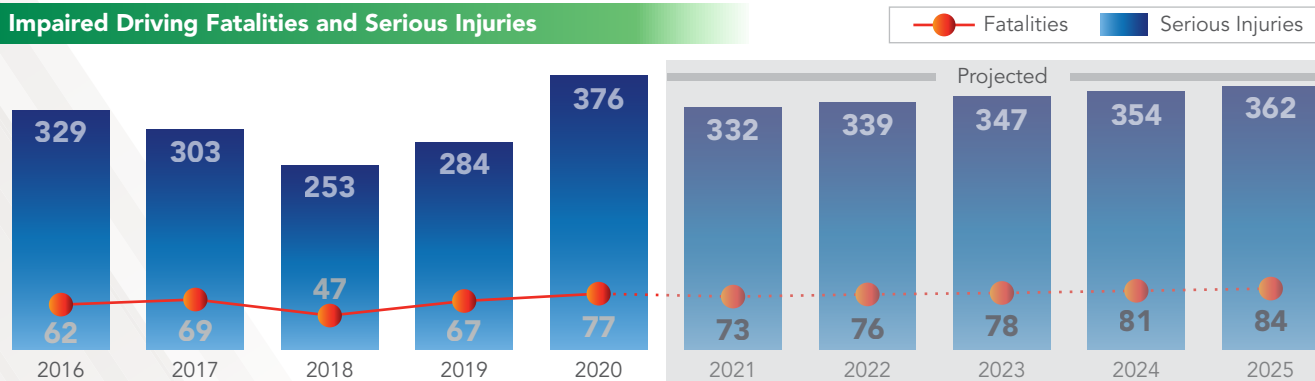
Despite **ALCOHOL** being **ILLEGAL** for people under the age of **21**,
driving after drinking killed **24%** of drivers aged
15 to 20 in 2019. (CDC, 2021)

IMPAIRED DRIVING

In Arkansas, impaired driving is defined as driving while physically impaired, under the influence of medication/drugs, or under the influence of alcohol. Driving while impaired, especially under the influence of medication, drugs, or alcohol, limits a driver's ability to make safe driving decisions due to reduced brain function, impaired thinking, reasoning, and muscle coordination. In Arkansas, between 2016 and 2020, **322 PEOPLE WERE KILLED AND ANOTHER 1,545 WERE SERIOUSLY INJURED IN CRASHES INVOLVING IMPAIRED DRIVING.**

Driving while alcohol impaired is illegal in all 50 states. According to NHTSA, **AN ESTIMATED 28 PEOPLE IN THE UNITED STATES DIE EACH DAY IN DRUNK DRIVING CRASHES, THAT'S ONE PERSON EVERY 52 MINUTES.**¹⁴ Furthermore, approximately one-third of all traffic fatalities in the United States involve drunk drivers with a blood alcohol content (BAC) of .08 g/dL or higher.¹⁵ In Arkansas, impaired driving fatalities and serious injuries declined between 2016 to 2018, but increased again in 2019, with the most impaired driving crashes ever recorded in 2020. Arkansas is focused on education and enforcement measures, such as implementing the Drive Sober or Get Pulled Over campaign to reinforce the message that impaired driving is a dangerous and serious crime.

Impaired Driving Fatalities and Serious Injuries



¹⁴ NHTSA, Drunk Driving: <https://www.nhtsa.gov/risky-driving/drunk-driving>

¹⁵ NHTSA, Drunk Driving: <https://www.nhtsa.gov/risky-driving/drunk-driving>

From **2016 to 2020,**

11% of **TRAFFIC FATALITIES** and **12%** of **SERIOUS INJURIES** in Arkansas involved **IMPAIRED DRIVERS.**



IMPAIRED DRIVING FATALITIES increased **24%** while **SERIOUS INJURIES** increased **14%**

OBJECTIVE:

REDUCE impaired driving **FATALITIES** and **SERIOUS INJURIES** by **2%** annually.

TOP IMPAIRED DRIVING STRATEGIES

- ✓ **INCREASE ENFORCEMENT** of impaired driving laws.
- ✓ **MAKE THE PUBLIC AWARE**, through education, of the dangers and penalties involved with impaired driving.
- ✓ **PREVENT EXCESSIVE DRINKING**, underage drinking, and impaired driving.

For a complete list of strategies and action steps, please see *Impaired Driving Action Plan* (in the Appendix).

SAFE SYSTEM: SAFE ROAD USERS

Impaired driving fatalities and serious injuries are unacceptable and preventable. **TO OPERATE AS A SAFE ROAD USER, MOTORISTS MUST ACKNOWLEDGE THE LIMITS OF THEIR DRIVING CAPABILITIES AND COMPLY WITH THE ROADWAY RULES AND LAWS BY NOT DRIVING WHILE IMPAIRED.** Designating a sober driver or utilizing rideshare companies or taxi services are easy and simple steps to reduce impaired driving. Emerging in-vehicle alcohol detection technology in personal vehicles can prevent the vehicle from being driven by a legally impaired driver.



On average, **7 people** **DIED** or were **SERIOUSLY INJURED** in Arkansas **IMPAIRED DRIVING CRASHES EACH WEEK.**

Nearly **79%** of impaired driving **FATALITIES** and **SERIOUS INJURIES** occurred during **roadway departure crashes** and an additional **34%** were **NOT WEARING THEIR SEATBELT.**

In Arkansas **ALCOHOL IMPAIRED DRIVING FATALITY RATES** per **100,000 people** was greater than the National average in **2018.** (FARS, 2018)

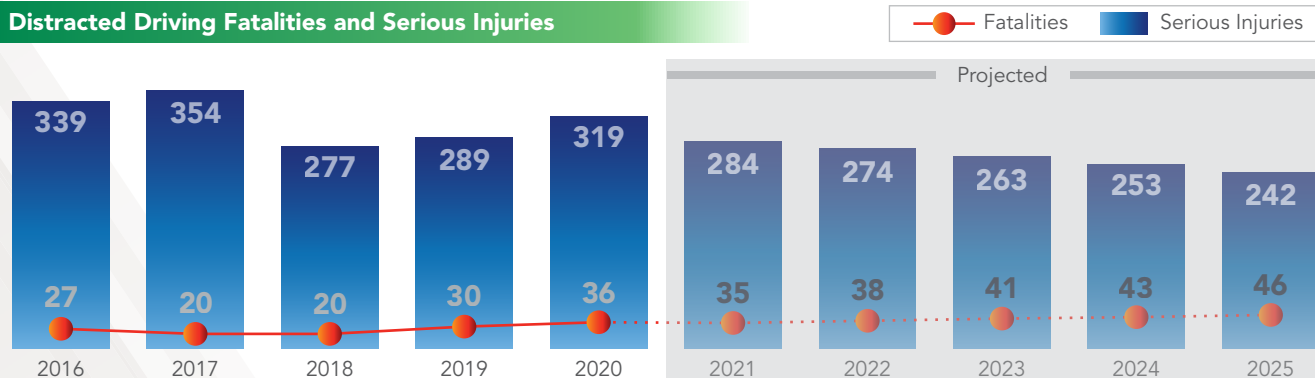
1.4% of **adults** in Arkansas report **DRIVING AFTER DRINKING TOO MUCH.** (Behavioral Risk Factor Surveillance System BRFSS, 2018)

DISTRACTED DRIVING

Distraction includes taking your eyes off the road (visual), hands off the wheel (manual), or mind off of driving (cognitive). Drowsy driving will also be addressed due to rising concerns and its similar effect on driving. Although sending a quick text message seems relatively easy and safe, just reading a single text while driving 55 mph is equivalent to driving the length of a football field with your eyes closed (CDC)¹⁶ and a 2006 University of Utah study concluded that talking on a cellphone while driving was as dangerous as drunk driving.¹⁷ The act of diverting your attention away from the driving task creates serious risk to all roadway users.

In Arkansas, distracted driving includes manually operating an electronic communication device (such as texting, typing, or dialing), talking on a hands free or hand held electronic device, being emotional, asleep/fatigued or drowsy, or being distracted by a passenger or by something inside or outside of the vehicle. Between 2016 and 2020, **133 PEOPLE WERE KILLED AND ANOTHER 1,578 WERE SERIOUSLY INJURED IN CRASHES INVOLVING DISTRACTED DRIVING. ALTHOUGH FATALITIES AND SERIOUS INJURIES DECREASED BY 3 PERCENT DURING THAT PERIOD, DISTRACTED DRIVING FATALITIES CONTINUE TO INCREASE.** Arkansas is focused on educating citizens, emergency responders, and commercial vehicle drivers on the dangers of distracted and drowsy driving and expanding efforts to enforce the State's distracted driving laws.

Distracted Driving Fatalities and Serious Injuries



¹⁶ CDC, Distracted Driving: https://www.cdc.gov/transportationsafety/distracted_driving/index.html

¹⁷ University of Utah, A Comparison of the Cell Phone Driver and the Drunk Driver: <https://appliedcognition.psych.utah.edu/publications/comparison.pdf>

From **2016 to 2020,**

5%

of **TRAFFIC FATALITIES**

and **12%**

of **SERIOUS INJURIES**

in Arkansas involved

DISTRACTED DRIVERS.



DISTRACTED DRIVING FATALITIES

increased

33%

while

SERIOUS INJURIES

decreased

6%

OBJECTIVE:

REDUCE

distracted driving **FATALITIES** and **SERIOUS INJURIES**

by **2%** annually.

TOP DISTRACTED DRIVING STRATEGIES

- ✓ **INCREASE ENFORCEMENT** of distracted driving laws.
- ✓ **INCLUDE DISTRACTED AND DROWSY DRIVING** in the statewide communications campaign and expand education efforts.
- ✓ **INCREASE THE USE OF WARNING SIGNS** in problem areas to reduce distracted driving incidents and engineering design to help drowsy drivers stay on the road.

For a complete list of strategies and action steps, please see *Distracted Driving Action Plan* (in the Appendix).

SAFE SYSTEM: SAFE ROAD USERS

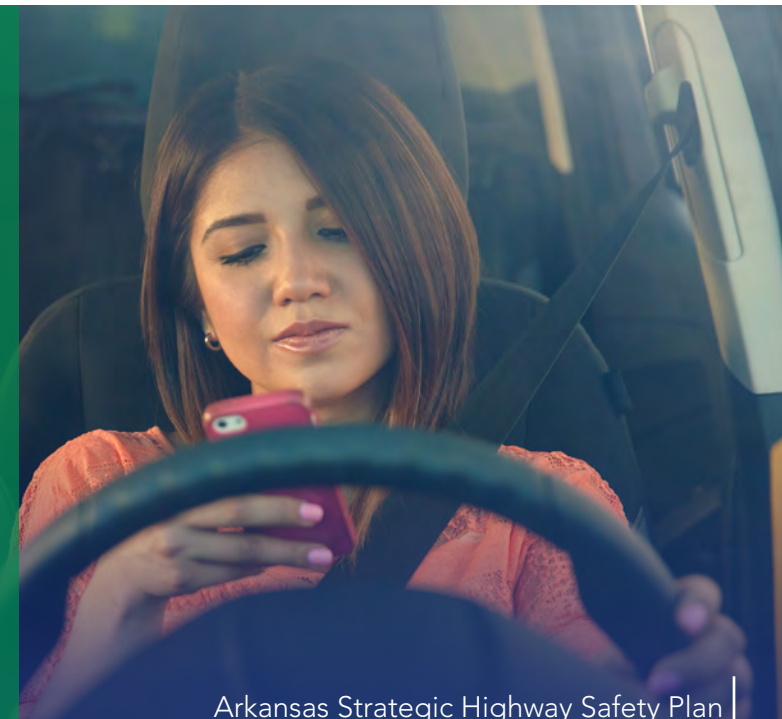
WHEN A DRIVER STAYS FULLY FOCUSED ON THE DRIVING TASK, THEY ARE TAKING A SIMPLE YET NECESSARY STEP TOWARD PREVENTING DEATHS AND SERIOUS INJURIES especially among vulnerable road users. A Safe System can be achieved by educating drivers on the dangers of driving while distracted, integrating emerging technology to create safer vehicles that limit distraction, and designing a transportation network that proactively addresses dangerous roadway components that could encourage distraction in any form.

On average, **7 people** **DIED** or were **SERIOUSLY INJURED** in **DISTRACTED DRIVING RELATED CRASHES** in Arkansas **EACH WEEK.**

Nearly **29%** of distracted driving **FATALITIES** and **SERIOUS INJURIES** involved younger drivers **24 years old or younger.**

According to the CDC's **Youth Risk Behavior Surveillance System (YRBSS)**, **39%** of **HIGH SCHOOL STUDENTS** who drove in the past **30 days** **TEXTED OR EMAILED WHILE DRIVING** on at least one of those days.

In Arkansas, **70%** of distracted driving **FATALITIES** and **SERIOUS INJURIES** occurred during **ROADWAY DEPARTURE**, when a driver left their travel lane.



NON-MOTORISTS

Non-motorist travel, including walking and biking, are essential modes of transportation for Arkansas' residents and visitors. Choosing to travel as a pedestrian or on a bicycle can improve personal health and wellness while simultaneously reducing environmental impacts. However, non-motorists are more likely to suffer serious or fatal injuries when involved in a motor-vehicle crash. In Arkansas, between 2016 and 2020, **315 PEOPLE WERE KILLED AND ANOTHER 693 WERE SERIOUSLY INJURED IN TRAFFIC CRASHES INVOLVING NON-MOTORISTS.**

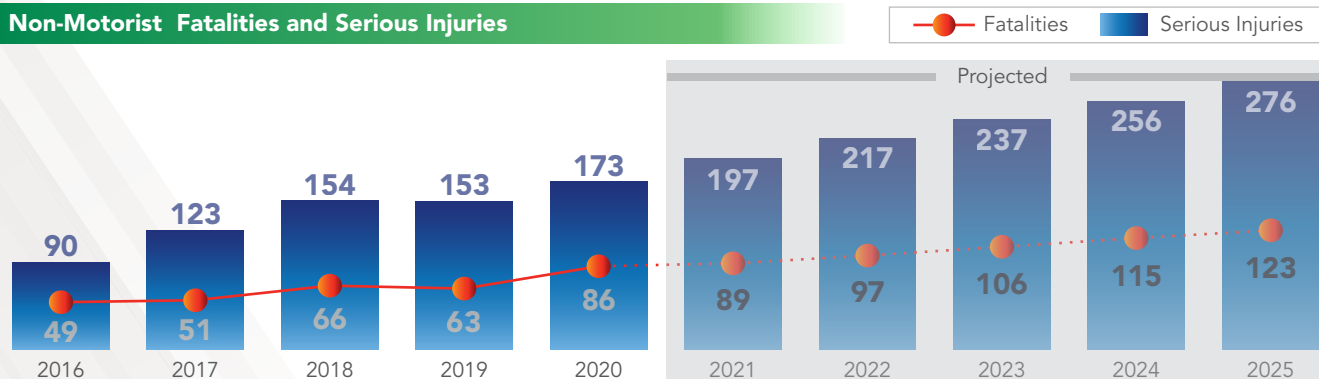
Investing in infrastructure improvements such as sidewalks, trail systems, and on-road bikeways supports safe ways to share the road with motor vehicles.

According to Federal Highway Administration (FHWA), **65,000 PEDESTRIANS AND 48,000 BICYCLISTS ARE SERIOUSLY INJURED IN TRAFFIC CRASHES ANNUALLY.**¹⁸ In 2019 alone, it is **ESTIMATED THAT A PEDESTRIAN WAS KILLED EVERY 85 MINUTES IN TRAFFIC CRASHES.**¹⁹ In Arkansas, non-motorist fatalities and serious injuries are rising. To mitigate the impacts of non-motorist crashes, Arkansas is focused on implementing safe roadway design that protects non-motorists while reducing the speeds of traveling vehicles, and increasing education and enforcement efforts to create safer environments for all non-motorist travelers.

From **2016 to 2020,** **11%** of **TRAFFIC FATALITIES** and **5%** of **SERIOUS INJURIES** in Arkansas involved **NON-MOTORISTS.**

NON-MOTORIST FATALITIES increased **76%**, while **SERIOUS INJURIES** increased **92%**

Non-Motorist Fatalities and Serious Injuries



¹⁸ FHWA, Pedestrian and Bicycle Safety: https://safety.fhwa.dot.gov/ped_bike/

¹⁹ NHTSA, Pedestrian Safety: <https://www.nhtsa.gov/road-safety/pedestrian-safety>

OBJECTIVE:

REDUCE non-motorist **FATALITIES** and **SERIOUS INJURIES** by **2%** annually.

TOP NON-MOTORISTS STRATEGIES

- ✓ **CONTINUE TO IMPROVE** statewide infrastructure and design to protect non-motorists.
- ✓ **CONTINUE TO IMPLEMENT** countermeasures, programs, and policies to protect non-motorists.
- ✓ **FOCUS EDUCATION EFFORTS** on safety and awareness of laws regarding non-motorist traffic.

For a complete list of strategies and action steps, please see *Non-Motorist Action Plan* (in the Appendix).

SAFE SYSTEM: SAFE ROAD USERS

Non-motorists are the most vulnerable roadway users, as they have no protection if they get struck by a motor vehicle. Humans will continue to make mistakes while driving or traveling by other means, but **IMPROVING ROADWAY DESIGN AND SHARING THE RESPONSIBILITY OF SAFETY CAN HELP PREVENT CRASHES AND KEEP IMPACTS TO THE HUMAN BODY AT TOLERABLE LEVELS.** As recommended in FHWA's Primer of Safe System Approach for Pedestrians and Bicyclists, crashes can be eliminated by separating road users and road user movement in time and space. For example, creating buffered bike lanes and increasing the time allotted for pedestrians to cross a roadway are preventative measures to lower the likelihood of a crash occurrence and decrease movement complexity.



On average, **4 NON-MOTORISTS DIED** or were **SERIOUSLY INJURED** in Arkansas roadway crashes **EACH WEEK.**

Nearly **61%** of **NON-MOTORIST FATALITIES AND SERIOUS INJURIES** in Arkansas occurred when it was **DARK.**

46% of **ALL FATAL PEDESTRIAN CRASHES** involved **ALCOHOL REPORTED** for the driver and/or pedestrian in **2019** (NHTSA, 2019).

78% of **BICYCLISTS** who **DIED** in motor vehicle crashes in **2019** were in **URBAN AREAS** (NHTSA, 2019).

LARGE COMMERCIAL MOTOR VEHICLES

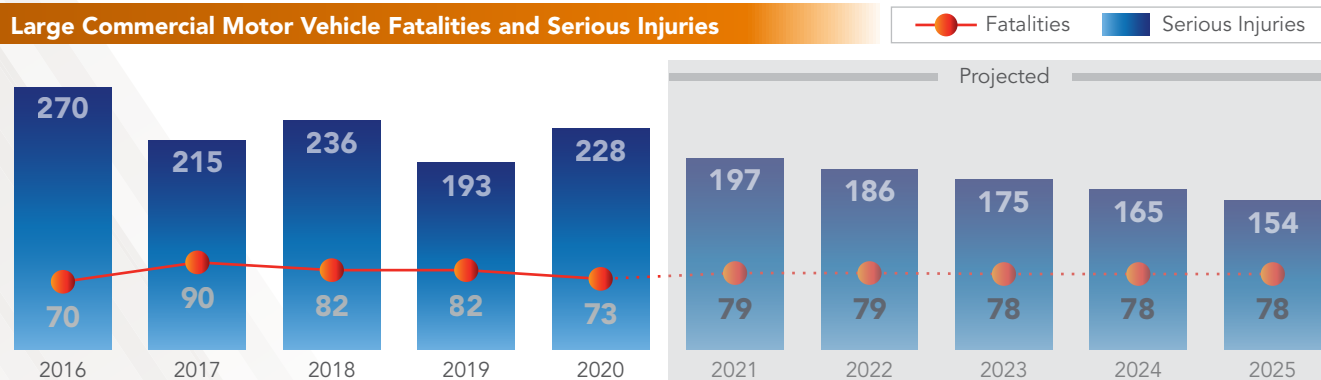
Arkansas law defines a commercial motor vehicle (CMV) as a motor vehicle with a gross combination weight rating of 26,001 pounds or more, inclusive of a towed unit with a gross vehicle weight rating of more than 10,000 pounds, used in commerce to transport passengers or property. In Arkansas, **MORE THAN 1.8 MILLION TRUCKS AND 12,000 BUSES WERE REGISTERED IN 2019, WITH 6 PERCENT OF LICENSED DRIVERS HOLDING A COMMERCIAL DRIVER'S LICENSE.**

Between 2016 and 2020, **397 FATALITIES, AND 1,142 SERIOUS INJURIES INVOLVED AT LEAST ONE LARGE CMV IN ARKANSAS**, and comprised 10 percent of the total traffic fatalities and serious injuries during the same time period. Although, CMV related deaths increased by 4 percent in the past five years, CMV serious injuries declined by 16 percent. When a car collides with a large CMV that requires a greater stopping distance, the occupants of the car are likely to suffer severe injuries or even death. According to Fatality Analysis Reporting System (FARS), **NEARLY 88 PERCENT OF THE CMV FATAL CRASHES IN 2019 WERE MULTIPLE-VEHICLE CRASHES, AND THE MAJORITY (77 PERCENT) OF THE PEOPLE KILLED WERE OCCUPANTS OF OTHER VEHICLES.** Fatigue and long hours of service are the most frequent factors that lead to serious crashes involving large trucks. To reduce CMV-related crashes, Arkansas is focused on strengthening enforcement measures, ensuring CMV owners' and operators' compliance with Federal Motor Carrier Safety Administration (FMCSA) regulations, and adopting proven safety technologies.

From **2016 to 2020,**
14% of **TRAFFIC FATALITIES**
 and **9%** of **SERIOUS INJURIES**
 in Arkansas involved **LARGE CMVS.**

LARGE CMV FATALITIES increased **4%**,
 while **SERIOUS INJURIES** decreased **16%**

Large Commercial Motor Vehicle Fatalities and Serious Injuries



OBJECTIVE:

REDUCE large CMV **FATALITIES** and **SERIOUS INJURIES** by **2%** annually.

TOP LARGE COMMERCIAL MOTOR VEHICLE STRATEGIES

- ✓ **REDUCE THE RISK** of CMV crashes due to driver fatigue.
- ✓ **PROVIDE EDUCATION AND OUTREACH** to the public and industry on how to safely operate in and around commercial motor vehicles.
- ✓ **IDENTIFY HIGH CRASH CORRIDORS** and develop engineering solutions to reduce CMV crashes.

For a complete list of strategies and action steps, please see *Large Commercial Motor Vehicle Action Plan* (in the Appendix).

SAFE SYSTEM: SAFE VEHICLES

Roadway safety is the shared responsibility of passenger vehicle drivers, truck and bus drivers, motorcyclists, and non-motorists. **LARGE TRUCKS OFTEN WEIGH 20 TO 30 TIMES AS MUCH AS PASSENGER VEHICLES, REQUIRE A LONGER STOPPING DISTANCE**, and greater ground clearance than passenger vehicles. All these characteristics create challenges to safe navigation for all road users.

According to the Insurance Institute for Highway Safety (IIHS) research, truck drivers behind the wheel for more than eight hours are twice as likely to crash. In addition to shared responsibility for safety, adopting proactive methods of identifying and implementing appropriate countermeasures, enforcing strict regulations for CMV operations, and adopting improved crash avoidance technologies will improve safety for all road users.

On average, **6 people** **DIED** or were **SERIOUSLY INJURED** in **LARGE CMV CRASHES** in Arkansas **EACH WEEK**.

86% of the **FATALITIES** and **SERIOUS INJURIES** involving **LARGE CMVs** occurred during **WEEKDAYS**.

In Arkansas, **12.5%** of all vehicles involved in **FATAL CRASHES** were **LARGE TRUCKS** compared to the **NATIONAL AVERAGE** of **9.8%** in 2019. (NHISA, 2021)

47% of **LARGE CMV** fatalities and serious injuries involved a **ROADWAY DEPARTURE** between 2016 and 2020, and **22%** involved **OLDER DRIVERS**.



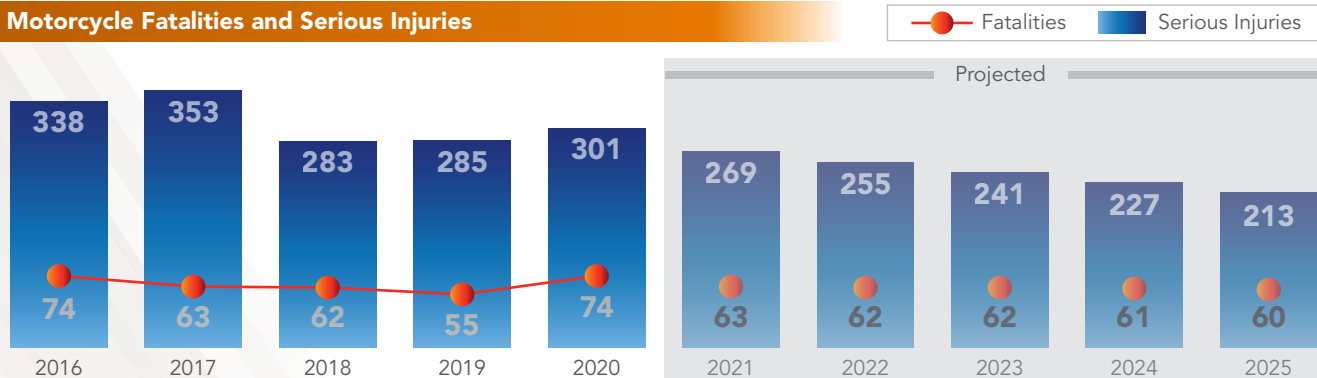
MOTORCYCLES

Operating a motorcycle is different from driving a four wheeled vehicle and requires specific skills, including balance, coordination, and good judgment. In Arkansas, a motorcycle is a two or three wheeled vehicle with a seat for the rider and requires a vehicle registration. The use and ownership of motorcycles are increasing in the State, with a 2 percent growth in motorcycle endorsements from 2019 to 2020. Of the motorcycle riders involved in fatal crashes in 2019, 30 percent were riding without valid motorcycle licenses (NHTSA).

A motorcyclist refers to a motorcycle operator or passenger. According to NHTSA, per vehicle miles traveled, **MOTORCYCLISTS ARE ABOUT 29 TIMES MORE LIKELY THAN VEHICLE PASSENGERS TO DIE IN A TRAFFIC CRASH.** Between 2016 and 2020, **328 MOTORCYCLISTS DIED, AND 1,560 WERE SERIOUSLY INJURED IN TRAFFIC CRASHES** in Arkansas.

Motorcycles represented only 6 percent of the State’s registered vehicles in 2019 while comprising 12 percent of the traffic fatalities and serious injuries. While there were an average of 74 motorcycle fatalities per year over the 5-year period of 2016 to 2020, fatalities fluctuated and dropped as low as 55 in 2019. Motorcycle-related serious injuries declined by 11 percent over that same 5-year period. A significant factor in the severity of a motorcycle crash is helmet use. Arkansas repealed the helmet law in 1997. The current law requires helmet use for motorcyclists under 21. To reduce motorcycle-related fatalities and serious injuries, Arkansas is focused on adopting evidence-based strategies and strengthening enforcement efforts to reduce motorcycle related crashes.


Motorcycle Fatalities and Serious Injuries



From **2016 to 2020** **12%** of **TRAFFIC FATALITIES** and **12%** of **SERIOUS INJURIES** in Arkansas involved **MOTORCYCLES.**



The number of **MOTORCYCLE FATALITIES** remain unchanged, while **SERIOUS INJURIES** decreased **11%**



OBJECTIVE:
REDUCE motorcycle **FATALITIES** and **SERIOUS INJURIES** by **2%** annually.



TOP MOTORCYCLE STRATEGIES

- ✓ **ENCOURAGE HELMET AND HIGH VISIBILITY CLOTHING USAGE**, safe riding behavior, and motorcycle safety training.
- ✓ **EDUCATE MOTORISTS ON SHARING THE ROAD** with motorcycles.
- ✓ **DEPLOY MOTORCYCLE FRIENDLY ROADWAY DESIGN** and maintenance practices.

For a complete list of strategies and action steps, please see *Motorcycle Action Plan* (in the Appendix).

SAFE SYSTEM: SAFE VEHICLES

People will make mistakes that can lead to crashes, yet better roadway design, safe vehicles for all road users, and sharing the responsibility to promote and practice safe behaviors can help prevent crashes and keep impacts on the human body at tolerable levels when they do occur.

Riding a motorcycle is fun, but operating a motorcycle safely requires special skills and knowledge. The injury risk for motorcyclists increases when the rider does not wear protective equipment or engages in other high-risk behaviors such as impairment or speeding. The use of a helmet offers a motorcyclist the best protection from fatal and non-fatal head injuries. NHTSA estimates that **MOTORCYCLE HELMETS SAVED AN ESTIMATED 1,872 LIVES IN 2017, AND AN ADDITIONAL 749 LIVES COULD HAVE BEEN SAVED IF ALL MOTORCYCLE RIDERS HAD WORN HELMETS.**



On average, **7** motorcyclists **DIED** or were **SERIOUSLY INJURED** in Arkansas roadway crashes **EACH WEEK.**

Nearly **25%** of the **MOTORCYCLE FATALITIES** and **SERIOUS INJURIES** involved **MOTORCYCLISTS BETWEEN 50 and 59** years old.

42% of the **FATAL MOTORCYCLE CRASHES** were **SINGLE VEHICLE** crashes in **2019.** (FARS, 2021)

In Arkansas, **13%** of the **MOTORCYCLE FATALITIES** involved a rider with a blood alcohol concentration of **0.15 g/dL OR HIGHER** in **2019.** (NHTSA, 2021)

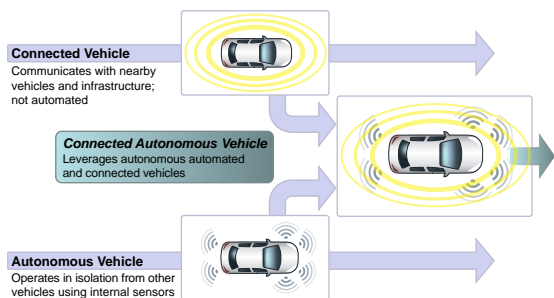
CONNECTED AND AUTOMATED VEHICLES

CONNECTED AND AUTOMATED VEHICLES (CAV) ARE RAPIDLY EMERGING AND HAVE THE POTENTIAL TO CHANGE ALL ASPECTS OF MOBILITY, INCLUDING SAFETY.

Connected Vehicle (CV) technologies allow vehicles to talk to each other and the infrastructure around them, while Automated Vehicles (AV) use technology for at least some aspects (or eventually all) of vehicle control without direct driver input. NHTSA has classified six levels of automation, and vehicles with level 1 and 2 automation are already on the road with advanced driver assistance systems (ADAS) such as adaptive cruise control, forward collision warning, lane departure warning, emergency brake, etc.

In the transportation sector, where **9 OUT OF 10 ROADWAY CRASHES OCCUR DUE TO HUMAN BEHAVIOR**,²⁰ **ADVANCED SAFETY TECHNOLOGIES HAVE THE POTENTIAL TO REDUCE THE LIKELIHOOD OF HUMAN ERROR AND SAVE LIVES.** In addition to improving safety, advanced vehicle technologies can reduce congestion by freeing up as much as 50 minutes each day for drivers (NHTSA), improving efficiency and convenience, and providing new mobility options for at-risk drivers. There are several challenges related to CAV adoption, including the need for sufficient consumer demand, installation of relevant infrastructure, data security and protection against cyberattacks, societal attitude, and behavior change regarding distrust and subsequent resistance to AV use. In 2021, Arkansas passed a law authorizing the operation of fully autonomous vehicles on state roads. The State is focused on adopting AV technologies by conducting research to mainstream CAV into ARDOT standards and specifications, assessing infrastructure needs, and developing CAV pilot programs with regulations compatible with the driverless operation.

²⁰ NHTSA, 2021, Automated Vehicles for Safety: <https://www.nhtsa.gov/technology-innovation/automated-vehicles-safety>



(Source: USDOT.)

L0	Driver Only	Driver operates vehicle	
L1	Assisted Driving	Vehicle steers or controls speed	Driver holds wheel / pedal controls
L2	Partial Automation	Vehicle drives itself but not 100% safely	Driver monitors at all times
L3	Conditional Automation	Vehicle drives itself but may give up control	Driver ready to regain control
L4	Significant Automation	Vehicle drives itself in specific cases (e.g. urban streets)	Driver not required at all times
L5	Complete Automation	Vehicle drives itself in all situations	

(Source: The Future of Autonomous Vehicles, <https://www.futureautonomous.org/pdf/full/Future%20of%20Autonomous%20Vehicles%202020%20-%20Final%20LR.pdf>)

AVs have the potential to **REDUCE CRASHES** by **90%**, potentially **SAVING** approximately **\$190 BILLION** per year. (McKinsey and Company, 2015)

ADAS-EQUIPPED VEHICLES showed a **27%** reduction in **BODILY INJURY** claim frequency and a **19%** reduction in **PROPERTY DAMAGE** frequency. (Forbes, 2020)

OBJECTIVES:

EXPLORE implementing **ROADSIDE TECHNOLOGY** and **INFRASTRUCTURE** projects for **CAV** and **MONITOR CAV PROGRAM REPORTS** for **CRASH TRENDS.**



TOP CONNECTED AND AUTOMATED VEHICLE STRATEGIES

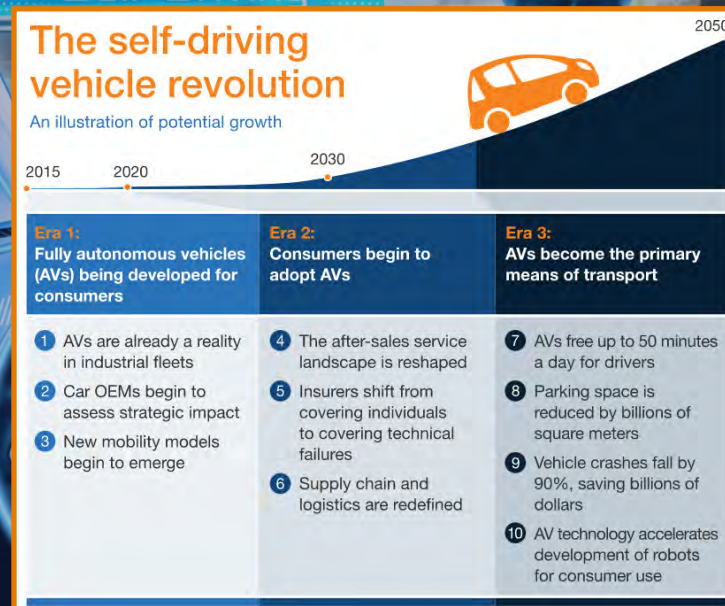
- ✓ **RESEARCH NEEDED CAV STANDARDS** and specifications for safe operations.
- ✓ **PROMOTE AND EXPAND CAV AWARENESS** and education.
- ✓ **PREPARE AGENCY STAFF AND LAW ENFORCEMENT** to support the safe operations of CAV.

For a complete list of strategies and action steps, please see *Connected and Automated Vehicle Action Plan* (in the Appendix).

SAFE SYSTEM: SAFE VEHICLES

Safe vehicles are designed and regulated to minimize the frequency and severity of collisions using advanced safety measures. CAV systems use a combination of technologies and sensors to sense the roadway, other vehicles, pedestrians, and objects on and along the roadway, help vehicles identify certain safety risks, and warn the driver to act to avoid a crash. Today, many vehicles have ADAS technologies that provide drivers with the tools to anticipate potential collisions and significantly reduce the number of lives lost each year.

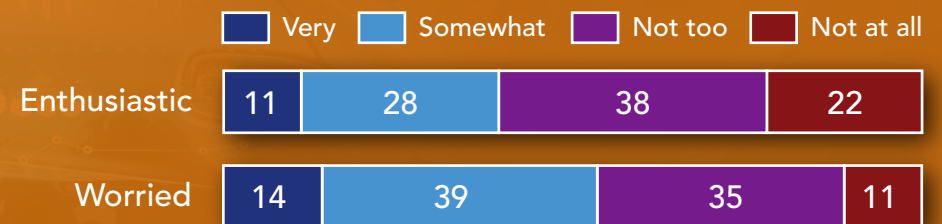
Although there is a growing concern about AVs' perceived safety and acceptance, recent studies found that younger and more educated males are more likely to adopt AVs. **THE CONTINUING EVOLUTION OF AUTOMOTIVE TECHNOLOGY AIMS TO DELIVER GREATER SAFETY AND BENEFIT.** Self-driving vehicles ultimately will integrate onto U.S. roadways by progressing through six levels of driver assistance technology advancements in the coming years.



(Source: McKinsey & Company.)

Public somewhat more worried than enthusiastic about driverless vehicles

Percent of U.S. adults who say the development of driverless vehicles makes them feel...



Note: Respondents who did not give an answer are not shown.
Source: Survey conducted May 1-15, 2017. "Automation in Everyday Life"

(Source: Pew Research Center, 2017.)

ROADWAY DEPARTURES

Roadway departures, also known as lane departures, occur when a motor vehicle crosses an edge line or a center line, leaving their travel lane. Roadway departure crashes include instances where the driver runs off the road into an adjacent travel lane or completely off the roadway, and head-on collisions when a vehicle enters an opposing lane of traffic. In Arkansas, between 2016 and 2020, **2,089 PEOPLE WERE KILLED AND AN ADDITIONAL 8,655 PEOPLE WERE SERIOUSLY INJURED IN ROADWAY DEPARTURE CRASHES.** Arkansas remains committed to preventing and mitigating the consequences of roadway departure crashes primarily using engineering and infrastructure solutions.

According to FHWA, **AN ESTIMATED 19,158 PEOPLE WERE KILLED DURING ROADWAY DEPARTURE CRASHES** nationwide between 2016 to 2018.²¹ In addition, **AN ESTIMATED 12,000 PEOPLE DIE EACH YEAR WHEN THEIR VEHICLE LEAVES ITS LANE ON A RURAL ROAD.**²² In Arkansas, roadway departures made up 67 percent of all fatalities and serious injury crashes between 2016 to 2020. The State is focused on implementing innovative design solutions to keep motor vehicles in their travel lane to reduce fatalities and serious injuries.

From **2016 to 2020,**

74% of **TRAFFIC FATALITIES** and **65%** of **SERIOUS INJURIES** in Arkansas occurred while **DEPARTING A TRAVEL LANE.**



ROADWAY DEPARTURE FATALITIES increased **20%**, while **SERIOUS INJURIES** decreased **6%**.

OBJECTIVE:
REDUCE roadway departure **FATALITIES** and **SERIOUS INJURIES** by **2%** annually.

Roadway Departure Fatalities and Serious Injuries



²¹ FHWA, Roadway Departure Safety: https://safety.fhwa.dot.gov/roadway_dept/

²² FHWA, Roadway Departure Safety: https://safety.fhwa.dot.gov/roadway_dept/

TOP ROADWAY DEPARTURE STRATEGIES

- ✓ **USE PROVEN SAFETY COUNTERMEASURES** and low cost systemic improvements to prevent or mitigate the consequences of roadway departures.
- ✓ **INCREASE ENFORCEMENT** in problem areas to reduce roadway departure crashes.
- ✓ **CONDUCT ROAD SAFETY AUDITS** to address areas with high roadway departure crashes.

For a complete list of strategies and action steps, please see *Roadway Departure Action Plan* (in the Appendix).

SAFE SYSTEM: SAFE ROADS

Safe roads prioritizes safety in all aspects of the roadway system, including design, construction, maintenance, and operation to minimize the consequences of driving errors such as inadvertently leaving the roadway. According to FHWA, **RURAL ROADWAY DEPARTURE CRASHES MADE UP 34 PERCENT OF ALL ROADWAY DEPARTURE DEATHS BETWEEN 2014 TO 2016.**²³ Roadway departure crashes continue to be a major problem on rural roadways, most of which are locally owned roads. ARDOT is committed to using a systemic approach to reduce roadway crashes by implementing best practices such as rumble strips, friction treatments, and clear zones to help keep vehicles in their travel lanes. With safety included in all aspects of roadway planning, roadway departure crashes can be significantly reduced on state and local roadways.

²³ FHWA, Focus on Reducing Rural Roadway Departures: <https://safety.fhwa.dot.gov/EoRRRwD/>

On average, **41 people** **DIED** or were **SERIOUSLY INJURED** due to **ROADWAY DEPARTURE CRASHES** in Arkansas **EACH WEEK.**

Nearly **37%** of roadway departure **FATALITIES** and **SERIOUS INJURIES** involved drivers **29 years old or younger.**

30% of **RURAL ROADWAY DEPARTURE CRASHES** in the United States resulted in a **MOTOR VEHICLE ROLLOVER** between **2014** and **2016.**
(FHWA, [Focus on Reducing Rural Roadway Departures](#))

51% of **ALL TRAFFIC FATALITIES** occurred due to **ROADWAY DEPARTURES** between **2016** and **2018.**
(FHWA, [Roadway Departure Safety](#))

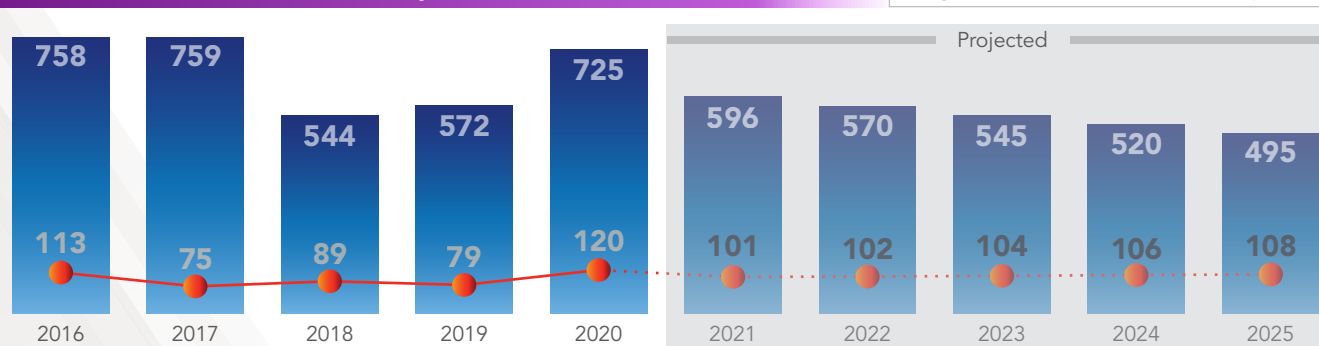


INTERSECTIONS

In Arkansas, intersection crashes occur at or near a junction where one road or street meets another, at an intersection where two roads or streets cross each other, or at a railroad at-grade crossing where a highway or street crosses a railroad. Intersections are used by all roadway users, as they provide the opportunity for all modes of travel (driving, walking, and bicycling) to cross from one route to another. Between 2016 and 2020, **476 PEOPLE WERE KILLED AND ANOTHER 3,358 WERE SERIOUSLY INJURED AT INTERSECTIONS.**

According to FHWA, **53 PEDESTRIANS AND BICYCLISTS WERE KILLED DUE TO A MOTOR VEHICLE RUNNING A RED LIGHT AT A SIGNALIZED INTERSECTION IN 2018.**²⁴ Arkansas is committed to decreasing intersection crashes by reducing the chances of a collision and managing circumstances around intersection crashes to make them less severe. In Arkansas, intersection fatalities and serious injuries between 2016 and 2020 reached their lowest in 2018, but have since continued to rise. State and local transportation agencies continue to look for innovative countermeasures that reduce conflict points and enhance intersection safety. Arkansas is focused on teaching all road users how to safely navigate an intersection and implementing countermeasures focused on reducing the consequences of intersection-related crashes.

Intersection Fatalities and Serious Injuries



²⁴ FHWA, Fatalities at Signalized Intersections: <https://safety.fhwa.dot.gov/intersection/about/index.cfm>

From **2016 to 2020,**

17% of **TRAFFIC FATALITIES**

and **25%** of **SERIOUS INJURIES** in Arkansas occurred at an **INTERSECTION.**



INTERSECTION FATALITIES

increased **6%**,

while **SERIOUS INJURIES**

decreased **4%**



OBJECTIVE:

REDUCE intersection **FATALITIES** and **SERIOUS INJURIES**

by **2%** annually.



TOP INTERSECTION STRATEGIES

- ✓ **IMPLEMENT PROVEN SAFETY COUNTERMEASURES** and low cost solutions to mitigate consequences of intersection crashes.
- ✓ **IMPLEMENT COUNTERMEASURES FOR SIGNALIZED AND UN-SIGNALIZED INTERSECTIONS** with high crash rates.
- ✓ **INCREASE SIGNING AND PAVEMENT MARKINGS** on grade crossing approaches to decrease crashes at grade crossings.

For a complete list of strategies and action steps, please see *Intersection Action Plan* (in the Appendix).

On average, **15** people **DIED** or were **SERIOUSLY INJURED** in **INTERSECTION CRASHES** in Arkansas **EACH WEEK.**

Nearly **23%** of **INTERSECTION CRASHES** in Arkansas involved **OLDER DRIVERS.**

In the United States, **10,011** **TRAFFIC CRASHES** occurred at an **INTERSECTION** in **2018.** (FARS, 2021).

Roughly **25%** of **TRAFFIC FATALITIES** and about **50%** of **TRAFFIC INJURIES** in the United States, are attributed to **INTERSECTIONS.**
(FHWA, [Intersection Safety](#))

SAFE SYSTEM: SAFE ROADS

According to FHWA, adopting **A SAFE SYSTEM APPROACH MEANS PROACTIVELY DESIGNING THE ROADWAY OR INTERSECTION FEATURES TO ANTICIPATE HUMAN ERROR AND REDUCE THE RISK OF TRAFFIC CRASHES RESULTING IN SERIOUS INJURIES OR FATALITIES.**²⁵ A Safe System intersection design accounts for several factors such as minimizing conflict points, reducing the speed of traveling motor vehicles, improving visibility and awareness, and providing adequate space for pedestrians and bicyclists to cross a roadway safely. By accounting for non-motorists in the design process, choosing the right intersection based on specific location and road users, and implementing non-traditional designs such as roundabouts, or those with reduced left-turn conflicts, intersections can help achieve a Safe System.

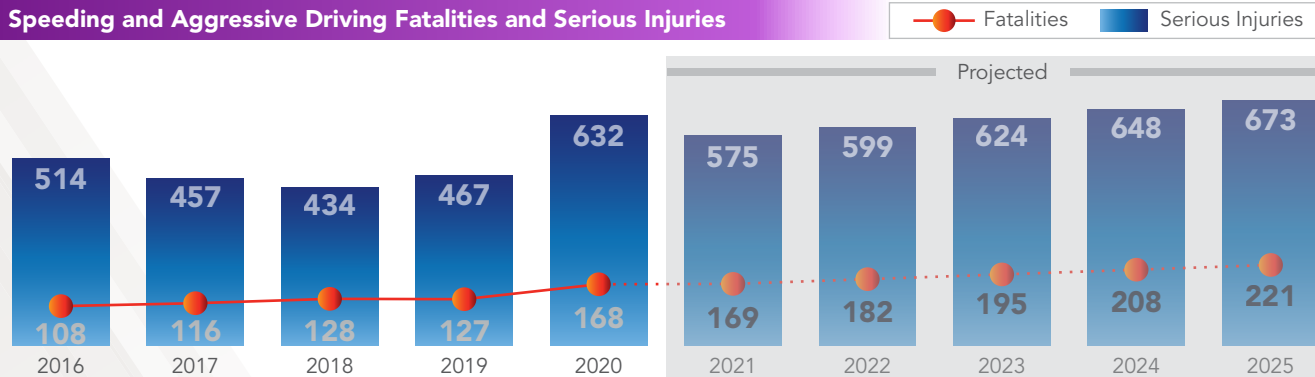
²⁵ FHWA, Safe System Approach: https://safety.fhwa.dot.gov/zerodeaths/docs/FHWA_SafeSystem_Brochure_V9_508_200717.pdf

SPEEDING AND AGGRESSIVE DRIVING

In Arkansas, speeding and aggressive driving includes racing, exceeding the speed limit, and driving too fast for conditions, failing to yield or obey traffic control devices, unsafe lane changes, and following a vehicle too closely. In Arkansas, between 2016 and 2020, **647 PEOPLE WERE KILLED AND ANOTHER 2,504 WERE SERIOUSLY INJURED IN TRAFFIC CRASHES INVOLVING SPEEDING AND AGGRESSIVE DRIVING.** Arkansas continues to implement strategies focused on safe engineering design, high visibility enforcement, and education to continue to push the message that speeding and aggressive driving is not only illegal, but extremely dangerous behavior that puts all road users at risk.

According to NHTSA, in 2019, **9,478 PEOPLE DIED IN SPEEDING RELATED TRAFFIC CRASHES IN THE UNITED STATES.**²⁶ Speeding and aggressive driving becomes even more dangerous when drivers are not wearing a seat belt, while driving in bad weather events such as heavy rain, when passing through work zones, and in areas with high non-motorist traffic. According to the Governors Highway Safety Association (GHSA), there was an increase in speeding and aggressive driving traffic crashes due to **EXCESSIVE SPEEDING OBSERVED DURING THE STATE OF THE COVID-19 PANDEMIC.**²⁷ NHTSA describes the potential consequences of speeding as loss of vehicle control, reduced effectiveness of seat belts and other occupant protection equipment, increased stopping distance after the driver perceives a danger, and increased degree of crash severity.²⁸

Speeding and Aggressive Driving Fatalities and Serious Injuries



²⁶ NHTSA Speeding: <https://www.nhtsa.gov/risky-driving/speeding>

²⁷ GHSA, Speeding and Aggressive Driving: <https://www.ghsa.org/issues/speeding-aggressive>

²⁸ NHTSA Speeding: <https://www.nhtsa.gov/risky-driving/speeding>

From **2016 to 2020,**
23% of **TRAFFIC FATALITIES**
 and **19%** of **SERIOUS INJURIES**
 in Arkansas involved
SPEEDING AND AGGRESSIVE DRIVING

SPEEDING AND AGGRESSIVE DRIVING FATALITIES increased **56%,**
 while **SERIOUS INJURIES** increased **23%**

OBJECTIVE:

REDUCE speeding and aggressive driving **FATALITIES** and **SERIOUS INJURIES** by **2%** annually.

TOP SPEEDING AND AGGRESSIVE DRIVING STRATEGIES

- ✓ **USE ENGINEERING DESIGN** and technology to reduce speeds.
- ✓ **USE A MULTIMEDIA ADVERTISING APPROACH** to educate drivers about the dangers of aggressive driving.
- ✓ **INCREASE HIGH VISIBILITY ENFORCEMENT** to reduce crashes associated with speeding and aggressive driving.

For a complete list of strategies and action steps, please see *Speeding and Aggressive Driving Action Plan* (in the Appendix).

On average, **12 people** **DIED** or were **SERIOUSLY INJURED** in speeding and aggressive driving

ROADWAY CRASHES in Arkansas **EACH WEEK.**

Nearly **46%** of speeding and aggressive driving **FATALITIES** and **SERIOUS INJURIES** involved drivers **29 years old or younger.**

Almost **1 in 3** **TRAFFIC CRASH DEATHS** involve speeding (CDC).

In Arkansas, **79%** of **SPEEDING AND AGGRESSIVE DRIVING FATALITIES** occurred during **ROADWAY DEPARTURE.**

SAFE SYSTEM: SAFE ROADS

The Safe System approach emphasizes that responsibility for safe roads is shared between the transportation system designers and engineers who design and operate the network and road users. Road design and management, such as setting safe speed limits and manipulating appropriate crash angles to reduce impacts on the human body, is an integral part of creating a Safe System. **AN EXAMPLE OF A SUCCESSFUL SPEED MANAGEMENT COUNTERMEASURE ARE SPEED HUMPS.** These raised pavement structures force motorists to slow down to a safe speed and are proven to reduce speeds by nearly 10 mph (FHWA).²⁹ While designers work to create safer roadways, road users must also do their part in practicing safe driving behavior such as following posted speed limit signs and reducing traveling speeds in dangerous conditions.

²⁹ FHWA, Speed Management Countermeasures: https://safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa16077/

EMERGENCY SERVICES AND INCIDENT MANAGEMENT

Emergency service is one of the four E's of traffic safety. **RAPID AND EFFICIENT EMERGENCY SERVICES AND INCIDENT MANAGEMENT CAN OFTEN BE THE DIFFERENCE BETWEEN A SERIOUS INJURY AND A FATALITY.** Quickly clearing a crash minimizes the risk of secondary crashes and improves emergency responders' access to the crash scene improving their ability to rapidly transport the injured person to nearby medical facilities. Secondary crashes commonly occur within the impact area of the preceding crash and may contribute to increased congestion and restrict emergency responders' access to a crash scene.


Faster response time is directly related to the increased likelihood of crash survival. The first 60 minute window after a traumatic injury is considered the "golden hour", during which prompt medical and surgical treatments have the highest likelihood to prevent death. The Arkansas Department of Health (ADH) reports that between 2015 to 2019, **4,173 OF THE TOTAL CRASHES INVOLVED SECONDARY CRASHES RESULTING IN 166 FATALITIES** in Arkansas. Secondary crashes and fatalities are preventable with improved emergency medical services (EMS) and incident management.

Since the enactment of the Trauma System Act in 2009, 64 hospitals throughout the State are designated as trauma centers. ADH works to ensure the Trauma System maintains a communications system used by the hospitals and EMS providers and provides education to Arkansas Trauma Call Center individuals and entities. ADH is also working to link EMS pre-hospital data with the trauma registry to allow researchers to analyze the longer-term outcomes of trauma patients. **ARKANSAS' TRAFFIC INCIDENT MANAGEMENT (TIM) PROGRAM FOCUSES ON RESOLVING INCIDENTS AND RESTORING NORMAL TRAVEL OPERATIONS AS SAFELY AND QUICKLY AS POSSIBLE.**

In Arkansas,
UNINTENTIONAL
were the **5th** **INJURIES**
leading cause
of **DEATH**
surpassed by
heart disease, cancer,
chronic lower respiratory
disease and stroke in **2019.**
(CDC, [National Center for Health Statistics](#))



SECONDARY CRASHES
represent **1.3%**
of the
TOTAL
FATALITIES
and **SERIOUS INJURIES**
between **2015**
and **2019.**
(ACAT)



OBJECTIVE:
MAINTAIN
CERTIFICATION
for at least **85%**
of **EMS PROVIDERS**
and
REDUCE
CRASH CLEAR TIMES
by **5%**



TOP EMERGENCY SERVICES AND INCIDENT MANAGEMENT STRATEGIES

- ✓ **ENFORCE STATE LAWS** that enhance EMS safety and response.
- ✓ **EDUCATE THE PUBLIC** to promote EMS safety and quicker response times.
- ✓ **IMPROVE** the Arkansas Trauma System.

For a complete list of strategies and action steps, please see *Emergency Services and Incident Management Action Plan* (in the Appendix).

FHWA estimates that approximately **20%** of **ALL INCIDENTS** are **SECONDARY CRASHES**.

The likelihood of a **SECONDARY CRASH** **INCREASES** by **2.8%** for **EACH MINUTE** the **PRIMARY INCIDENT** **CONTINUES TO BE A HAZARD**

(FHWA, *TIM Performance Measurement: On the Road to Success*)

SAFE SYSTEM: POST-CRASH CARE

When a crash occurs, the person injured relies on the emergency responders to quickly locate them, stabilize their injury, and transport them to medical facilities. According to FHWA, **EVERY MINUTE OF INCIDENT DELAY MULTIPLIES TRAFFIC QUEUES BY A FACTOR OF FOUR, AND INCREASES THE RISK FOR SECONDARY CRASHES**.³⁰

The post-crash care component of the Safe System approach extends beyond emergency services. Quick-response by EMS and ensuring timely care for the injured are vital to saving the injured person's life. Proper incident management is also important to quickly clear the crash scene by removing the road debris and impacted vehicles, documenting crash factors, and providing advance warning of an incident to restore traffic flow as safely as possible. **FASTER EMERGENCY RESPONSE AND INCIDENT CLEARANCE TIMES SIGNIFICANTLY REDUCE THE RISK OF SUBSEQUENT CRASHES** and can prevent a serious injury leading to a fatality.

³⁰ FHWA, TIM Performance Measurement: on the Road to Success, https://ops.fhwa.dot.gov/publications/fhwahop10009/tim_fsi.htm.




TRAFFIC RECORDS AND DATA ANALYSIS

Traffic records data is the key source of information used to understand the state of traffic safety in Arkansas and what contributed to crashes. **ANALYZING RELIABLE, ACCURATE, UNIFORM, AND COMPLETE TRAFFIC RECORDS IS CENTRAL TO IDENTIFYING TRAFFIC SAFETY CHALLENGES, APPLYING SAFETY COUNTERMEASURES, AND EVALUATING THEIR EFFECTIVENESS IN REDUCING INJURIES AND DEATHS FROM CRASHES.** Improving the quality and timeliness of traffic records helps analysts understand the current and potential safety challenges and quickly prioritize the most effective countermeasures in the right locations.

To make effective safety decisions and achieve the vision of zero deaths and serious injuries requires data analysis and research, which is directly dependent on data availability and quality. Arkansas understands the importance of quality traffic records and data, and their impact on the successful implementation of the SHSP. The State is **CONTINUOUSLY WORKING TO IMPROVE CRASH DATA COLLECTION TOOLS SUCH AS eCRASH, eCITE, MAPCLICK,** and implementing use of these tools statewide to better aid in problem identification. Since the deployment of electronic reporting tools, like eCrash and eCite in 2015, the backlog in crash and citation data entry has been reduced substantially and contributed to improved timeliness and accuracy of traffic records. Arkansas is also focused on informing law enforcement officers of the benefits of using eCrash and eCite, developing training programs for data analysts on the crash analytical tools, improving data accessibility and integration, and conducting predictive analysis to identify potential safety solutions.



In **2019**, **72%** of the **LAW ENFORCEMENT AGENCIES** in Arkansas electronically reported **TRAFFIC CRASHES.**



In **2019**, **39%** of the total **CITATIONS** were **ISSUED ELECTRONICALLY.**



OBJECTIVES:

ACHIEVE 100% of agencies using **ELECTRONIC CRASH REPORTING,** and

ACHIEVE 100% of agencies participating in **eCITE REPORTING.**

TOP TRAFFIC RECORDS AND DATA ANALYSIS STRATEGIES

- ✓ **IMPROVE CRASH DATA COLLECTION TOOLS** to provide more timely and accurate data to aid in problem area identification.
- ✓ **REQUIRE ALL LAW ENFORCEMENT** to adopt MapClick and eCrash as their sole means of crash reporting.
- ✓ **IMPROVE DATA ACCESSIBILITY** and integration.

For a complete list of strategies and action steps, please see *Traffic Records and Data Analysis Action Plan* (in the Appendix).


SAFE SYSTEM: POST-CRASH CARE

To fully embrace the Safe System approach, Arkansas must **USE TRAFFIC RECORDS AND DATA ANALYSIS TO PROACTIVELY IDENTIFY AND ADDRESS RISKS AND PROVIDE FOR THE INTEGRATION OF DATASETS TO ENHANCE POST-CRASH CARE.** Traffic records and data analysis, along with emergency services, makes up the post-crash care component of the Safe System approach that helps optimize post-crash services and adopt adequate injury prevention strategies.

Analysis of crash data can help identify high-priority locations for safety improvements and assist with effective application of data-driven countermeasures. **EFFECTIVE TRAFFIC RECORDS AND DATA ANALYSIS CAN ALSO SUPPORT APPROPRIATE DESIGN AND PROGRAM OR POLICY CHANGES.** Complete and accurate data collection and documentation of road user behavior and infrastructure shared across agencies and organizations can lead to a greater understanding of the holistic safety situation and thus lead to improved investments in safety.

Since **2015**,
has **ELECTRONIC CRASH REPORTING**
INCREASED by **72%** in **2019**.

IMPLEMENTATION AND EVALUATION



SAFETY CULTURE AND LEADERSHIP

Determined and engaged leaders committed to the Safe System approach principles and elements will be necessary to establish a strong safety culture and achieve the State's vision of zero fatalities and serious injuries. Safety culture is defined as "the shared belief system of a group of people, which influences road user behaviors and stakeholder actions that impact traffic safety."³¹

The SHSP is Arkansas' greatest opportunity to promote enhanced communication, collaboration, and coordination between offices, agencies, stakeholders, and partners. The Safe System approach emphasizes this shared responsibility between many stakeholders working to make travel safe for all road users.

³¹ <https://www.towardzerodeaths.org/wp-content/uploads/2019/12/PRIMER.pdf>

ARDOT and its partners can establish leadership and promote a strong safety culture by doing the following:

- » **INVEST SAFETY RESOURCES**—both money and people—equitably. Consider safety first in all policy, funding, and project decisions.
- » **ENCOURAGE LEADERSHIP AND STAFF TO AGGRESSIVELY PROMOTE IMPLEMENTATION OF THE SAFE SYSTEM APPROACH.**
- » **SEEK CONTINUOUS IMPROVEMENTS** by doubling down on what works to reach zero fatalities.
- » **PROMOTE SHARED RESPONSIBILITY** and comprehensively focus on safety across internal and external communications.
- » **MAKE ARDOT EMPLOYEES AND EMPLOYEES AT PARTNER ORGANIZATIONS AMBASSADORS FOR SAFE SYSTEM PRINCIPLES.**
- » **DEVELOP INTERNAL AGENCY POLICIES** that communicate a focus on safety, collaboration, and shared responsibility.



IMPLEMENTATION

Development of the 2022–2027 SHSP improved the understanding of Arkansas’ safety challenges and focused on the steps needed to reduce traffic fatalities and serious injuries. The updated SHSP and the accompanying Safe System Emphasis Area action plans provide a roadmap for effective implementation of the SHSP Vision and Goal. Implementation of the SHSP will utilize the current edition of the [SHSP Implementation Process Model](#) published by FHWA.

ARDOT SHSP COORDINATOR—ARDOT will coordinate overall stakeholder engagement and perform the administrative duties required to implement and evaluate the SHSP. The SHSP Coordinator will act as a champion for stakeholder collaboration, coordination within ARDOT, and collaboration with all agencies and organizations playing a role in the SHSP implementation process.

SAFE SYSTEM EMPHASIS AREA TEAMS—The Emphasis Area Teams will meet several times each year to review the action plans and provide an update on activities related to each focus area. Emphasis Area Team leaders or co-leaders will coordinate with partners and organizations to track and update progress in the implementation of strategies and action steps in the Focus Area action plans and provide the ARDOT SHSP Coordinator with status updates. Emphasis Area Team leaders are also members of the SHSP Steering Committee.

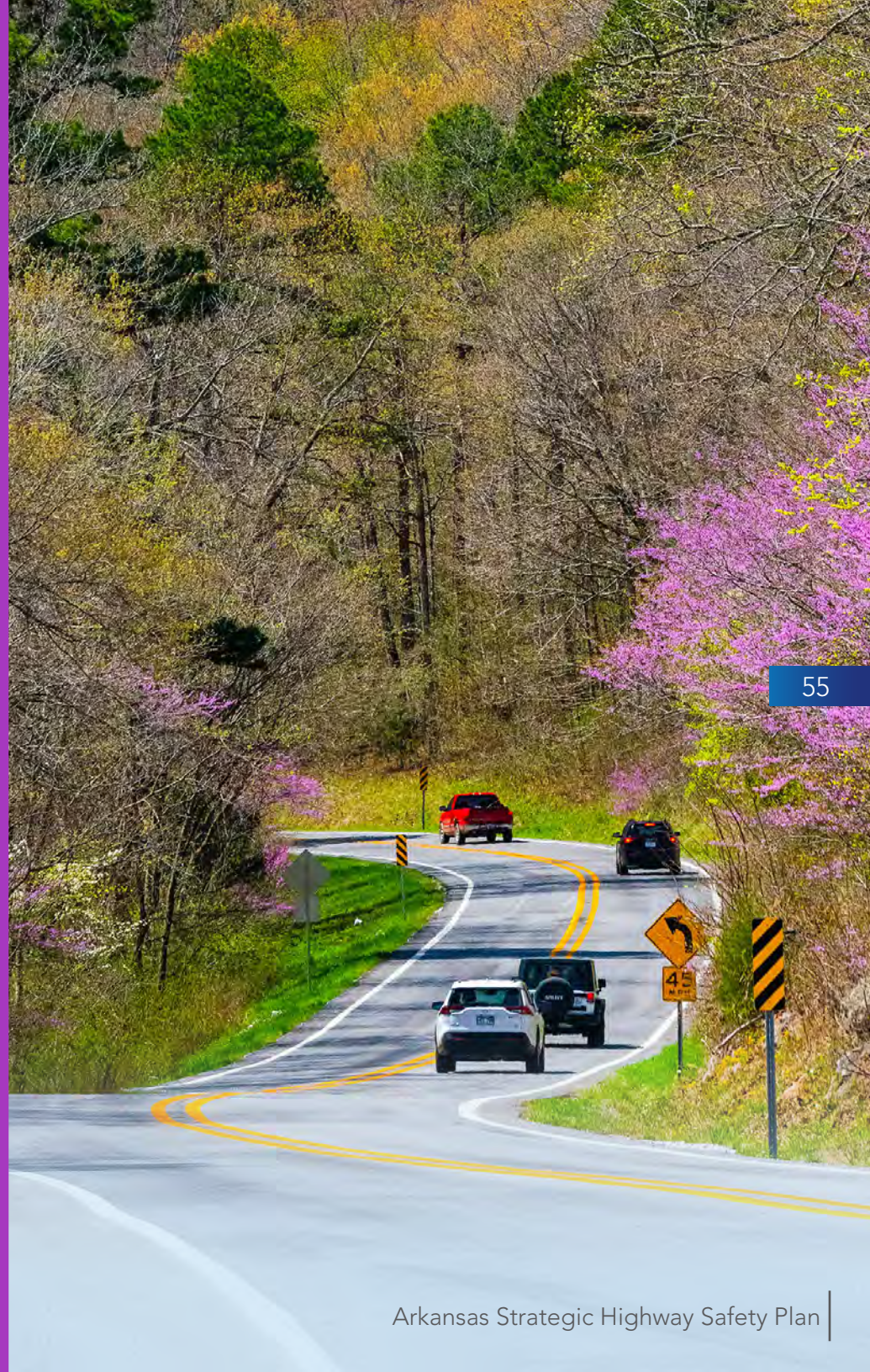
SHSP STEERING COMMITTEE—The SHSP Steering Committee will play a critical role in the implementation process. The committee will meet quarterly to discuss activities related to the SHSP and updates on Emphasis Area action plan implementation. In advance of each Steering Committee meeting, the ARDOT SHSP Coordinator will contact each Emphasis Area Team leader to discuss any concerns or challenges around the team’s strategies and action steps and any additional presentations to be included on the Steering Committee’s quarterly agenda.

In addition to each Safe System Emphasis Area Team reporting on their action plan’s progress and challenges during the Steering Committee meetings, one team’s work will be spotlighted at each meeting with a speaker or best practices presentation. Annually ARDOT will provide a presentation of emphasis area trends and performance with respect to the SHSP objectives. This update will be coordinated with the availability of new fatality and serious injury data.

PARTNER ENGAGEMENT AND COLLABORATION—The Arkansas SHSP will only be successfully implemented with all of ARDOT’s partners and all levels of government. ARDOT will encourage its safety stakeholders to:

- » **UPDATE THEIR PLANS**, including other state, MPO, and local government plans, to align with the SHSP vision of zero fatalities and serious injuries.
- » **EDUCATE THEIR EMPLOYEES ON SAFE SYSTEM** and encourage them to be ambassadors for Safe System principles.
- » **DEMONSTRATE SUPPORT AND PROMOTE THE SAFE SYSTEM** approach principles by implementing SHSP strategies relevant to their community or agency’s traffic safety challenges.
- » **PROMOTE INITIATIVES THAT ENHANCE SAFETY CULTURE** by increasing roadway users’ understanding of the State’s most significant traffic safety problems and their shared responsibility of reducing fatalities and serious injuries.
- » **SUPPORT NATIONAL, STATE, AND LOCAL INITIATIVES, POLICIES, AND SAFETY PROJECTS THAT PROMOTE HIGHWAY SAFETY.**

SHSP IMPLEMENTATION WEBSITE—ARDOT is developing a dynamic online SHSP to integrate data, SHSP elements, and public-facing strategy and action step tracking. The site will be used to gather information from Emphasis Area Team leaders, regional and local agencies, and other organizations contributing to implementation efforts.



MARKETING AND COMMUNICATIONS PLAN

The ARDOT SHSP Marketing and Communications Plan identifies the strategies and action steps ARDOT will take to market the SHSP to its internal and external partners. The plan is an internal document that presents the marketing and communications goals for the SHSP, target audiences for outreach, recommended strategies and actions for communication, and desired outcomes. The purpose of the plan is to help raise awareness about Arkansas' SHSP and the role the plan plays in reducing traffic related fatalities and serious injuries on the State's roadways. The plan provides a roadmap for ARDOT to achieve the following:

- » **Encourage broader implementation** of the SHSP in regional and local communities.
- » **Encourage broader community involvement** in the highway safety planning process.
- » **Reinforce the message** that everyone has a role to play in reaching zero fatalities and serious injuries.
- » **Provide strategies and action steps** to raise awareness of the Safe System approach, equity in transportation safety, and building or enhancing safety culture.



EVALUATION AND UPDATE

The Arkansas SHSP depends on a program of data driven priorities and proven effective strategies. Evaluation is **“The systematic collection of information about the activities, characteristics, and outcomes of a program to make judgments about it, improve its effectiveness, and/or inform decisions about future programming.”**³² To obligate funds under the Highway Safety Improvement Program (HSIP), the SHSP must be evaluated on a regularly recurring basis to ensure the accuracy of data and priority of proposed strategies. Evaluation will help Arkansas achieve a successful program by analyzing SHSP process and performance and determining whether current activities deserve enhancement, revision, or replacement. Evaluation of the SHSP will utilize the current edition of the [SHSP Evaluation Process Model](#) published by FHWA.

DATA-DRIVEN ASSESSMENT—The SHSP will be evaluated annually to determine how Arkansas is progressing toward the objectives in this plan. The focus area objectives will be used as an overall measure of outcomes of the strategies and action steps identified. The performance measures in the Safe System Action Plans will help the ARDOT SHSP Coordinator and Steering Committee track progress for action steps and identify opportunities to enhance communication and collaboration with key stakeholders.

RESULTS-ORIENTED COMMUNICATION—The SHSP Steering Committee will provide feedback and oversight during the evaluation process. This will allow the Steering Committee members to both understand how safety performance is impacted by various programs and will allow additional stakeholder perspectives on what is working and what is not. Ongoing results will be shared with leadership at safety partner organizations and discussed with the Safe System Emphasis Area Teams.



³² FHWA SHSP Evaluation Process Model <https://safety.fhwa.dot.gov/shsp/epm/ovrww.cfm>.

STRATEGIC ALIGNMENT—When statewide safety plans such as the Highway Safety Improvement Program (HSIP), Highway Safety Plans (HSP), and Commercial Vehicle Safety Plan (CVSP) are updated, alignment with the SHSP will be coordinated through the Steering Committee to ensure consistency across goals, strategies, actions, and projects. Other transportation plans such as the Bicycle and Pedestrian Plan, Freight Plan, Rail Plan, Statewide Transportation Improvement Program (STIP), Statewide Long Range Transportation Plan (LRTP), and MPO LRTPs will explicitly address safety and allow participation by Steering Committee members³³ to align projects with the SHSP goals and objectives. Steering Committee members will receive status updates on the key aspects of these documents,

as well as an assessment of the inclusion of SHSP elements in the plans of these important safety partners.

IMPACT-FOCUSED DECISIONS—Evaluation results will be used to inform decisions focused on enhanced performance. The Steering Committee and Safe System Emphasis Area Teams will propose adjustments and revisions to the focus area action plans, annual safety performance target setting practices, and planning processes for the HSIP and HSP as a result of the regularly recurring SHSP evaluation. The evaluation results will also be used to determine needed changes to the SHSP and SHSP update process when the SHSP is updated no later than every five years.

³³ Each of the eight MPOs are represented on the SHSP Steering Committee and participated in development of the SHSP.



APPENDICES

SAFETY PARTNERS

Arkansas is fortunate to have a wide range of organizations and advocates working to reduce traffic fatalities and injuries. This network of supporters provided critical input throughout the development of Arkansas' Strategic Highway Safety Plan.

Steering Committee Members Agencies and Other Partners

The American Association of Retired Persons (AARP)

Arkansas Administrative Office of the Courts

Arkansas Association of Chiefs of Police

Arkansas Children's Hospital Injury Prevention Center

Arkansas Department of Finance and Administration

Arkansas Department of Health

Arkansas Department of Public Safety

Arkansas Department of Transportation

Arkansas Foundation for Medical Care

Arkansas Highway Safety Office

Arkansas Governor's Office

Arkansas Municipal League

Arkansas Sheriff Association

Arkansas State Police

Arkansas Trucking Association

Associated General Contractors of Arkansas
(AGC Arkansas)

Association of Arkansas Counties

Arkansas Rehabilitation Services (ARS)

Bicycle Advocacy of Central Arkansas

City of Little Rock

East Arkansas Planning and Development District

Federal Highway Administration

Federal Motor Carrier Safety Association (FMCSA)

Frontier Metropolitan Planning Organization

Metroplan

National Highway Traffic Safety Administration

Northeast Arkansas Regional Transportation Planning
Commission

Northwest Arkansas Regional Planning Commission

North West Arkansas Regional Planning Commission
(NWARPC)

Pulaski County Sheriff's Office

Texarkana Metropolitan Planning Organization

Tri-Lakes Metropolitan Planning Organization

Southeast Arkansas Regional Planning Commission

West Central Arkansas Planning and Development
District

West Memphis Metropolitan Planning Organization

GLOSSARY OF TERMS

AARP	American Association of Retired Persons
ADAS	Advanced Driver Assistance Systems
ADH	Arkansas Department of Health
AGC	Associated General Contractors
AHSO	Arkansas Highway Safety Office
ARDOT	Arkansas Department of Transportation
ARNOLD	All Roads Network of Linear Referenced Data
ARS	Arkansas Rehabilitation Services
AV	Automated Vehicles
BAC	Blood Alcohol Contents
BIL	Bipartisan Infrastructure Law
CAV	Connected and Automated Vehicles
CDC	Centers for Disease Control and Prevention
CEA	Critical Emphasis Areas
CMV	Commercial Motor Vehicle



CV	Connected Vehicle
CVSP	Commercial Vehicle Safety Plan
DOT	Department of Transportation
DWI	Driving While Intoxicated
EMS	Emergency Medical Services
FARS	Fatality Analysis Reporting System
FAST Act	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
GDL	Graduated Driver Licensing
GHSA	Governors Highway Safety Association
HRRR	High Risk Rural Roads
HSIP	Highway Safety Improvement Program
HSP	Highway Safety Plan
IIHS	Insurance Institute for Highway Safety
IJA	Infrastructure Investment and Jobs Act

MAP-21	Moving Ahead for Progress in the 21 st Century
MMUCC	Model Minimum Uniform Crash Criteria
MPH	Miles per Hour
MPO	Metropolitan Planning Organization
NHTSA	National Highway Traffic Safety Administration
NWARPC	North West Arkansas Regional Planning Commission
PEA	Primary Emphasis Areas
SHSP	Strategic Highway Safety Plan
TIM	Traffic Incident Management
VMT	Vehicle Miles Traveled

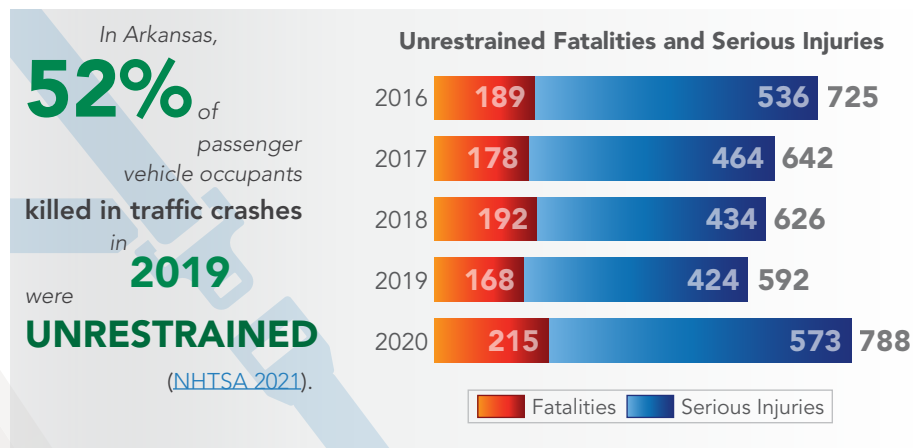


**FOCUS AREA
FACT SHEETS**



INTRODUCTION

Seat belts save lives. **Between 2016 and 2020, 21 percent of the total statewide fatalities and serious injuries involved an unrestrained or improperly restrained occupant.** In that same time period, 942 people were killed and another 2,431 people were seriously injured in crashes where occupants were not wearing a seat belt.



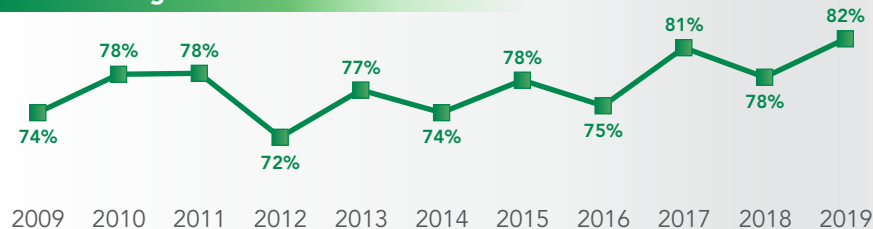
OBJECTIVE

REDUCE OCCUPANT PROTECTION

fatalities and serious injuries by **2%** annually.

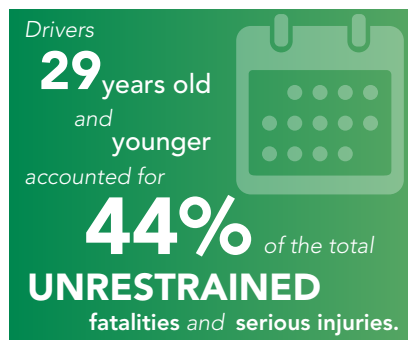
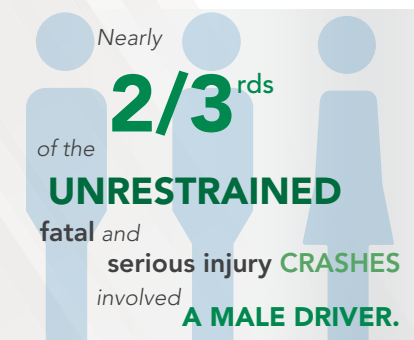
In the past five years, **Arkansas' unrestrained fatalities increased 14 percent**, while the **serious injuries involving unrestrained occupants increased 7 percent**. Since Arkansas adopted a primary safety belt law in 2009, the State's seat belt usage rate increased from 74.4 percent in 2009 to 81.9 percent in 2019, which is 8.8 percent below the 2019 national average seat belt usage rate (NHTSA 2021). While it is estimated that 81.9 percent of motorists wear their seat belt, 52 percent of fatalities involve an unrestrained motorists. This further underscores the importance of wearing a seat belt.

Seat Belt Usage Rate

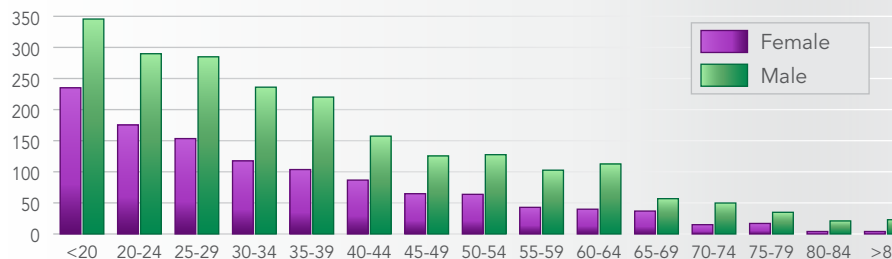


CONTRIBUTING FACTORS

AGE AND GENDER



Unrestrained Fatalities and Serious Injuries by Age and Gender



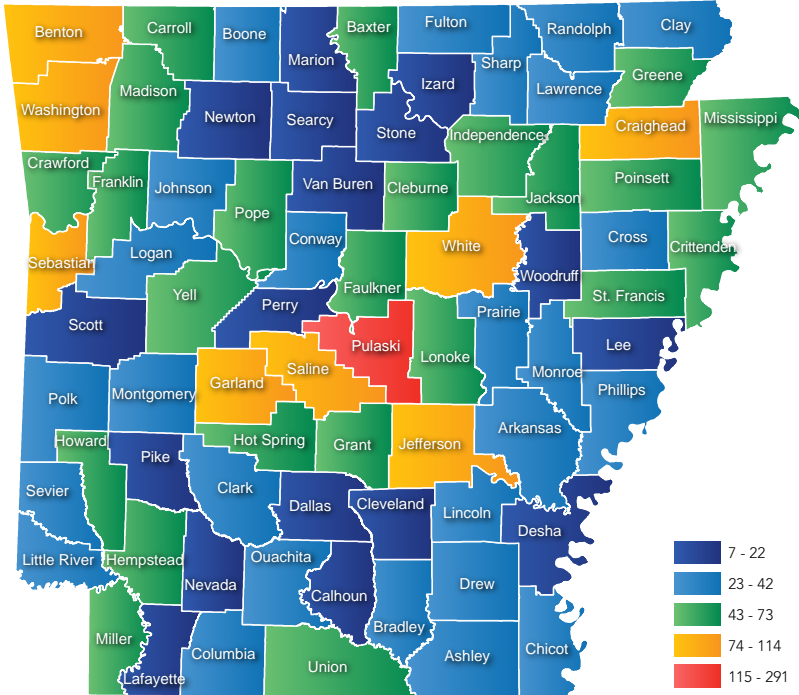
Note: Age group and/or gender data recorded as "n/a" and "unknown" by the officer is not included in the chart.

CRASH LOCATION

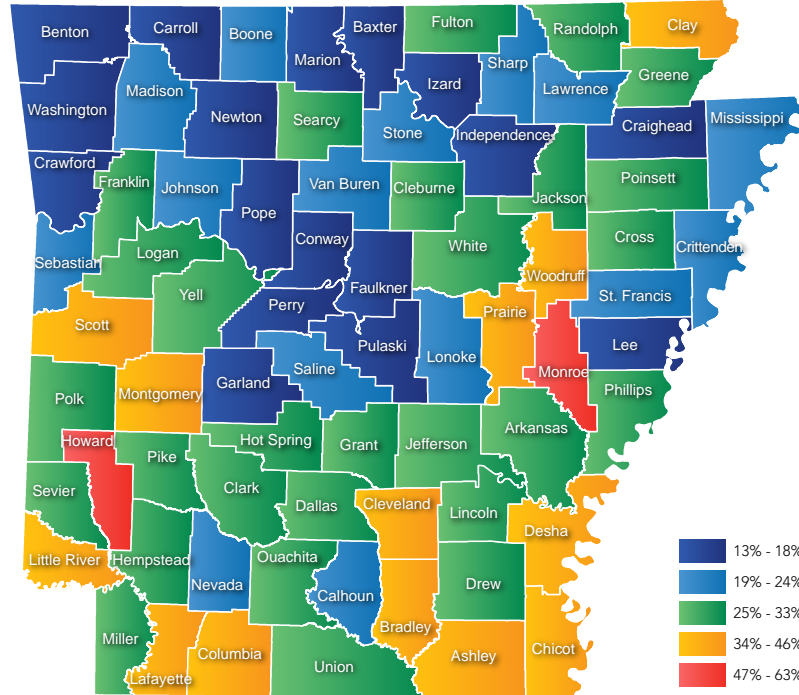
- » A little more than half, **52 percent**, of the unrestrained fatalities and serious injuries occurred on rural roads.
- » In rural areas, **two-lane undivided highways** experienced more than six times the unbuckled fatalities and serious injuries compared to same roadway type in urban areas.



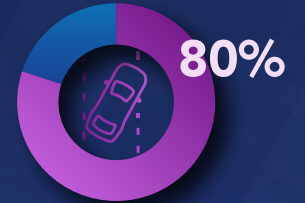
Total Unrestrained Fatalities and Serious Injuries by County



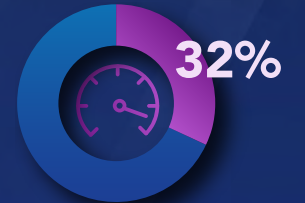
Unrestrained Fatalities and Serious Injuries by Percentage of Total County Fatalities and Serious Injuries



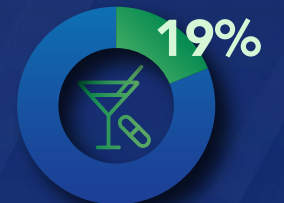
FOCUS AREA OVERLAPS
(Percent of Occupant Protection Fatalities and Serious Injuries)



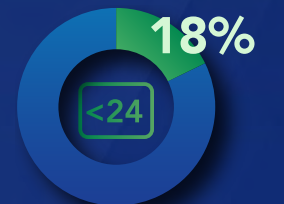
ROADWAY DEPARTURES



SPEEDING & AGGRESSIVE DRIVING



IMPAIRED DRIVERS



YOUNGER DRIVERS

CRASH CONDITIONS

The month of **SEPTEMBER** had the **HIGHEST NUMBER** of **FATALITIES AND SERIOUS INJURIES** where the vehicle occupant was unrestrained.



48% of all unrestrained **FATALITIES** and **SERIOUS INJURIES** OCCURRED FROM **FRIDAY** through **SUNDAY**.



34% of all unrestrained **FATALITIES** and **SERIOUS INJURIES** OCCURRED DURING DAILY COMMUTE PERIODS – **6 AM to 9 AM** and **3 PM to 7 PM**.





INTRODUCTION

In Arkansas, Older Drivers are defined as drivers age 65 or older. **Between 2016 and 2020, 18 percent of the total statewide fatalities and serious injuries involved older drivers.** In that same time period, 613 people were killed and another 2,211 people were seriously injured in crashes that involved drivers age 65 or older.

From 2010 to 2019
there was a

34%

increase

in people

65

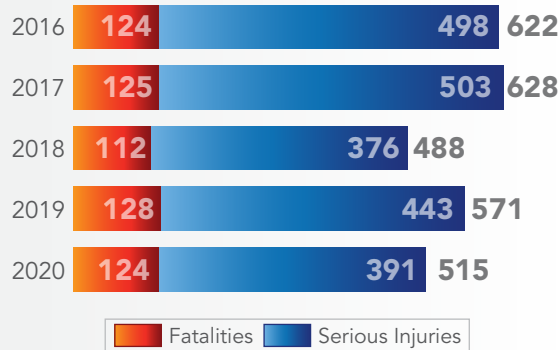
and

OLDER

in the United States.

(NHTSA, *Older Drivers*, 2021)

Older Driver Fatalities and Serious Injuries



OBJECTIVE

**REDUCE
OLDER
DRIVER**

**fatalities and
serious injuries**

by

2%
annually.

From 2016 to 2020, **Arkansas' older driver fatalities remained the same, while serious injuries decreased by 21 percent.** According to the U.S. Census, 17 percent of Arkansas's population is 65 years and over. As the aging population continues to grow, older drivers can face impairments that affect their ability to drive safely.

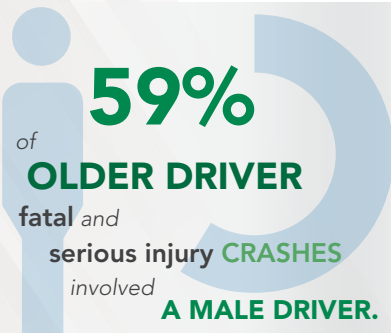
7,214 PEOPLE **65** AND OLDER
were **KILLED** in **TRAFFIC CRASHES**

20% of **ALL TRAFFIC FATALITIES**

in the United States. (NHTSA, *Older Drivers*, 2021)

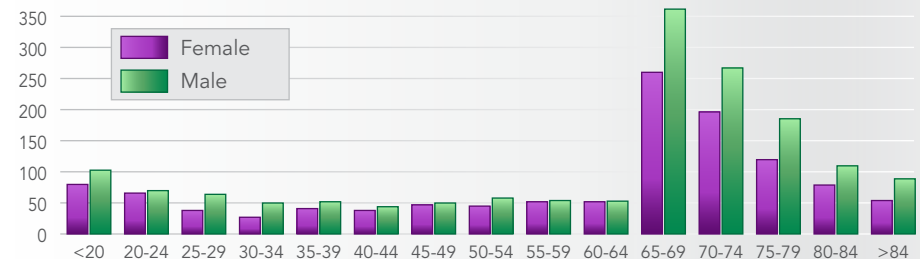
CONTRIBUTING FACTORS

AGE AND GENDER



OLDER DRIVERS
often experience a decline in
vision, cognitive functions,
and physical changes,
leaving them
VULNERABLE
to injuries and death
when involved in a **CRASH.**

Older Driver Fatalities and Serious Injuries by Age and Gender



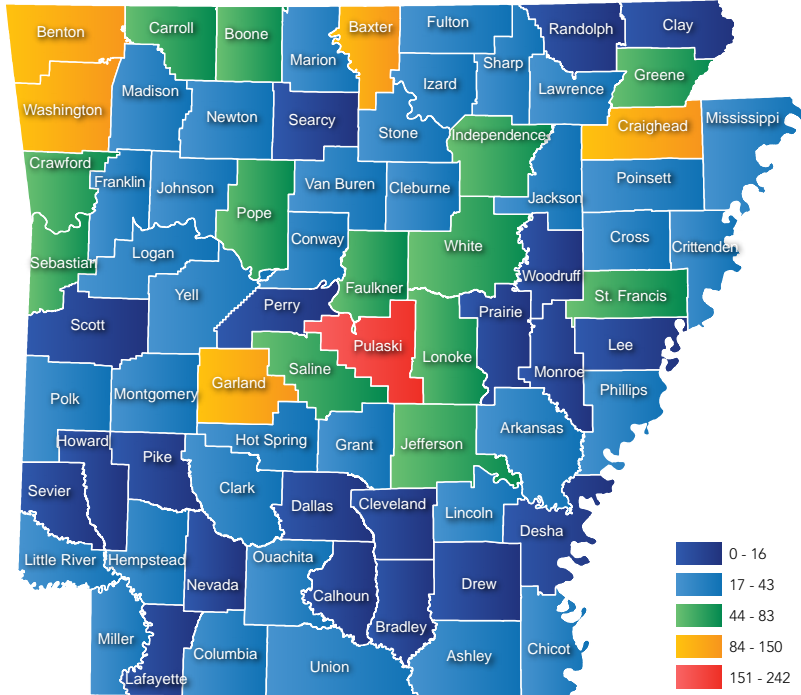
Note: Age group and/or gender data recorded as "n/a" and "unknown" by the officer is not included in the chart.

CRASH LOCATION

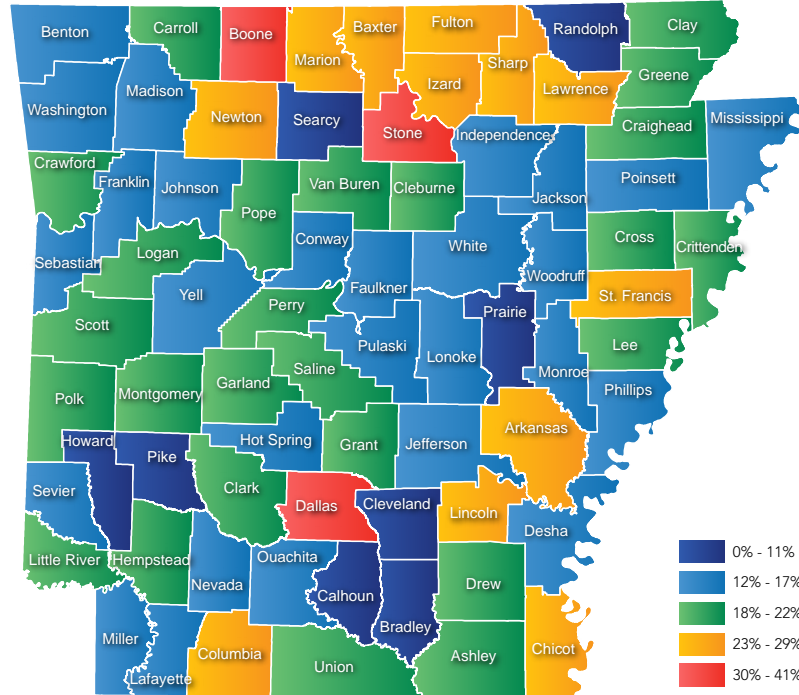
- » 51% of older driver fatalities and serious injuries occurred on urban roads with 73% occurring on four-lane undivided highways.
- » In rural areas, 72% of older driver crashes occurred on two-lane undivided highways.



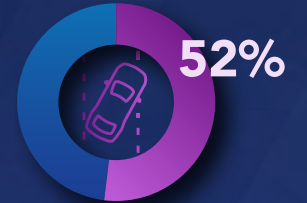
Total Older Driver Fatalities and Serious Injuries by County



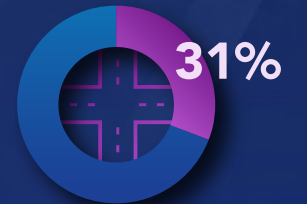
Older Driver Fatalities and Serious Injuries by Percentage of Total County Fatalities and Serious Injuries



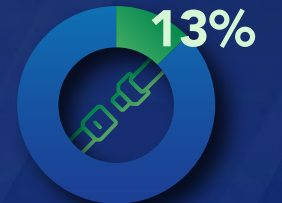
FOCUS AREA OVERLAPS
(Percent of Older Driver Fatalities and Serious Injuries)



ROADWAY DEPARTURE



INTERSECTIONS



OCCUPANT PROTECTION



LARGE CMVs

CRASH CONDITIONS

SEPTEMBER and **OCTOBER** had the **HIGHEST NUMBER** of **FATALITIES AND SERIOUS INJURIES**, due to crashes that involved older drivers.



40% of all older driver **FATALITIES** and **SERIOUS INJURIES** **OCCURRED FROM FRIDAY** through **SUNDAY**.



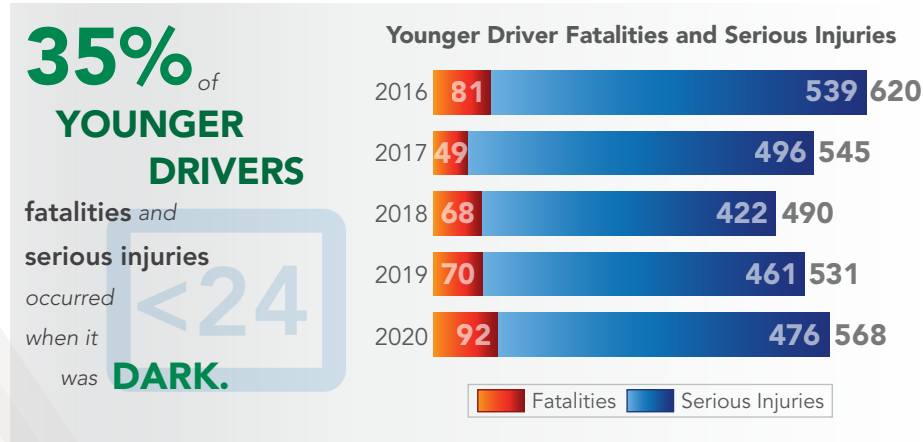
74% of all older driver **FATALITIES** and **SERIOUS INJURIES** **OCCURRED BETWEEN 8 AM and 7 PM**, as most older drivers avoid driving when it's dark.





INTRODUCTION

In Arkansas, younger drivers are 24 years old or younger. For the purpose of data analysis, younger drivers are categorized as those under 20 years old and those between 20 to 24. **Between 2016 and 2020, 17 percent of the total statewide fatalities and serious injuries involved younger drivers.** In that same time period, 360 people were killed and another 2,394 people were seriously injured in crashes that involved younger drivers.



OBJECTIVE

REDUCE YOUNGER DRIVER

fatalities and serious injuries

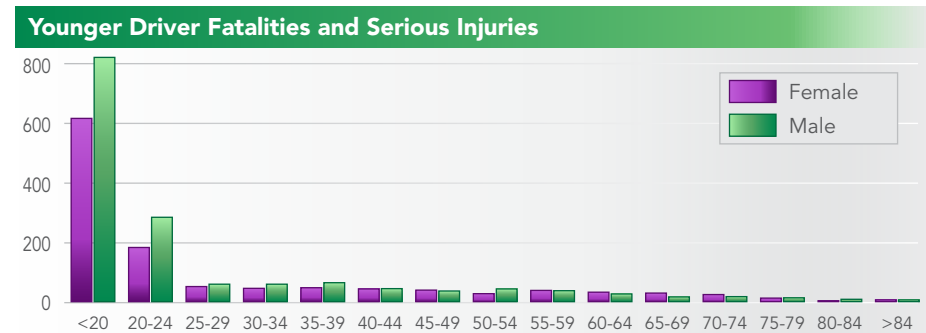
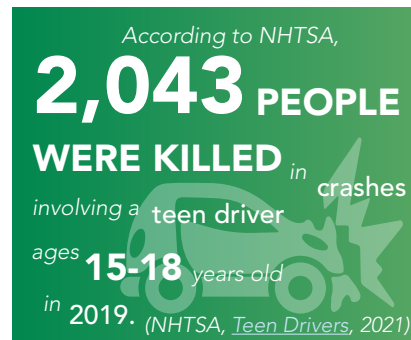
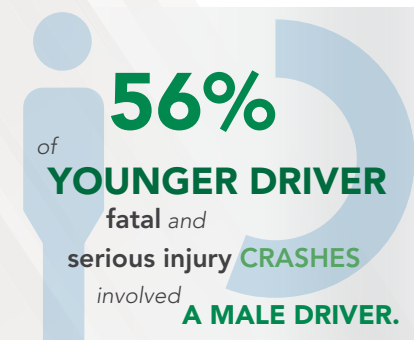
by **2%** annually.

Younger drivers are at an increased risk of being involved in motor-vehicle crashes that result in fatalities or serious injuries due to their lack of driving experience and increased tendency to engage in risky driver behaviors. Arkansas has a graduated driver licensing (GDL) law to allow teens to learn to drive by gradually increasing their driving privileges while limiting nighttime driving, cell phone use, and the number of passengers allowed for younger drivers. From 2016 to 2020, **Arkansas' younger driver fatalities increased 14 percent, while serious injuries decreased by 12 percent.**

According to NHTSA, **YOUNGER DRIVERS** are **MORE SUSCEPTIBLE** to **DISTRACTED DRIVING.** (NHTSA, *Teen Drivers*, 2021)

CONTRIBUTING FACTORS

AGE AND GENDER



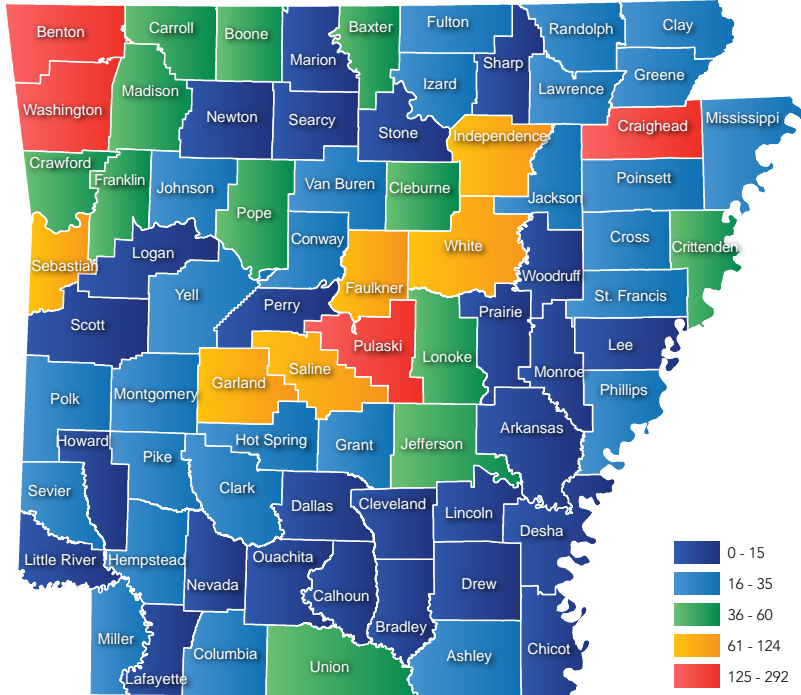
Note: Age group and/or gender data recorded as "n/a" and "unknown" by the officer is not included in the chart.

CRASH LOCATION

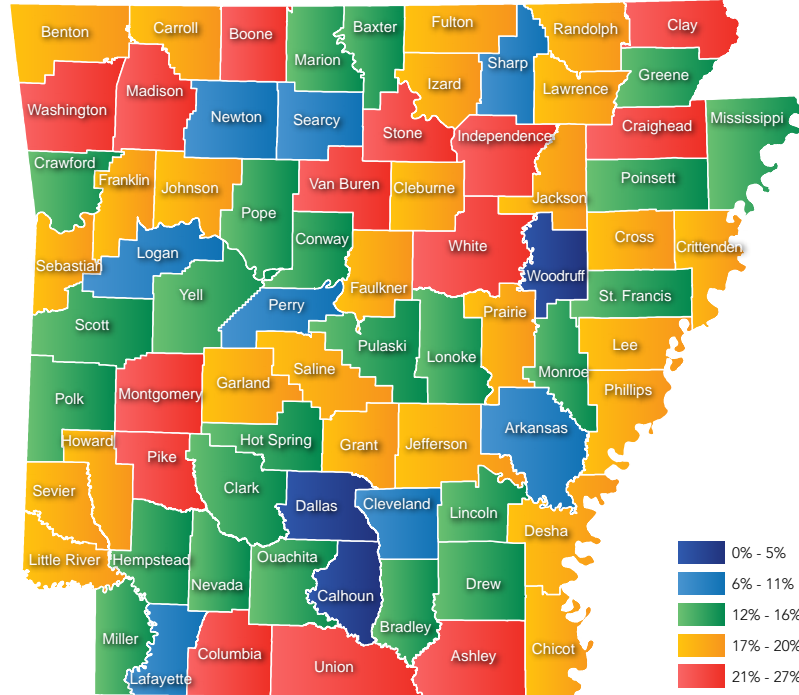
- » 60% of younger driver fatalities and serious injuries occurred on urban roads with 77% occurring on four-lane undivided highways.
- » In rural areas, 73% of younger driver crashes occurred on two-lane undivided highways.



Total Younger Driver Fatalities and Serious Injuries by County

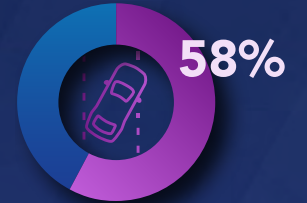


Younger Driver Fatalities and Serious Injuries by Percentage of Total County Fatalities and Serious Injuries

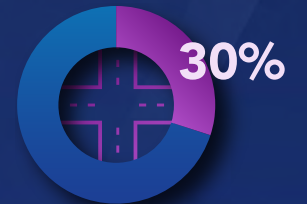


FOCUS AREA OVERLAPS

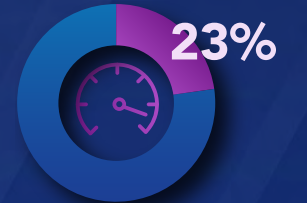
(Percent of Younger Driver Fatalities and Serious Injuries)



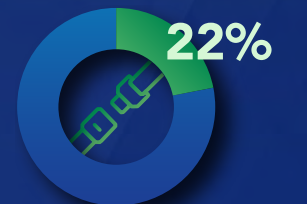
ROADWAY DEPARTURE



INTERSECTIONS



SPEEDING & AGGRESSIVE DRIVING



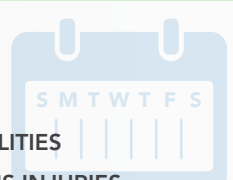
OCCUPANT PROTECTION

CRASH CONDITIONS

SEPTEMBER
and
AUGUST
had the
HIGHEST NUMBER
of
FATALITIES AND SERIOUS INJURIES,
due to crashes that involved younger drivers.



50% of
all younger driver **FATALITIES**
and **SERIOUS INJURIES**
OCCURRED FROM
FRIDAY through **SUNDAY.**



73% of
all younger driver **FATALITIES**
and **SERIOUS INJURIES**
OCCURRED BETWEEN
6 AM and 9 PM,
as younger drivers are prohibited from driving
between the hours of 11 PM to 4 AM
unless accompanied by a licensed adult.



SAFE ROAD USERS
IMPAIRED DRIVING

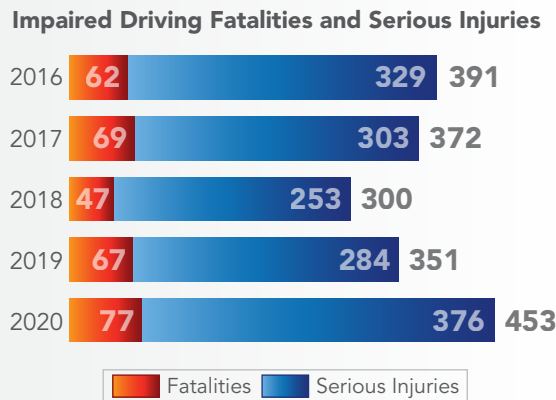
FACT SHEET | 2016-2020



INTRODUCTION

Impaired Driving is defined as any crash involving a driver who is physically impaired, under the influence of medication or drugs, or driving with a blood alcohol concentration (BAC) or 0.08 grams per deciliter (g/dL) or greater. **Between 2016 and 2020, 12 percent of the total statewide fatalities and serious injuries involved an impaired driver.** In that same period, 322 people were killed and another 1,545 people were seriously injured in crashes involving impaired driving.

In Arkansas, **18%** of fatalities involved a driver with **BAC LEVEL** of **0.15 g/dL** or **HIGHER** in **2019** (NHTSA 2021).



OBJECTIVE

REDUCE IMPAIRED DRIVING

fatalities and serious injuries

by **2%** annually.

An average of one person is killed or seriously injured in impaired driving crashes in Arkansas each day. From 2016 to 2020, **Arkansas' impaired driving fatalities increased by 24 percent, while serious injuries increase by 14 percent.**

44% of **IMPAIRED DRIVING CRASHES** occurred during **DAYLIGHT** and **40%** occurred when it was **DARK.**

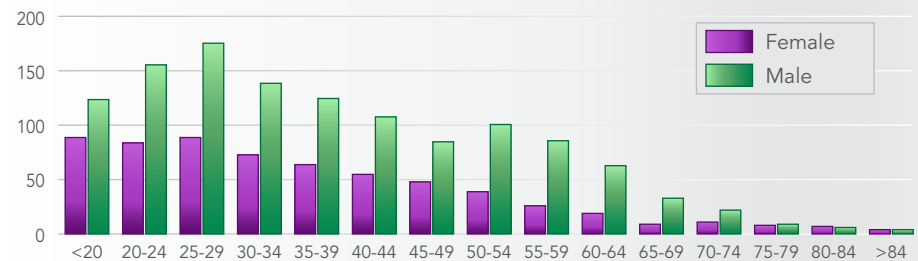
CONTRIBUTING FACTORS

AGE AND GENDER

MALE DRIVERS are more likely to be involved in **DRUNK DRIVING-RELATED CRASHES**, resulting in **DEATH** and **SERIOUS INJURIES.**

Between 2016 and 2020, drivers of ages **20 to 34** had the highest involvement, **39%** of impaired driving **fatal and serious injury CRASHES.**

Impaired Driving Fatalities and Serious Injuries by Age and Gender



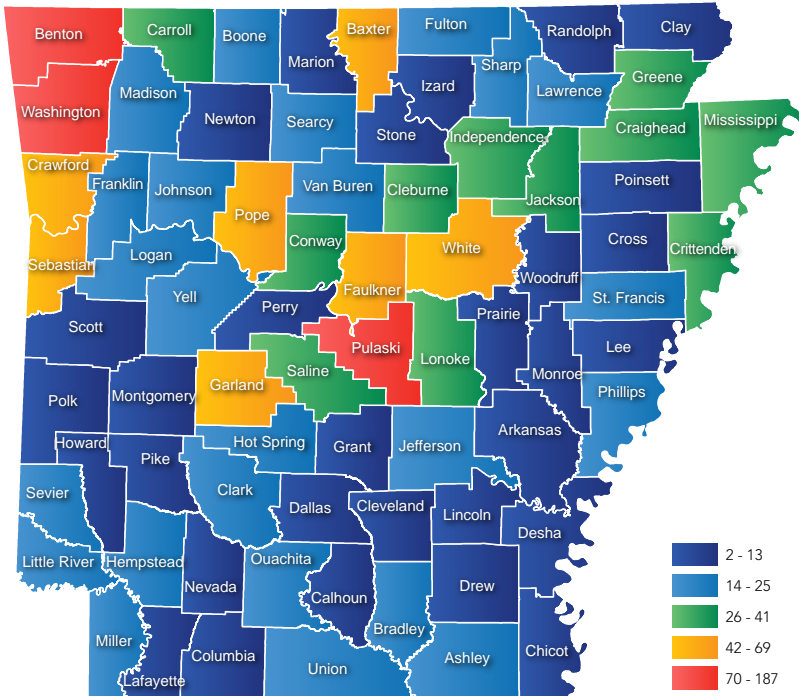
Note: Age group and/or gender data recorded as "n/a" and "unknown" by the officer is not included in the chart.

CRASH LOCATION

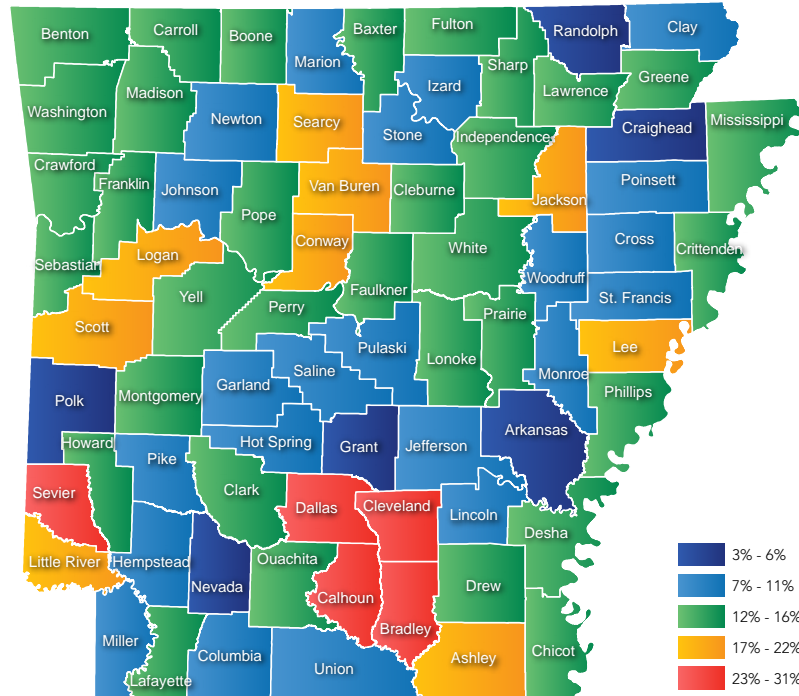
- » The majority, **55 percent** of the impaired driving fatal and serious injury crashes occurred on urban roadways.
- » Of the total impaired driving crashes, **40 percent** occurred on urban four-lane undivided highways and **35 percent** occurred on rural two-lane undivided highways.



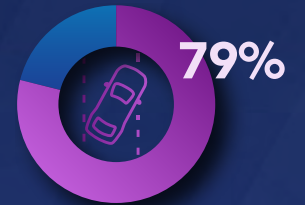
Total Impaired Driving Fatalities and Serious Injuries by County



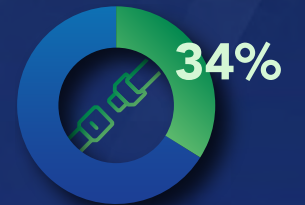
Impaired Driving Fatalities and Serious Injuries by Percentage of Total County Fatalities and Serious Injuries



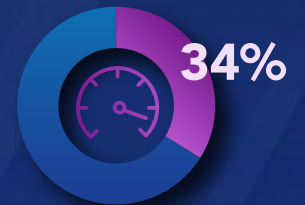
FOCUS AREA OVERLAPS
(Percent of Impaired Driving Fatalities and Serious Injuries)



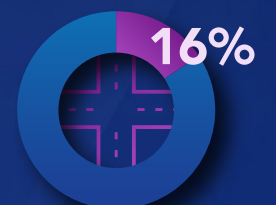
ROADWAY DEPARTURE



OCCUPANT PROTECTION



SPEEDING & AGGRESSIVE DRIVING



INTERSECTIONS

CRASH CONDITIONS

The months of **APRIL, JULY** and **AUGUST** had **28%** of impaired driving **FATALITIES AND SERIOUS INJURIES.**



40% of all impaired driving **FATALITIES and SERIOUS INJURIES OCCURRED ON WEEKENDS.**



The highest number of impaired driving **FATALITIES and SERIOUS INJURIES OCCURRED BETWEEN 4 PM and 10 PM,** and then **SPIKED AGAIN after 1 AM.**



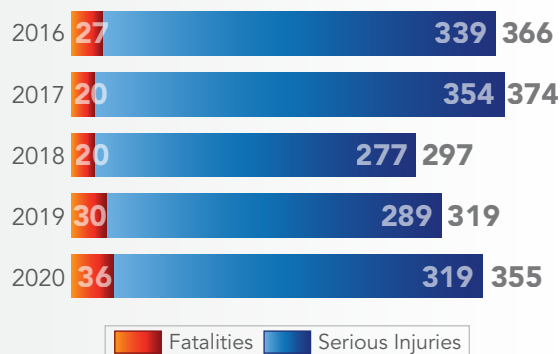


INTRODUCTION

Distracted driving includes any activity that diverts the drivers attention from the roadway to other tasks including using an electronic device. In Arkansas, distracted driving also includes person conditions such as being drowsy or emotional. Distracted driving is underreported due to difficulties identifying and proving a driver was distracted before a crash. **Between 2016 and 2020, 11 percent of the total statewide fatalities and serious injuries occurred due to distracted driving.**

According to NHTSA, **3,142** people were **KILLED** in the United States by **DISTRACTED DRIVING** in **2019**. (NHTSA 2021).

Distracted Driving Fatalities and Serious Injuries



OBJECTIVE

REDUCE DISTRACTED DRIVING

fatalities and serious injuries

by **2%**

annually.

In that same time period, **133 people were killed and another 1,578 people were seriously injured in crashes involving driving while distracted.**

Arkansas law prohibits the use of a hand-held cell phone for texting, typing, email, or accessing the Internet while driving, regardless of the driver's age.¹ Texting while driving is dangerous and illegal.

Arkansas law enforcement officers urge drivers to put their phone down when getting behind the wheel. From

2016 to 2020, **Arkansas' distracted driving fatalities**

increased 33 percent, while serious injuries decreased by 6 percent.

In Arkansas, when drivers engage in

TEXTING WHILE DRIVING

or **OTHER DISTRACTIONS,**

it often leads to

ROADWAY DEPARTURE CRASHES.



¹ Arkansas Department of Public Safety.

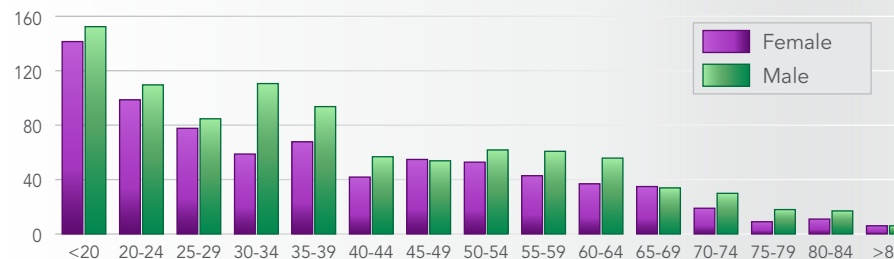
CONTRIBUTING FACTORS

AGE AND GENDER

55% of **DISTRACTED DRIVERS** involved in **fatal and serious injury CRASHES** were **MALE**.

29% of **DISTRACTED DRIVERS** killed or seriously injured were younger drivers under the age of **24**.

Distracted Driving Fatalities and Serious Injuries by Age and Gender



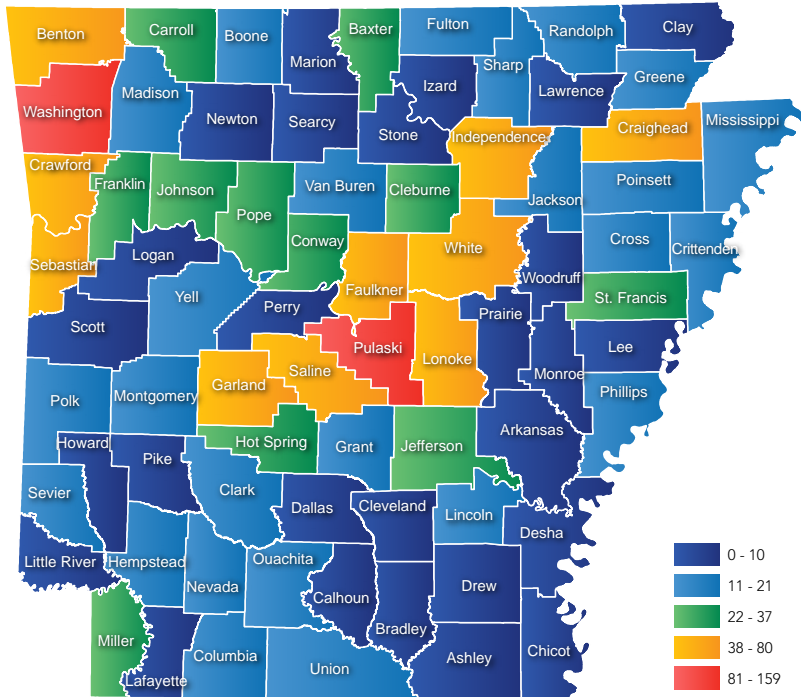
Note: Age group and/or gender data recorded as "n/a" and "unknown" by the officer is not included in the chart.

CRASH LOCATION

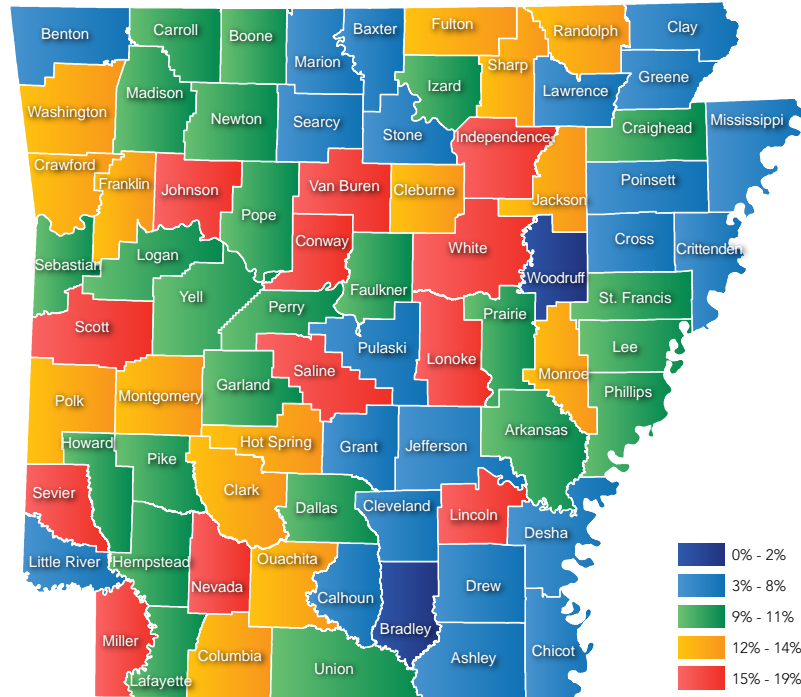
- » 54 percent of the fatalities and serious injuries involving distracted driving occurred on urban roads.
- » 72 percent of urban distracted driving fatalities and serious injuries occurred on four-lane, undivided highways and 73 percent of rural distracted driving fatalities and serious injuries occurred on two-lane, undivided highways.



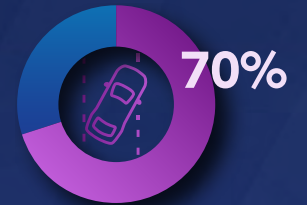
Total Distracted Driving Fatalities and Serious Injuries by County



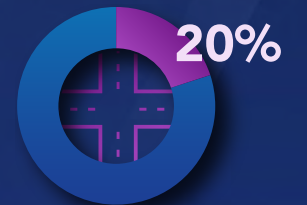
Distracted Driving Fatalities and Serious Injuries by Percentage of Total County Fatalities and Serious Injuries



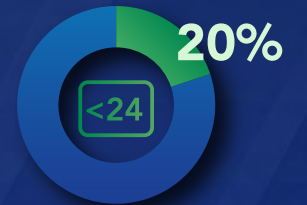
FOCUS AREA OVERLAPS
(Percent of Distracted Driving Fatalities and Serious Injuries)



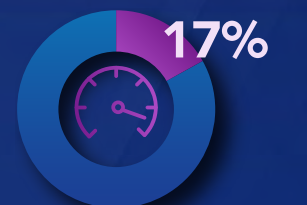
ROADWAY DEPARTURE



INTERSECTIONS



YOUNGER DRIVERS



SPEEDING & AGGRESSIVE DRIVING

CRASH CONDITIONS

AUGUST

had the **HIGHEST NUMBER** of **FATALITIES AND SERIOUS INJURIES** involving distracted drivers.



32% of all distracted driving **FATALITIES** and **SERIOUS INJURIES** OCCURRED FROM **THURSDAY** through **FRIDAY.**



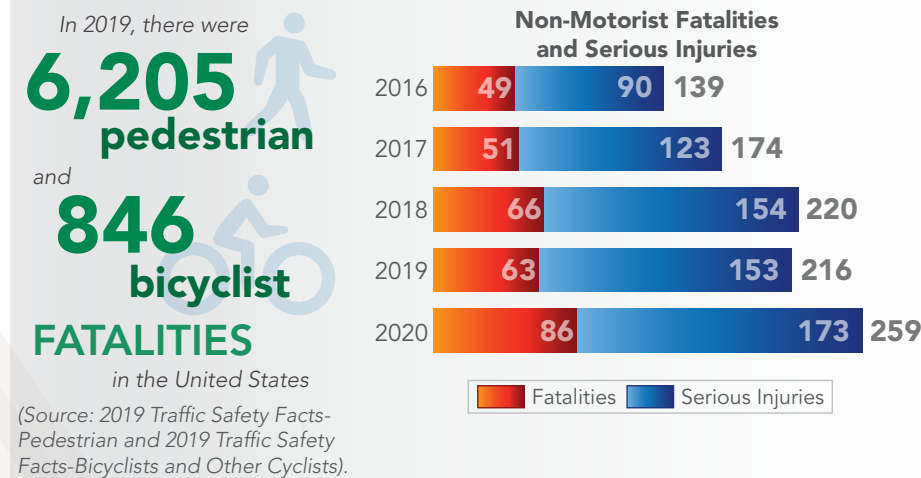
The highest number of recorded distracted driving **FATALITIES** and **SERIOUS INJURIES** OCCURRED BETWEEN **11 AM and 12 PM,** and **5 PM and 6 PM.**





INTRODUCTION

Bicyclists, pedestrians, and other non-motorists are vulnerable road users, as they often have little to no protection when involved in a crash with a motor vehicle. **Between 2016 and 2020, 6 percent of the total statewide fatalities and serious injuries involved non-motorists.** In that same time period, 315 people were killed and an additional 693 people were seriously injured in crashes that involved a non-motorist.



OBJECTIVE

REDUCE NON-MOTORIST fatalities and serious injuries by **2%** annually.

From 2016 to 2020, **Arkansas' non-motorist fatalities increased 76 percent, while serious injuries increased by 92 percent.** Cycling and pedestrian activities improve mobility, travel options, and personal health. As communities continue to grow more dense, there is increased importance to consider bicycle and pedestrian safety needs to keep Arkansas residents safe.

According to the

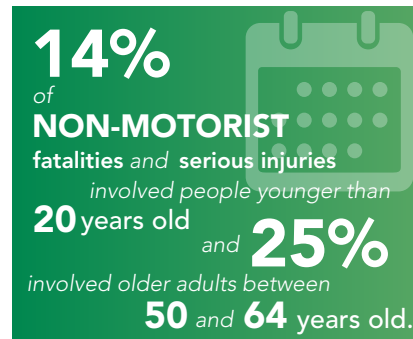
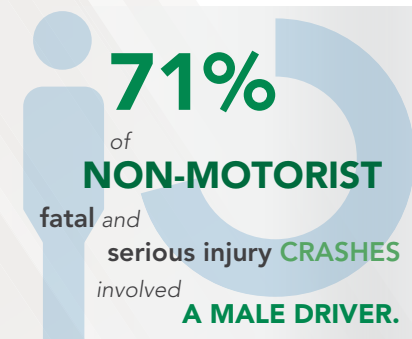
Arkansas Bicycle and Pedestrian Plan (2017),

stakeholders identified

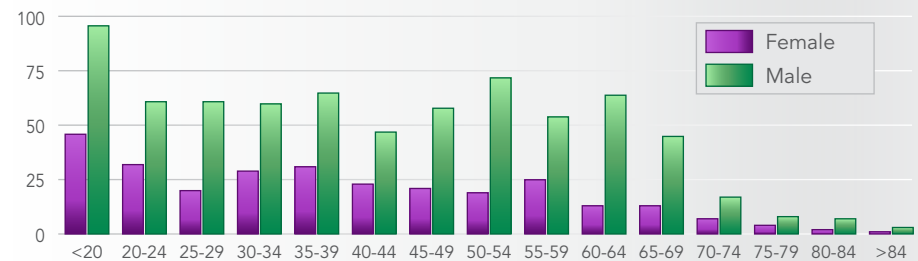
THE IMPORTANCE OF PROVIDING ACCESS TO DESTINATIONS and SAFE TRAVEL TO URBAN DESTINATIONS.

CONTRIBUTING FACTORS

AGE AND GENDER



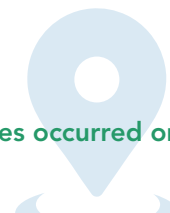
Non-Motorist Fatalities and Serious Injuries by Age and Gender



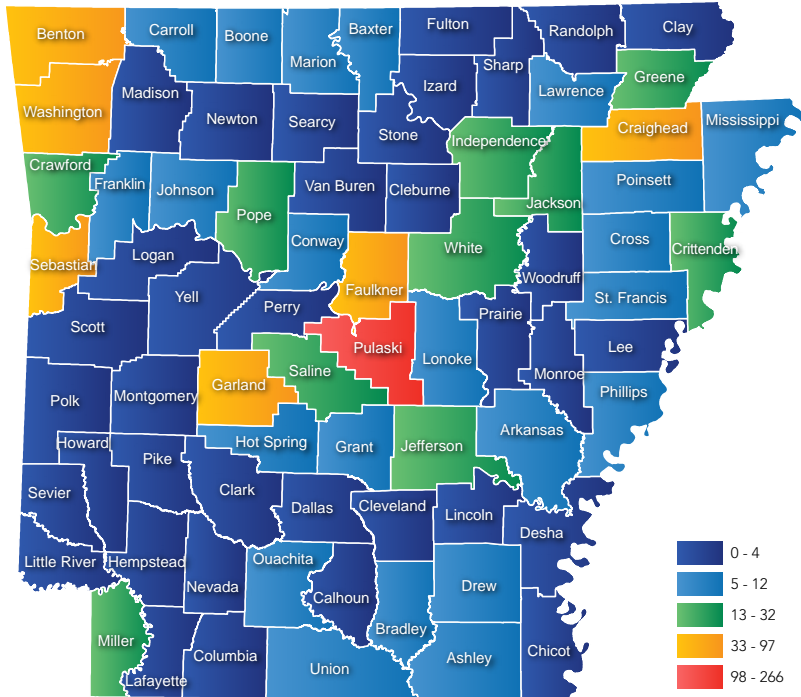
Note: Age group and/or gender data recorded as "n/a" and "unknown" by the officer is not included in the chart.

CRASH LOCATION

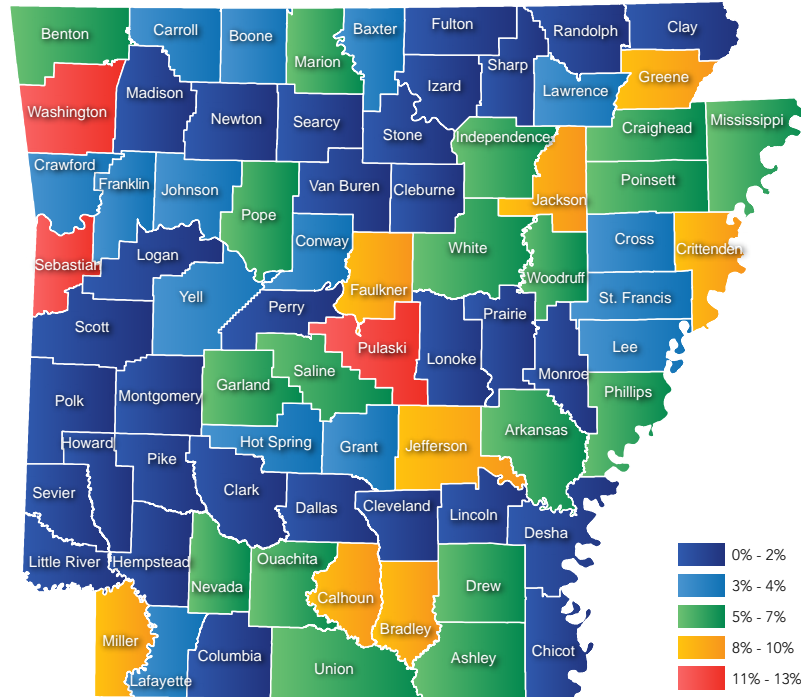
- » 84% of non-motorist fatalities and serious injuries occurred on urban roads with 83% occurring on four-lane undivided highways.
- » In rural areas, 63% of non-motorist crashes occurred on two-lane undivided highways.



Total Non-Motorist Fatalities and Serious Injuries by County

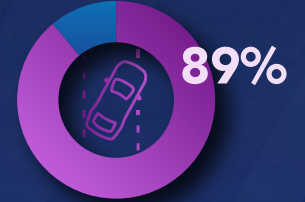


Non-Motorist Fatalities and Serious Injuries by Percentage of Total County Fatalities and Serious Injuries

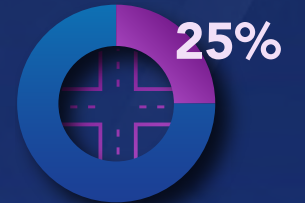


FOCUS AREA OVERLAPS

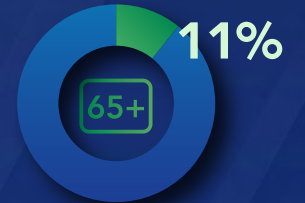
(Percent of Non-Motorist Fatalities and Serious Injuries)



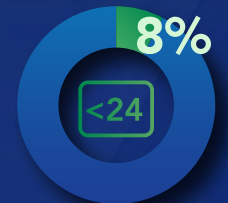
ROADWAY DEPARTURE



INTERSECTIONS



OLDER DRIVERS



YOUNGER DRIVERS

CRASH CONDITIONS

JULY and **SEPTEMBER** had the **HIGHEST NUMBER** of non-motorist **FATALITIES AND SERIOUS INJURIES.**



45% of all non-motorist **FATALITIES** and **SERIOUS INJURIES** OCCURRED FROM **FRIDAY** through **SUNDAY.**

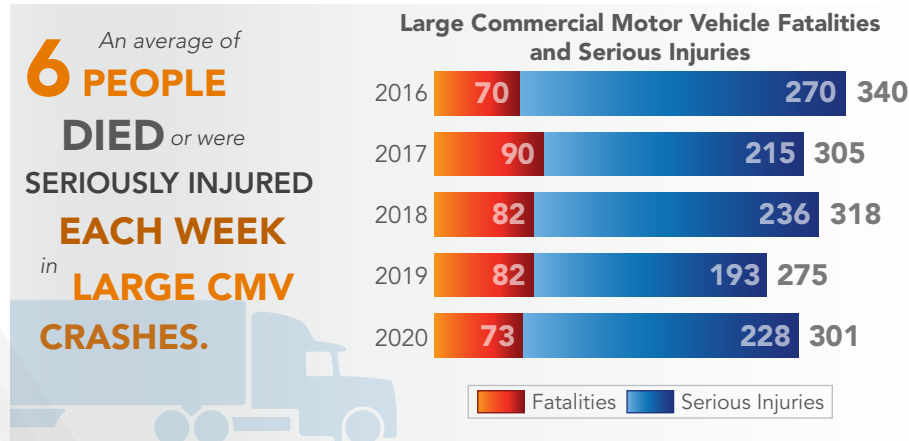


15% of non-motorist **FATALITIES** and **SERIOUS INJURIES** OCCURRED BETWEEN **8 PM** and **10 PM.**

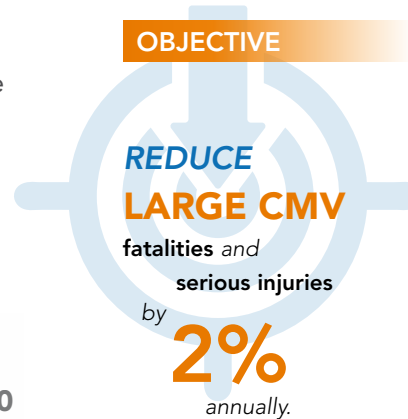


INTRODUCTION

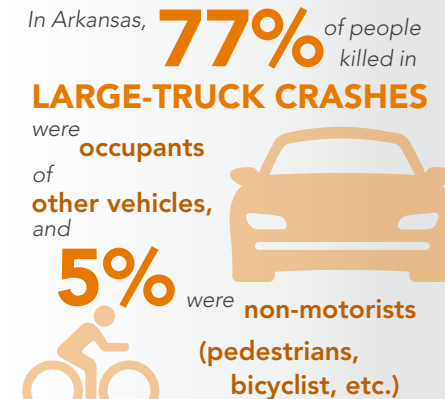
The severity of crashes involving commercial motor vehicles (CMV) is more deadly due to the size and weight differences between the vehicles. In Arkansas, more than 12,000 residents hold a commercial driver's license, representing 6 percent of the total licensed drivers in 2019, while **CMV related fatalities and serious injuries accounted for 10 percent of the total statewide fatalities and serious injuries between 2016 and 2020.**



OBJECTIVE



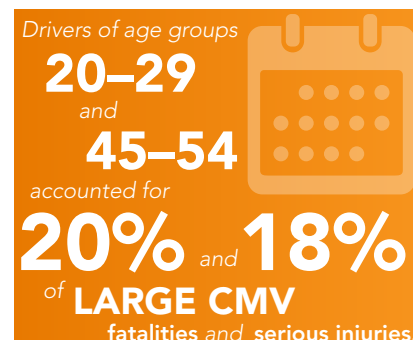
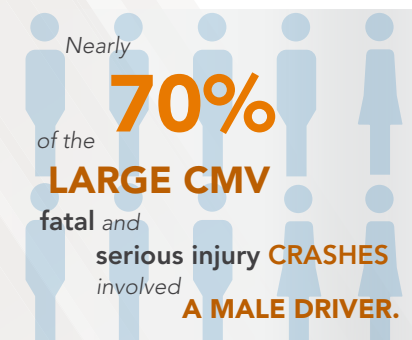
During the five year period, 397 people died and 1,142 were seriously injured in CMV crashes. **While serious injuries involving large CMVs decreased 16 percent from 2016 to 2020, fatalities increased by 4 percent.**



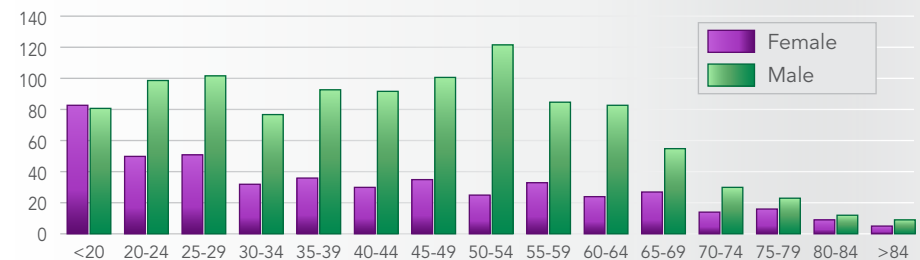
(Source: [Traffic Safety Facts—Large Trucks.](#))

CONTRIBUTING FACTORS

AGE AND GENDER



Large Commercial Motor Vehicle Fatalities and Serious Injuries by Age and Gender



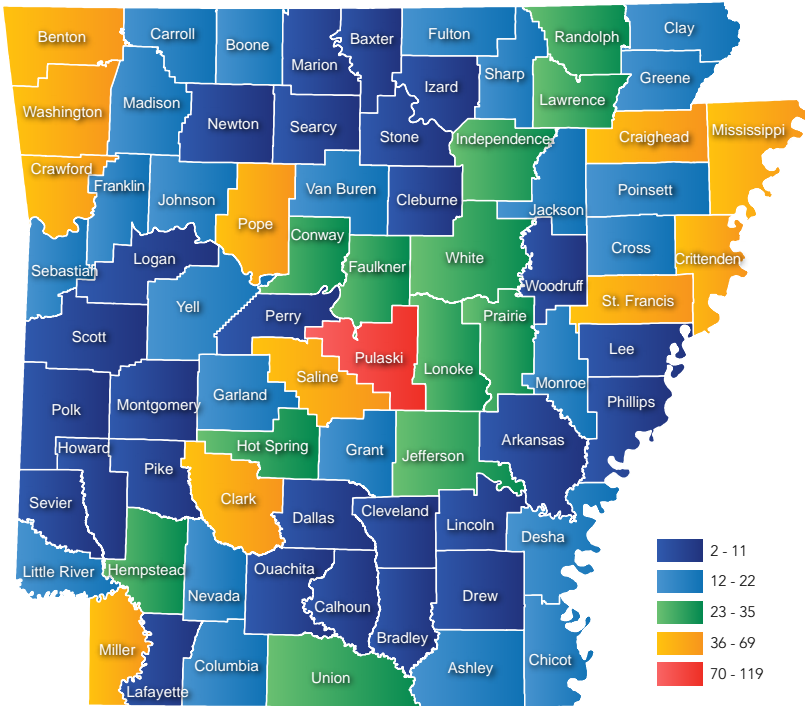
Note: Age group and/or gender data recorded as "n/a" and "unknown" by the officer is not included in the chart.

CRASH LOCATION

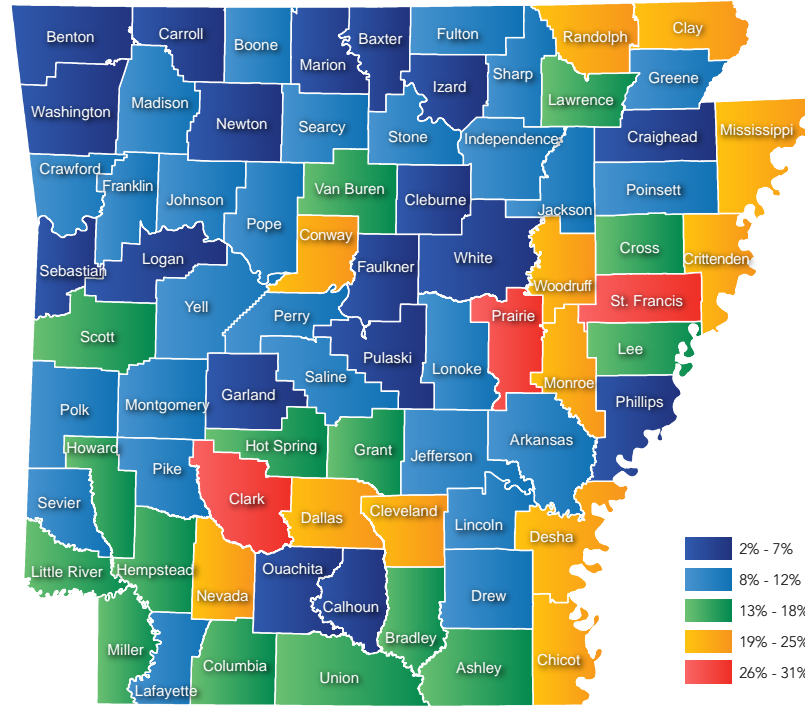
- » More than half, **56 percent**, of the fatalities and serious injuries involving CMVs occurred on rural roads.
- » Of the total CMV fatalities and serious injuries, **32 percent** occurred on rural two-lane undivided highways, and **28 percent** occurred on urban four-lane undivided highways.



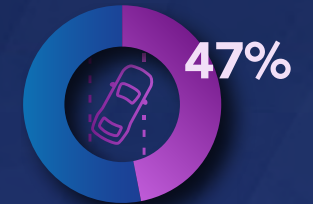
Total Large Commercial Motor Vehicle Fatalities and Serious Injuries by County



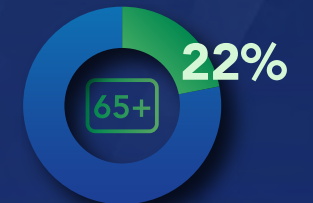
Large Commercial Motor Vehicle Fatalities and Serious Injuries by Percentage of Total County Fatalities and Serious Injuries



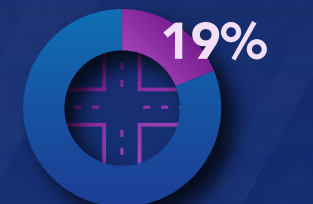
FOCUS AREA OVERLAPS
(Percent of Large CMV Fatalities and Serious Injuries)



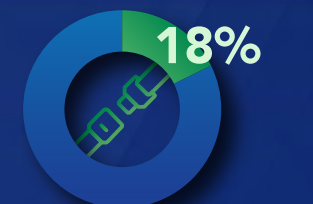
ROADWAY DEPARTURES



OLDER DRIVERS



INTERSECTIONS



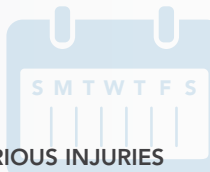
OCCUPANT PROTECTION

CRASH CONDITIONS

SEPTEMBER and **OCTOBER** had the **HIGHEST NUMBER** of CMV FATALITIES AND SERIOUS INJURIES, while **JANUARY** had the **LOWEST**.



86% of all CMV FATALITIES and SERIOUS INJURIES OCCURRED DURING **WEEKDAYS**.



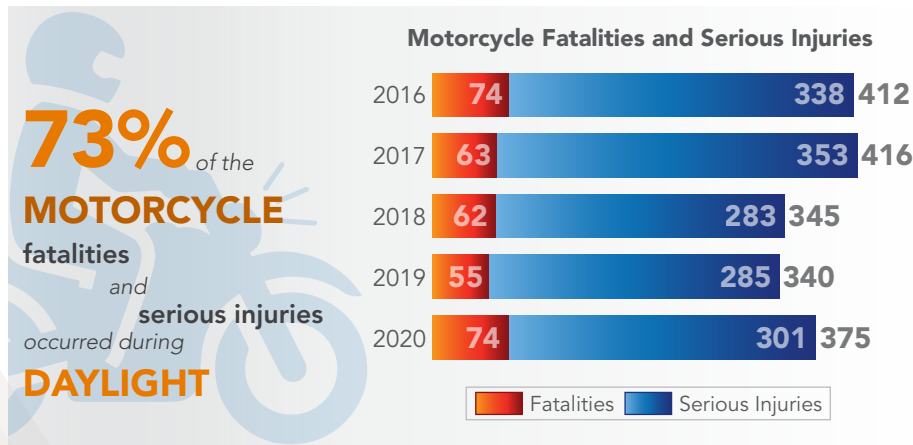
28% of CMV FATALITIES and SERIOUS INJURIES OCCURRED BETWEEN **7 AM to 9 AM** and **11 AM to 1 PM**.





INTRODUCTION

In Arkansas, motorcycles comprise only 6 percent of the vehicles registered in 2019, yet they represent 12 percent of the total statewide fatalities and serious injuries between 2016 and 2020. In the past five years, 328 motorcyclists died and 1,560 were seriously injured in motorcycle related crashes.



OBJECTIVE

REDUCE
MOTORCYCLE

fatalities and serious injuries

by 2% annually.

While serious injuries involving motorcyclists decreased 11 percent from 2016 to 2020 in Arkansas, the number of motorcyclist fatalities remained 74 in 2016 and 2020, with the numbers dropping down to 55 in 2019. Unlike other vehicles, motorcycles offer no external protection or internal restraints, making a rider more vulnerable to fatalities or serious injuries. Arkansas state law only requires helmet use for motorcyclists under age 21. Between 2016 and 2020, 56 percent of the motorcyclists killed in the traffic crashes were not helmeted.



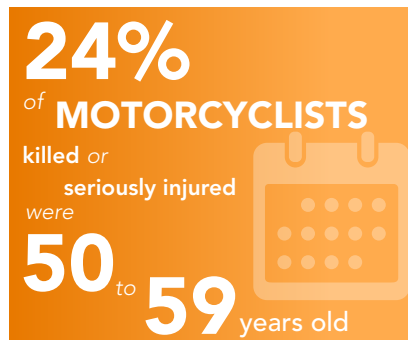
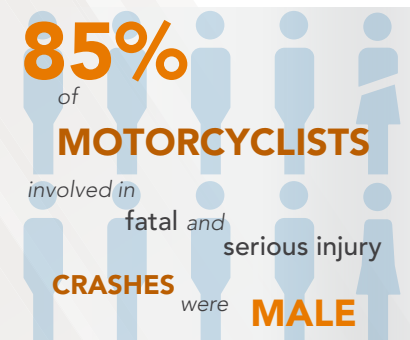
HELMETS

are estimated to be 37% EFFECTIVE in preventing fatal head injuries in MOTORCYCLE RIDERS and 41% for MOTORCYCLE PASSENGERS

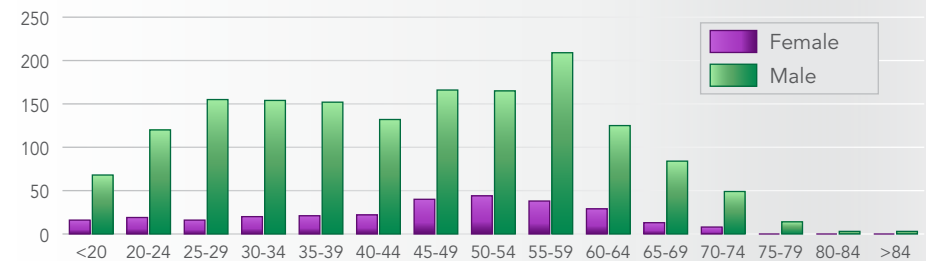
(Source: [Traffic Safety Facts.](#))

CONTRIBUTING FACTORS

AGE AND GENDER



Motorcycle Fatalities and Serious Injuries by Age and Gender



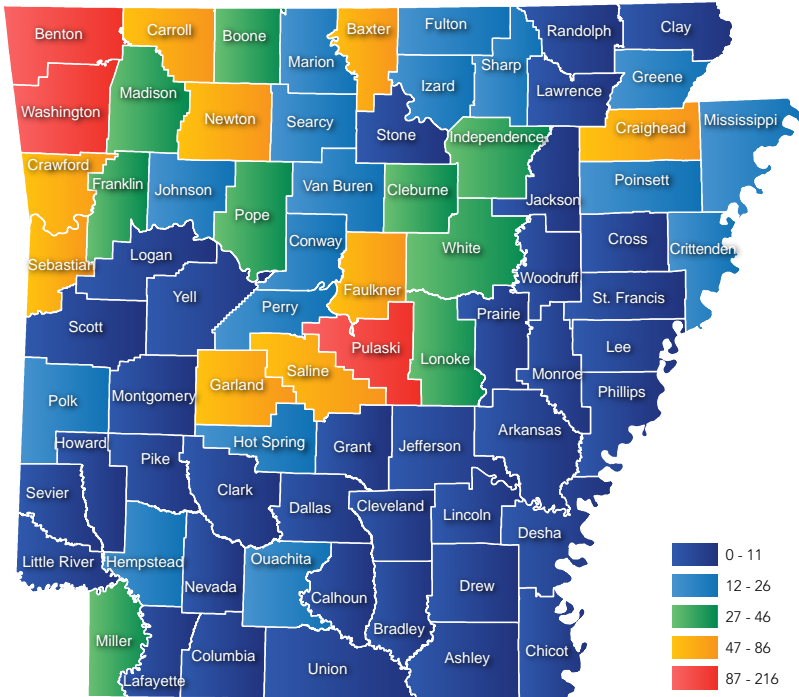
Note: Age group and/or gender data recorded as "n/a" and "unknown" by the officer is not included in the chart.

CRASH LOCATION

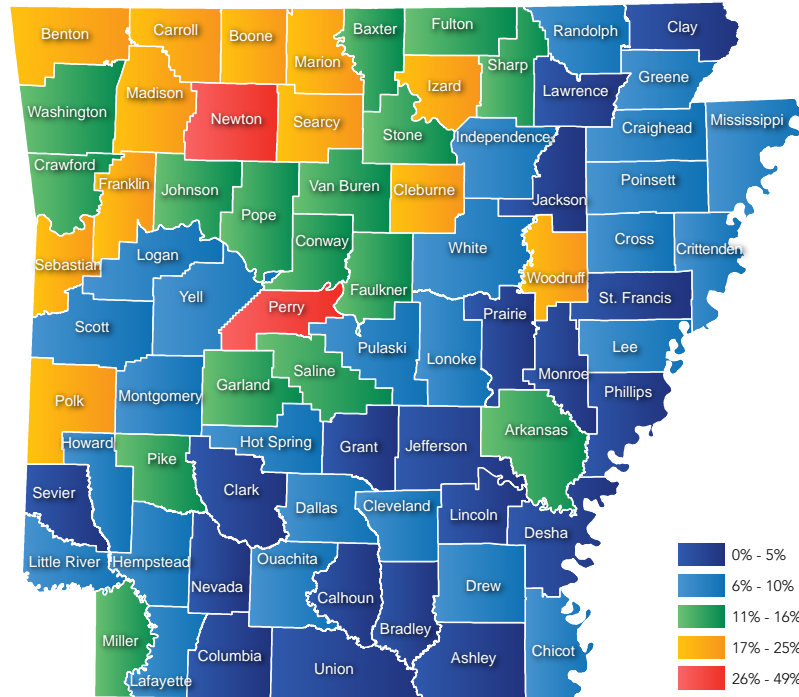
- » More than half, **55 percent** of the fatalities and serious injuries involving motorcyclists occurred on urban roads.
- » Of the total motorcycle fatalities and serious injuries, **42 percent** occurred on urban four-lane undivided highways, while **38 percent** occurred on rural two-lane undivided highways.



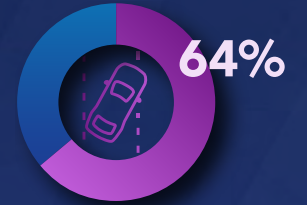
Total Motorcycle Fatalities and Serious Injuries by County



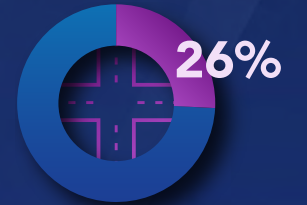
Motorcycle Fatalities and Serious Injuries by Percentage of Total County Fatalities and Serious Injuries



FOCUS AREA OVERLAPS
(Percent of Motorcycle Fatalities and Serious Injuries)



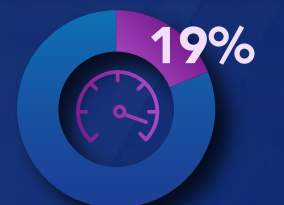
ROADWAY DEPARTURE



INTERSECTION



OCCUPANT PROTECTION



SPEEDING & AGGRESSIVE DRIVING

CRASH CONDITIONS

The month of **SEPTEMBER** had the **HIGHEST NUMBER** of **FATALITIES AND SERIOUS INJURIES** involving motorcyclists.



55% of all motorcycle **FATALITIES** and **SERIOUS INJURIES** **OCCURRED FROM FRIDAY** through **SUNDAY**.



37% of motorcycle **FATALITIES** and **SERIOUS INJURIES** **OCCURRED BETWEEN 12 PM** and **5 PM**.



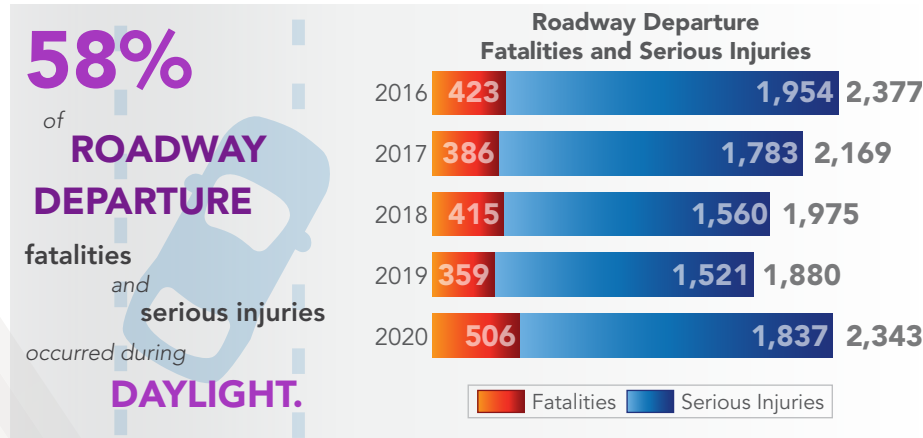
For more information on the Arkansas Strategic Highway Safety Plan, please visit www.ardot.gov





INTRODUCTION

Roadway Departure crashes occur after a vehicle crosses an edge line or a center line (FHWA). Between 2016 and 2020, 67 percent of the total statewide fatalities and serious injuries occurred while a vehicle departed the travel lane. In that same time period, 2,089 people were killed and another 8,655 people were seriously injured in crashes that occurred during roadway departures.



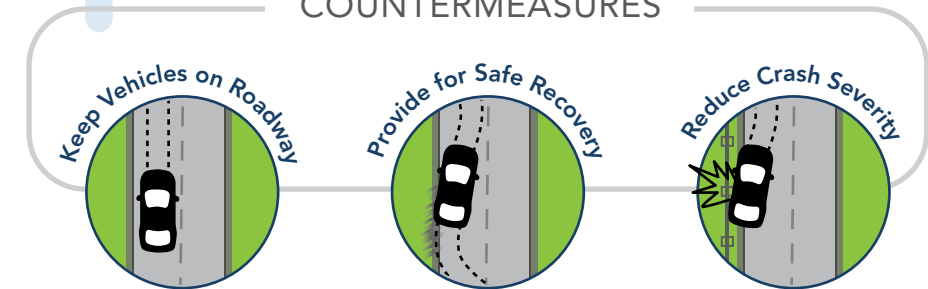
OBJECTIVE

REDUCE ROADWAY DEPARTURE

fatalities and serious injuries by **2%** annually.

In the past five years, Arkansas' roadway departure fatalities increased 20 percent, while serious injuries decreased by 6 percent. FHWA provides countermeasure guidance to protect motor vehicles from roadway departure crashes in three topical areas shown in the graphic.

COUNTERMEASURES



51% of TRAFFIC FATALITIES in the United States were attributed to ROADWAY DEPARTURES from 2016 to 2018. (FHWA: Safety.)

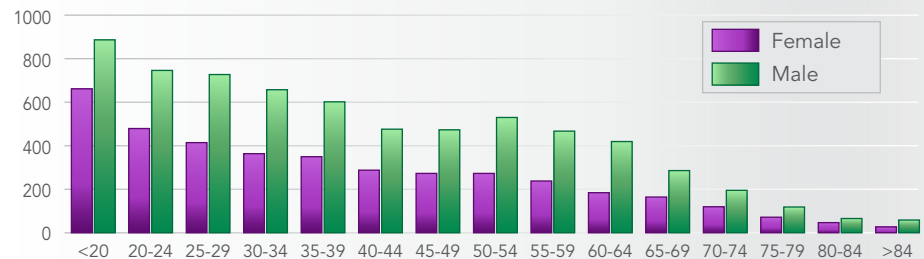
CONTRIBUTING FACTORS

AGE AND GENDER

63% of ROADWAY DEPARTURE fatalities and serious injury CRASHES involved A MALE DRIVER.

Drivers **29** years old and younger accounted for **37%** of the total ROADWAY DEPARTURE fatalities and serious injuries.

Roadway Departure Fatalities and Serious Injuries by Age and Gender

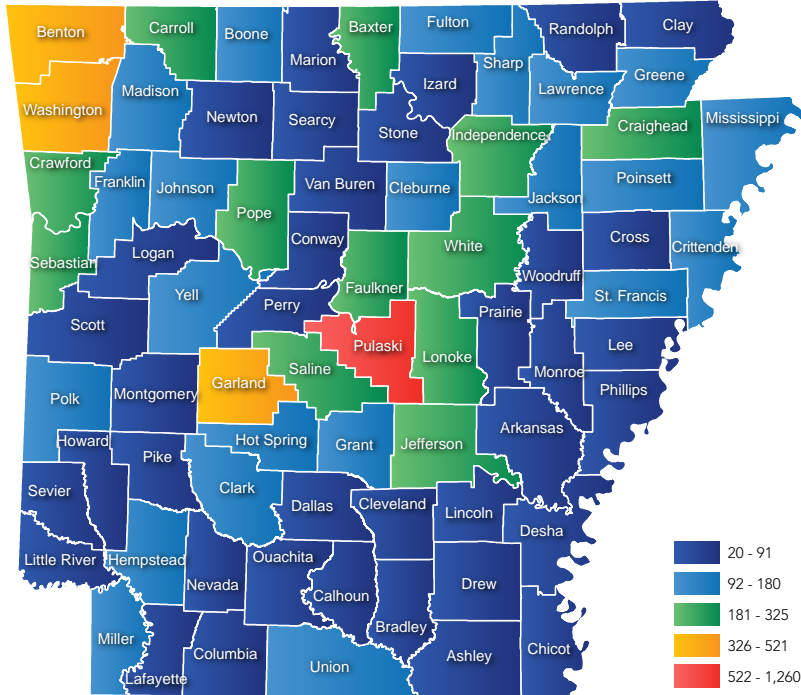


Note: Age group and/or gender data recorded as "n/a" and "unknown" by the officer is not included in the chart.

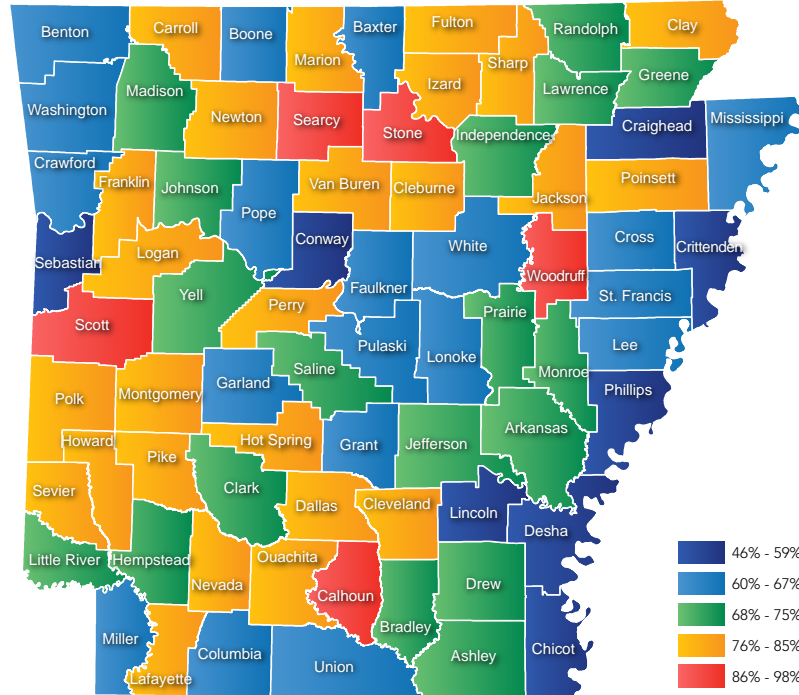
CRASH LOCATION

- » A little more than half, **52%** of roadway departure fatalities and serious injuries occurred on urban roads with **75%** occurring on four-lane undivided highways.
- » In rural areas, **79%** of roadway departure crashes occurred on two-lane undivided highways.

Total Roadway Departure Fatalities and Serious Injuries by County

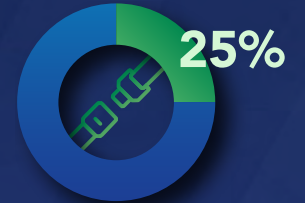


Roadway Departure Fatalities and Serious Injuries by Percentage of Total County Fatalities and Serious Injuries

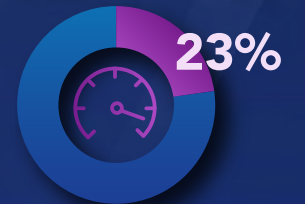


FOCUS AREA OVERLAPS

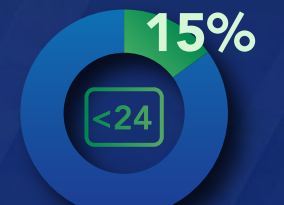
(Percent of Roadway Departure Fatalities and Serious Injuries)



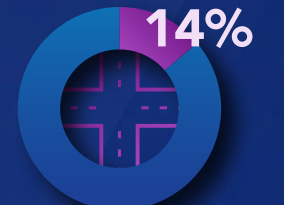
OCCUPANT PROTECTION



SPEEDING & AGGRESSIVE DRIVING



YOUNGER DRIVERS



INTERSECTIONS

CRASH CONDITIONS

JULY and **SEPTEMBER** had the **HIGHEST NUMBER** of roadway departure **FATAL AND SERIOUS INJURY CRASHES.**



48% of all roadway departure **FATALITIES and SERIOUS INJURIES** OCCURRED FROM **FRIDAY** through **SUNDAY.**



35% of all roadway departure **FATALITIES and SERIOUS INJURIES** OCCURRED DURING DAILY COMMUTE PERIODS - **6 AM to 9 AM** and **3 PM to 7 PM.**



For more information on the Arkansas Strategic Highway Safety Plan, please visit www.ardot.gov



SAFE ROADS
INTERSECTIONS

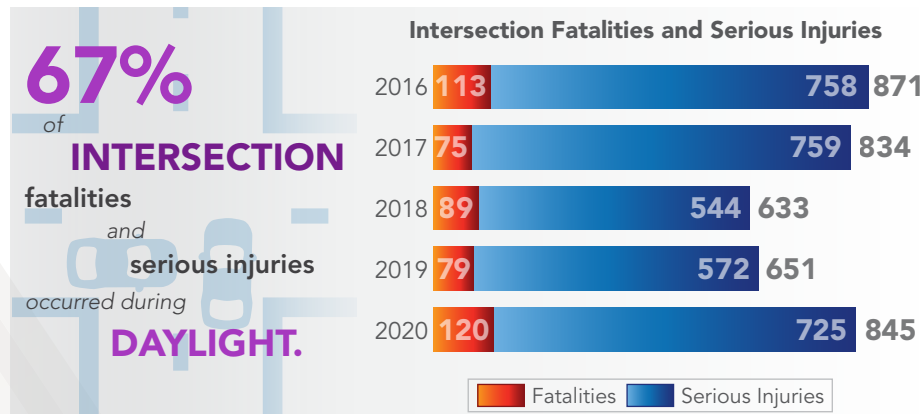
FACT SHEET | 2016-2020



INTRODUCTION

Intersection crashes can occur at or near an intersection junction or at a railway grade crossing. **Between 2016 and 2020, 24 percent of the total statewide fatalities and serious injuries occurred at an intersection.** In that same time period, **476 people were killed** and another **3,358 people were seriously injured** in crashes that occurred at an intersection.

Intersections are a critical aspect of the transportation systems, as they connect all aspects of moving traffic, including vehicle drivers and



OBJECTIVE

REDUCE INTERSECTION fatalities and serious injuries

by **2%** annually.

pedestrians, regardless of demographics. The most common types of intersection crashes include:

ANGLE – Driver fails to yield to a driver from another direction.

REAR END – Driver hits the vehicle in front of it.

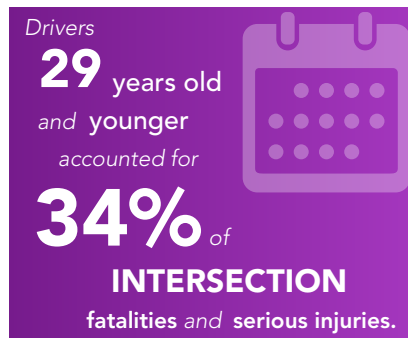
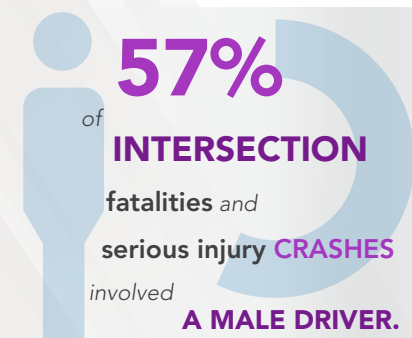
SIDESWIPE – Two vehicles traveling in the same direction collide when a driver switches or drifts from their travel lane.

From 2016 to 2020, **Arkansas' intersection related fatalities increased 6 percent, while serious injuries occurring at intersections decreased 4 percent.**

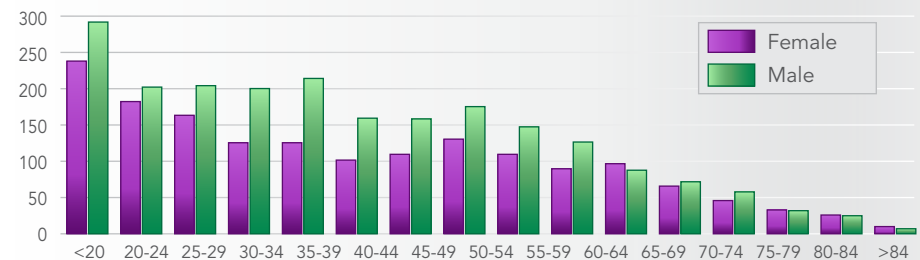
Each year, an estimated **ONE-QUARTER** of TRAFFIC FATALITIES and **ONE-HALF** of TRAFFIC INJURIES occurred at an INTERSECTION (FHWA).

CONTRIBUTING FACTORS

AGE AND GENDER



Intersection Fatalities and Serious Injuries by Age and Gender



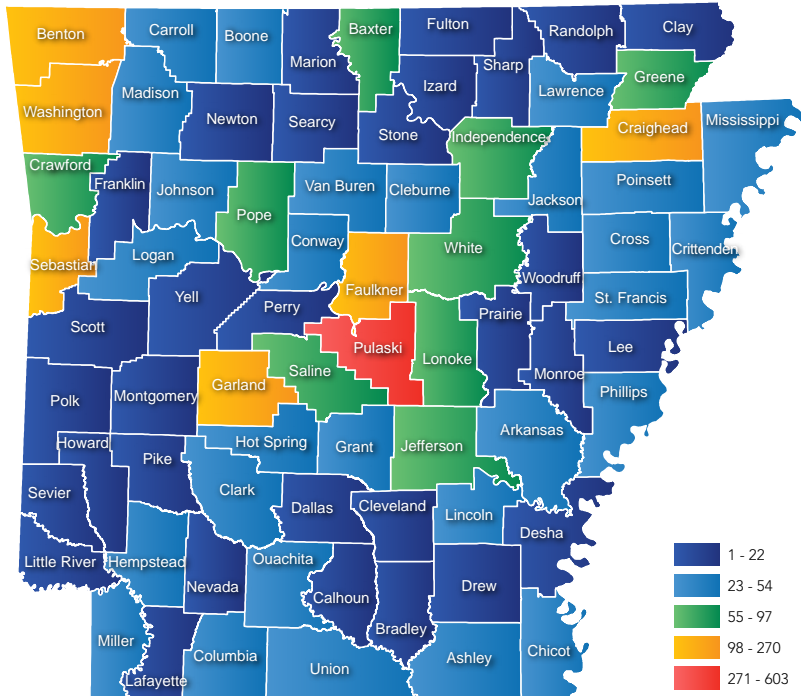
Note: Age group and/or gender data recorded as "n/a" and "unknown" by the officer is not included in the chart.

CRASH LOCATION

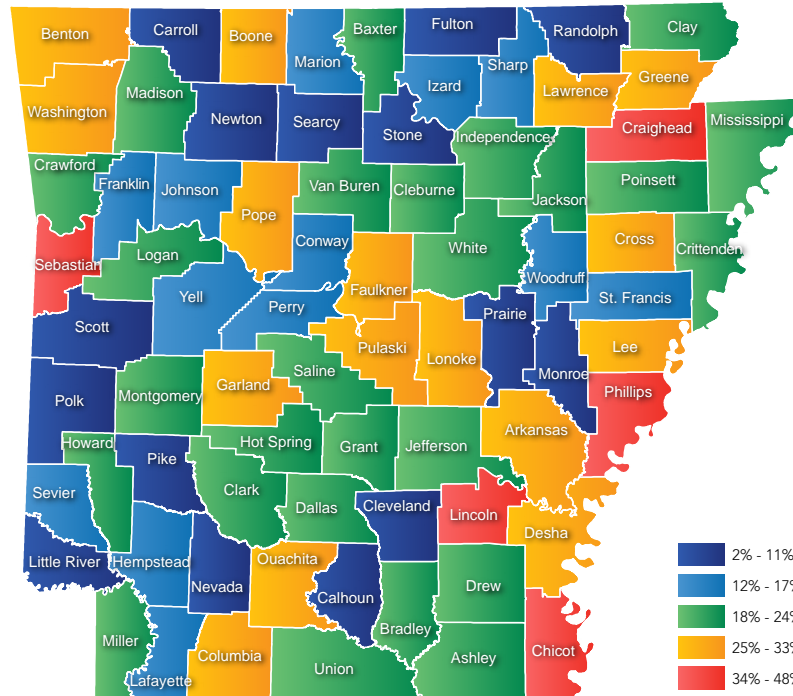
- » 72% of intersection related fatalities and serious injuries occurred on urban roads with 82% occurring on four-lane undivided highways.
- » In rural areas, 74% of crashes occurred at intersections on two-lane undivided highways compared to 16% of crashes occurring on two-lane undivided highways in urban areas.



Total Intersection Fatalities and Serious Injuries by County

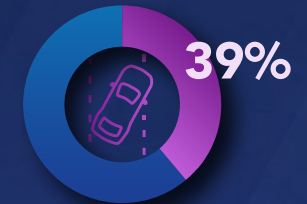


Intersection Fatalities and Serious Injuries by Percentage of Total County Fatalities and Serious Injuries

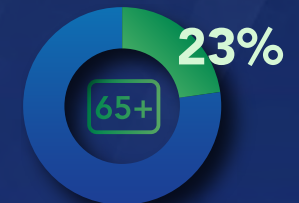


FOCUS AREA OVERLAPS

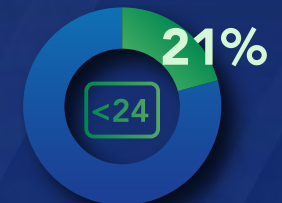
(Percent of Intersection Fatalities and Serious Injuries)



ROADWAY DEPARTURES



OLDER DRIVERS



YOUNGER DRIVERS



OCCUPANT PROTECTION

CRASH CONDITIONS

The month of **SEPTEMBER** had the **HIGHEST NUMBER** of **FATALITIES AND SERIOUS INJURIES** due to crashes that occurred at an intersection.



45% of all intersection **FATALITIES** and **SERIOUS INJURIES** OCCURRED FROM **FRIDAY** through **SUNDAY**.



43% of all intersection **FATALITIES** and **SERIOUS INJURIES** OCCURRED BETWEEN **11 AM to 2 PM** and **3 PM to 7 PM**.



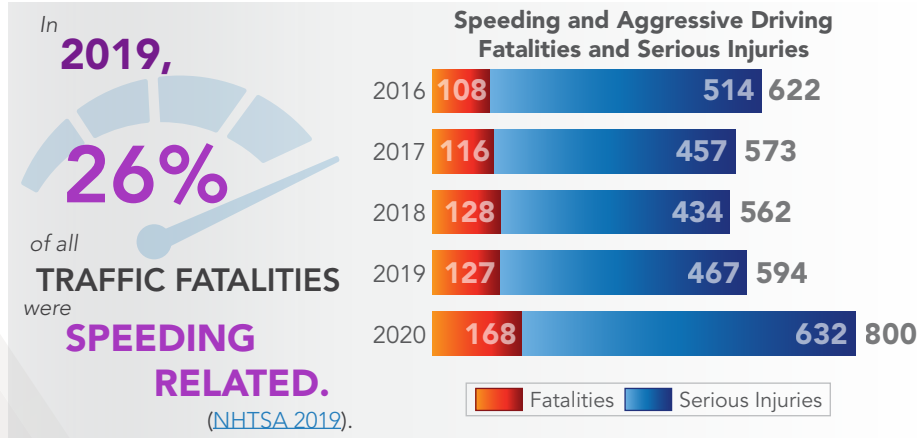
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INTRODUCTION

Speeding and aggressive driving is defined as exceeding the speed limit, driving too fast for conditions, or racing. **Between 2016 and 2020, 28 percent of the total statewide fatalities and serious injuries involved speeding or aggressive driving.** In that same time period, **647 people were killed and another 2,504 people were seriously injured in crashes involving speeding or aggressive driving.**



OBJECTIVE

REDUCE SPEEDING & AGGRESSIVE DRIVING

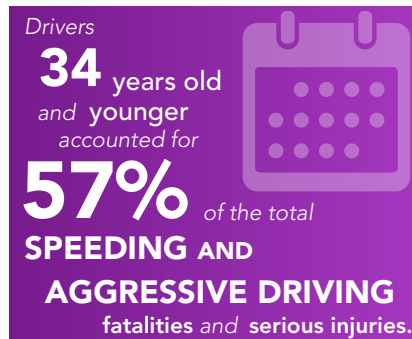
fatalities and serious injuries by **2%** annually.

Speeding is a type of aggressive behavior that can lead to loss of vehicle control and increased degree of crash severity leading to more severe injuries (NHTSA). Arkansas' basic speeding law prohibits driving at a speed that is "greater than is reasonable and prudent." Motorists must drive at a safe speed that is appropriate for varying roadway circumstances to avoid collisions. **From 2016 to 2020, Arkansas' speeding and aggressive driving fatalities increased 56 percent, while serious injuries involving speeding and aggressive driving increased 23 percent.**

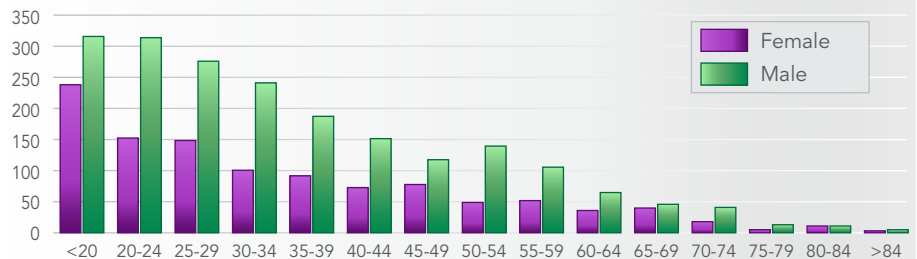


CONTRIBUTING FACTORS

AGE AND GENDER



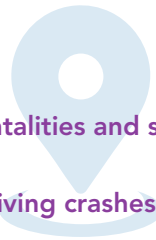
Speeding and Aggressive Driving Fatalities and Serious Injuries by Age and Gender



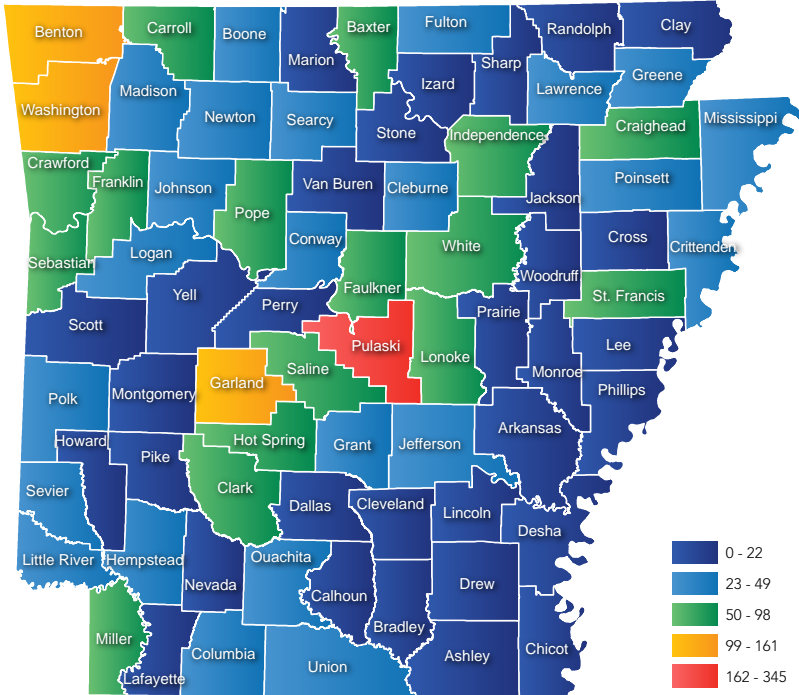
Note: Age group and/or gender data recorded as "n/a" and "unknown" by the officer is not included in the chart.

CRASH LOCATION

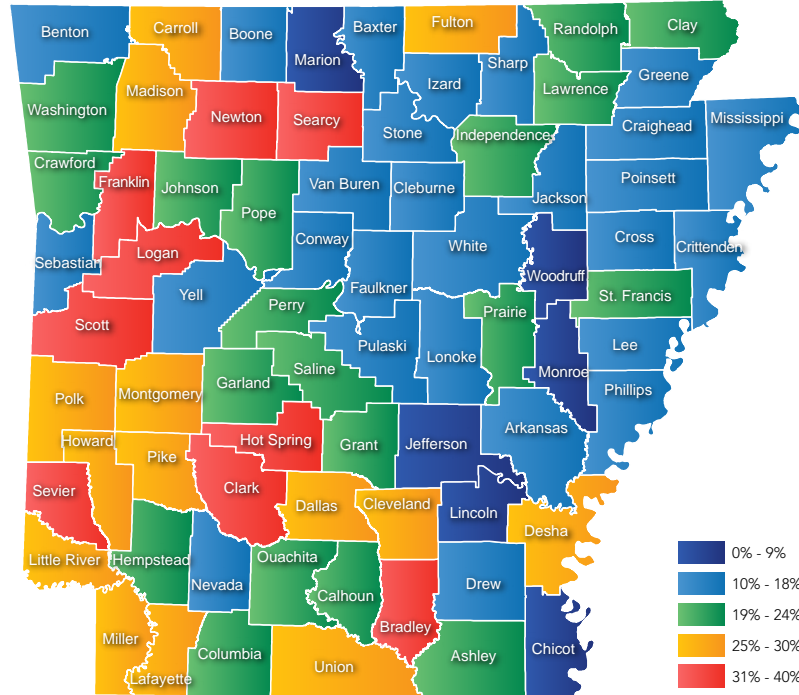
- » 55 percent of speeding and aggressive driving fatalities and serious injuries occur on urban roads, with 79% of crashes on four-lane undivided highways.
- » In rural areas, 79% of speeding and aggressive driving crashes occur on two-lane undivided highways, compared to 10% in urban areas.



Total Speeding and Aggressive Driving Fatalities and Serious Injuries by County

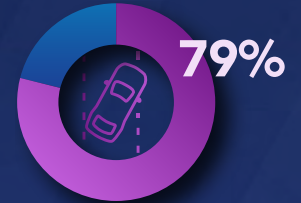


Speeding and Aggressive Driving Fatalities and Serious Injuries by Percentage of Total County Fatalities and Serious Injuries

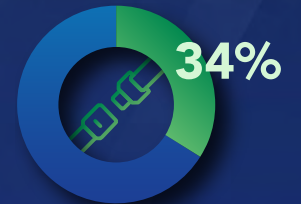


FOCUS AREA OVERLAPS

(Percent of Speeding and Aggressive Driving Fatalities and Serious Injuries)



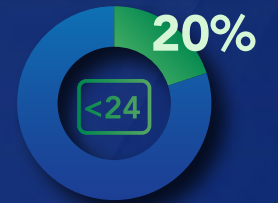
ROADWAY DEPARTURES



OCCUPANT PROTECTION



IMPAIRED DRIVERS



YOUNGER DRIVERS



CRASH CONDITIONS

JUNE and JULY



had the HIGHEST NUMBER of FATALITIES AND SERIOUS INJURIES, where drivers were speeding or driving aggressively.

50% of all speeding and aggressive driving FATALITIES and SERIOUS INJURIES OCCURRED FROM FRIDAY through SUNDAY.



SPEEDING and AGGRESSIVE DRIVING FATALITIES and SERIOUS INJURIES were likely to occur at any time of the day, but ESPECIALLY BETWEEN 4 PM to 6 PM and 11 AM to 1 PM.



For more information on the Arkansas Strategic Highway Safety Plan, please visit www.ardot.gov





FOCUS AREA ACTION PLANS

Each Safe System Emphasis Area Team worked in close coordination with safety partners from federal and state agencies, MPOs, regional planning councils, local governments, law enforcement, and many other transportation and safety partners to develop strategies and action steps to guide the implementation process for the SHSP. Action plans were developed for each Focus Area based on proven effective countermeasures, feedback from stakeholders on existing programs and projects, information on existing statewide transportation plans and their strategies relevant to traffic safety, and noteworthy practices from other states. Each action plan includes strategies to reduce fatalities and serious injuries for the Focus Area, specific actions to achieve the strategies, performance measures to track progress, the relevant implementation area, and an estimated timeframe for implementation. The agency leading the action step is also identified.

TIMEFRAME

SHORT TERM	MID TERM	LONG TERM
Year 1	Years 2 to 3	Years 4 to 5

AGENCY

AACP	Arkansas Association of Chiefs of Police
ABC	Alcoholic Beverage Control
ADH	Arkansas Department of Health
AHP	Arkansas Highway Police
AHSO	Arkansas Highway Safety Office
ARS	Arkansas Rehabilitation Service
ASP	Arkansas State Police
ATA	Arkansas Trucking Association
ARDOT	Arkansas Department of Transportation
DFA	Arkansas Department of Finance and Administration
DMV	Arkansas Department of Motor Vehicles
DPS	Arkansas Department of Public Safety
FMCSA	Federal Motor Carrier Safety Administration
FHWA	Federal Highway Administration



OCCUPANT PROTECTION

Safe Road Users **Action Plan**

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Educate the public on the benefits of occupant protection as well as the penalties and dangers associated with non-compliance.	Continue to inform the motoring public about the importance of seat belts, proper wear and car seats.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Short Term
	Effectively communicate the penalty for non-compliance to the public.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Short Term
	Continue to implement Mini-Step Programs to identify groups with lower than average restraint use rates and implement communications, outreach, and enforcement campaigns directed at groups/areas where restraint use is lowest, particularly rural areas.	ASP/AHSO	<ul style="list-style-type: none"> Programs implemented Enforcement conducted 	Data Collection/Analysis; Enforcement/Legislation	Long Term
	Ensure educational materials regarding proper restraint use are provided to those who provide transportation services (such as transporting foster children and Medicaid patients) and are updated to follow the most recent recommendations issued by the American Academy of Pediatrics.		<ul style="list-style-type: none"> Materials updated and distributed 	Education/Communication	Short Term
Increase enforcement of state and CDL seat belt laws.	Continue to implement national campaigns such as "Click It or Ticket" and "Buckle Up in your Truck" as well as other Public Service Announcements and nighttime patrols at the local level.	ASP/AHSO	<ul style="list-style-type: none"> Campaigns conducted Number of PSA's broadcasted 	Education/Communication; Enforcement/Legislation	Short Term
	Continue to implement short term high visibility seat belt enforcement through Local Selective Traffic Enforcement Projects (STEPS), Statewide Selective Traffic Enforcement Project (STEP), Mini Selective Traffic Enforcement Projects (M-STEPS), Statewide Law Enforcement Liaison (LEL), and the Rural High Five Program.	AHSO	<ul style="list-style-type: none"> Number of enforcement programs/projects conducted Number of seat belt violations recorded in eCrash 	Enforcement/Legislation	Short Term
	Continue to enforce seat belt laws in Commercial Motor Vehicles (CMV)	ArDOT/AHP	<ul style="list-style-type: none"> Number of CMV seat belt violations recorded in eCrash 	Enforcement/Legislation	Short Term

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Continue and expand child restraint system inspection stations.	Increase child passenger safety resources with special focus on at-risk families and “Tweens” to address lack of restraint use and front passenger seating among ages 8-14 by increasing the existing pool of technicians, instructors, and inspection stations.	AHSO	<ul style="list-style-type: none"> Number of technicians and instructors Number of inspection stations 	Education/Legislation; Funding/Collaboration	Mid Term
	Implement the statewide child passenger protection project to provide certification training for, but not limited to, healthcare and childcare professionals to educate parents and caregivers on the proper use of child restraints.	AHSO	<ul style="list-style-type: none"> Project implemented Number of training attendees 	Education/Communication; Funding/Collaboration	Mid Term
	Host car seat awareness and instruction classes, especially in diverse community locations with populations that have lower than average proper car seat use. Target child transport agencies, hospitals, childcare centers, schools, etc. and collaborate with local child passenger safety technicians.	AHSO	<ul style="list-style-type: none"> Number of classes conducted 	Education/Communication; Funding/Collaboration	Short Term
Include occupant protection in the statewide communications campaign	Ensure the communications plan provides for statewide public information and education to promote occupant protection which includes a focus on the national Click It or Ticket enforcement mobilizations surrounding the Memorial Day and Thanksgiving holidays targeting messages to young people ages 18-34.	AHSO	<ul style="list-style-type: none"> Mobilizations conducted 	Education/Collaboration	Short Term
	Distribute non-commercial sustaining announcements (NCSAs) to radio and television stations and evaluate their use to obtain a minimum of \$300,000 in documented public service air time for traffic safety awareness messages.	AHSO	<ul style="list-style-type: none"> Messages provided and minimum value met 	Education/Communication	Short Term
	Coordinate with local jurisdictions, counties, municipalities, and hometown heroes to ensure consistent occupant protection safety messages are pushed across all areas of the State.		<ul style="list-style-type: none"> Coordination meetings conducted Safety messages reviewed 	Education/Communication; Funding/Collaboration	Short Term

OCCUPANT PROTECTION

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Include occupant protection in the expansion of school programs	Implement and expand teen driver safety programs which employ activities in low seat belt use counties to increase seat belt use and Arkansas's seat belt use rate.	AHSO	■ Develop and expansion of projects	Education/Communication	Mid Term
Strengthen existing occupant protection laws.	Gather research to identify problem areas around the State to show which communities have low rates of seat belt usage and present findings to the Legislature.	ArDOT	■ Research completed	Data Collection/Analysis	Mid Term
	Conduct research to explore increasing seat belt use law penalty fines, driver's license points, and other driver remediation programs.		■ Research completed	Data Collection/Analysis	Mid Term
	Develop a plan to introduce legislation to require all new CMVs to be equipped with bright colored seat belts for visual aid in enforcement.		■ Plan developed	Data Collection/Analysis; Enforcement/Legislation	Long Term



STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Create an older drivers working group to oversee implementation of the focus area action plan.	Identify and secure commitments for an Older Driver leader or co-leaders and working group members who will meet at least quarterly to oversee implementation, track progress, and identify challenges.	SHSP Steering Committee	<ul style="list-style-type: none"> Leader(s) and members secured Meetings conducted Progress and challenges reported 	Funding/Collaboration	Short Term
Create ARDOT standard(s) to improve visibility to reduce crashes involving older drivers.	Implement findings identified in the innovative countermeasures to deter wrong-way driving report.	ARDOT	<ul style="list-style-type: none"> Number of countermeasures implemented 	Engineering/Infrastructure	Mid Term
	Improve the roadway to better accommodate the special needs of older drivers and/or pedestrians. This could include providing advance warning and guide signs, improving pavement markings, improving the readability of roadway signs, providing more protected left-turn signals and offset left-turn lanes at intersections, reducing speed limits, and improving the lighting at intersections and in curves. Implement countermeasures from the 2014 FHWA publication, "Handbook for Designing Roadways for the Aging Population" and any subsequently revised and updated versions.	ARDOT	<ul style="list-style-type: none"> Number of countermeasures implemented 	Engineering/Infrastructure	Mid Term
Support AARP and other organizations with driver education for older drivers.	Develop and distribute educational materials that provide information and resources for older driver safety, including self-assessment tools, driving evaluation programs, effects of medications and health conditions on driving, resources for car comfort and safety and adaptive equipment for vehicles, tips for family conversations about driving cessation, and alternative transportation options.		<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Mid Term
	Develop classes and partner with vehicle dealerships to better educate older drivers on how to use the technology in their newly purchased vehicles to operate the vehicle more safely.		<ul style="list-style-type: none"> Classes and partnerships established 	Education/Communication; Funding/Collaboration	Mid Term

OLDER DRIVER

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Support AARP and other organizations with driver education for older drivers (continued).	Collaborate with the Aging and Adult Services Division, AARP, Regional Planning Councils, and Metropolitan Planning Organizations to promote and disseminate information on the benefits of lifelong communities and the benefits of aging in place.		<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication; Funding/Collaboration	Mid Term
	Identify and promote programs and activities that help older road users stay mobile such as CarFit, driver assessments, public transit, and driver improvement programs.		<ul style="list-style-type: none"> Programs identified and promoted 	Education/Communication	Mid Term
Identify older drivers who are at an elevated crash risk.	Issue restricted licenses to older drivers that pose excessive risks only in certain situations. Common types of restrictions could include daylight driving only, limit driving to a specific geographical area, or limit driving only to low-speed roads.	DFA Driver Services	<ul style="list-style-type: none"> Number of issued restricted licenses 	Enforcement/Legislation	Mid Term
	Research best practices from other states regarding appropriate ages to require vision testing to renew their license.		<ul style="list-style-type: none"> Research conducted 	Data Collection/Analysis	Mid Term
	Educate stakeholders and train law enforcement, medical professionals, licensing representatives, and community members to recognize physical and cognitive deficiencies affecting safe driving in older drivers, including submitting reevaluation referrals to DOL.		<ul style="list-style-type: none"> Education materials developed Number of trainings provided 	Education/Communication	Mid Term
	Conduct a Driver Orientation Screen for Cognitive Impairment (DOSCI) pilot test in one or more jurisdictions to determine its effectiveness and any revisions needed for widespread use in Arkansas.	ASP/AHSO	<ul style="list-style-type: none"> Pilot test conducted 	Data Collection/Analysis; Enforcement/Legislation	Mid Term

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Identify older drivers who are at an elevated crash risk (continued).	Develop guidelines for the Department of Finance and Administration to determine medical conditions, regardless of age, for screening and evaluating physical and cognitive abilities and skills to implement driver license restrictions or revocations when needed.		<ul style="list-style-type: none"> Guidelines established 	Enforcement/legislation	Mid Term
	Conduct research on how to better identify older drivers most at risk for a fatal or serious injury crash and develop strategies for early intervention with at-risk senior drivers.		<ul style="list-style-type: none"> Research conducted Strategies implemented 	Data Collection/Analysis	Mid Term
Promote and expand transportation alternatives that allow older drivers to stay mobile and safe.	Provide guidance and assistance to identify and incentivize safe transportation options within the local communities.		<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Mid Term
	Involve caregivers and family members of older drivers in discussions and education about aging and driving and provide techniques they can use to help the older driver assess safe driving, and, when necessary, transition from driving.		<ul style="list-style-type: none"> Educational materials developed and distributed Number of materials distributed/accessed (if online) 	Education/Communication	Mid Term
	Implement a "Safe Routes to Age in Place" Program toolkit that starts with a pilot location/region to promote culture changes and support a safe system.		<ul style="list-style-type: none"> Research conducted Toolkit established 	Data Collection/Analysis	Mid Term
	Conduct a comprehensive mobility presurvey of older residents across the State, including residents that live in "transportation deserts"* using online, in-person, and mail-in options to ask recipients about transportation habits, infrastructure challenges, travel modes, destinations, and knowledge of travel options.		<ul style="list-style-type: none"> Survey conducted and results analyzed 	Data Collection/Analysis	Mid Term

* NOTE: "Transportation deserts" are places where the only way in and out of the community is by car, and residents are often cut off from easy access to other parts of their city or region due to the impractical design of road and highway infrastructure around the area.

OLDER DRIVER

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Promote and expand transportation alternatives that allow older drivers to stay mobile and safe (continued).	Identify locations in rural and urban geographies where there is a concentration of older people and one of the following situations exist: current services are underutilized or new infrastructure has been recently constructed. Use this research to create a comprehensive map of older adult population density and transit services (all mobility options) available across the state and conduct a hot spot analysis.	ARDOT Traffic Safety	<ul style="list-style-type: none"> ■ Research conducted and location identified ■ Locations identified 	Data Collection/Analysis	Mid Term
	Create resources on available transportation options and distribute them in the locations identified in the actions above.		<ul style="list-style-type: none"> ■ Materials developed and distributed 	Education/Communication	Mid Term



STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Increase awareness of Arkansas Graduated Driver Licensing (GDL) Law	Continue to conduct media campaigns that increase awareness of Graduated Driver's License (GDL) and dangers of texting and driving on social media outlets such as Twitter, Facebook, Instagram, etc.	ASP/AHSO	<ul style="list-style-type: none"> Number of social media posts Number of media campaigns 	Education/Communication	Mid Term
	Develop and implement use of a GDL video for parents while waiting at DMV including mandatory sign off that video has been viewed.	ASP/AHSO	<ul style="list-style-type: none"> Video developed Sign off developed 	Education/Communication	Mid Term
	Continue support of GDL education through driver control offices.	DFA Driver Services	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Mid Term
	Develop and implement use of GDL video for teens viewed before written portion of drivers test.	ASP/AHSO	<ul style="list-style-type: none"> Video developed 	Education/Communication	Mid Term
	Educate judges regarding risks for younger drivers and GDL law, encouraging administering consequences for violators.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication; Enforcement/Legislation	Short Term
	Host GDL check points, similar to sobriety check points.	ASP/AHSO	<ul style="list-style-type: none"> Number of checkpoints conducted 	Enforcement/Legislation	Mid Term
	Increase number of tickets written for violations of GDL.	ASP, local agencies	<ul style="list-style-type: none"> Number of violations recorded in eCrash 	Enforcement/Legislation	Mid Term
	Educate the state on best solutions related to GDL enforcement such as implementing license suspensions, increasing penalty fines, and establishing driver remediation programs.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Mid Term

YOUNGER DRIVERS

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Increase awareness of risks to younger drivers amongst teens, college age students, parents, and community members.	Expand and continue to support coalitions for safer teen driving, statewide peer led education activities, and statewide teen/parent activities including teen Driver Rodeo, Teen Driving Safety Week, mock crash reenactment and discussion, parent/teen education, pledge parties, and GDL awareness.	ASP/AHSO	■ Number of active coalitions	Education/Communication	Mid Term
	Use evidence-based programming to facilitate peer-to-peer education to educate younger drivers using toolkits focused on seat belt usage, the dangers of alcohol and drug impaired driving, and distracted driving.	ASP/AHSO	■ Materials developed and distributed	Education/Communication	Mid Term
	Implement media campaigns and outreach efforts using delivery methods that reach younger drivers with messages about unsafe driving practices including drivers and passengers not wearing a seat belt, not driving impaired or distracted, not speeding, and other unsafe driving practices identified through problem identification.	ASP/AHSO	■ Campaigns conducted ■ Number of social media views	Education/Communication	Short Term
	Develop and distribute guide for teaching teens to drive to include lessons for nighttime and rainy weather.	ASP/AHSO	■ Materials developed and distributed	Education/Communication	Mid Term
	Develop and implement programs to increase traffic safety knowledge, attitude, and behavior amongst college age students.	ASP/AHSO	■ Programs developed and implemented	Education/Communication	Long Term
	Review and revise the Driver Guide, testing process, curriculum guidelines, and training standards to construct an overall driver training package focused more on hazard identification and less on skill training.		■ Guidelines revised and updated	Enforcement/Legislation	Long Term

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Increase awareness of risks to younger drivers amongst teens, college age students, parents, and community members (continued).	Redirect funds from some traffic fines to support traffic safety education materials and programs.		<ul style="list-style-type: none"> Funding amount redirected to education 	Education/Communication; Funding/Collaboration	Long Term
	Adopt approaches that strategically shift the focus of engagement to the large majority of safe road users to influence behaviors of the smaller group engaging in risky behaviors. Implement the SSA to make a traffic safety culture change in the younger generation.			<ul style="list-style-type: none"> Integrate SSA principles 	Education/Communication; Enforcement/Legislation; Funding/Collaboration
Revise or add additional legislation for younger drivers.	Mandate documented hands on driving practice before licensure.		<ul style="list-style-type: none"> Driving practice established and mandated 	Enforcement/Legislation	Long Term
	Continue to restrict age waivers.	DFA Driver Services	<ul style="list-style-type: none"> Number of age waivers 	Enforcement/Legislation	Short Term
	Push for stronger legislation to address passenger restrictions or revise GDL to only 1 passenger, for intermediate drivers, with no caveats.		<ul style="list-style-type: none"> Legislation reviewed 	Enforcement/Legislation	Mid Term
	Adjust nighttime restrictions to begin at 9 p.m. Lengthen permit holding period beyond six months. Extend passenger restriction to one full year after licensed.		<ul style="list-style-type: none"> Restrictions updated 	Enforcement/Legislation	Long Term
	Continue to revise standards for on road portion of driver's testing to increase time in car to include demonstrations of specific skills (i.e., left turns, merging, etc.).	DFA Driver Services	<ul style="list-style-type: none"> Standards updated 	Enforcement/Legislation	Long Term
	Revise violation penalties to include community service for younger drivers as well as monetary fine.		<ul style="list-style-type: none"> Penalties updated 	Enforcement/Legislation	Long Term

YOUNGER DRIVERS

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Examine, research, and identify best practices to reduce younger driver fatalities and serious injuries.	Research the feasibility and effectiveness of mandating driver education in schools and the relationship between fatalities rates and availability of driver education programs offered in other states.	ASP/AHSO	■ Research conducted	Data Collection/Analysis; Education/Communication	Short Term
	Research best practices which help younger drivers prepare for their written and skill license tests to inform legislative or policy remedies and development of materials for parents and younger drivers.	ASP/AHSO	■ Research conducted		
	Conduct research on requirements for vehicle marking for easy identification of intermediate drivers.	ASP, DFA Driver Services	■ Research conducted	Data Collection/Analysis	Short Term
	Conduct research to identify strong driver education and remediation programs and policies to educate for legislative changes and provide alternate solutions if legislation can not be changed or passed.		■ Research conducted	Data Collection/Analysis; Education/Communication	Mid Term
	Examine electronic delivery methods for the knowledge exam for the licensing service office and all contracted testing locations.	DFA Driver Services	■ Research conducted	Data Collection/Analysis	Mid Term
	Conduct research on legislation to allow for financial assistance for underserved populations for some portion of the driver training curriculum.		■ Research conducted	Data Collection/Analysis	Mid Term

IMPAIRED DRIVING

Safe Road Users Action Plan



STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Use Engineering Design to help impaired drivers maintain vehicles in the roadway.	Continue to implement low cost countermeasures such as shoulder and centerline rumble strips to alert drivers when leaving the roadway.	ARDOT	<ul style="list-style-type: none"> Number of countermeasures implemented 	Engineering/Infrastructure	Long Term
Make the public aware through education of the dangers and penalties involved with impaired driving.	Continue to implement national campaigns such as Drive Sober or Get Pulled Over as well as other Public Service Announcements at a local level.	ASP/AHSO	<ul style="list-style-type: none"> Campaigns implemented Number of PSAs distributed 	Education/Communication	Short Term
	Explore partnerships at the local level to educate drivers of available alternative means of transportation for impaired persons such as taxis, Uber or Lyft, etc.	ASP/AHSO	<ul style="list-style-type: none"> Number of partnerships developed Materials developed and distributed 	Funding/Collaboration; Education/Communication	Mid Term
	Continue to provide and expand education in upper elementary, middle, and high schools on the dangers of impaired driving.	ASP/AHSO	<ul style="list-style-type: none"> Number of education classes conducted statewide 	Education/Communication	Long Term
	Conduct in-person or virtual Town Hall meetings in selected cities around the state to promote alternatives to impaired driving and allow citizens to voice their concerns and ask questions.	ASP/AHSO	<ul style="list-style-type: none"> Number of meetings convened Record of meeting concerns and questions 	Education/Communication	Short Term
	Educate the public on the benefits of using ignition interlocks for those convicted of DWI.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Short Term
	Education is needed in the area of impaired driving due to the use of drugs.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Long Term
	Push the message of zero tolerance for drug-impaired driving at colleges, community centers, and with civic groups.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Short Term

IMPAIRED DRIVING

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Increase enforcement of impaired driving laws.	Encourage law enforcement to increase sobriety checkpoints around the state and make use of the "Batmobile" (Portable blood and alcohol testing vehicle).	ASP/AHSO	■ Number of sobriety checkpoints annually	Enforcement/Legislation	Mid Term
	Continue use of ignition interlock devices as mandatory for all DWI convicted persons.	ASP/AHSO	■ Number of recorded devices in use	Enforcement/Legislation	Short Term
	Conduct high visibility enforcement through Local Selective Traffic Enforcement Projects (STEPS), Statewide Selective Traffic Enforcement Project (STEP), Mini Selective Traffic Enforcement Projects (M-STEPS), Statewide Law Enforcement Liaison (LEL), Statewide In-Car Camera and Video Storage System, and saturation patrols to target areas where the most DWI incidents occur.	ASP/AHSO	■ Number of projects and saturation patrols	Enforcement/Legislation	Short Term
	Determine the feasibility of investigating alcohol involved fatal and serious injury crashes to collect information to "trace back" where the alcohol was consumed prior to crash.	ASP/AHSO	■ Study completed	Data Collection/Analysis	Mid Term
	Work with local EMS to standardize protocols regarding blood draws for fatality testing.	ADH/EMS	■ Standards published	Enforcement/Legislation	Mid Term
Work with the State Legislature to improve and strengthen impaired driving laws.	The Arkansas Impaired Driving Task Force (AIDTF) can advocate for laws that strengthen enforcement of impaired driving laws, such as possibly extending the "look-back" period for DWI convictions (currently 10 years) or increasing fines for repeat offenders and those who refuse testing.	ASP/AHSO	■ Laws passed	Enforcement/Legislation	Long Term

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Continue to support and expand DWI courts across the State.	Develop and implement additional DWI courts in jurisdictions statewide to improve adjudication of traffic laws related to impaired driving.	ASP/AHSO	<ul style="list-style-type: none"> Number of DWI courts 	Enforcement/Legislation	Long Term
	Implement laws that place limits on diversion and plea agreements.		<ul style="list-style-type: none"> Laws implemented 	Enforcement/Legislation	Long Term
	Conduct alcohol problem assessment and treatment.	ASP/AHSO	<ul style="list-style-type: none"> Assessment completed Treatment readily available to individuals in need 	Data Collection/Analysis; Enforcement/Legislation	Mid Term
	Monitor offenders closely by implementing alcohol ignition interlocks, vehicle and license plate sanctions, and intense supervision programs.		<ul style="list-style-type: none"> Ignition interlocks program implemented and progress tracked Vehicle and license plate sanctions enacted Intense supervision programs implemented and progress tracked 	Enforcement/Legislation	Long Term
	Educate judges regarding the qualifications of a Drug Recognition Expert (DRE) or an officer trained in Advanced Roadside Impaired Driving Enforcement (ARIDE).	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Mid Term
Implement a court monitoring program.	Re-establish the court monitoring program to follow DWI/DUI cases through the court process and identify gaps in prosecutorial, judicial, and law enforcement training that contribute to declining enforcement numbers and loopholes in judicial implementation of Arkansas's ignition interlock law.	ASP/AHSO	<ul style="list-style-type: none"> Program established 	Enforcement/Legislation	Mid Term
Enhance judicial education.	Provide adjudication training for approx. 100 Arkansas district judges with emphasis on impaired driving issues.	ASP/AHSO	<ul style="list-style-type: none"> Training provided 	Education/Communication	Mid Term

IMPAIRED DRIVING

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Provide laboratory drug testing equipment to law enforcement.	Purchase testing supplies and equipment such as Intoximeter Hardware, Guth Simulators, and computers.	ASP/AHSO	<ul style="list-style-type: none"> Supplies purchased 	Funding/Collaboration	Short Term
	Outsource toxicology testing of backlogged cases, validation of equipment, and purchase new toxicology analysis equipment.	ASP/AHSO	<ul style="list-style-type: none"> Number of toxicology test cases outsourced annually Number of toxicology testing equipment validated New toxicology analysis equipment purchased 	Funding/Collaboration	Short Term
	Purchase passive alcohol sensors (PAS) to detect alcohol presence in the air.	ASP/AHSO	<ul style="list-style-type: none"> Sensors purchased 	Funding/Collaboration	Short Term
Prevent excessive drinking, underage drinking, and impaired driving.	Encourage parents to talk with their children about the risks of alcohol, cannabis, and other drugs.	AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Short Term
	Continue and expand use of brief intervention and screening.	ADOH/ARDOT	<ul style="list-style-type: none"> Number of brief interventions conducted annually Number of screenings conducted annually 	Enforcement/Legislation	Short Term
	Conduct well-publicized compliance checks of alcohol retailers to reduce sales to underage persons.	ABC	<ul style="list-style-type: none"> Number of checks completed 	Enforcement/Legislation	Mid Term
	Conduct well-publicized enforcement aimed at underage drinking parties.	AACP	<ul style="list-style-type: none"> Materials developed and distributed 	Enforcement/Legislation	Mid Term
	Continue statewide media campaigns to prevent underage use of alcohol and/or cannabis, prevent youth from riding with impaired drivers, and reduce overall misuse/abuse by adult consumers.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Mid Term

DISTRACTED DRIVING

Safe Road Users Action Plan



Strategy	Action	Agency	Performance Measures	Implementation Area	Timeframe
Increase the use of warning signs in problem areas to reduce distracted driving incidences.	Continue use of dynamic message boards when approaching work zones or congested areas.	ARDOT	<ul style="list-style-type: none"> Number of dynamic message boards 	Engineering/Infrastructure; Enforcement/Legislation	Mid Term
	Integrate distracted driving with the D.A.R.E. program.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication; Enforcement/Legislation	Mid Term
	Continue the use of Public Service Announcements in the media regarding distracted driving.	ASP/AHSO	<ul style="list-style-type: none"> Number of PSAs broadcasted 	Education/Communication	Mid Term
Increase enforcement of distracted driving laws.	Increase use of low profile vehicles in distracted driving enforcement.	ASP	<ul style="list-style-type: none"> Number of low profile vehicles added to fleet 	Enforcement/Legislation	Mid Term
	Increase the number of points on driving records for distracted driving violations.	DFA	<ul style="list-style-type: none"> Driving violations updated 	Enforcement/Legislation	Mid Term
	Initiate an outreach to judges concerning being tough on distracted driving violators.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication; Funding/Collaboration	Mid Term
	Enforce the state's distracted driving law by conducting high visibility cellphone/text messaging enforcement through Local Selective Traffic Enforcement Projects (STEPs) and Statewide Selective Traffic Enforcement Project (STEP).	ASP/AHSO	<ul style="list-style-type: none"> Enforcement conducted Number of violations recorded in eCrash 	Enforcement/Legislation	Mid Term
	Dedicate resources to publicize the state's distracted driving law including annual enforcement/media campaigns, distribution of educational materials, and other initiatives.	AHSO	<ul style="list-style-type: none"> Enforcement conducted Media campaigns conducted Materials developed and distributed 	Funding/Collaboration	Mid Term

DISTRACTED DRIVING

Strategy	Action	Agency	Performance Measures	Implementation Area	Timeframe
Include distracted and drowsy driving in the statewide communications campaign and expand education efforts	Increase statewide public information and education to promote adherence to texting and cell phone laws.	AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Mid Term
	Identify and implement ways to promote continued education on distracted driving, culture change, and ensure school-based programs are peer-led and involve parents.	AHSO	<ul style="list-style-type: none"> Research collected Materials developed and distributed 	Data Collection/Analysis; Education/Communication	Mid Term
	Post signs and distribute educational materials at points of entry to the state (i.e., state borders, airports and where people rent vehicles) after new distracted driving law enacted.	ARDOT, AHSO	<ul style="list-style-type: none"> Signs posted Materials developed and distributed 	Education/Communication	Mid Term
	Establish a driving training program for younger drivers that discusses the dangers of distracted driving and promote the use of distracted driving lesson plans to be used by teachers for grades 5-12.	AHSO	<ul style="list-style-type: none"> Program established Lesson plans developed and distributed 		Long Term
	Support programs for children of driving age based on evidence-based behavior change frameworks, such as Positive Community Norms and the Social Ecological Model.	Arkansas Children's Hospital Injury Prevention Center	<ul style="list-style-type: none"> Number of programs supported 		Long Term
	Develop educational tools for law enforcement on how to identify drivers violating state distracted driving laws, and continue to educate all emergency responders about the dangers of distracted driving.	AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Education/Communication	Mid Term
Conduct research to support informed decisions about distracted and drowsy driving.	Conduct surveys to refine distracted and drowsy driving messages geared toward specific audiences.	AHSO	<ul style="list-style-type: none"> Surveys conducted and results analyzed 	Data Collection/Analysis	Mid Term
	Research what role the built environment plays in the frequency and severity of distracted driving crashes.	ARDOT Traffic Safety Section	<ul style="list-style-type: none"> Research conducted 	Data Collection/Analysis	Mid Term

Strategy	Action	Agency	Performance Measures	Implementation Area	Timeframe
Conduct research to support informed decisions about distracted and drowsy driving (continued).	Research what role the legislation and driver education plays in the frequency and severity of distracted driving crashes.		■ Research conducted	Data Collection/Analysis	Mid Term
	Use innovative solutions (such as through mobile phone detection camera technology) to collect and present findings and case studies of distracted driving to support changes in distracted driving policy and legislation.		■ Research conducted	Data Collection/Analysis	Mid Term
	Review the process of recording observed driver behavior on the State's crash report and encourage law enforcement to record if a driver shows signs of driving while drowsy to assist with data collection and analysis.		■ Process reviewed and updated	Data Collection/Analysis; Education/Communication	Mid Term
	Conduct a research project to document the distracted driving usage in the State to present to Legislature to push the issue of distracted driving laws and enforcement.		■ Research conducted	Data Collection/Analysis	Mid Term
Increase awareness of the risks of distracted and drowsy driving while implementing multicultural engagement.	Conduct statewide road education campaigns focused on the dangers of driving distracted which includes using local law enforcement (hometown heroes) to address the diversity of the project/enforcement area in the appropriate cultural context.	AHSO	■ Number of campaigns conducted	Education/Communication	Mid Term
	Implement community level projects that promote culture change and utilize local law enforcement (hometown heroes) to push local awareness of distracted driving dangers.	AHSO	■ Projects conducted	Education/Communication	Mid Term
	Encourage employers and other agencies to adopt anti-distracted driving policies that are more restrictive than the law, such as also banning the use of hands-free devices while driving. Encourage the implementation of employer-based programs that prevent distracted and drowsy driving, especially among employers with fleets.		■ Employer education and programs established	Education/Communication; Funding/Collaboration	Mid Term

DISTRACTED DRIVING

Strategy	Action	Agency	Performance Measures	Implementation Area	Timeframe
Increase awareness of the risks of distracted and drowsy driving while implementing multicultural engagement (continued).	Educate emergency responders, such as EMS and police, about the dangers of distracted and drowsy driving.	AHSO	■ Education conducted	Education/Communication	Mid Term
	Educate commercial vehicle and fleet drivers about the dangers of distracted and drowsy driving.		■ Education conducted	Education/Communication	Mid Term
	Expand specialized impaired driving training for law enforcement officers to assist in identification and apprehension of impaired drivers through Standardized Field Sobriety Test (SFST)/Traffic Occupant Protection Strategies (TOPS) training, Drug Recognition Expert (DRE) training, SFST training for law enforcement officers, Advanced Roadside Impaired Driving Enforcement (ARIDE), and recognizing signs of drowsy drivers.	AHSO	■ Number of trainings provided	Enforcement/Legislation	Mid Term
Improve data collection.	Increase training for law enforcement to record driver behavior characteristics (texting, etc.) and related observations on crash report forms and citations, and ensure these characteristics can be recorded into the eCrash database.	AHSO	■ Number of trainings provided	Education/Communication, Data Collection/Analysis	Mid Term
	More clearly define distracted driving in Arkansas for more accurate data analysis by conducting research and dialog with law enforcement to understand the process of incident reporting. Use this research to present to Legislators to push the case for enhancing distracted driving laws.		■ Research conducted	Data Collection/Analysis; Enforcement/Legislation	Mid Term

NON-MOTORISTS

Safe Road Users **Action Plan**



STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Continue to improve statewide infrastructure and design to protect non-motorists.	Improve existing bicycle and pedestrian accommodation on state highways and local roads following the most current AASHTO guidance as appropriate and in accordance with FHWA guidance.	ARDOT Bike/ Ped Coordinator and local agencies	<ul style="list-style-type: none"> Number of existing accommodations upgraded (state) Number of participating jurisdictions Number of projects and highway miles where shoulders were widened on overlay projects 	Engineering/Infrastructure	Mid Term
	Consider non-motorists and ADA design accommodations in a proportional manner during the planning stages of future projects at the state, regional, and local jurisdiction levels in accordance with the current Arkansas Bicycle and Pedestrian Transportation Plan. Present the planned traffic flow for all modes of transportation within the given design (including non-motorists).	ARDOT Roadway Design and local agencies	<ul style="list-style-type: none"> Report completed annually that tracks workflow within ARDOT to determine if non-motorists and ADA design accommodations are always considered during the project planning stage Report completed annually that tracks workflow to ensure planned traffic flow for all modes are presented in the design phase of future projects. 	Engineering/Infrastructure	Mid Term
	Continue to work with MPOs and jurisdictions to identify high risk locations for non-motorists on a regional/local/corridor level.	ARDOT Traffic Safety Section	<ul style="list-style-type: none"> Number of collaborative projects Number of high risk locations identified Number of participating jurisdictions 	Data Collection/Analysis	Mid Term

NON-MOTORISTS

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Continue to improve statewide infrastructure and design to protect non-motorists (continued).	Provide Road Safety Audit (RSA) training and enhance coordination efforts among regional/local/MPOs to complete audits specific to non-motorists.	ARDOT Maintenance Division, Traffic Safety Section and FHWA	<ul style="list-style-type: none"> Number of personnel Trained Number of participating Jurisdictions Number of RSAs conducted Shared findings for each RSA conducted 	Engineering/Infrastructure	Mid Term
	Use the RSA conducted in the "High Five" Occupant Protection Pilot Program to complete non-motorized user audits and enhance coordination efforts among regional, local and MPO agencies.	ARDOT, AHSO and local agencies	<ul style="list-style-type: none"> Number of participating Jurisdictions Number of RSAs conducted Shared findings for each RSA conducted 	Engineering/Infrastructure	Short Term
	Coordinate with local jurisdictions and incorporate safe non-motorists and ADA crossings into highway projects that are compatible with local Master Plans in accordance with ARDOT's bicycle accommodation policy.		<ul style="list-style-type: none"> Number of crossings incorporated Number of participating Jurisdictions Number of projects that include crossings 	Engineering/Infrastructure	Long Term
	Conduct a systemic analysis using risk factors based on MUTCD established criteria (i.e., speed, number of lanes, presence of a median, crossing distance, etc.) and other available data. Gather research on relevant design guidance to suggest infrastructure changes that reflect these findings.	ARDOT Traffic Safety Section	<ul style="list-style-type: none"> Study completed Report with suggested countermeasures at identified locations distributed 	Data Collection/Analysis, Engineering/Infrastructure	Mid Term
	Consider enhancing crosswalks for controlled and uncontrolled crossings, as part of the project development process for state and local highway projects. Consider pedestrian refuge islands and corner bump-outs when state highway or local projects are considered for road diets or involve reconstruction.	ARDOT and local agencies	<ul style="list-style-type: none"> Tracking to show this consideration as part of the decision making process for projects with justification Number of enhancements made Justification when enhancements are not made and criteria used documented 	Engineering/Infrastructure	Mid Term

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Continue to implement countermeasures, programs, and policies to protect non-motorists.	Utilize FHWA Safe Transportation for Every Pedestrian (STEP) and Proven Safety Countermeasures initiatives to systemically implement countermeasures with known safety benefits at both uncontrolled and signalized crossing locations. Example countermeasures include RRFB's, leading pedestrian intervals, crosswalk visibility enhancements, raised crosswalks, pedestrian refuge islands, PHB's, and road diets.	ARDOT and local agencies	<ul style="list-style-type: none"> Number of countermeasures implemented Number of locations Number of participating jurisdictions 	Engineering/Infrastructure	Mid Term
	Research and consider the implementation of the concept of Complete Streets.	ARDOT and local agencies	<ul style="list-style-type: none"> Research of Complete Streets completed Number of Complete Street projects implemented 	Engineering/Infrastructure	Mid Term
	Continue to refine and implement the recommendations from the Arkansas Bicycle and Pedestrian Transportation Plan and implement best practices to improve non-motorists safety.	ARDOT Roadway Design, Maintenance, Construction, etc.	<ul style="list-style-type: none"> Plan updated Percent of each milestone completed 	Engineering/Infrastructure, Funding/Collaboration	Mid Term
	Revise existing state bicycle/pedestrian accommodation policy to align with most recent version of statewide Bicycle/Pedestrian plan and other relevant federal and accepted industry guidance as referenced. Include basic design guidance based on the MUTCD engineering conventions relevant federal and accepted industry guidance.	ARDOT Bike/ Ped Coordinator	<ul style="list-style-type: none"> Policy reviewed and revised 	Engineering/Infrastructure; Enforcement/Legislation	Mid Term
	Continue to seek funding for and improve ongoing non-motorists transportation programs throughout the State. Local Jurisdictions, MPOs, and other transportation partners will explore the use of innovative or non-traditional funds in collaboration with state and federal agencies for local projects that address the needs of the community. This includes review and application of new BIL provisions and programs that address non-motorists needs.	ARDOT Bike/ Ped Coordinator and local agencies	<ul style="list-style-type: none"> Number of unique funding sources identified Amount of funding distributed Number of programs established Number of collaborative projects 	Funding/Collaboration	Long Term

NON-MOTORISTS

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Continue to implement countermeasures, programs, and policies to protect non-motorists (continued).	Encourage local and public agencies which develop non-motorists planning documents to include rules of the road and safety strategies.	ARDOT Bike/ Ped Coordinator, AHSO	<ul style="list-style-type: none"> Number of jurisdictions that publish rules and strategies in planning documents. Annual survey to collect data and link to POC or public facing plans completed. 	Funding/Collaboration, Enforcement/Legislation	Mid Term
	Complete the vulnerable road user assessment as outlined in Federal Guidance that is developed based on the Bipartisan Infrastructure Law (BIL).	ARDOT Traffic Safety Section and ARDOT Bike/Ped Coordinator	<ul style="list-style-type: none"> Assessment completed 	Education/Communication	Short Term
	Analyze non-motorized crash data to identify crash trends and high risk areas. Include equity considerations in non-motorized crash data analysis and future safety projects.	ARDOT Traffic Safety Section	<ul style="list-style-type: none"> Number of studies provided that include equity considerations Number of unique requests for information Number of Projects Implemented that include Equity considerations 	Education/Communication	Short Term
	Design and implement pedestrian safety zone program in high crash areas.	ARDOT and local agencies	<ul style="list-style-type: none"> Research on the success of pedestrian safety zones in other areas completed High pedestrian crash areas identified and locations for pedestrian safety zones prioritized Number of unique safety zones implemented Number of jurisdictions with pedestrian safety zones 		Long Term
	Utilize safety research and educational campaigns to monitor and enhance non-motorist safety.	ARDOT and other organizations	<ul style="list-style-type: none"> Research implemented 	Engineering/Infrastructure; Research and Education	Mid Term

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Focus education efforts aimed at safety and awareness of laws regarding non-motorist.	Conduct research on existing laws in other states requiring bicycle helmet use for children and adults.		<ul style="list-style-type: none"> Report on findings completed 	Enforcement/Legislation	Short Term
	Continue to provide public service messages to increase awareness of the dangers to non-motorists traffic on high volume/speed roadways & in school zones, and to remind drivers of safe driver behaviors and following laws intended to protect non-motorists.	ASP/AHSO	<ul style="list-style-type: none"> Number and types of messages heard/viewed by media type, number of impressions/spots Survey(s) conducted to learn about messages, knowledge and changes in behavior 	Education/Communication	Short Term
	Provide training to law enforcement on bicycle/pedestrian laws.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed Number of jurisdictions that participate Number of LEOs trained 	Education/Communication, Enforcement/Legislation	Mid Term
	Educate law enforcement on accurately identifying non-motorized crashes on the crash report.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed Number of trainings conducted Number of LEOs trained Number of Jurisdictions participating 	Education/Communication, Data collection/Analysis	Mid Term
	Expand educational campaigns and training programs for children focusing on bicyclist and pedestrian skill education, safety-related training, helmet use, etc.	AHSO and local agencies	<ul style="list-style-type: none"> Number of promotions and programs implemented Number of jurisdictions participating Number of children receiving information and/or training 	Education/Communication	Mid Term

NON-MOTORISTS

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Focus education efforts aimed at safety and awareness of laws regarding non-motorist (continued).	Distribute educational brochures and materials with identified Safe Routes to Schools.	AHSO and local agencies	<ul style="list-style-type: none"> Materials developed Number of schools and/or organizations receiving materials Number of jurisdictions participating 	Education/Communication	Mid Term
	Conduct safety campaigns to promote the use of active lights, reflectors, and retroreflective clothing among pedestrians and bicyclists.	AHSO and local agencies	<ul style="list-style-type: none"> Campaign materials developed Number of campaigns conducted Number of jurisdictions participating 	Education/Communication	Mid Term
Improve non-motorist enforcement on existing laws and corrective behaviors.	Enforce existing state laws such as the Arkansas 3 Foot Law.	ASP and local agencies	<ul style="list-style-type: none"> Number of violations reported in eCrash 	Enforcement/Legislation	Short Term
	Use enforcement measures to educate non-motorists when stopped by law enforcement.	ASP and local agencies	<ul style="list-style-type: none"> Materials developed Number of ped/bike stops where citations were issued Number of ped/bike stops where education was provided 	Enforcement/Legislation	Short Term
	Provide crash studies to local law enforcement to aid with target enforcement in problem areas.	ARDOT Traffic Safety Section	<ul style="list-style-type: none"> Number of jurisdictions receiving crash studies 	Enforcement/Legislation, Data Collecting/Analysis	Mid Term

LARGE COMMERCIAL MOTOR VEHICLES

Safe Vehicles Action Plan



STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Reduce the risk of CMV crashes due to driver fatigue.	Continue efforts to open/re-open truck parking areas and spaces on public and/or private facilities.	ARDOT	<ul style="list-style-type: none"> Number of new parking areas opened/re-opened 	Engineering/Infrastructure	Short Term
	Research and review information on available truck parking applications and how they can be widely used in Arkansas.	ARDOT, ATA	<ul style="list-style-type: none"> Research conducted 	Education/Communication	Short Term
	Review truck parking need assessments that have been performed to identify corridors/areas of focus and other opportunities to consider.	ARDOT	<ul style="list-style-type: none"> Review completed Number of new opportunities identified 	Education/Communication	Short Term
	Increased Electronic logging device (ELD) trainings.	ATA, AHP	<ul style="list-style-type: none"> Number of trainings conducted 	Education/Communication	Short Term
Encourage rulemaking that requires new technology to increase safety in large commercial motor vehicles.	Support additional research and potential future rulemaking for proven safety technologies (lane departure, collision mitigation system, rear end collisions, etc.).	ARDOT	<ul style="list-style-type: none"> Research conducted Resources provided to support proposed rulemaking 	Education/Communication; Funding/Collaboration	Mid Term
	Explore the use of in-vehicle technologies to send work zone safety messages to CMV drivers.	ARDOT	<ul style="list-style-type: none"> Analysis conducted 	Education/Communication	Mid Term
Provide education and outreach to the public and industry on how to safely operate in and around commercial motor vehicles.	Continue promoting how to safely "Share the Road" program with CMVs.	ASP/AHSO, ATA	<ul style="list-style-type: none"> Number of materials distributed 	Education/Communication	Short Term
	Encourage the inclusion of CMV related topics in driver education such as "driving around a CMV" lessons in student driver manuals.	ASP/AHSO	<ul style="list-style-type: none"> Student driver manuals updated 	Education/Communication; Enforcement/Legislation	Short Term
	Collaborate with the safety partners including the FMCSA to present information to the public and the transportation industry related to the CSA initiative.	AHP, FMCSA	<ul style="list-style-type: none"> Number of presentations or outreach conducted 	Funding/Collaboration	Short Term
	Continue hosting trucker appreciation events, conduct free educational seminars statewide to motor carriers and their respective drivers.	ATA	<ul style="list-style-type: none"> Number of events hosted Number of seminars conducted 	Education/Communication	Short Term

LARGE COMMERCIAL MOTOR VEHICLES

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Encourage occupant protection usage in CMVs.	Add CMV focus to "Click It or Ticket" type campaigns.	ASP/AHSO	<ul style="list-style-type: none"> Number of campaigns conducted with CMV messaging 	Enforcement/Legislation	Short Term
Identify high crash corridors and develop engineering solutions to reduce CMV crashes.	Identify and report high-crash corridors for CMV crashes each year and provide information to safety partners.	ARDOT	<ul style="list-style-type: none"> Data and map of high crash corridors produced Information distributed 	Data Collection/Analysis; Funding/Collaboration	Mid Term
	Invite trucking industry stakeholders to participate in an annual freight forum to discuss new technologies, policies, and strategies for the CMV Focus Area.	ARDOT, ATA	<ul style="list-style-type: none"> Number of stakeholder participated in the TMP development process 	Funding/Collaboration	Short Term
	Implement appropriate recommended actions from the CMV Safety in CMVS Work Zone Action Plan.	ARDOT	<ul style="list-style-type: none"> Number of actions implemented 	Education/Communication; Enforcement/Legislation; Engineering/Infrastructure	Mid Term
	Identify and deploy engineering solutions (e.g., interactive truck rollover and curve warning signage) and best practices to improve commercial motor vehicle safety, particularly at work zones, intersections, interchanges, and entry/exit ramps.	ARDOT	<ul style="list-style-type: none"> Engineering solutions and best practices identified Number of engineering solutions and best practices deployed Crash frequency reduced in locations implemented 	Engineering/Infrastructure; Data Collection/Analysis	Long Term
Increase CMV enforcement of safety violations.	Investigate multi-state/regional Law Enforcement Officer (LEO) partnerships at points-of-entry to assist in CMV enforcement efforts.	ARDOT, AHP	<ul style="list-style-type: none"> Study completed 	Education/Communication; Enforcement/Legislation	Short Term
	Conduct driver or vehicle inspections to ensure CMVs are in proper working order and drivers are properly credentialed and fit for duty.	AHP	<ul style="list-style-type: none"> Number of driver inspections conducted Number of vehicle inspections conducted 	Enforcement/Legislation	Mid Term

LARGE COMMERCIAL MOTOR VEHICLES

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Increase CMV enforcement of safety violations (continued).	Develop multi-agency CMV enforcement task forces throughout the state to enhance CMV safety in work zones and high CMV crash areas.	AHSO, AHP, FMCSA	<ul style="list-style-type: none"> Number of CMV task forces working in work zones and/or high crash areas Crash frequency reduced in high crash area 	Enforcement/Legislation; Data Collection/Analysis	Long Term
	Utilize data-driven approach to strengthen CMV enforcement on high speed corridor.	ARDOT, AHSO	<ul style="list-style-type: none"> Data-driven tools developed Data-driven tools and related training deployed 	Data Collection/Analysis; Enforcement/Legislation	Mid Term
	Conduct on- or off-site Safety Audits with new carriers to ensure they understand safe behaviors on the roadway and the federal and state regulations that motor carriers are required to follow.	AHP	<ul style="list-style-type: none"> Number of safety audits conducted on new carriers 	Enforcement/Legislation	Mid Term
	Continue monitoring traffic enforcement efforts through the E-Citation system to ensure effectiveness, consistency, and correlation to FMCSA's national traffic enforcement priority.	AHP	<ul style="list-style-type: none"> Annual analysis of CMV citation data conducted 	Data Collection/Analysis; Enforcement/Legislation	Short Term
Increase the number of enforcement personnel trained to enforce CMV-specific laws.	Offer CMV enforcement training for local law enforcement officers.	ARDOT, AHP	<ul style="list-style-type: none"> Number of trainings conducted Number of LEOs completing training 	Education/Communication; Enforcement/Legislation	Short Term
	Allocate resources for additional enforcement officers to conduct special enforcement per districts.	ASP	<ul style="list-style-type: none"> Number of special enforcement conducted per districts annually 	Enforcement/Legislation	Long Term



MOTORCYCLES

Safe Vehicles Action Plan

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Encourage helmet and high visibility clothing usage and safe motorcycle riding behavior, and educate motorists on sharing the road.	Educate motorcyclists through the media and awareness/outreach efforts of the importance of helmet usage, wearing highly visible clothing, and riding unimpaired.	ASP/AHSO	<ul style="list-style-type: none"> Media materials developed Annual gross impression (number of people reached) 	Education/Communication	Short Term
	Support efforts to pass a universal helmet law requiring all riders, regardless of age or motorcycle type, to wear a USDOT-compliant helmet.	ARDOT, AHSO	<ul style="list-style-type: none"> Educational information/materials provided to legislators Legislation passed 	Enforcement/Legislation	Mid Term
	Conduct check points and testing for impaired motorcycle operators.	ASP	<ul style="list-style-type: none"> Number of check points conducted annually Number of tests for impairment conducted annually 	Enforcement/Legislation	Short Term
	Educate motorists on sharing the road with motorcycles including being courteous and more aware of their surroundings.	ASP/AHSO	<ul style="list-style-type: none"> Education materials developed Number of materials distributed annually 	Education/Communication	Short Term
Encourage motorcycle safety training.	Explore legislation to require motorcycle safety training as a pre-requisite for a Class M (motorcycle) license.	ASP/AHSO	<ul style="list-style-type: none"> Educational information/materials provided to legislators Safety training legislation passed 	Education/Communication	Short Term
	Encourage legislation to mandate that a portion of motorcycle registration fees be used to fund a state motorcycle rider training program.	ASP/AHSO	<ul style="list-style-type: none"> Educational information/materials provided to legislators Legislation changes made Training program funded with registration fees 	Enforcement/Legislation; Funding/Collaboration	Mid Term

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Encourage motorcycle safety training (continued).	Improve the quality of the skill test to obtain a Class M (motorcycle) license.	AHSO, DMV	<ul style="list-style-type: none"> Research of state motorcycle license skill test requirements conducted Feasibility of more rigorous skill test exercises (e.g., high-speed braking, emergency braking, etc.) determined 	Education/Communication	Mid Term
	Develop partnerships with local companies selling motorcycle related equipment and insurance companies to incentivize motorcyclists to take training and buy and wear safety equipment.	AHSO	<ul style="list-style-type: none"> Number of partnerships developed Number of companies providing incentives 	Funding/Collaboration	Short Term
Deploy motorcycle friendly roadway design and maintenance practices.	Provide full paved shoulders to accommodate roadside motorcycle recovery and breakdowns.	ARDOT	<ul style="list-style-type: none"> Miles of fully paved shoulders installed annually 	Engineering/Infrastructure	Long Term
	Maintain roadway surfaces in work zones, as required in the Standard Specifications for Highways Construction guide, to facilitate safe passage of motorcycles.	ARDOT	<ul style="list-style-type: none"> Crash frequency due to work zone surfaces reduced 	Engineering/Infrastructure; Data Collection/Analysis	Long Term
	Provide advance warning signs to alert motorcyclists of reduced traction and irregular roadway surfaces.	ARDOT	<ul style="list-style-type: none"> Number of advance warning signs installed annually Crash frequency reduced 	Engineering/Infrastructure; Data Collection/Analysis	Long Term
	Remove debris from the roadway and roadside that may be hazardous for motorcyclists.	ARDOT and locals	<ul style="list-style-type: none"> Crash frequency due to roadway debris reduced 	Engineering/Infrastructure; Data Collection/Analysis	Short Term
Identify high crash corridors and develop engineering solutions to reduce motorcycle crashes.	Identify locations/corridors with high numbers and/ or percentages of motorcycle fatal and serious injury crashes.	ARDOT	<ul style="list-style-type: none"> High crash locations/ corridors identified 	Data Collection/Analysis	Mid Term
	Implement appropriate low-cost design and maintenance treatments.	ARDOT	<ul style="list-style-type: none"> Crash frequency reduced 	Engineering/Infrastructure; Data Collection/Analysis	Mid Term



CONNECTED AND AUTOMATED VEHICLES

Safe Vehicles Action Plan

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Research needed CAV standards and specifications for safe operations.	Mainstream CAVs into ARDOT standards and specifications, guides, and manuals.	ARDOT	<ul style="list-style-type: none"> Number of policy documents and resources that address CAVs 	Enforcement/Legislation	Short Term
	Assess infrastructure elements, such as signing and striping and the potential need for roadside communication equipment, to determine if they are conducive to enabling and supporting the operation of CAVs.	ARDOT	<ul style="list-style-type: none"> Assessment completed 	Education/Communication/Infrastructure	Mid Term
Evaluate the benefits and impacts of CAV policies nationwide while encouraging CAV data sharing partnerships.	Incorporate CAV information into traffic citation and crash reports, including level, Operational Design Domain (ODD), and if the vehicle was under driver or vehicle control.	ARDOT, ASP/AHSO	<ul style="list-style-type: none"> Collaborate with Traffic Records Coordinating Committee (TRCC) partners on revisions to the citation and crash report CAV data fields incorporated in traffic citation and crash report 	Data Collection/Analysis Funding/Collaboration	Long Term
	Evaluate licensing and registration requirements in place in other states to assess the intended outcomes and whether these policies are achieving or expected to achieve those outcomes.	ARDOT	<ul style="list-style-type: none"> Research conducted 	Education/Communication	Mid Term
	Identify data needs and opportunities to exchange data.	ARDOT, ASP/AHSO	<ul style="list-style-type: none"> Collaborate with TRCC partners to identify needs and opportunities Data needs identified Number of opportunities identified 	Funding/Collaboration; Education/Communication	Mid Term
	In the event of a crash, assess how law enforcement, insurers, CAVs, and other third parties can share data and how that data could be beneficial for crash investigation and assigning responsibility.	ARDOT	<ul style="list-style-type: none"> Study conducted 	Education/Communication/ Data Collection	Mid Term

CONNECTED AND AUTOMATED VEHICLES

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Promote and expand CAV awareness and education.	Develop and expand programs to educate owners and operators of Level 1-3 vehicles regarding the capabilities and limitations of the vehicles they drive and their responsibilities when operating those vehicles.	ARDOT	<ul style="list-style-type: none"> Number of programs providing CAV education Number of new CAV programs developed 	Education/Communication	Long Term
	Educate the public on how and where Level 4 and 5 AVs will be deployed, how they operate, and what to expect from AVs.	DPS	<ul style="list-style-type: none"> Materials developed Materials distributed 	Education/Communication	Long Term
	Ensure driver education instructors are fully informed about Advanced Driver Assistance Systems (ADAS)/CAV features and include this in their lesson plans.	DPS	<ul style="list-style-type: none"> Instructors educated Lesson plans updated 	Education/Communication	Short Term
Prepare agency staff and law enforcement to support the safe operations of CAV.	Develop training programs for the deployment of CAV technology and conduct training sessions with ARDOT, local infrastructure maintenance personnel, and law enforcement personnel.	ARDOT	<ul style="list-style-type: none"> Number of programs developed Number of personnel trained 	Education/Communication	Long Term
	Assess, align, and build the organizational capacity to prepare for CAVs within existing organizational structures.	ARDOT	<ul style="list-style-type: none"> Study completed Organizational structures aligned Capacity built 	Education/Communication; Funding/Collaboration	Mid Term
Research needed changes and updates to laws and regulations.	Identify regulatory barriers to the safe and effective operation of mobility on demand service that include CAVs.	ARDOT	<ul style="list-style-type: none"> Barriers identified 	Education/Communication	Short Term
	Evaluate AV-related laws and regulations in other states and assess the intended outcomes and whether these laws/regulations are achieving or expected to achieve those outcomes.	ARDOT, ASP/AHSO, DMV	<ul style="list-style-type: none"> Study completed 	Funding/Collaboration; Education/Communication	Mid Term
	Determine whether traffic law changes or exemptions are needed to enable the safe commercial deployment of CAVs.	ARDOT/DPS	<ul style="list-style-type: none"> Study completed 	Education/Communication	Mid Term



ROADWAY DEPARTURE

Safe Roads Action Plan

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Prevent roadway departures.	Implement applicable FHWA Proven Safety Countermeasures and Every Day Counts initiatives that address roadway departure crashes.	ARDOT and locals	<ul style="list-style-type: none"> Number of countermeasures implemented 	Engineering/Infrastructure	Long Term
	Approve the new Rumble Strip Policy and continue increased use of shoulder rumble strips/stripes. Further implement centerline rumble strips especially in rural 2-lane high speed roadways.	ARDOT	<ul style="list-style-type: none"> Rumble Strip Policy approved Miles of rumble strips 	Enforcement/Legislation; Engineering/Infrastructure	Mid Term
	Provide minor shoulder widening in cost effective locations.	ARDOT	<ul style="list-style-type: none"> Miles of shoulders improved 	Engineering/Infrastructure	Mid Term
	Upgrade signs and pavement markings to meet current standards (MUTCD).	ARDOT and locals	<ul style="list-style-type: none"> Number of upgrades 	Engineering/Infrastructure	Long Term
	Utilize techniques to reduce edge drop-offs (i.e., safety edge). Review surrounding State safety edge policies and develop a safety edge policy.	ARDOT	<ul style="list-style-type: none"> Best practice review conducted Safety Edge Policy developed Projects completed 	Engineering/Infrastructure; Data Collection/Analysis	Long Term
	Develop low-cost systemic horizontal curve program that includes countermeasures such as improved signing and striping, HFST, clear zone improvements, lighting, minor shoulder widening, safety edge, etc. Implement findings from the Abley pilot program to examine the possibilities of using this product for analyzing horizontal curves.	ARDOT	<ul style="list-style-type: none"> Recommendations from Abley pilot program documented Projects completed 	Data Collection/Analysis; Engineering/Infrastructure	Long Term
	Continue pavement friction improvement efforts. Evaluate the performance of installed friction treatments and associated crash reductions. Study the use of Continuous Pavement Friction Method (CPFM) for possible implementation.	ARDOT	<ul style="list-style-type: none"> Study completed Miles Implemented 	Engineering/Infrastructure; Data Collection/Analysis	Long Term

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Prevent roadway departures (continued).	Research and analyze road inventory data to create blueprint for horizontal curve studies.	ARDOT	■ Locations analyzed	Engineering/Infrastructure Research/Education	Mid Term
	Research and analyze implementation of Mumble Stripes and include in RS policy update.	ARDOT	■ Mumble Research Completed	Engineering/Infrastructure Research/Education	Mid Term
Mitigate consequences of roadway departures.	Implement findings from the CMV Median Barrier Study and continue to install barriers (rigid, flexible and semi-rigid).	ARDOT	■ Projects completed	Engineering/Infrastructure	Long Term
	Study ROR tree crashes and consider development of tree removal safety projects.	ARDOT	■ Study completed	Data Collection/Analysis	Long Term
	Conduct research on best practices to reduce roadway departure crashes using the Safe System Approach (SSA) and implement the recommendations to improve roadway design and safety projects	ARDOT	■ Research conducted ■ Projects completed that integrate the SSA	Data Collection/Analysis; Engineering/Infrastructure	Long Term
	Continue to implement cost-effective projects identified in the cable median study and the guard rail study to mitigate consequences of roadway departure. Upgrade guardrail to current standards and replace existing barriers that are damaged or non-functional, and examine guardrail and other assets' repair policy, including the repair vs. replace policy.	ARDOT	■ Research on repair vs replace policy conducted ■ Number of projects completed	Engineering/Infrastructure	Mid Term
	Utilize safety research and educational campaigns to install cushioning systems for motorcycles and analyze crash data.	ARDOT	■ Research for Guardrail Cushioning Systems Completed	Engineering/Infrastructure Research/Education	Mid Term
Increase education regarding cable median barriers and rumble strips.	Continue to provide education to law enforcement and EMS regarding breaching cable median barriers in crash situations.	ARDOT	■ Materials developed and distributed	Education/Communication	Short Term
	Continue to educate public regarding use and purpose of shoulder and centerline rumble strips.	ARDOT	■ Materials developed and distributed	Education/Communication	Short Term
Increase enforcement in problem areas to reduce roadway departure crashes.	Utilize eCrash reporting data to identify locations with a high number or percent of roadway departure crashes and increase enforcement on the identified corridors.	ASP/AHSO	■ Reduction in crash frequency ■ Reduction in crash severity ■ Enforcement conducted	Data Collection/Analysis Enforcement/Legislation	Mid Term

ROADWAY DEPARTURE

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Hold road safety audits to address areas with high roadway departure crashes.	Promote using multi-disciplinary Road Safety Audit (RSA) programs to target high crash locations and corridors. Also consider RSA's that use a systemic approach.	ARDOT	<ul style="list-style-type: none"> ■ RSAs conducted 	Data Collection/Analysis Engineering/Infrastructure	Mid Term
Monitor and track objects to improve roadway departure safety.	Continue to build a database to track objects within the clear zone and state right-of-way to support development of programs and projects to reduce the severity of roadway departure crashes.	ARDOT	<ul style="list-style-type: none"> ■ Database created ■ Data collection started 	Data Collection/Analysis	Mid Term
	Create training program for Transportation Managers on how to identify and locate objects and encroachments within clear zone and state right-of-way.	ARDOT	<ul style="list-style-type: none"> ■ Training course established ■ Number of completed courses 	Education/Communication	Mid Term
	Increase distance to roadside features on high-speed roadways by removing/ relocating fixed objects, such as trees and utility poles, in the clear zone. Work with districts and locals to remove or shield fixed objects currently inside state right-of-way/clear zone.	ARDOT and locals	<ul style="list-style-type: none"> ■ Projects completed ■ Number of objects removed inside clear zone 	Engineering/Infrastructure	Long Term
Identify and upgrade at-risk roads for roadway departures.	Develop systemic safety programs that apply safety treatments based on risk factors, network screening, and data collection. Use program findings to prioritize at-risk roadway segments.	ARDOT	<ul style="list-style-type: none"> ■ Program developed ■ At-risk roadway segments identified ■ Projects completed 	Data Collection/Analysis; Engineering/Infrastructure	Long Term
Provide assistance to counties and locals to improve roadway departure safety.	Encourage and assist local jurisdictions and metropolitan planning organizations in development of Local Road Safety Plans and implementation of strategies that reduce Roadway Departure crashes.	ARDOT	<ul style="list-style-type: none"> ■ Number of Local Road Safety Plans developed and implemented ■ Projects completed 	Funding/Collaboration; Data Collection/Analysis; Engineering/Infrastructure; Enforcement/Legislation	Mid Term
Review policy and standards for roadway departure crashes.	Continue to refine standards for lane widths, shoulder widths, rumble strips, and end condition combinations to reduce crashes.	ARDOT	<ul style="list-style-type: none"> ■ Condition combinations examined ■ Condition combinations published 	Engineering/Infrastructure Enforcement/Legislation	Long Term



STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREAS	TIMEFRAME
Mitigate consequences of intersection crashes.	Develop and adopt an Intersection Control Evaluation (ICE) process that uses the SSA for determining appropriate intersection design.	ARDOT	<ul style="list-style-type: none"> Process developed and implemented Projects completed 	Data Collection/Analysis; Engineering/Infrastructure	Long Term
	Develop and implement a low-cost systemic intersection program that applies the Safe Systems Approach and takes into account equity in safety considerations. Include strategies that improve spacing and protection of non-motorists.	ARDOT	<ul style="list-style-type: none"> Program developed and implemented Projects completed 	Data Collection/Analysis; Engineering/Infrastructure	Long Term
	To further implement the Safe Systems Approach (SSA), consider developing a policy that considers Roundabouts at all intersections that are being designed or considered for signalization.	ARDOT	<ul style="list-style-type: none"> Policy developed 	Enforcement/Legislation	Long Term
	Implement access management in urban areas.	ARDOT	<ul style="list-style-type: none"> Number of locations addressed 	Engineering/Infrastructure	Mid Term
	Develop a signalized study and/or comprehensive plans to address commercial motor vehicle (CMV), pedestrian and bicycle, and angle and left crashes at intersections. Increase sight distance (visibility) of intersections on approaches, add retroreflective borders to signal back plates, and improve maintenance/repair of nonoperating traffic detectors in signalized intersections.	ARDOT	<ul style="list-style-type: none"> Study developed and implemented Projects completed 	Data Collection/Analysis; Engineering/Infrastructure	Mid Term
	Continue to study wrong-way crashes and implementation of proven countermeasures.	ARDOT	<ul style="list-style-type: none"> Research collected Countermeasures implemented 	Data Collection/Analysis	Mid Term
	Improve safety at local road intersections through the implementation of a Local Road Safety Program and development of Local Road Safety Plans.	ARDOT and locals	<ul style="list-style-type: none"> Local Road Safety Program established Local Road Safety Plan implemented Projects completed 	Funding/Collaboration; Data Collection/Analysis; Engineering/Infrastructure; Enforcement/Legislation	Mid Term

INTERSECTIONS

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREAS	TIMEFRAME
Implement countermeasures for signalized and un-signalized intersections with high crash rates.	For intersections, continue to install transverse rumble strips, improve signage, lighting, friction, signal hardware, timing, phasing, retroreflective back-plates, and enhance pavement markings where needed.	ARDOT	■ Projects completed	Engineering/Infrastructure	Short Term
	Implement applicable FHWA Proven Safety Countermeasures.	ARDOT	■ Number of countermeasures implemented	Engineering/Infrastructure	Long Term
	Implement techniques to reduce turning conflicts and through movements and reducing conflict points, i.e., roundabouts, reduced crossing U-turns (RCUT), median U-Turns, diverging diamond interchanges, single point urban interchanges, etc.	ARDOT	■ Projects completed	Engineering/Infrastructure	Long Term
Educate the public on proper negotiation of intersections including roundabouts.	Include intersection negotiation including roundabouts, in driver education classes and on the drivers license test.	ASP, AHSO	■ Materials developed and distributed	Education/Communication	Mid Term
	Assist driver training programs by continuing to provide information and educational materials (videos, facts sheets) as new designs and traffic laws are passed.	ARDOT	■ Materials developed and distributed	Education/Communication	Short Term
Increase enforcement at intersections with high numbers of crashes.	Analyze intersection crash data to provide jurisdictional stakeholders information for use in targeted enforcement.	ARDOT and locals	■ Data analysis conducted and distributed to jurisdictional stakeholders	Data Collection/Analysis; Enforcement/Legislation	Short Term

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREAS	TIMEFRAME
Install or improve active warning devices and improve signing and pavement markings on grade crossing approaches to decrease crashes at grade crossings.	Consider future statewide needs to update pavement markings and signing for on-system crossings.	ARDOT	■ Number of crossings improved	Data Collection/Analysis; Engineering/Infrastructure	Mid Term
	Update master agreements with railroads to ensure timely access for roadway authorities to crossings.	ARDOT	■ Number of agreements updated	Funding/Collaboration	Mid Term
	Install or improve active warning devices and implement strategies identified in the Railway-Highway Crossing Program (Section 130) to identify and eliminate hazards at railway-highway at-grade crossings. Utilize the latest edition of the Highway-Rail Crossing Handbook, including improvements to traffic signal preemption at crossings.	ARDOT	■ Number of crossings improved ■ Reduction in crash frequency	Engineering/Infrastructure	Mid Term
Institute grade crossing safety plan statewide.	Complete development of the Arkansas State Action Plan. Support Statewide efforts for grade crossing improvements through technical assistance, funding, and closing redundant crossings.	ARDOT	■ Action Plan completed	Engineering/Infrastructure	Short Term
	Implement findings in the Arkansas State Action Plan.	ARDOT	■ Action Plan implemented	Engineering/Infrastructure	Long Term
Inform the public of the dangers of grade crossings.	Continue support of Operation Lifesaver educational efforts.	Operation Lifesaver	■ Materials developed and distributed	Funding/Collaboration; Education/Communication	Short Term
Encourage the use of law enforcement at railroad crossings.	Continue to support Operation Lifesaver Grade Crossing Collision Investigation training.	Operation Lifesaver	■ Materials developed and distributed	Funding/Collaboration; Education/Communication	Short Term

INTERSECTIONS

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREAS	TIMEFRAME
Identify blocked crossing locations and remedial action.	Prioritize blocked crossings for remediation.	ARDOT	<ul style="list-style-type: none"> ■ Prioritization protocols established 	Engineering/Infrastructure	Long Term
	Installation of engineering solutions in partnership with local communities and railroads. This may include blocked crossing notification systems, crossing signal changes, etc.	ARDOT	<ul style="list-style-type: none"> ■ Number of solutions installed in local communities and railroads 	Funding/Collaboration; Engineering/Infrastructure	Long Term
	Work with railroads to identify potential railroad operational changes to alleviate blocked crossings.	ARDOT	<ul style="list-style-type: none"> ■ Partnerships developed ■ Operational changes addressed 	Funding/Collaboration; Engineering/Infrastructure	Mid Term

SPEEDING AND AGGRESSIVE DRIVING

Safe Speeds **Action Plan**



STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Use engineering design and technology to reduce speeds.	Develop a horizontal curve safety program that focuses on low cost countermeasures that includes reviewing advisory speed signing and other warning signs.	ARDOT	<ul style="list-style-type: none"> Program developed Number of signs installed 	Engineering/Infrastructure	Long Term
	Perform speed studies that look at the before and after effects of posted speed limit changes, including travel speeds and crash data. Use this data to inform Legislators regarding proposed increases in speed limits.	ARDOT	<ul style="list-style-type: none"> Number of studies completed Information/data provided to Legislators 	Data Collection/Analysis	Long Term
	Review and consider revisions to current design standards and practices to promote and implement the SSA principles and elements as related to controlling speeds and reducing system kinetic energy.	ARDOT	<ul style="list-style-type: none"> Conducted Review & Updated Standards 	Engineering/Infrastructure	Short/Mid Term
	Explore the use of variable speed limits and conduct pilot projects to explore the effectiveness of using electronic variable speed limit signs that change according to conditions such as weather and congestion.	ARDOT	<ul style="list-style-type: none"> Conducted research on variable speed limits Number of pilot projects conducted 	Engineering/Infrastructure	Long Term
	Encourage the use of the FHWA Traffic Calming ePrimer to develop traffic calming features for all users, including countermeasures such as Road Diets, Speed Humps, raised crosswalks, mini-roundabouts, etc.	ARDOT	<ul style="list-style-type: none"> Projects completed 	Engineering/Infrastructure	Long Term
	Increase usage of speed feedback (SFS) & dynamic warning signs to remind drivers of their travel speed when entering urban areas or other high risk locations such as work zones and continue to research the most effective locations for these signs.	ARDOT	<ul style="list-style-type: none"> Number of new warning signs installed Research conducted on the most effective locations for signage 	Engineering/Infrastructure	Mid Term

SPEEDING AND AGGRESSIVE DRIVING

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Use engineering design and technology to reduce speeds (continued).	Convert four-lane roadways to three-lane roadways with center turn lane and other Road Diet configurations.	ARDOT and locals	<ul style="list-style-type: none"> Number of roadways reviewed Number of Road Diets implemented 	Engineering/Infrastructure	Long Term
	Assist local jurisdictions with implementing timed and coordinated traffic signals to improve traffic flow, reduce red-light running, and manage speeds.	ARDOT	<ul style="list-style-type: none"> Number of local jurisdictions assisted Projects completed 	Engineering/Infrastructure	Long Term
Use a multi-media advertising approach to educate drivers about the dangers of aggressive driving.	Continue to promote adherence to speed limits through participation in the national "Obey the Sign or Pay the Fine" enforcement mobilization and utilize social media, public service announcements (PSAs), and educational materials to share information about the dangers of aggressive driving to the public.	ASP/AHSO	<ul style="list-style-type: none"> Number of enforcement mobilizations Materials developed and distributed Reduction in crash frequency Reduction in crash severity 	Education/Communication	Short Term
	Continue to educate drivers about the effects of roadway conditions on appropriate motorist speed, such as weather, congestion, daytime/nighttime, and roadway user mix. Add information into driver training manuals about dangers of aggressive drivers, include speeding/aggressive driving in the expansion of school programs, and involve parents in driver education.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed Number of school programs established Number of attendees in driver education classes 	Education/Communication	Mid Term
	Coordinate with safety partners to develop consistent speed related safety messaging and utilize the hometown heroes campaign to distribute materials in local communities related to safe driving behavior.	ASP/AHSO	<ul style="list-style-type: none"> Materials developed and distributed 	Funding/Collaboration Education/Communication	Ongoing

SPEEDING AND AGGRESSIVE DRIVING

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Increase high visibility enforcement to reduce crashes associated with aggressive driving.	Expand Local Selective Traffic Enforcement Projects (STEPs), Statewide Selective Traffic Enforcement Program (STEP), and Mini Selective Traffic Enforcement Projects (M-STEPs).	ASP/AHSO	<ul style="list-style-type: none"> Number of enforcement projects 	Enforcement/Legislation	Mid Term
	Implement high visibility 'safety corridors' focused on speeding and distracted driving.	ARDOT and ASP/AHSO	<ul style="list-style-type: none"> Number of safety corridors Total miles of safety corridors Reduction in crash frequency Reduction in crash severity 	Enforcement/Legislation	Mid Term
	Continue to provide funding to equip law enforcement with appropriate equipment for speeding enforcement and supplies for eCrash.	ASP/AHSO	<ul style="list-style-type: none"> Amount of funding provided 	Enforcement/Legislation	Short Term
	Collect data and identify and research new techniques, software, and technologies for most effective speed control.	ARDOT	<ul style="list-style-type: none"> Research conducted 	Data Collection/Analysis	Mid Term
	Increase penalties for repeat and excessive speeding offenders.		<ul style="list-style-type: none"> Increase in penalties 	Enforcement/Legislation	Mid Term
Update the speed setting process.	Establish a Speed Management Action Team Committee to research other state's practices and review the current statewide plan for changing speed limits.	ARDOT	<ul style="list-style-type: none"> Members identified Committee established Meeting convened 	Funding/Collaboration Data Collection/Analysis	Mid Term
	Review best practices which include land use and zoning for local agencies and utilize this research to develop recommendations on speed management standards to set speed limits which account for roadway design, traffic, and environment.	Speed Management Action Team Committee	<ul style="list-style-type: none"> Best practices reviewed and implemented 	Funding/Collaboration Engineering/Infrastructure	Mid Term
	Research and develop the State and local roles in advancing speed management as related the SSA principles and elements. Include review and implementation of the Complete Streets concept.	ARDOT	<ul style="list-style-type: none"> Research conducted and roles developed 	Collaboration/Engineering	

SPEEDING AND AGGRESSIVE DRIVING

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Update the speed setting process (continued).	Conduct a Speed Management Policy Review. Consider development of a Statewide Speed Management Plan and Speed Management guidance website.	Speed Management Action Team Committee	<ul style="list-style-type: none"> Reviewed Performed and website developed 	Collaboration/Engineering	
	Provide guidance materials and training to help traffic engineers understand speed limits and regulations. Explore posting guidance information on a website.	ARDOT	<ul style="list-style-type: none"> Materials developed Number of individuals completing training 	Education/Communication	Mid Term
	Increase data sharing between local officers and engineering agencies to identify and develop solutions for areas where speeding is a problem and use Road Safety Audits (RSA) when necessary.	ARDOT, AHSO and locals	<ul style="list-style-type: none"> Data sharing protocols established Solutions developed Number of RSAs conducted 	Data Collection/Analysis	Mid Term

EMERGENCY SERVICES AND INCIDENT MANAGEMENT

Post-Crash Care **Action Plan**

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Coordinate with EMS regarding median cross over gaps for emergency purposes.	Provide locations of current median gaps to first responders to aid responses to emergencies.	ARDOT	<ul style="list-style-type: none"> Locations provided 	Engineering/Infrastructure	Short Term
	Review gap locations when concerns expressed by Responder or reconstruction projects are implemented.	ARDOT	<ul style="list-style-type: none"> Gap locations reviewed 	Engineering/Infrastructure	Short Term
Educate the public to promote EMS safety and quicker response times.	Publicize "Move It" and "Move Over" laws through media and social media campaigns.	ASP/AHSO	<ul style="list-style-type: none"> Number of campaigns conducted Annual gross impression (e.g., number of people reached) 	Enforcement/Legislation	Mid Term
Promote trauma education on a statewide basis.	Continue to provide quality trauma education on a statewide basis.	ADH	<ul style="list-style-type: none"> Number of courses conducted Number of individuals trained 	Education/Communication	Short Term
Enforce state laws that enhance EMS safety and response.	Enforce "Move It" and "Move Over" laws statewide in Arkansas.	ASP/AHSO and locals	<ul style="list-style-type: none"> Number of law enforcement agencies receiving a reminder about the importance of enforcing the laws Number of citations written annually 	Enforcement/Legislation	Mid Term
Improve the Arkansas Trauma System.	Continue to implement the Trauma Band System in Arkansas.	ADH	<ul style="list-style-type: none"> Trauma band system implemented 	Enforcement/Legislation	Short Term
	Increase the use of the Arkansas Trauma Communications Center.	ADH	<ul style="list-style-type: none"> Education provided to staff Number of calls or requests received 	Education/Communication	Short Term

EMERGENCY SERVICES AND INCIDENT MANAGEMENT

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Reduce Secondary Crashes.	Define, locate, and implement a Traffic Incident Management (TIM) Plan for specific high volume, high crash corridors where Intelligent Transportation System elements and a Traffic Management Center can reduce response time, overall incident time, and travel time reliability.	ARDOT	<ul style="list-style-type: none"> TIM plan implemented EMS response time reduced Incident time reduced Travel time reliability improved 	Enforcement/Legislation; Emergency Response/ Incident Management	Long Term
	Implement proven and innovative strategies for enforcement and traffic operations personnel to clear vehicles and manage and restore traffic flow at the scene of a crash with emphasis on avoiding secondary crashes.	ARDOT and locals	<ul style="list-style-type: none"> Number of strategies implemented Number of secondary crash reduced 	Enforcement/Legislation; Emergency Response/ Incident Management	Long Term
Reduce incidents in work zone.	Continue to develop and implement work zone safety campaigns and messaging.	ARDOT	<ul style="list-style-type: none"> Number of campaigns conducted 	Education/Communication	Mid Term
	Research new work zone ITS systems and approaches to use ITS in work zones and propose changes to current practices.	ARDOT	<ul style="list-style-type: none"> Research conducted Practices updated 	Engineering/Infrastructure; Emergency Response/ Incident Management	Mid Term
	Research and develop improved work zone data collection and management practices to improve mobility and safety of work zones. Use the improved data to focus work zone efforts and to track performance.	ARDOT	<ul style="list-style-type: none"> Research completed Improved practices implemented 	Data Collection/Analysis	Mid Term
Improve Incident Management Strategies.	Continue the Incident Management Committee's focus on incidents that involve secondary crashes and making recommendations on improvement(s) for incident management methods.	ARDOT	<ul style="list-style-type: none"> Percent of secondary crashes Number of secondary crashes reviewed with recommendations provided 	Data Collection/Analysis	Short Term
Create an Incident Management Data System.	Research, determine, and implement the best data management systems utilized to track incident management data and performance measures.	ARDOT	<ul style="list-style-type: none"> Research completed Best data management system determined and implemented 	Education/Communication; Data Collection/Analysis	Short Term

EMERGENCY SERVICES AND INCIDENT MANAGEMENT

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Improve Incident Management Responder Safety.	Continue to promote and offer the 4 hour National TIM Training to all active first responders in Arkansas.	ARDOT	<ul style="list-style-type: none"> Number of participants completing training 	Education/Communication; Emergency Response/ Incident Management	Mid Term
	Provide Incident Management Training Certification and track number of trainees.	ARDOT	<ul style="list-style-type: none"> Best data management system determined and implemented 	Education/Communication; Emergency Response/ Incident Management	Mid Term
	Encourage the development of regional TIM agreements.	ARDOT	<ul style="list-style-type: none"> Number of regional TIM agreements 	Education/Communication	Short Term
	Continue efforts of TIM Working Committee in making recommendations to the TIM Executive Committee for action to improve Statewide TIM activities.	ARDOT	<ul style="list-style-type: none"> Number of recommendations provided to the Executive Committee 	Education/Communication; Funding/Collaboration	Short Term
	Consider the creation of a TIM training facility with an area to perform mock traffic incidents.	ARDOT	<ul style="list-style-type: none"> Training facility created Number of mock incidents performed 	Emergency Response/ Incident Management	Long Term
	Consider deploying Safety Service Patrols in areas with high levels of congestions and incidents.	ARDOT	<ul style="list-style-type: none"> Number of locations identified Number of active Safety Service Patrols 	Emergency Response/ Incident Management	Short Term
Improve travel time reliability to reduce crashes.	Produce and implement an advertising campaign to remind drivers not to follow too closely and how to drive around a CMV.	ARDOT	<ul style="list-style-type: none"> Advertising campaign produced Annual gross impression (number of people reached) 	Education/Communication	Mid Term
	Develop and encourage after action reviews of traffic incidents.	ARDOT, AHP, ASP	<ul style="list-style-type: none"> Number of after action review conducted 	Emergency Response/ Incident Management	Mid Term
Improve visibility of stopped traffic queues.	Propose legislative changes to require drivers to use flashers in stopped traffic queues and develop educational materials to support the effort.	ARDOT	<ul style="list-style-type: none"> Legislative changes proposed Educational materials developed 	Enforcement/Legislation; Education/Communication	Long Term
	Develop a process where available officers provide end of queue presence patrol for queues caused by incidents and work zones.	ARDOT	<ul style="list-style-type: none"> Process developed 	Emergency Response/ Incident Management	Long Term

EMERGENCY SERVICES AND INCIDENT MANAGEMENT

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
<p>Improve visibility of stopped traffic queues (continuation).</p>	<p>Accelerate the implementation of proven and innovative techniques and best practices to reduce emergency response time and improve the efficiency, effectiveness, and quality of care to traffic crash victims.</p>	<p>Traffic Management Center</p>	<ul style="list-style-type: none"> ■ Number of innovative techniques and best practices implemented ■ Time required to implement techniques ■ Emergency response time reduced 	<p>Enforcement/Legislation; Emergency Response/ Incident Management</p>	<p>Long Term</p>
<p>Ensure ways that drivers with disabilities are aware of oncoming emergency vehicles.</p>	<p>Explore the use of signal light pre-emption at signalized intersections by emergency vehicles that are responding to emergencies, to aid in the safety of older and hard of hearing drivers that may not see or hear an approaching emergency vehicle.</p>	<p>ArDOT/ARS</p>	<ul style="list-style-type: none"> ■ Analysis completed 	<p>Education/Communication</p>	<p>Short Term</p>
<p>Ensure disabled drivers have all necessary tools and resources available to safely perform driving activities.</p>	<p>Ensure that deaf drivers are able to take their driver's test in their own language with the provision of interpreters or having the test provided in a sign language video format.</p>	<p>ASP/ARS</p>	<ul style="list-style-type: none"> ■ Driver test in sign language video format provided ■ Number of issues with deaf drivers taking test in a language other than English 	<p>Enforcement/Legislation</p>	<p>Mid Term</p>
	<p>Educate or make equipment more readily available to modify vehicles.</p>	<p>ARS</p>	<ul style="list-style-type: none"> ■ Education materials developed ■ Number of new equipment made available 	<p>Education/Communication</p>	<p>Mid Term</p>
	<p>Promote deaf driver safety through the provision of visor cards to deaf drivers and to law enforcement to aid in communication issues.</p>	<p>ARS</p>	<ul style="list-style-type: none"> ■ Visor cards developed ■ Number of visor cards distributed to deaf drivers and law enforcement 	<p>Education/Communication</p>	<p>Short Term</p>
	<p>Add sign language while doing outreach and advertisement campaign.</p>	<p>ARS and ASP/AHSO</p>	<ul style="list-style-type: none"> ■ Number of outreach conducted having sign language ■ Number of ad campaigns using sign language 	<p>Funding/Collaboration; Education/Communication</p>	<p>Mid Term</p>

TRAFFIC RECORDS AND DATA ANALYSIS

Post-Crash Care Action Plan



STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Post-Crash Care Emphasis Area Action Plan.	Continue to develop, improve, and implement eCrash, MapClick, and eCite statewide to provide shared online access to the users.	ARDOT, AHSO, ASP	<ul style="list-style-type: none"> Online access provided to eCrash Online access provided to MapClick Online access provided to eCite implemented 	Data Collection/Analysis	Short Term
	Continue to improve the collection of Model Inventory of Roadway Elements (MIRE) Fundamental Data Elements (FDE).	ARDOT	<ul style="list-style-type: none"> Number of MIRE Fundamental Data Elements collected annually Number of local roadway MIRE FDEs linked to the state's roadway MIRE FDE inventory 	Data Collection/Analysis	Short Term
	Improve the quality, accuracy, timeliness, availability, and accessibility of crash, driver, roadway, and emergency care data.	ARDOT, AHSO	<ul style="list-style-type: none"> Annual percentage decrease in reporting errors for each database Average number of days from incident to entry in each database Annual satisfaction ratings for responsiveness to data requests by principal users of each database 	Data Collection/Analysis; Emergency Response/ Incident Management	Mid Term
	Research data sources that are available to aid in the consideration of equity in safety and develop procedures for considering equity in highway safety projects and other highway improvements.	ARDOT	<ul style="list-style-type: none"> Data sources identified 	Data Collection/Analysis	Mid Term
	Increase electronic reporting of crashes and traffic citations.	ARDOT, ASP/AHSO	<ul style="list-style-type: none"> Number of crash reports submitted electronically Number of citations submitted electronically 	Enforcement/Legislation	Short Term

TRAFFIC RECORDS AND DATA ANALYSIS

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Improve analysis techniques and tools to aid in determining countermeasures for problem areas to mitigate crashes.	Continue to improve Advance as a way of analyzing crashes and turn information into usable knowledge that meets the needs of users and decision-makers.	ARDOT, ASP/AHSO	<ul style="list-style-type: none"> Number of improvements made in Advance Annual satisfaction ratings by Advance users 	Data Collection/Analysis	Short Term
	Research and implement the use of Continuous Pavement Friction Measurement to improve the cost-effectiveness of friction related countermeasures.	ARDOT	<ul style="list-style-type: none"> CPFM technique implemented 	Data Collection/Analysis	Mid Term
	Examine information and tools to implement the Safe System Approach (SSA).	ARDOT	<ul style="list-style-type: none"> SSA information and tools identified 	Data Collection/Analysis; Education/Communication; Enforcement/Legislation; Funding/Collaboration; Emergency Response/ Incident Management	Mid Term
	Develop a roadway safety management system (RSMS) software tool to assist with analyzing crashes through eCrash and implementing the HSIP.	ARDOT	<ul style="list-style-type: none"> Software tool developed and implemented 	Data Collection/Analysis	Long Term
	Evaluate effectiveness of completed HSIP projects, including maintenance costs.	ARDOT	<ul style="list-style-type: none"> Number of projects evaluated 	Data Collection/Analysis	Short Term
Improve data sharing across agencies.	Provide safety data to other agencies, including local agencies and MPOs to aid in safety studies and projects conducted at local level.	ARDOT	<ul style="list-style-type: none"> Number of agencies provided data 	Funding/Collaboration	Short Term
	Ensure coordination (e.g., conduct quarterly meetings) in support of multi-agency initiatives and projects which improves traffic records information system.	ARDOT, AHSO	<ul style="list-style-type: none"> Number of meetings conducted each year Number of agencies participating annually 	Funding/Collaboration	Short Term

TRAFFIC RECORDS AND DATA ANALYSIS

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Improve data sharing across agencies (continued).	Create a central repository for integrated, linked data records including crash records, roadway and traffic records, health (EMS, Trauma, CHARS) records, court records, licensing records, and state toxicology records.	ARDOT, AHSO, ADH	<ul style="list-style-type: none"> Central repository created 	Data Collection/Analysis	Mid Term
	Continue to provide real time travel data to inform motorists of driving conditions.	ARDOT	<ul style="list-style-type: none"> Apps developed to provide real time travel data Number of external users using ARDOT-verified travel data 	Data Collection/Analysis	Mid Term
Educate law enforcement on the benefits and functionality of eCrash.	Work with the Arkansas State Police (ASP) and the Highway Safety Office (AHSO) to set up and help fund a yearly eCrash training program to educate law enforcement officers regarding accuracy and detail of crash report information.	ARDOT, ASP/AHSO	<ul style="list-style-type: none"> Training program developed Number of officers trained annually 	Education/Communication; Funding/Collaboration	Mid Term
Educate data analysts on the functionality of eCrash, MapClick, Advance, and other Analytical tools and programs.	Develop a training program to educate end users of the eCrash data and analytical tools to aid in crash mitigation studies.	ARDOT	<ul style="list-style-type: none"> Training program developed Number of participants trained annually 	Education/Communication	Mid Term
Develop requirements for law enforcement to adopt MapClick and eCrash as their sole means of crash reporting.	Provide funding for equipment and training associated with adoption of eCrash by law enforcement agencies statewide.	AHSO	<ul style="list-style-type: none"> Annual funding provided for eCrash related equipment Annual funding provided for eCrash related training program 	Funding/Collaboration	Mid Term
	Work with the Arkansas State Police to set a statewide deadline for implementation of eCrash by all law enforcement agencies in Arkansas.	ASP	<ul style="list-style-type: none"> eCrash implementation deadline set 	Funding/Collaboration	Short Term

TRAFFIC RECORDS AND DATA ANALYSIS

STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Connect medical injury data with the crash data for better analytics of data.	Derive a clinical classification of injury severity based on medical records to augment the investigating officer's assessment of injury severity.	ADH	<ul style="list-style-type: none"> Process established to collect injury severity data from medical records Medical records and crash data integrated 	Education/Communication; Data Collection/Analysis	Short Term
	Provide training to law enforcement agencies to educate them on collecting trauma band number from crash report and linking with the EMS data.	ADH and AHSO	<ul style="list-style-type: none"> Training program developed Number of officers trained annually 	Education/Communication	Mid Term
	Continue usage and improvement of the Trauma Band System and require its use statewide.	ADH and AHSO	<ul style="list-style-type: none"> Annual increase in number of agencies using trauma bands 	Enforcement/Legislation	Short Term
	Continue to work on linking the crash data and injury data for analytical purposes.	ARDOT, AHSO, ADH	<ul style="list-style-type: none"> Annual percent increase in the number of records linking crash and injury data 	Data Collection/Analysis	Short Term
Improve data accessibility and integration.	Implement reporting of all EMS activations to the National Emergency Medical Services Information System (NEMSIS).	ADH	<ul style="list-style-type: none"> Number of activations sent to the national database annually 	Data Collection/Analysis; Emergency Response/ Incident Management	Mid Term
	Explore the use of Arkansas NEMSIS data for inclusion with the integrated traffic records program.	ADH and AHSO	<ul style="list-style-type: none"> Analysis conducted 	Education/Communication	Short Term
	Continue to develop and improve the Arkansas Crash Analytics Tool (ACAT). Link ACAT to the SHSP and provide training/guidance as appropriate.	ARDOT	<ul style="list-style-type: none"> ACAT updated 	Data/Collection/Analysis	Mid Term
	Expand data collection and analysis to incorporate emerging mobility options such as micromobility and connected and automated vehicles, as well as real-time data sources.	ARDOT, AHSO, ADH	<ul style="list-style-type: none"> Emerging mobility option data fields added to the crash report Analysis of emerging mobility options conducted annually 	Data Collection/Analysis	Mid Term

TRAFFIC RECORDS AND DATA ANALYSIS

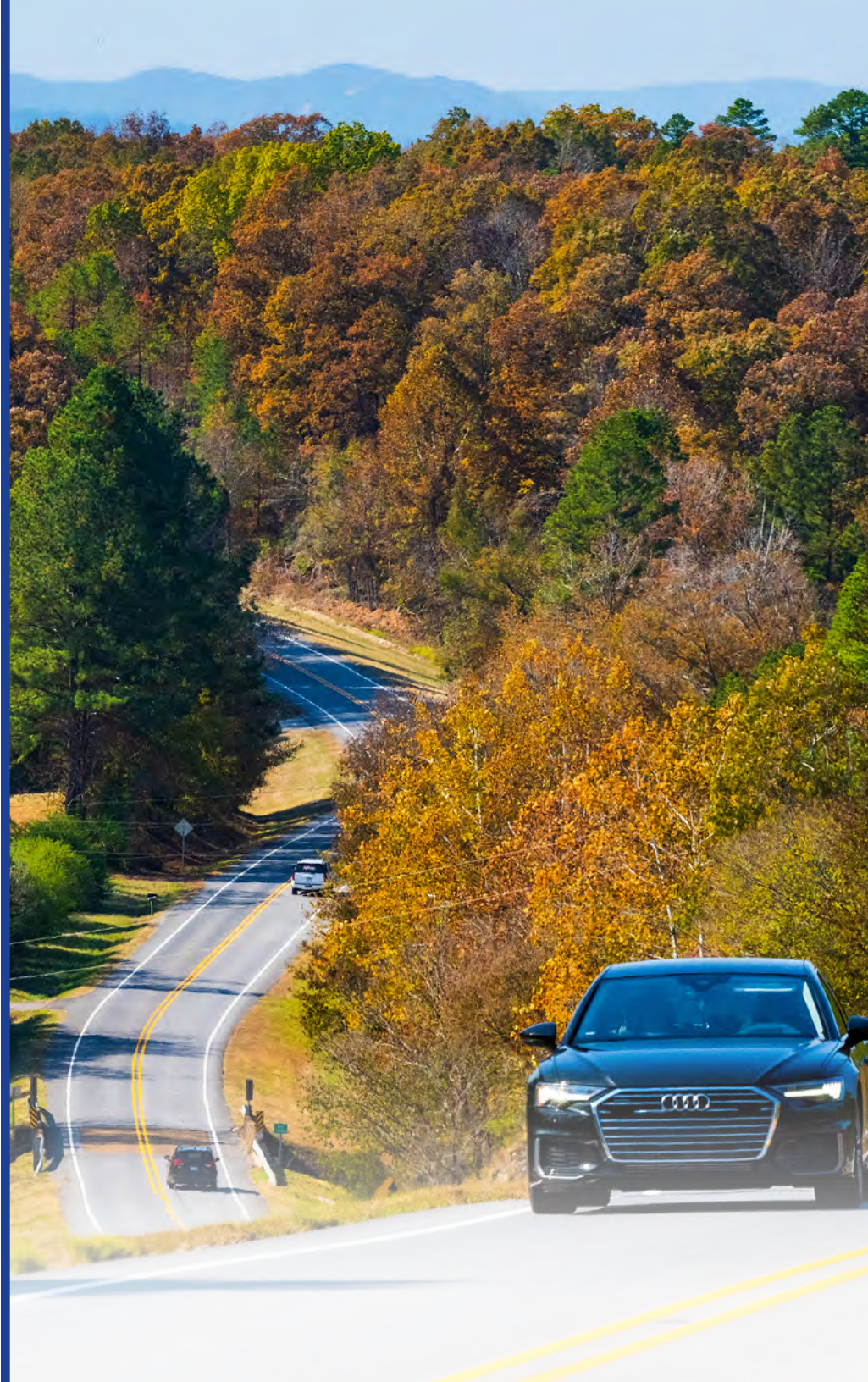
STRATEGY	ACTION	AGENCY	PERFORMANCE MEASURES	IMPLEMENTATION AREA	TIMEFRAME
Conduct predictive and systemic safety analysis to identify potential safety solutions.	Identify high priority locations for safety improvements and expand Safety Performance Function (SPF) development.	ARDOT	<ul style="list-style-type: none"> Network Screening conducted and high priority locations identified Number of SPFs calibrated or developed on identified locations Number of crashes reduced 	Data Collection/Analysis	Mid Term
	Continue to develop predictive and systemic safety analysis capabilities based on risk factors and utilize results to implement low cost countermeasure safety projects.	ARDOT	<ul style="list-style-type: none"> Number of predictive and systemic safety analyses conducted Number of predictive and systemic safety projects implemented 	Data Collection/Analysis	Mid Term
	Assist local agencies in the use of predictive and systemic safety analysis to develop Local Road Safety Plans, focusing on roadway departure, pedestrian, and intersection safety.	ARDOT and local	<ul style="list-style-type: none"> Number of local agencies assisted Number of local road safety plans developed 	Data Collection/Analysis	Mid Term
	Continue to develop and implement a Local Road Safety Program for local agencies to apply low cost safety countermeasures. Focusing on roadway departure, pedestrian, and intersection safety.	ARDOT and local	<ul style="list-style-type: none"> Local Road Safety Program implemented Number of local road agencies that implement low cost safety projects 	Data Collection/Analysis	Mid Term
	Study how safety data analysis practices can be developed/updated to better address the SSA.	ARDOT	<ul style="list-style-type: none"> Local Road Safety Program implemented Number of local road agencies that implement low cost safety projects 	Data Collection/Analysis	Mid Term

UPDATING THE ARKANSAS SHSP

The Arkansas 2022-2027 SHSP is a five-year strategic approach to further Arkansas' goal of eliminating fatalities and serious injuries on all public roadways. The plan was developed in consultation with federal, state, and local partners to ensure coordination with other state, regional, local, and Tribal transportation and highway safety plans. The following process was used to develop the plan:

SHSP SAFETY SUMMIT—In June 2021, the SHSP Steering Committee hosted a virtual SHSP Safety Summit to kick off the SHSP update. During the Summit participants reviewed the purpose and intent of the SHSP, reflected on accomplishments from the previous plan, and were provided an overview of the update process, including opportunities to provide input. The Safety Summit utilized Poll Everywhere to engage participants and receive feedback related to the Safety Summit topics. The meeting had a total of 9 Poll Everywhere questions with 32 participants. Safety Summit participants included individuals from federal, state, and local agencies, MPOs, advocacy groups/non-profit organizations, and law enforcement agencies.

PREVIOUS PROCESS REVIEW—The project team conducted an assessment of the 2017 Arkansas SHSP process and results to understand what strategies, actions, and processes worked well to reduce fatalities and serious injuries. To begin this process review, the SHSP update team conducted a trends analysis



(2015–2019 data available at that time), conducted targeted steering committee member interviews, and distributed an electronic survey to review and assess the process and implementation of the 2017 SHSP.

The SHSP update team conducted nine interviews based on participants' involvement in the ARDOT Steering Committee. The interview participants represented various roles in traffic safety including emergency medical services, metropolitan planning organizations (MPOs), Highway Safety Improvement Program (HSIP) and Highway Safety Office grants program management, emphasis area team leaders, and the court system. The purpose of conducting these interviews was to gather insight to the previous plan processes including 2017 SHSP implementation successes and challenges, collaboration and communication, marketing and outreach, data analysis, performance management, and evaluation.

In addition to in-depth interviews, the SHSP update team distributed an electronic survey to identify successful processes, programs, and strategies from the 2017 SHSP and opportunities for improvement in the update process. The survey was distributed to all Steering Committee members and other agency partners within various safety networks for additional responses. The survey received a total of 32 responses with nearly half of respondents representing local government agencies.

The cumulation of the trends analysis and stakeholder outreach provided the basis for a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis to identify what went well (strengths), what did not go well (weaknesses), what opportunities exist to improve the process going forward (opportunities), and the potential threats to a successful update and implementation process (threats).

PLAN FRAMEWORK MEETING—In August 2021, the Steering Committee met to review the data analysis and information collected during the Previous Process Review. The purpose of the meeting was to examine the Previous Process Review findings, discuss the initial data analysis and potential emphasis areas, provide more information on the Safe System Approach, and discuss the design details and layout for the 2022–2027 SHSP. The group decided to organize the emphasis areas around the five Safe System elements: Safe Road Users, Safe Vehicles, Safe Roadways, Safe Speeds, and Post-Crash Care. Following this meeting, a data-driven approach was used to identify the Focus Areas for each emphasis area and relevant performance-based objectives as detailed in the Framework to Reduce Fatalities and Serious Injuries Section of this plan. The objectives were calculated using methods consistent with those used to determine Arkansas' annual safety performance targets but may not be exactly the same because of recent

increases in fatalities in 2020, due to the COVID-19 pandemic, and increases in crash reporting as a result of the electronic crash reporting system.

SAFE SYSTEM EMPHASIS AREA TEAMS—Each Safe System Emphasis Area Team worked in close coordination with safety partners from federal and state agencies, MPOs, regional planning councils, local governments, law enforcement, and many other transportation and safety partners to develop strategies and action steps to guide the implementation process for the SHSP. Action plans were developed for each Focus Area based on proven effective countermeasures, feedback from stakeholders on existing programs and projects, information on existing statewide transportation plans and their performance-based strategies relevant to traffic safety, and noteworthy practices from other states. To ensure alignment and coordination with other plans, the Safe System Emphasis Area Team coordinators worked with ARDOT to identify existing plans with strategies to be included in the SHSP such as the Commercial Vehicle Safety Plan (CVSP), Highway Safety Plan (HSP), Traffic Records Strategic Plan, Arkansas Pedestrian and Bicycle Plan, and Arkansas Freight Plan. The Safe System Emphasis Area Teams met for a series of meetings in October to November 2021 to confirm the strategy selections and develop the plans which were also reviewed by ARDOT and the SHSP Steering Committee.

IMPLEMENTATION AND EVALUATION—Feedback gathered from the Emphasis Area Team was used to develop the process outlined in the Implementation and Evaluation section of this plan. When statewide safety plans such as the HSIP, HSP, and CVSP are updated, alignment with the SHSP will be coordinated through the Steering Committee to ensure consistency across goals, strategies, actions, and projects. Other transportation plans such as the Bicycle and Pedestrian Plan, Freight Plan, Rail Plan, Statewide Transportation Improvement Program (STIP), Statewide Long-Range Transportation Plan (LRTP), and MPO LRTPs will explicitly address safety and allow participation by Steering Committee members to align projects with the SHSP goals and objectives. Steering Committee members will receive status updates on the key aspects of these documents, as well as an assessment of the inclusion of SHSP elements in the plans of these important safety partners.

PLAN DEVELOPMENT AND REVIEW—The SHSP Update team prepared the draft, draft final, and final SHSP for review by ARDOT and the Steering Committee members.

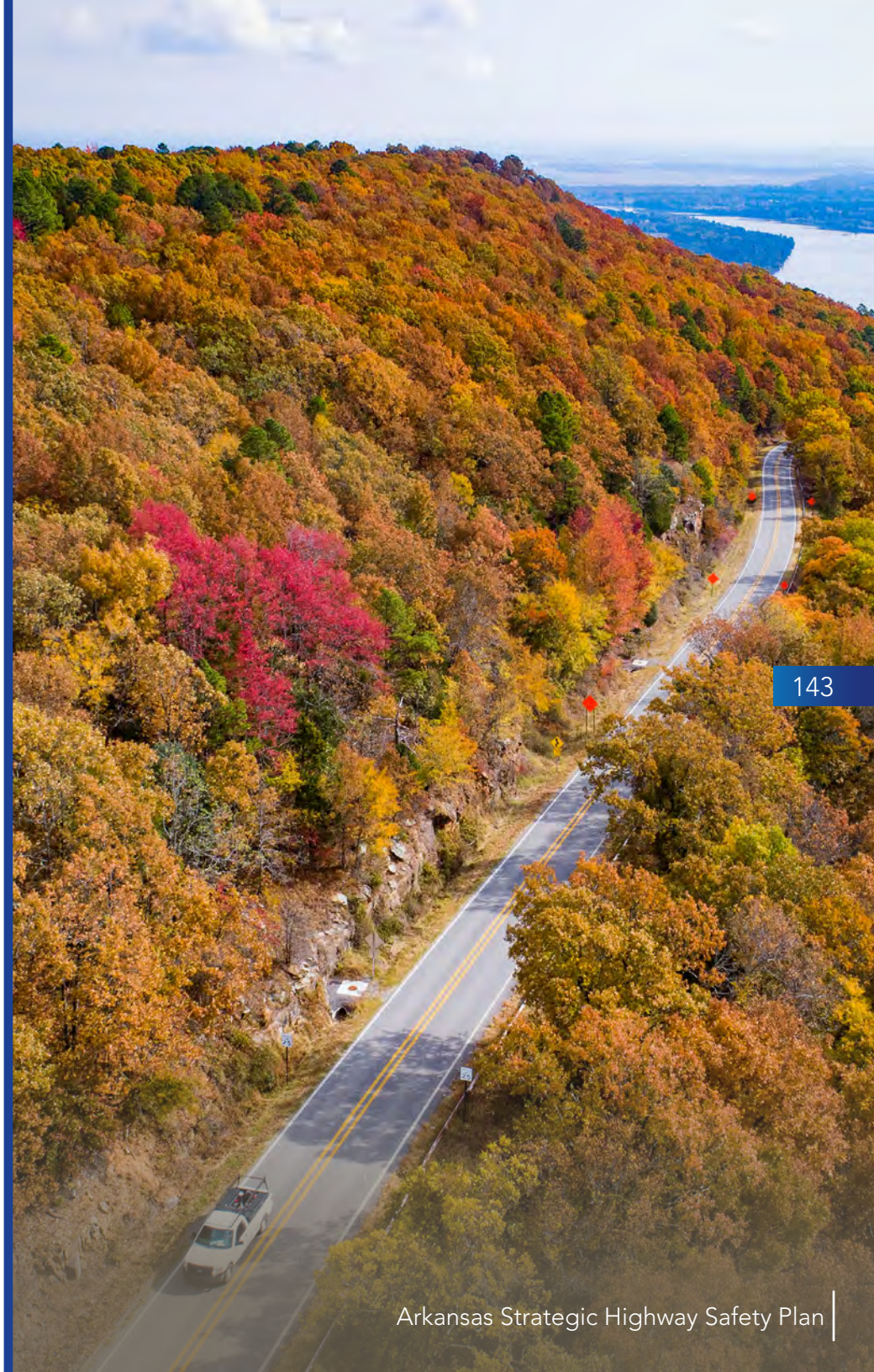
PLAN APPROVAL—The final SHSP was submitted to the state official that is delegated by the Governor and the ARDOT Commission for adoption and signature. The final SHSP was transmitted to the FHWA Division Administrator for approval of the SHSP Update Process.

FEDERAL REQUIREMENTS

Two major federal laws influenced the content and implementation of the Arkansas 2022–2027 SHSP: the Moving Ahead for Progress in the 21st Century (MAP-21) Act and the Fixing America’s Surface Transportation (FAST) Act. Under these laws, the FHWA set policy that guides the implementation and evaluation of the SHSP. FHWA published its HSIP Final Rules in the Federal Register (81 FR 13722) with an effective date of April 14, 2016. These regulations implemented the HSIP requirements established in MAP-21 and the FAST Act, and established clear requirements for updating the state’s SHSP.

A third piece of legislation, the Infrastructure Investment and Jobs Act (IIJA), also known as the “Bipartisan Infrastructure Law” (BIL) passed in 2021. The HSIP requirements within the BIL took effect on October 1, 2021 and apply to all related funding obligated on or after that date, whether carryover or new.

An FHWA February 2, 2022 memorandum provided background and guidance to clarify HSIP eligibility requirements under the BIL. This guidance replaced the February 26, 2016 HSIP Program Eligibility Guidance and incorporated FHWA priorities, consistent with the Policy on Using Bipartisan Infrastructure Law Resources to Build a Better America, dated December 16, 2021.



The HSIP is a core federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance. The HSIP regulation under 23 CFR 924 establishes the FHWA's HSIP policy, as well as program structure, planning, implementation, evaluation, and reporting requirements which states must follow to successfully administer the HSIP. In addition to clarifying other programs, the HSIP contains performance management requirements for SHSP updates.

The law requires all states to have an updated, approved SHSP which is consistent with specific requirements under 23 USC Section 148. The updated SHSP must be submitted to the FHWA Division Administrator, who will ensure that the state has followed a process that meets these requirements. The FHWA provides an SHSP Process Approval Checklist, which is a tool to help Division Offices assess the process and completeness of the SHSP update. The requirements outlined in the Process Approval Checklist include detailed indicators and considerations which must be met by the state. Specific elements of the checklist include the following:

- » Consultation with appropriate stakeholders and traffic safety partners during the update process.
- » Comprehensive use of data to develop plan emphasis areas and safety improvement strategies, including safety data from non-state-owned public roads and Tribal land.
- » Performance management and adoption of performance-based goals which are consistent with established safety performance measures.
- » Employing a multi-disciplinary approach which addresses engineering, education, enforcement, emergency medical services, and public policy elements of highway safety as key features when determining SHSP strategies.
- » Coordination with other state, regional, local, and Tribal transportation and highway safety planning processes; a demonstration of consultation among partners in the development of transportation safety plans; and an SHSP which provides strategic direction for other transportation plans.
- » An implementation focus which describes the process, actions, and potential resources for implementing the strategies in the emphasis areas.
- » Requirements to evaluate the SHSP as part of the HSIP update process, including confirming the validity of the emphasis areas and strategies based on analysis of safety data, and identifying issues related to the SHSP's process, implementation, and progress.

- » Special rules which require including the state's definition of High Risk Rural Roads (HRRR) and strategies to address the increases in older driver and pedestrian traffic fatalities and serious injuries, if applicable.
- » A detailed description of the SHSP update process, included as a section, chapter, or appendix in the SHSP.
- » A requirement to complete the SHSP update no later than five years from the date of the previous approved version.
- » A requirement that the SHSP be approved and signed by the Governor of the state or a state official that is delegated by the Governor.
- » Approval of the SHSP Update Process by the FHWA Division Administrator.



HIGH RISK RURAL ROADS

Although to date, Arkansas has not met the federal criteria requiring Arkansas to have a High Risk Rural Roads (HRRR) Program, Arkansas has adopted a program to annually examine HRRRs and implement low cost countermeasures to reduce fatal and serious injuries on these routes. As required by 23 USC 148(a)(1), the definition of a HRRR adopted in Arkansas is presented. This definition is the same as the federal definition.

HRRRs are defined in Arkansas as any roadway functionally classified as a rural major or minor collector or rural local road on which the crash rate for fatalities and incapacitating injuries exceeds the statewide average for those function classifications or roadways.





ARKANSAS

STRATEGIC HIGHWAY SAFETY PLAN



ARKANSAS STATE HIGHWAY COMMISSION

DALTON A. "ALEC" FARMER, JR.
CHAIRMAN
JONESBORO

PHILIP TALDO
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MARIE HOLDER
LITTLE ROCK

DAVID M. HAAK
TEXARKANA

LORIE H. TUDOR, P.E.
DIRECTOR

November 14, 2023

Ms. Vivien Hoang
Division Administrator
Federal Highway Administration
700 W. Capitol, Room 3130
Little Rock, AR 72201-3298

Dear Ms. Hoang:

Reference is made to the 2023 Arkansas Vulnerable Road User (VRU) Safety Assessment, a copy of which is enclosed.

The VRU Safety Assessment was developed in compliance with Federal requirements and guidance as an addendum to our Strategic Highway Safety Plan. As the Governor's Designee, I approve this VRU Safety Assessment, which will be published to the webpage of our Traffic Safety Section by November 15, 2023.

If additional information is needed, please advise.

Sincerely,

A handwritten signature in blue ink that reads "Lorie H. Tudor".

Lorie H. Tudor, P.E.
Director

Enclosure

c: Chief Engineer – Preconstruction
Assistant Chief Engineer – Planning
Planning



ARKANSAS

VULNERABLE ROAD USER

SAFETY ASSESSMENT

November 2023



NOTICE OF NONDISCRIMINATION

The Arkansas Department of Transportation (ARDOT) complies with all civil rights provisions of Federal statutes and related authorities that prohibit discrimination in programs and activities receiving Federal financial assistance. Therefore, ARDOT does not discriminate on the basis of race, sex, color, age, national origin, religion (not applicable as a protected group under the Federal Motor Carrier Safety Administration Title VI Program), disability, Limited English Proficiency (LEP), or low-income status in the admission, access to, and treatment in ARDOT's programs and activities, as well as ARDOT's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding ARDOT's nondiscrimination policies may be directed to:

Civil Rights Officer Joanna P. McFadden (ADA/504/Title VI Coordinator)
PO Box 2261, Little Rock, Arkansas 72203-2261
501-569-2298 (Voice/TTY 711)

Or to the following email address:

Joanna.McFadden@ardot.gov

Free language assistance for Limited English Proficient individuals is available upon request.

This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape, and in Braille.



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LIST OF ACRONYMS

AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
ARDOT	Arkansas Department of Transportation
FHWA	Federal Highway Administration
HSIP	Highway Safety Improvement Program
HSO	Highway Safety Office
HSP	Highway Safety Plan
IJA	Infrastructure Investment and Jobs Act
LRITP	Long-Range Intermodal Transportation Plan
L RTP	Long-Range Transportation Plan
MPO	Metropolitan Planning Organization
MTP	Metropolitan Transportation Plan
N.A.R.T.P.C.	Northeast Arkansas Regional Transportation Planning Commission
NWARPC	Northwest Arkansas Regional Planning Commission
RRFB	Rectangular Rapid Flashing Beacons
SARPC	Southeast Arkansas Regional Planning Commission
SHSP	Strategic Highway Safety Plan
SS4A	Safe Streets and Roads for All
SSA	Safe System Approach
STEP	Safe Transportation for Every Pedestrian
USDOT	United States Department of Transportation
VRU	Vulnerable Road User

1 PURPOSE AND NEED

A growing number of Vulnerable Road User (VRU) fatalities and suspected serious injuries are occurring on Arkansas State and local roadways, similar to a pattern experienced across the United States. This increase in VRU-involved roadway crashes prompted the U.S. Department of Transportation's (USDOT) Federal Highway Administration (FHWA) to mandate, through the Infrastructure Investment and Jobs Act (IIJA), that each State complete a VRU Safety Assessment as part of their Strategic Highway Safety Plan (SHSP) by November 15, 2023.



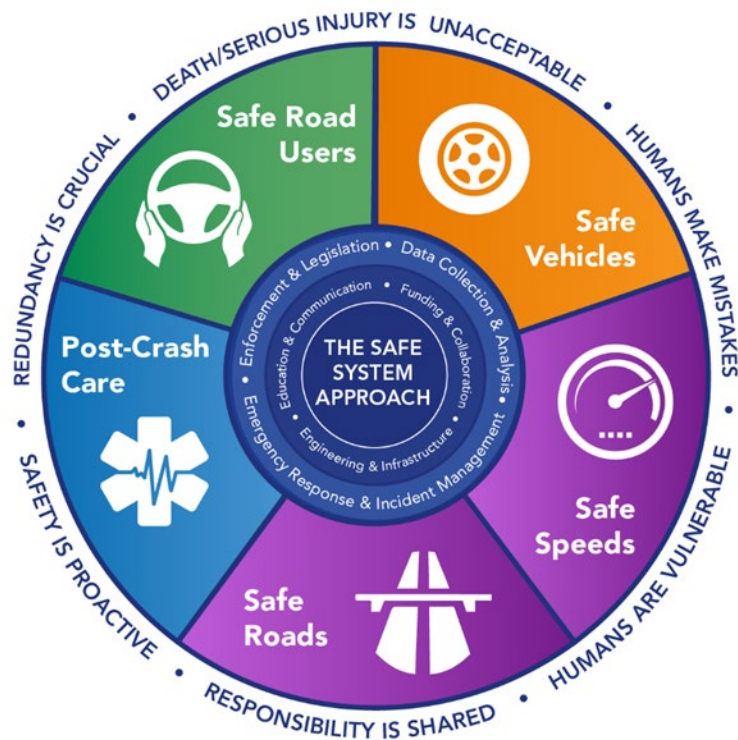
As defined by FHWA, a VRU includes the following: *pedestrians, bicyclists or other cyclists, a person on personal conveyance (e.g., someone skateboarding or on a scooter), or a highway worker on foot in a work zone.* The VRU definition does not include motorcyclists.

The purpose of the VRU Safety Assessment is to assess the safety performance of all public roads in the State of Arkansas with respect to VRUs. In alignment with FHWA guidance, the VRU Safety Assessment consists of the following steps described below:

- » A quantitative data-driven analysis on VRU crashes and demographics to identify high-risk corridors.
- » Consultations with local governments, metropolitan planning organizations (MPO), and regional planning organizations to gain local knowledge and perspective on factors contributing to the safety concerns of high-risk corridors and to document challenges addressing VRU safety.
- » Development of a program of strategies and actions to improve VRU safety in Arkansas based on the quantitative data-driven analysis and local agency consultation.

The Arkansas Department of Transportation (ARDOT) has adopted the Safe System Approach (SSA) as part of the 2022-2027 Strategic Highway Safety Plan (SHSP) to be the guiding paradigm for increasing road safety on public roadways in Arkansas. The SSA is a holistic approach that aligns with the USDOT's National Roadway Safety Strategy of working towards a future with zero fatalities and suspected serious injuries. As shown in Figure 1, the six SSA guiding principles (presented in the outer ring around the circle) and five elements (presented as the pie slices within the circle) were considered throughout the VRU Safety Assessment.

FIGURE 1 THE SAFE SYSTEM APPROACH



Source: 2022 Arkansas Strategic Highway Safety Plan, ARDOT.

Arkansas is committed to increasing the safety of those walking, biking, rolling, or working on State and local roadways. The VRU Safety Assessment builds upon existing State and local transportation planning efforts and is intended to inform project selection and guide investments to improve the safety of all road users. In addition, the VRU Safety Assessment supports national implementation of the SSA and the State's safety vision, Toward Zero Deaths, with the long-term goal of zero fatalities.

1.1 PLAN CONTENT AND STRUCTURE

The VRU Safety Assessment includes all content required by Federal guidance. The remaining sections are structured in the following manner:

- » Section 2 summarizes the document review completed by ARDOT to inform the development of this State plan. Relevant statewide safety documents, MPO plans, and other pertinent plans were reviewed that contributed to the production of strategies and actions identified in Section 5.
- » Section 3 compiles non-motorized fatal and suspected serious injury crash trends to better understand VRU safety needs in Arkansas. Additionally, this section includes a sliding window analysis to identify the top 10 State-owned and top 10 locally-owned high-risk VRU corridors in the State.
- » Section 4 contains a summary of stakeholder consultation activities completed to inform the assessment, which included consultation with the SHSP Steering Committee, meetings with MPOs, and engagement with other local agencies.
- » Section 5 describes strategies and actions Arkansas may implement to reduce the risk of VRU fatalities and suspected serious injuries on all public roads in Arkansas.

2 DOCUMENT REVIEW



To ensure that the VRU Safety Assessment is consistent with existing documents, ARDOT reviewed statewide and urban area transportation plans, as well as relevant documents that guide transportation safety efforts in Arkansas. This section summarizes the documents reviewed for the VRU Safety Assessment, the VRU-related goals and objectives, strategies and recommendations from other plans, and key takeaways to inform this State plan.

2.1 DOCUMENTS REVIEWED

ARDOT's Highway Safety Improvement Program (HSIP), SHSP, Bicycle and Pedestrian Transportation Plan, Statewide Transportation Improvement Program, Statewide Long-range Intermodal Transportation Plan (LRITP), and eight MPO Long-range Transportation Plans (LRTP), also known as Metropolitan Transportation Plans (MTP) were reviewed to understand how different agencies have incorporated safety into their transportation planning objectives, performance measures, and strategies and how these elements relate to VRU safety. Additionally, other relevant safety documents such as Safe Transportation for Every Pedestrian (STEP) reports and bicycle guides were reviewed.

TABLE 1 DOCUMENTS REVIEWED

DOCUMENT	YEAR	AGENCY
State-Level Safety Plans		
2022-2027 Arkansas SHSP	2022	ARDOT
FY 2023 Highway Safety Plan	2023	Arkansas Highway Safety Office (HSO)
Bicycle Safety in Arkansas	2013	Arkansas Department of Parks and Tourism
Long-Range Transportation Plans		
Arkansas Long-Range Intermodal Transportation Plan	2017	ARDOT
Central Arkansas 2050	2018	Metroplan
Together Frontier: 2045	2022	Frontier MPO
Propel 2045	2021	Northeast Arkansas Regional Transportation Planning Commission (N.A.R.T.P.C.)
2045 Metropolitan Transportation Plan	2021	Northwest Arkansas Regional Planning Commission (NWARPC)
2045 Metropolitan Transportation Plan	2020	Southeast Arkansas Regional Planning Commission (SARPC)
Texarkana 2045	2019	Texarkana MPO
2045 Metropolitan Transportation Plan	2020	Tri-Lakes MPO
Imagine 2050 Metropolitan Transportation Plan	2021	West Memphis MPO
Other Documents		
Arkansas HSIP	2022	ARDOT
Target Setting for 2024—Safety Performance Measures	2023	ARDOT
ADA Transition Plan	In Development	ARDOT
Statewide Transportation Improvement Program	2023	ARDOT
Arkansas Bicycle and Pedestrian Transportation Plan	2017	ARDOT
STEP Study: Highway 10 (Little Rock)	2019	Metroplan
STEP Study: Highway 141 (Jonesboro)	2019	Northeast Arkansas Regional Transportation Planning Commission (N.A.R.T.P.C.)
Developing an Effective VRU Program	2021	American Traffic Safety Services Association

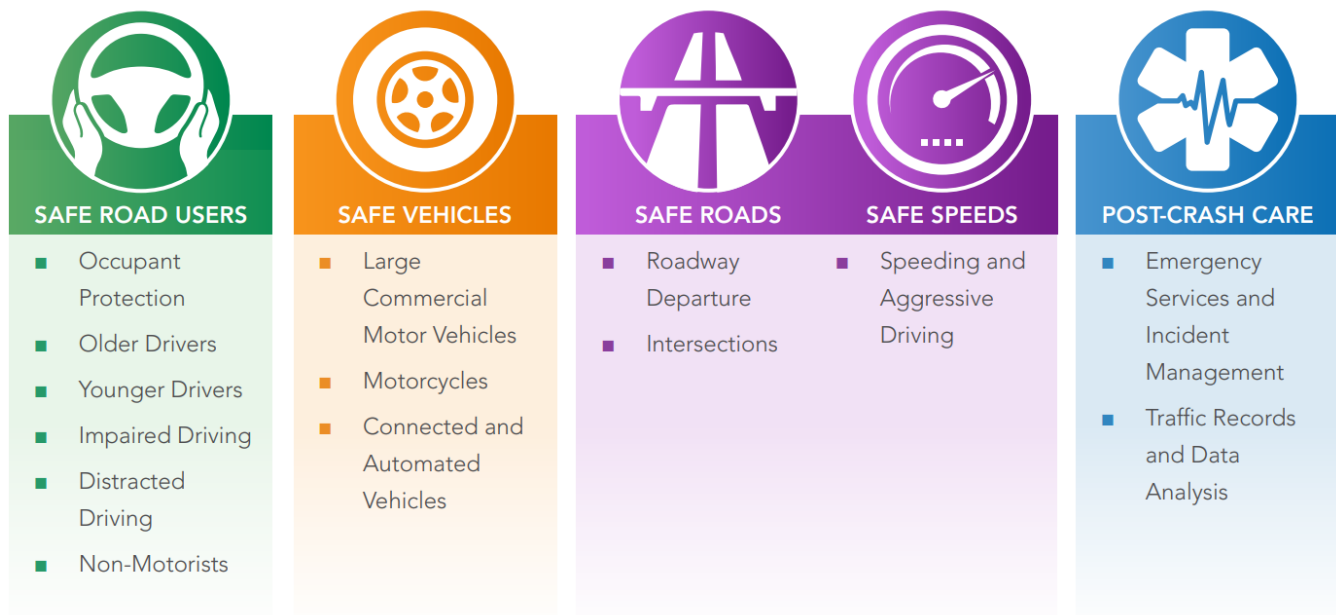
2.2 VISION, GOALS, OBJECTIVES, AND PERFORMANCE TARGETS

Arkansas remains committed to the vision, Toward Zero Deaths, with a long-term goal of zero traffic fatalities. Looking to make significant progress in reducing the number of traffic-related fatalities and suspected serious injuries, Arkansas developed a set of goals and objectives that reflect the State’s priorities around safety performance.

The Arkansas SHSP is a federally required, statewide, coordinated safety plan that provides a framework for reducing traffic fatalities and suspected serious injuries on all public roads that must be updated every five years. The SHSP sets the priorities for other safety programs and initiatives in the State, including the HSIP (focusing primarily on engineering countermeasures) and the Highway Safety Plan (HSP, primarily focused on behavioral countermeasures). Projects funded with HSIP funds must reflect the SHSP at a strategic level.

As shown in Figure 2, the 2022-2027 SHSP identified four emphasis areas and 14 focus areas aligned with the SSA (outlined in Figure 1). To ensure Arkansas continues to make consistent progress toward the goal of zero fatalities and suspected serious injuries, the SHSP objective is to reduce statewide fatalities and suspected serious injuries by 2 percent annually until 2025, including non-motorist fatalities and suspected serious injuries.

FIGURE 2 2022–2027 ARKANSAS SHSP EMPHASIS AND FOCUS AREAS



Source: 2022-2027 Arkansas Strategic Highway Safety Plan, ARDOT.

While not directly part of the VRU Safety Assessment, ARDOT renews its five safety performance targets associated with the HSIP annually. One of these performance measures is the five-year moving average number of non-motorized fatalities and suspected serious injuries. For 2024, the target set by Arkansas is to have a five-year average of less than 267 non-motorized fatalities and suspected serious injuries per year.

With the five-year average increasing each year from 2017 to 2021, discussed in Section 3.2 and presented in Figure 3, Arkansas must take action to lower the five-year average to meet this target. It is anticipated that strategies from both the HSIP Implementation Plan, which was completed in August 2023, as well as this assessment will contribute to the reduction of non-motorized fatalities and suspected serious injuries in the State and the meeting of Arkansas’ non-motorized safety performance target. The HSIP Implementation Plan specifically identifies working with local jurisdictions to determine which corridors are at high-risk for non-motorist safety.

In the Arkansas Bicycle and Pedestrian Plan, ARDOT’s goals include building out the bicycle and pedestrian network and conducting analysis to implement more specific strategies to reduce pedestrian and bicyclist deaths, while the safety-related objectives include strengthening enforcement and education measures. Several MPOs of

Arkansas included safety in their MTP vision statements. MPOs envision a safe, well-connected, and multimodal transportation system to increase safety for motorized and non-motorized users.

2.3 STRATEGIES AND RECOMMENDATIONS

A mix of strategies and recommendations related to engineering and infrastructure, data collection and analysis, enforcement and legislation, and education and communication have been identified. Under the HSIP, ARDOT has administered various engineering projects including improvements addressing intersections, low-cost spot improvements, installing median barriers, and projects addressing roadway departures. In its SHSP, ARDOT developed engineering, enforcement, and education strategies for improving non-motorist safety as shown below:

- » Continue to improve statewide infrastructure and design to protect non-motorists.
- » Continue to implement countermeasures, programs, and policies to protect non-motorists.
- » Focus education efforts on safety and awareness of laws regarding non-motorist traffic.

Arkansas' Bicycle and Pedestrian Plan identified a range of safety strategies to achieve a significant reduction in fatalities and injuries. These include analyzing crash data, conducting road safety audits, and conducting educational programs and safety campaigns. Among the MPO plans reviewed, there were different approaches to reducing fatalities and suspected serious injuries. To understand local traffic safety challenges, MPOs have conducted crash analyses to identify high-risk corridors. For example, Texarkana MPO overlaid crash hot spots with high-need areas (areas with significant minority populations, significant poverty concentrations, or significant households without vehicles). As another example, Southeast Arkansas Regional Planning Commission (SARPC) intends to establish a safety management system to assist in recording crash incidents, identifying high-risk locations, and selecting appropriate countermeasures.

Other MPO-area, statewide and local studies have referenced STEP countermeasures. In its Action Plan for Implementing Pedestrian Crossing Countermeasures, ARDOT highlights STEP recommendations such as improving crash data collection, analyzing critical intersections, and engineering improvements that include curb extensions, advance yield bars, and pedestrian signs. Little Rock and Jonesboro conducted STEP Studies for Highway 10 in Little Rock and Highway 141 in Jonesboro to assess existing safety issues in these corridors. These studies provided a list of actions, which included ensuring ADA compliance, crosswalk and sidewalk improvements, and traffic signal modifications.

Other documents reviewed also offered a host of recommendations and strategies. Arkansas' Bicycle Safety Manual highlights four principles to avoid crashes: maintaining control of the bicycle, riding on the right and with traffic, being alert and visible, and wearing a helmet to reduce the risk of injury. ARDOT's Draft ADA Transition Plan lists actions that ARDOT will take to comply with the ADA, including making curb ramps and sidewalks accessible.

2.4 KEY TAKEAWAYS

The SHSP and HSIP provide a foundation for VRU safety planning in Arkansas. This foundation is supported by statewide goals, objectives, and targets. The strategies and countermeasures in the SHSP should serve as a basis for identifying projects and programs to reduce VRU fatalities and suspected serious injuries. Other statewide plans, such as the Bicycle and Pedestrian Transportation Plan, provide more focused action steps to consider when the project team conducts consultation with agencies representing the high-risk areas for VRUs.

The MPO MTPs provide a glimpse at the strategies being implemented in various regions to address VRU safety and safety in general.

Additional information is needed to understand the actions cities and counties are taking to address VRU safety and the VRU safety challenges in these communities. The local agency consultation meetings summarized in Section 4 focused on collecting more information on VRU safety challenges, needs, and planned or programmed projects. The meetings also provided an opportunity to understand the VRU safety stakeholders unique to each community (e.g., universities, schools, employers, tourist attractions, etc.).

3 DATA ANALYSIS



As part of the VRU Safety Assessment, Arkansas is required to include a data-driven analysis of the State's safety data that identifies areas as high-risk for VRUs. For this plan, ARDOT performed two different sets of analyses:

- » ARDOT analyzed the raw crash data with areas identified in the Justice40 Initiative to identify statewide trends in VRU safety. This analysis is discussed in Section 3.2.
- » ARDOT analyzed the location of crashes throughout the State, combined it with traffic volume data, performed a sliding window safety analysis, and identified 10 State-owned and 10 locally-owned corridors across the State that have the greatest VRU challenges. This is discussed in Section 3.3.

3.1 DATA SOURCES

ARDOT used five main data sources for this analysis. Three of them are compiled by Arkansas and two are compiled by the Federal government.

- » **Arkansas Crash Data (State)**—This dataset contains georeferenced crashes with attributes such as severity, location, collision type, and more. This was the main source of data for this analysis.
- » **Arkansas Roadway Inventory (State)**—This dataset contains Annual Average Daily Traffic volumes (AADT) for many roads in Arkansas.
- » **Climate and Economic Justice Screening Tool (Federal)**—This dataset is from the White House's Council on Environmental Quality and their Justice40 Initiative, which aims to provide 40 percent of overall benefits of certain Federal investments to disadvantaged communities. The data from this tool shows which Arkansas census tracts are underserved and why they meet that criterion.
- » **2022 Arkansas Highway Safety Improvement Program (State)**—This report contains official overall non-motorized fatality and suspected serious injury data, which is used in Figure 3 to show the trend of non-motorized fatalities and suspected serious injuries by year.
- » **2020 U.S. Census (Federal)**—Demographic data for the entire State was referenced in the analysis of race and ethnicity from the most recent U.S. census, discussed in Table 3.

3.2 VULNERABLE ROAD USER SAFETY TRENDS

This section identifies VRU safety trends in Arkansas and breaks down fatalities and suspected serious injuries to non-motorized users by year, location, non-motorist type, circumstances surrounding the crash, lighting conditions, race/ethnicity, and Justice40 identified areas. These analyses show patterns in non-motorized crash data and reveal trends that may help tailor the strategies and actions in Section 5 of this report to more effectively reduce fatalities and suspected serious injuries in Arkansas.

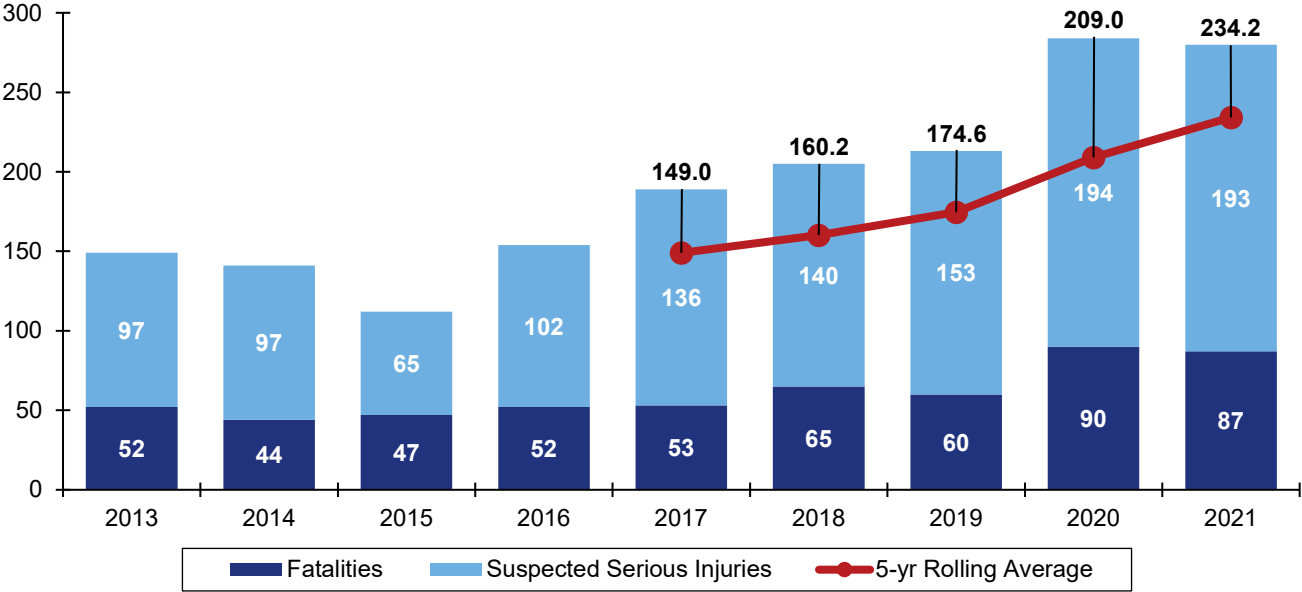
In general, the number of fatalities and suspected serious injuries may not be consistent among all figures and tables in this section as some use differing sources, and some fields of interest may not be consistently reported for all crashes. For example, how non-motorists' locations are noted in a crash report may not be consistent among law enforcement agencies, and driver or non-motorist impairment may not be available at the time the report is filed due to pending toxicology testing.

3.2.1 *Historical Safety Trends*

Figure 3 shows non-motorized fatalities and suspected serious injuries per year since 2013 and a five-year moving average from 2017 to 2021. This figure corresponds to one of the five safety performance metrics tracked in the HSIP. Each year Arkansas must set safety targets for five metrics, including the five-year moving average for non-motorized fatalities and suspected serious injuries. If Arkansas fails to meet these targets or show improvements from the baselines, ARDOT will be required to obligate a certain amount of funds specifically for HSIP-related projects and complete an additional HSIP Implementation Plan.

Recently, Arkansas did not meet three of five targets, including the non-motorized target. The 2017–2021 average was above the target of 220.3 non-motorized fatalities and suspected serious injuries. This concerning upward trend of non-motorized fatalities and suspected serious injuries over the past years has also been observed nationally. After dropping by 25 percent from 149 in 2013 to 112 in 2015, the annual number of non-motorized fatalities and suspected serious injuries in Arkansas has increased in each year except for a slight drop in 2021. Since 2015 total non-motorized fatalities and suspected serious injuries have increased 150 percent from 112 to 280 fatalities and suspected serious injuries in 2021. Additionally, the five-year moving average increased by more than 50 percent from 2017 (149.0) to 2021 (234.2).

FIGURE 3 NON-MOTORIZED FATALITIES AND SUSPECTED SERIOUS INJURIES (2013–2021)



Source: 2022 Arkansas Highway Safety Improvement Program.

Table 2 shows non-motorist fatalities and suspected serious injuries by MPO area. The second-to-last row shows that 67.5 percent of these crashes occurred in urban environments. It makes sense that a higher percentage occurred in urban areas as they generally have more people walking and biking due to denser land uses, public transportation, and higher populations. Metroplan’s study area (the Central Arkansas metro area) had the most non-motorist fatalities and suspected serious injuries with 476 over the seven years of available data, which accounted for approximately one third of the non-motorist fatal and suspected serious injuries in the State. This is followed by the Northwest Arkansas Regional Planning Commission (NWARPC) study area (the Northwest Arkansas metropolitan area) with 14.7 percent and the Frontier MPO’s study area (the Fort Smith metropolitan area) with 5.8 percent.

Although the majority of these crashes occur in urban areas, almost a third occur in rural areas. This highlights the need for Arkansas to develop strategies that are appropriate both for urban and rural areas. Strategies for each area type may look different due to differences in land use or characteristics of non-motorists in each area, as well as differing roadway environments.

TABLE 2 NON-MOTORIST FATALITIES AND SUSPECTED SERIOUS INJURIES BY MPO AREA (2015–2021)

MPO AREA	POPULATION		FATALITIES + SUSPECTED SERIOUS INJURIES		FATALITIES + SUSPECTED SERIOUS INJURIES PER 1 MILLION PEOPLE
	TOTAL	% OF STATEWIDE	TOTAL	% OF STATEWIDE	
Metroplan	707,590	23.5%	476	32.9%	672.7
NWARPC	530,198	17.6%	213	14.7%	401.7
Frontier MPO	162,735	5.4%	84	5.8%	516.2
Tri-Lakes MPO	92,358	3.1%	60	4.2%	649.6
N.A.R.T.P.C.	100,216	3.3%	59	4.1%	588.7
SARPC	56,839	1.9%	38	2.6%	668.6
West Memphis MPO	39,537	1.3%	25	1.7%	632.3
Texarkana MPO	32,614	1.1%	21	1.5%	643.9
Urban Total	1,722,087	57.2%	976	67.5%	566.8
Rural Total	1,289,437	42.8%	469	32.5%	363.7

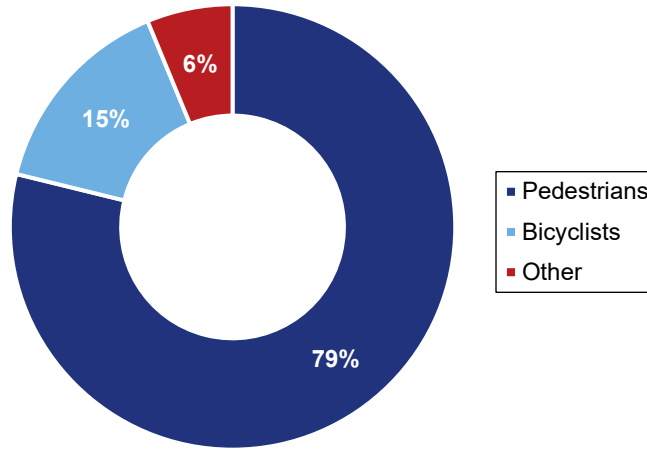
Source: ARDOT Crash Database.

Note: Within the context of this table, “urban” refers to areas within the boundaries of MPOs. “Rural” refers to areas that are not within an MPO boundary.

Figure 4 shows the non-motorist type in all non-motorist fatalities and suspected serious injuries over the most recent seven years of data. Almost 80 percent of non-motorist fatalities and suspected serious injuries in Arkansas are pedestrians, followed by about 15 percent being bicyclists. The remaining six percent includes people on scooters, in wheelchairs, or using other means of non-motorized personal conveyance. None of these categories include people on motorcycles, who are not considered VRUs (as defined by FHWA in the VRU Safety Assessment Guidance¹).

¹ Federal Highway Administration. Vulnerable Road User Safety Assessment Guidance. Available at https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-10/VRU%20Safety%20Assessment%20Guidance%20FINAL_508.pdf.

FIGURE 4 TYPES OF NON-MOTORIZED FATALITIES AND SUSPECTED SERIOUS INJURIES (2015–2021)

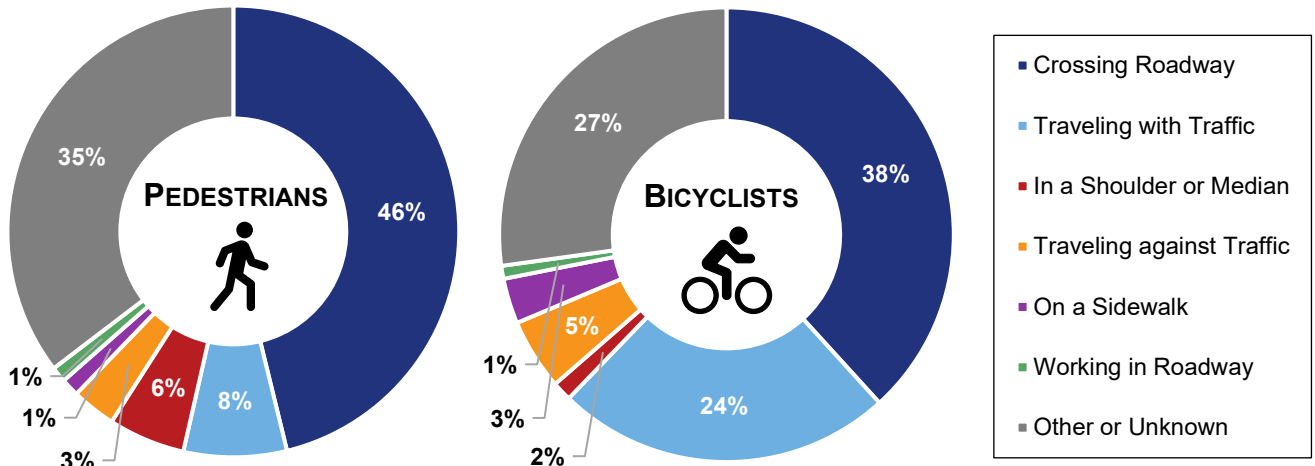


Source: ARDOT Crash Database.

Law enforcement officers complete a crash report form at the time of a crash, which identifies the preceding action of all parties involved in the crash, if known. For non-motorized users, this generally indicates where the non-motorist was in relation to the roadway. Figure 5 shows the non-motorists’ actions prior to fatalities and suspected serious injuries for pedestrians and bicyclists separately. In both cases, the action associated with the highest number of fatalities and suspected serious injuries is Crossing Roadway. Within the Crossing Roadway category, 46 percent of pedestrians and 38 percent of bicyclists suffered a fatal or suspected serious injury.

The second most common non-motorist action prior to a crash is Traveling with Traffic, which is much more likely for a bicyclist with 24 percent compared to pedestrians with 8 percent. Strategies that specifically address pedestrian crashes and strategies that specifically address bicyclist crashes may look different due to the differences in how these crashes occur; for example, bicyclists are much more likely to be traveling along the roadway as opposed to crossing it when compared to pedestrians. Therefore, potential countermeasures may look different for each.

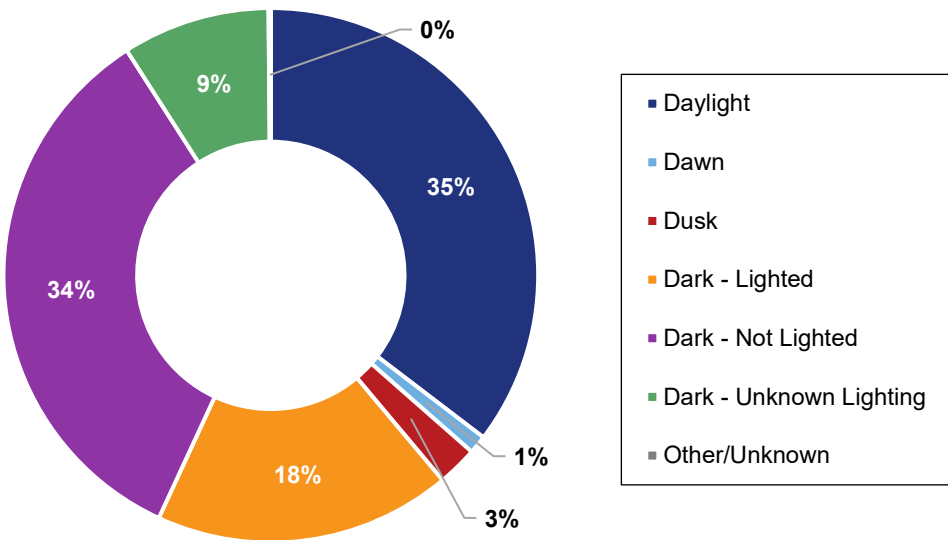
FIGURE 5 ACTIONS PRIOR TO CRASH FOR NON-MOTORIZED FATALITIES AND SUSPECTED SERIOUS INJURIES (2015–2021)



Source: ARDOT Crash Database.

Non-motorized users can be more vulnerable at night as poor visibility contributes to their risk. Figure 6 shows lighting conditions at the time of the crash for non-motorized fatalities and suspected serious injuries. Thirty-five percent of crashes occurred during daylight hours as opposed to 65 percent that occurred during reduced light conditions. Thirty-four percent of these incidents happened at nighttime where there was no artificial lighting, but an additional 18 percent happened at night where there was artificial lighting. Given that most non-motorized users are walking, biking, or rolling during daylight hours, the fact that almost two thirds of crashes occurred during dark conditions emphasizes the importance of adequate lighting conditions for non-motorists' safety. Even nighttime conditions with artificial lighting are relatively high-risk compared to daylight conditions.

FIGURE 6 NON-MOTORIZED FATALITIES AND SUSPECTED SERIOUS INJURIES BY LIGHTING CONDITIONS (2015–2021)



Source: ARDOT Crash Database.

3.2.2 Equity & Vulnerable Road User Safety

Law enforcement officers must provide demographic data on crash reports. Table 3 shows non-motorist fatalities and suspected serious injuries for each race or ethnicity, the corresponding population in the entire State, and the rate of non-motorist fatality or suspected serious injuries by population. Despite only accounting for about 16 percent of the State’s population, Black or African Americans account for 28 percent of non-motorist fatalities and suspected serious injuries in Arkansas. The fatality and suspected serious injury rate for this group is double the rate for the rest of the races or ethnicities as shown in Table 3.

TABLE 3 NON-MOTORIST FATALITIES AND SUSPECTED SERIOUS INJURIES BY RACE/ETHNICITY (2015–2021)

RACE / ETHNICITY	POPULATION		FATALITIES + SUSPECTED SERIOUS INJURIES		FATALITIES + SUSPECTED SERIOUS INJURIES PER 1 MILLION PEOPLE
	TOTAL	% OF STATEWIDE	TOTAL	% OF STATEWIDE	
White / Caucasian	2,203,950	73.2%	944	64.6%	428.3
Black / African American	487,994	16.2%	409	28.0%	838.1
Hispanic	256,847	8.5%	76	5.2%	295.9
Asian / Pacific Islander	82,423	2.7%	18	1.2%	218.4
American Indian	101,894	3.4%	3	0.2%	29.4
Other / Unknown	31,658	1.1%	11	0.8%	347.5

Source: Crash data from ARDOT Crash Database; Race and Ethnicity data from the 2020 U.S. Census.

Note: Race/Ethnicity categories align with options on the Arkansas crash reports; the sum of the population column may be higher than the total population of Arkansas due to people identifying as multiple races.

As described in Section 3.1, Justice40 data provides another way to analyze non-motorist safety for different groups who may experience disproportionate impacts. Justice40 data is available at the website for the White House Council on Environmental Quality². Within the Justice40 framework, there are eight categories for which a census tract can be considered “disadvantaged”. These are:

- » **Climate Change**—These burdens aim to measure expected agricultural value, building value, and population loss due to climate-related natural hazards, as well as projected wildfire risk and projected flood risk due to climate change.
- » **Energy**—These burdens aim to measure the energy cost as well as energy-related pollution within a census tract.
- » **Health**—These burdens aim to identify areas facing high rates of asthma, diabetes, heart disease, and low life expectancy within a census tract.

² White House Council on Environmental Quality. Version 1 of the CEJST: Technical Support Document. Available at <https://static-data-screeningtool.geoplatform.gov/data-versions/1.0/data/score/downloadable/1.0-cejst-technical-support-document.pdf>.

- » **Housing**—These burdens aim to measure the housing cost, the degree of lead paint exposure in housing, historic underinvestment due to redlining, lack of green space, and the share of homes without indoor plumbing or kitchens within a census tract.
- » **Legacy Pollution**—These burdens aim to measure how legacy, current, and potential pollution a census tract has through proximity to hazardous waste, Superfund sites (otherwise known as National Priorities List), Risk Management Plan facilities, abandoned mine land, and Formerly Used Defense Sites.
- » **Transportation**—These burdens aim to measure the transportation-related pollution, transportation barriers, and traffic-related noise and proximity to a census tract.
- » **Water and Wastewater**—These burdens aim to measure the census tract’s proximity to toxicity-weighted wastewater discharges and underground storage tanks that may leak.
- » **Workforce Development**—These burdens aim to identify census tracts that would benefit from greater workforce development, such as areas with low median income as a percentage of area median income, percent of households in linguistic isolation, percent of the workforce experience unemployment, and percentage of a census tract’s population in households where the household income is at or below the federal poverty level.

A census tract can be considered disadvantaged for meeting any one of these burdens, but multiple burdens may be applicable for a particular census tract.

Table 4 summarizes the population, non-motorist fatalities and suspected serious injuries, and the rate for each of the eight burden categories, as well as for Justice40 areas in total. Despite accounting for 55 percent of the population in the State, Justice40 areas account for 64 percent of total non-motorist fatalities and suspected serious injuries, indicating that they are more likely to occur in disadvantaged areas. Of the Justice40 areas, those that are overburdened from the legacy pollution or workforce development categories are most likely to correlate with higher numbers of non-motorist fatalities and suspected serious injuries. From 2015 to 2021, those areas experienced over 800 fatalities or suspected serious injuries per 1 million people, the highest rates for all Justice40 areas.

TABLE 4 NON-MOTORIST FATALITIES AND SUSPECTED SERIOUS INJURIES BY JUSTICE40 CATEGORY (2015–2021)

JUSTICE40 CATEGORY	POPULATION		FATALITIES + SUSPECTED SERIOUS INJURIES		FATALITIES + SUSPECTED SERIOUS INJURIES PER 1 MILLION PEOPLE
	TOTAL	% OF STATEWIDE	TOTAL	% OF STATEWIDE	
Climate Change	1,121,342	37.2%	458	31.7%	408.4
Energy	317,234	10.5%	198	13.7%	624.1
Health	921,926	30.6%	596	41.2%	646.5
Housing	411,222	13.7%	280	19.4%	680.9
Legacy Pollution	363,350	12.1%	304	21.0%	836.7
Transportation	358,078	11.9%	120	8.3%	335.1
Water & Wastewater	87,573	2.9%	53	3.7%	605.2
Workforce Development	401,777	13.3%	354	24.5%	881.1
Justice40 Areas Total	1,640,453	54.5%	922	63.8%	562.0
Non-Justice40 Areas	1,371,071	45.5%	523	36.2%	381.5

Source: Crash data from ARDOT Crash Database; Justice40 data from the White House Council on Environmental Quality.

Note: Each census tract may be tagged as more than one type of Justice40 category, so the sum of numbers of all individual Justice40 rows in the table above may not equal the total for all Justice40 categories.

3.3 HIGH-RISK CORRIDORS

This section outlines the approach to identifying high-risk corridors throughout the State, which are road segments with higher frequencies of crashes involving VRUs. A sliding window analysis was used to identify the top 10 State-owned and top 10 locally-owned corridors. This process focused on identifying areas where crash occurrences were disproportionately high in terms of severity. In other words, it aimed to pinpoint corridors with a higher concentration of fatal or suspected serious injury crashes involving VRUs.

3.3.1 Sliding Window Analysis Approach

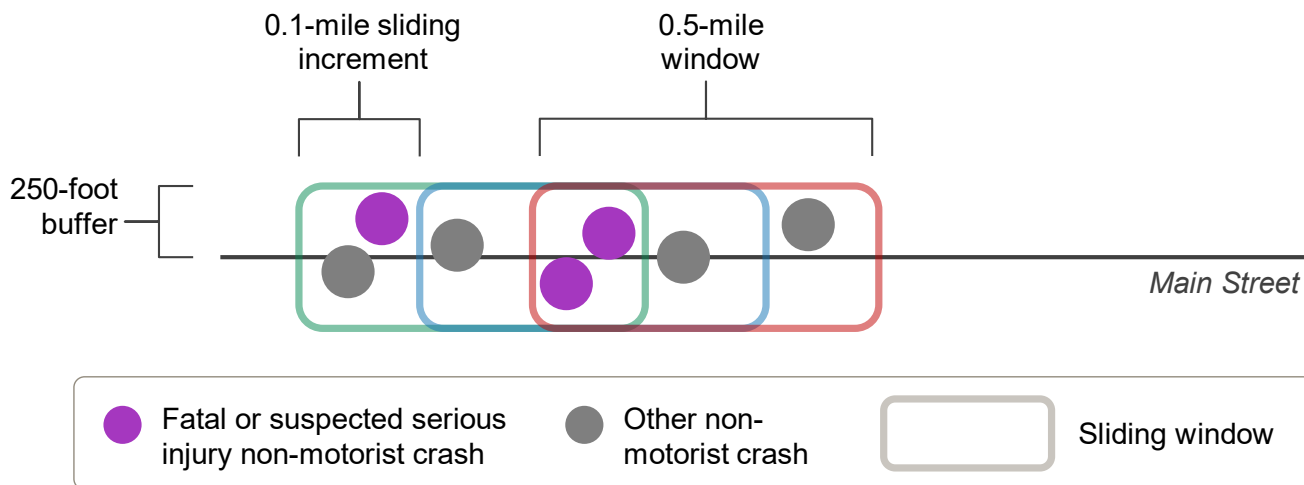
The screening analysis utilized a sliding windows approach, which is a recognized method supported by FHWA in the Guidebook on Identification of High Pedestrian Crash Locations.³ This approach has been widely used in Vision Zero studies to identify High-Risk Networks. By utilizing this approach, the VRU Safety Assessment identified high-risk corridors, highlighting the road segments where attention is needed to mitigate the risks faced by VRUs and enhance overall road safety.

The sliding windows analyses smooth out deviations in reported crash locations and improve the analysis of crashes by examining them within short segments along roadways. This process involves creating windows that cover the road network, with each window offset by a short distance from the previous one. The analysis is

³ Federal Highway Administration. Guidebook on Identification of High Pedestrian Crash Locations. Available at <https://www.fhwa.dot.gov/publications/research/safety/17106/17106.pdf>.

repeated until the entire road network is covered. An illustrative example is shown below in Figure 7 and the following paragraphs.

FIGURE 7 SLIDING WINDOW ANALYSIS ILLUSTRATIVE EXAMPLE



Within the context of this study, 0.5-mile road segment windows were used along all public roads in Arkansas. The windows were offset, or slid, along the network in 0.1-mile increments. Crashes within 250 feet of each roadway segment were counted and a severity weighted score was attributed to each window segment. Crashes that resulted in a fatality or suspected serious injury were weighted three times greater than all other crashes. The below formula and three examples show this calculation. The three colors in the examples relate to the three corresponding windows by color, shown in Figure 7.

Variables and Formula:

KA = # of fatal or suspected serious injury non-motorist crashes within the sliding window
BCO = Other non-motorist crashes within the sliding window

$$\text{Crash Score} = 3 * (\text{KA}) + 1 * (\text{BCO})$$

Examples:

Crash Score for Green Window = 3 * (3 crashes) + 1 * (2 crashes) = 11
 Crash Score for Blue Window = 3 * (2 crashes) + 1 * (2 crashes) = 8
 Crash Score for Red Window = 3 * (2 crashes) + 1 * (2 crashes) = 8

After the crashes were accounted for in each segment, AADT volumes were joined to the segments. The crash score for each segment was normalized by the AADT on each segment to develop a crash rate in addition to the raw number of crashes.

After this sliding window analysis, the segments with the highest scores for both raw crash score and crash rate were reviewed. This review aimed to identify and select the window segments that would comprise the final list of high-risk corridors. Ten corridors for State-owned roads and 10 corridors for locally-owned roads were identified. Additionally, roads were considered only if they had an AADT of 5,000 or greater, as roadways below that threshold (such as neighborhood roadways with low traffic volume) may not have accurate traffic data, which results in skewed crash rates.

Once the final high-risk corridors were established, the results were shared with stakeholders. This step involved collaborative discussions and feedback to confirm the identified high-risk corridors. By combining the analysis and input from local agencies, the assessment produced a list of corridors that reflect high-risk areas for VRUs.

3.3.2 Identified High-Risk Corridors

The identified high-risk corridors are summarized in Table 5 and Table 6. Table 5 shows the top 10 corridors on State-owned roads, Table 6 shows the top 10 corridors on locally-owned roads, and Figure 8 shows the location of the corridors within the State. The ID in the tables corresponds to the grey labels on the map.

TABLE 5 IDENTIFIED STATE-OWNED HIGH-RISK CORRIDORS

ID	NAME	MPO AREA
S1	Hwy 338 (Baseline Rd)	Metroplan
S2	US-70 (Asher Ave)	Metroplan
S3	Hwy 141 (N Main St)	N.A.R.T.P.C.
S4	Hwy 7 (Central Ave)	Tri-Lakes MPO
S5	US-67 (T.P. White Dr)	Metroplan
S6	US-70 (Roosevelt Rd)	Metroplan
S7	US-70 (E Broadway Ave)	West Memphis MPO
S8	US-70 Business (Grand Ave)	Tri-Lakes MPO
S9	Hwy 365 (Pike Ave)	Metroplan
S10	Hwy 91 (E Johnson Ave)	N.A.R.T.P.C.

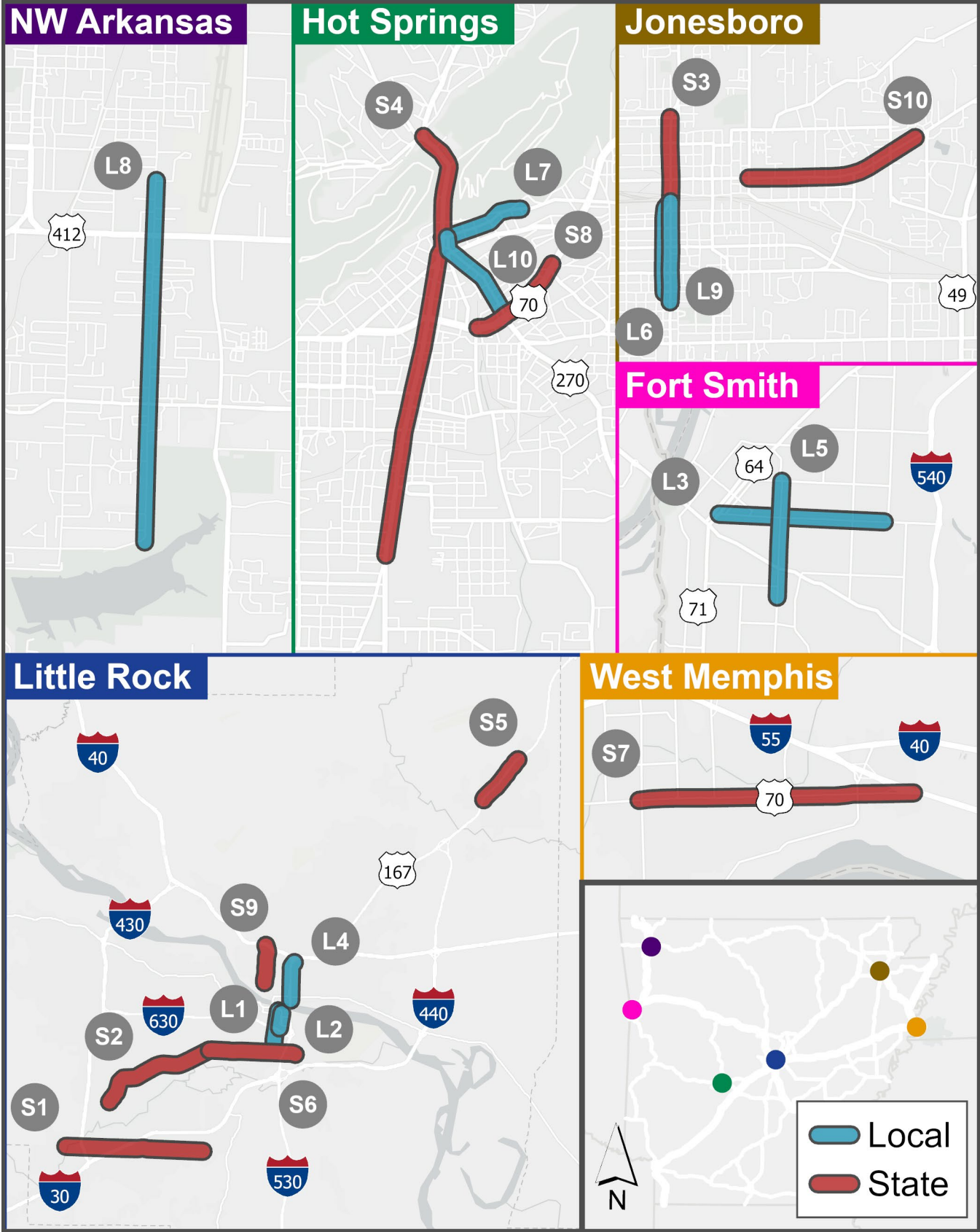
Source: ARDOT.

TABLE 6 IDENTIFIED LOCALLY-OWNED HIGH-RISK CORRIDORS

ID	NAME	MPO AREA
L1	Main St	Metroplan
L2	Cumberland St	Metroplan
L3	Grand Ave	Frontier MPO
L4	N Locust St	Metroplan
L5	N Greenwood Ave	Frontier MPO
L6	Union St	N.A.R.T.P.C.
L7	Spring St	Tri-Lakes MPO
L8	S Powell St	NWARPC
L9	S Main St	N.A.R.T.P.C.
L10	Malvern Ave	Tri-Lakes MPO

Source: ARDOT.

FIGURE 8 IDENTIFIED HIGH-RISK CORRIDORS



Source: ARDOT.

All 20 identified corridors are located within MPO boundaries, with many located in the center of each major city’s downtown area. This aligns with the analysis from Table 2, where the majority of crashes occurred in urban areas. Eight of the corridors are located within Metroplan’s boundary (the central Arkansas region), four are located within the Tri-Lakes MPO boundary (the Hot Springs region), and the rest are spread throughout Arkansas’ other MPO areas.

As noted at the beginning of Section 3.3.2, it is important to emphasize that these roads are not the only roads where VRU safety improvements may be considered. The identification of these roads is to help determine common factors among areas where VRUs are at risk in Arkansas. For example, many of these local roads go through downtown areas with land uses conducive to neighborhood shops and markets, and many of the State roads are arterials where many suburban-style land uses such as commercial businesses with large parking lots focused on vehicular movement are located. Roadways within the Texarkana MPO study area, SARPC study area, and rural areas of the State share these characteristics and strategies, and future planning may be applicable statewide, not only along these identified corridors.

For further analysis, the high-risk network corridors were overlaid with census tracts designated as Justice40 areas to determine common types of overburdened categories where these corridors are located as shown in Table 7. Areas with challenges in workforce development, health, housing, and energy were most likely to contain the identified high-risk corridors. This generally aligns with the data from Table 4 that shows in which Justice40 categories non-motorized fatalities and suspected serious injuries occur most frequently.

TABLE 7 JUSTICE40 OVERLAP WITH THE NUMBER OF HIGH-RISK CORRIDORS

JUSTICE40 CATEGORY	STATE-OWNED	LOCALLY-OWNED
Climate Change	4	5
Energy	6	3
Health	8	9
Housing	6	8
Legacy Pollution	4	4
Transportation	2	2
Water & Wastewater	2	0
Workforce Development	9	8

Source: Justice40 data from the White House Council on Environmental Quality.

4 STAKEHOLDER CONSULTATION



4.1 INTRODUCTION

For the VRU Safety Assessment, the FHWA recommends that all states conduct stakeholder consultations with the local governments, MPOs, and regional planning organizations that represent high-risk areas. The purpose of this consultation is to get feedback on the priority areas identified during the analysis and gain local knowledge on the factors contributing to the safety concerns in the area. As part of this consultation, the State also needs to consult with local organizations regarding local safety data that is required to perform quantitative analysis to identify high-risk areas. The local organizations also have insights on policies, plans, and regulations that are needed to better ensure consistent consideration of the safety needs of VRUs across all project types. Additionally, the local and regional stakeholders have first-hand knowledge of challenges and barriers faced by VRUs in their unique communities and may have insights for safety solutions that might work best to reduce VRU fatalities and suspected serious injuries.

4.2 OBJECTIVES OF STAKEHOLDER CONSULTATION

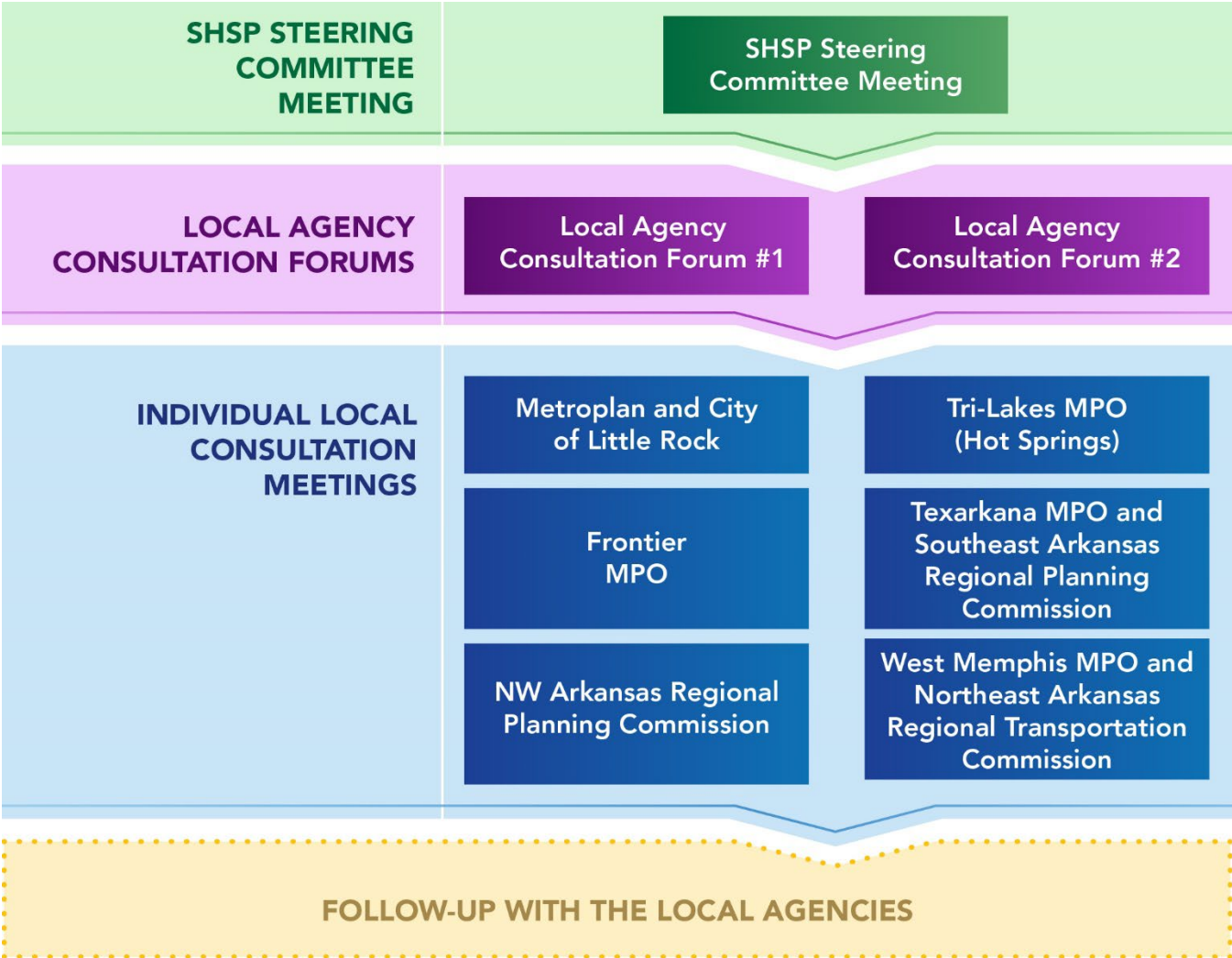
A series of meetings were conducted with local governments, MPOs, and regional planning organizations to achieve the following objectives:

- » Share statewide, regional, and local trends for VRU fatalities and suspected serious injuries.
- » Discuss the existing Arkansas SHSP Non-Motorist Focus Area strategies and actions with the agencies.
- » Introduce the high-risk area analysis and receive local insights.
- » Offer an opportunity for agency representatives to provide new information on VRU safety planning.
- » Understand the challenges faced by VRUs in underserved and low-income neighborhoods.
- » Receive insights on challenges in their jurisdictions for non-motorized user safety.
- » Determine strategies and actions both specific to their jurisdictions and statewide that will improve non-motorized user safety planning.

4.3 CONSULTATION PROCESS

For the VRU Safety Assessment, the team conducted meetings with the SHSP Steering Committee, MPOs, and local governments. For phase one, an initial meeting was conducted with the SHSP Steering Committee to kick off the consultation process. In the second phase of the consultation process, targeted meetings were conducted with agencies that represent high-risk areas to gather feedback on the factors contributing to safety concerns identified in the SHSP, recommendations on potential solutions, and concerns from the local agencies. Lastly, the team shared the preliminary strategies and potential solutions with the SHSP Steering Committee to gain their feedback. Figure 9 shows the stakeholder consultation methodology.

FIGURE 9 METHODOLOGY FOR STAKEHOLDER CONSULTATION



4.4 SHSP STEERING COMMITTEE MEETING

Since the Arkansas SHSP includes a Non-Motorists Emphasis Area, the project team kicked off the agency consultation process by meeting with the SHSP Steering Committee to leverage the committee’s understanding and experience on VRU safety challenges across the State and to introduce the project to the SHSP Steering Committee. The team shared overall VRU trends, discussed the existing Arkansas SHSP Non-Motorist Focus Area strategies and actions, and offered the opportunity for committee members to provide new information and

challenges on VRU safety. The team also provided an overview of the goals and objectives for local agency meetings to the SHSP Steering Committee. The SHSP Steering Committee provided recommendations for contacts or agencies/organizations to be contacted for additional information and input on high-risk areas.

4.5 LOCAL AGENCY CONSULTATION FORUMS AND INDIVIDUAL LOCAL CONSULTATION MEETINGS

The team conducted two information sessions open to the MPOs and regional planning organizations. The objective of these meetings was to discuss the purpose and goals of local agency consultations, gather information on who should be invited to future meetings, and when meetings should be scheduled. In the first meeting, a representative from Frontier MPO, Metroplan, SARPC, and NWARPC were present. In the second meeting, representatives from N.A.R.T.P.C., West Memphis MPO, Frontier MPO, and Texarkana MPO participated. The meetings helped the team to identify additional plans or resources that were useful for the VRU Safety Assessment. During these meetings, it was discovered that many organizations are already working on plans for improving VRU safety such as Comprehensive Safety Action Plans for the Safe Streets and Roads for All (SS4A) grant program, which funds regional, local, and Tribal initiatives through grants to prevent fatal and suspected serious injuries. Existing plans were reviewed as a part of the consultation process, and, when possible, regional staff and stakeholders for safety plans under development were invited to participate in individual consultation meetings.

The following is a list of common themes heard throughout these local agency consultation meetings that informed the strategies and actions discussed in the next section.

- » **Land use concerns**—For most of the crashes in the urban areas, the most important aspect is the land use surrounding the corridors, especially where residential corridors are adjacent to commercial uses. Typically, high volume, high-speed corridors adjacent to these land uses result in an environment where there are increased pedestrian crossings to access commercial areas. This especially impacts economically challenged areas where there are households with no cars. The commercial spaces that attract a large number of pedestrians include convenience stores, grocery stores, community centers, liquor stores, etc. These high-density areas lead to increased traffic and pedestrian volume, which increases the risk for VRUs. It was also recognized that many of the streets with high pedestrian traffic are near universities. In many of the high-speed, high-volume corridors adjacent to universities, there was a lack of infrastructure, such as sidewalk connectivity, ADA accessibility, and crosswalks.
- » **Safety on Public Roads**—Local agencies expressed concern for improving safety for VRUs along State highways in their communities. Some facilities are located near low-income areas or educational institutions which may have higher pedestrian traffic. Factors such as higher speed limits, limited crosswalks, and unmaintained or missing sidewalks also contribute to VRU safety challenges.
- » **High pedestrian and bicycle traffic in underserved areas**—Participants commented that neighborhoods consisting of a large percentage of low-income households may have higher pedestrian and bicycle traffic and transit use. Additionally, these areas may not have sufficient infrastructure for people to safely walk around, to cross streets, or to access bus stops. A lack of investment in these areas to provide adequate infrastructure for walking, biking, or public transit results in high-risk areas for VRUs.
- » **Potential safety solutions**—Participants suggested that road diets are a potential safety solution for urban streets in Arkansas. Other countermeasures include leading pedestrian intervals and speed tables, which have been implemented on some downtown streets in Little Rock and Jonesboro. Ensuring adequate lighting on streets is another countermeasure as increasing visibility for VRU helps reduce crashes. The use of traffic

cameras to increase the safety of bicyclists and pedestrians was discussed. However, participants noted that there is a State law that prohibits the use of traffic cameras for speed or red light enforcement, though a new law allows these traffic cameras to be implemented in highway work zones as long as a police officer is present. Other safety countermeasures brought up by stakeholders for consideration included limiting property access points, installing roundabouts, improving signage, ensuring ADA-compliant sidewalks, and installing bus boxes, raised medians, and marked crosswalks.

- » **Local Plans and Projects**—NWARPC has an adopted a Regional Bicycle Pedestrian Master Plan that focuses on strategies for VRUs; the 2015 plan is currently undergoing an update. Frontier MPO prepared a Road Safety Plan in coordination with FHWA and ARDOT.
- » **Safety Action Plans under SS4A**—NWARPC, Texarkana MPO, Metroplan, West Memphis MPO, and Frontier MPO are each working on Safety Action Plans under the SS4A grant program. N.A.R.T.P.C. adopted its Move Safe Action Plan September 8, 2022. As of June 2023, NWARPC has adopted a Regional Comprehensive Safety Action Plan and Vision Zero Policy. These plans may provide additional opportunities for State, regional, and local stakeholders to coordinate on VRU safety solutions.
- » **Unreported crashes**—VRU crashes are sometimes not reported accurately, which complicates our ability to understand local patterns. Furthermore, it was noted in the consultation meetings that sometimes there is a discrepancy in the way police officers record the crashes, making it difficult to clearly interpret the VRU-related crashes. For some routes, such as State Line Avenue, which shares the border between Arkansas and Texas within Texarkana MPO, there is missing data for Arkansas from crashes worked by Texas law enforcement. This makes it difficult to analyze the total number of crashes.
- » **Coordination and monitoring**—To ensure the implementation of these potential safety solutions, all the MPOs, ARDOT, local law enforcement agencies, universities, and local communities need to work together. This proactive approach may help in identifying high-risk areas for VRUs, allowing agencies to make more informed decisions on where to provide safety solutions. Coordinated education programs, outreach, and safety campaigns can also raise public awareness about VRU safety issues to help reduce disparities.

5 STRATEGIES & ACTIONS



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Credit: Prostock-Studio

The trends and high-risk areas identified by this assessment provide a data-driven analysis of VRU safety challenges in Arkansas. To address the challenges identified by the analysis, strategies and actions have been developed that encompass projects that have been demonstrated to improve safety for VRUs and support the SSA. These strategies and actions are designed to globally address VRU safety in Arkansas. As such, they do not provide location-specific recommendations, but rather planning level strategies and systemic considerations. The locations identified as a part of this assessment may require additional evaluation to develop context-sensitive projects to address VRU safety concerns and risks. As a part of the planning process, existing State and local efforts may be used to advance or promote projects at these locations.

5.1 STRATEGIES

The strategies in the SHSP and VRU Safety Assessment are aligned with the SSA's goal of eliminating fatalities and suspected serious injuries through a comprehensive approach that builds redundancy utilizing several key elements. One element of the SSA is Safe Road Users, which includes VRUs. People biking, walking, or rolling are the most vulnerable roadway users, as they have no protection in potential conflicts and collisions with motor vehicles. Another element of the SSA is Safe Roadways. Humans will continue to make mistakes while driving or traveling by other means, but improving roadway design and sharing the responsibility for safety can help prevent crashes and keep impacts to the human body at more survivable levels.

The Arkansas Strategic Highway Safety Plan includes a Non-Motorists Emphasis Area. The following strategies are identified in the Non-Motorists Emphasis Area Action Plan:

- » **Strategy 1**—Continue to improve statewide infrastructure and design to protect non-motorists.
- » **Strategy 2**—Continue to implement countermeasures, programs, and policies to protect non-motorists.
- » **Strategy 3**—Focus education efforts aimed at safety and awareness of laws regarding non-motorists.
- » **Strategy 4**—Improve non-motorist enforcement of existing laws and corrective behaviors.

The actions included in this assessment in Section 5.2 directly support and augment Strategies 1 and 2.

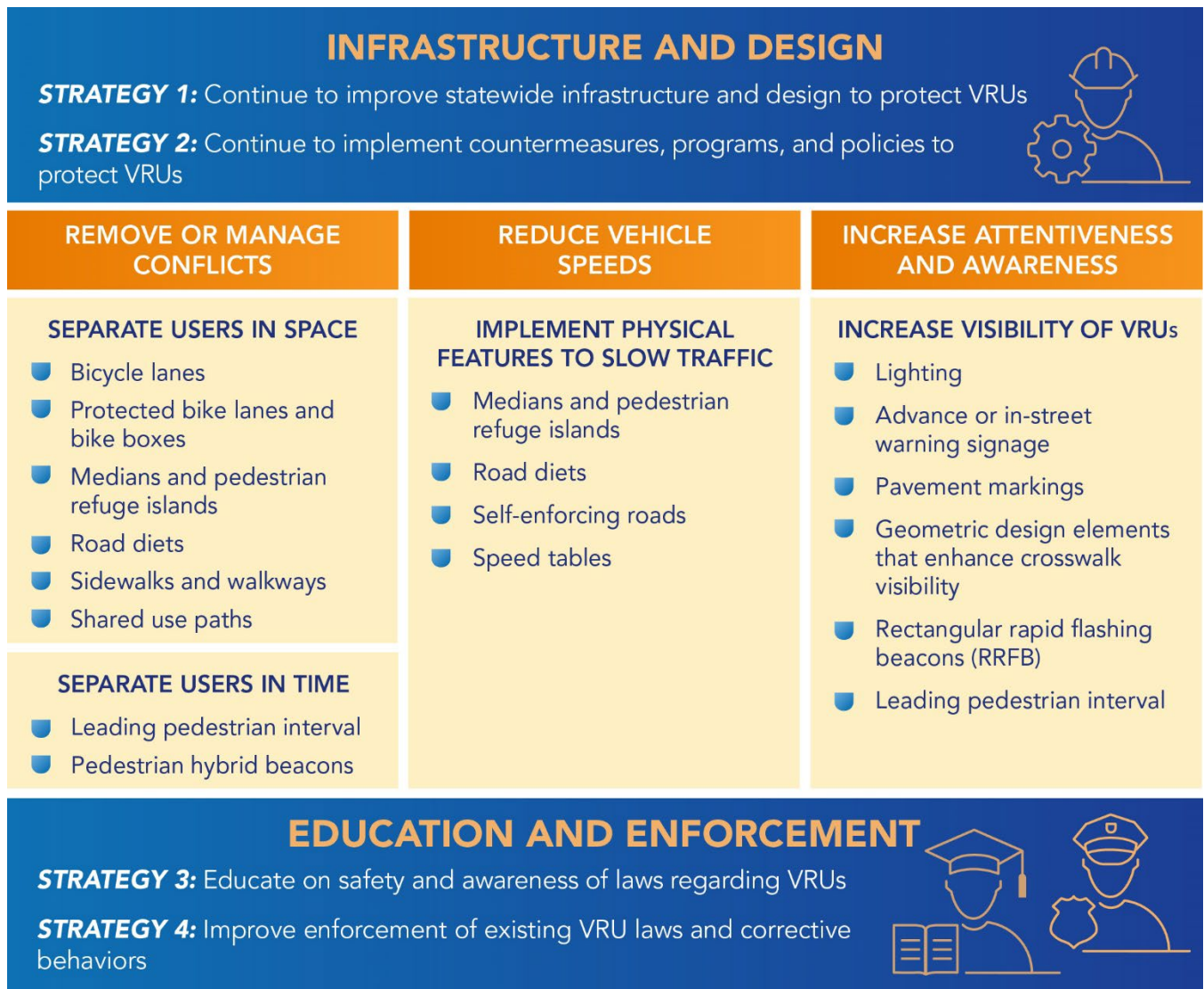
5.2 ACTIONS

5.2.1 *Infrastructure and Design*

The Non-Motorists Emphasis Area Action Plan in the AR SHSP includes a detailed list of actions Arkansas and its safety partners are implementing to reduce the number and severity of VRU crashes. For a full list, refer to the Non-Motorists Area Action Plan in the SHSP appendix. The following actions highlight some critical steps that support the needs identified during this assessment:

- » Improve existing bicycle and pedestrian accommodation on State highways and local roads following the most current American Association of State Highway Transportation Officials (AASHTO) guidance, as appropriate, and in accordance with FHWA guidance.
- » Design and implement pedestrian safety zone program in high-crash areas.
- » Consider non-motorists and ADA design accommodations in a proportional manner during the planning stages of future projects at the State, regional, and local jurisdiction levels.
- » Conduct study to determine risk factors most common at high-risk locations to be addressed systemically through context-sensitive network solutions.
- » Implement proven safety countermeasures at high-risk locations. The following actions may be used to prioritize countermeasures implemented using the SSA:
 - Remove or manage potential severe conflicts—Separate users in space, or separate users in time by how they move through a shared space or opportunity for conflict.
 - Increase visibility of VRUs—Provide features that make drivers more aware of VRUs presence.
- » Figure 10 shows how these actions align with the SSA and illustrates the need for ongoing coordination with education and enforcement strategies to eliminate VRU fatalities and suspected serious injuries.

FIGURE 10 POTENTIAL COUNTERMEASURES TO IMPROVE INFRASTRUCTURE AND DESIGN TO PROTECT VULNERABLE ROAD USERS



5.2.2 Criteria to Consider

The strategies and countermeasures identified in Figure 10 are not intended to replace engineering judgement, design standards, or a critical assessment of context-sensitive selection criteria. The following are criteria that should be taken into consideration:

- » **Functional Classification, Facility Type, Speed Limit**—Countermeasures should be appropriate for the roadway functional classification (arterial, collector, local) and whether the environment is urban or rural. Location should also be considered (segment or intersection). Countermeasures should be selected based on facility considerations, such as if they overlap with bike routes, transit routes, commercial/industrial access routes, and emergency vehicle access routes. Countermeasures should also be appropriate for the posted speed limit.
- » **Traffic Volumes**—Traffic volumes (AADT) dictate the appropriate use of VRU safety countermeasures in many cases. Additionally, locations with a high number of VRU crashes and high traffic volumes versus a

location with a high-crash rate (higher number of fatalities and suspected serious injuries per 100 million vehicle-miles traveled) may warrant different approaches to implement solutions.

- » **Land Use and Demographics**—Land use planning is conducted at the county or city level. Countermeasures to protect VRUs should be context-sensitive and take into consideration nearby land uses. For example, additional VRU countermeasures to slow traffic, reduce conflicts, and increase awareness and attentiveness should be implemented in corridors that mix residential and commercial land uses. Understanding the demographics of a corridor or community should also be considered when implementing countermeasures to address VRUs. Large populations of elderly, disabled, immigrants, low-income, and single-vehicle households increase the need for VRU countermeasures. Land uses that attract or generate VRUs in underserved populations also increase the need to prioritize VRU safety (e.g., nursing homes, senior centers, or homeless shelters).

5.2.3 *Education and Enforcement*

ARDOT is committed to coordinating with its stakeholders, such as the HSO, to provide education and enforcement actions that raise awareness of VRU safety challenges by promoting enforcement and raising awareness on existing VRU-related laws. Following are some highlighted actions among different safety stakeholders that support the challenges identified during this assessment:

- » Continue to provide public service messages to increase awareness of the dangers to non-motorists on high-volume/speed roadways and in school zones, and remind drivers of safe behaviors and laws intended to protect non-motorists.
- » Provide training to law enforcement on bicycle/pedestrian laws.
- » Educate law enforcement on accurately identifying non-motorized crashes and related details on the crash reports.
- » Provide crash studies to local law enforcement to aid with targeted enforcement in problem areas.

5.2.4 *Coordination*

Given the principle, “safety is a shared responsibility,” Arkansas recognizes the need to coordinate with a broad group of stakeholders to address VRU safety challenges. In addition to the coordination-related actions included in the SHSP Non-Motorists Emphasis Area Action Plan, this assessment highlights the following actions:

- » Coordinate with MPOs, cities, and/or counties developing SS4A Plans to integrate VRU challenges and locations of concern into the SHSP implementation process.
- » Provide technical assistance to MPOs, cities, and/or counties to determine specific strategies at the high-risk locations.
- » Invite local agencies and safety partners consulted during the assessment to participate in the SHSP Non-motorists Emphasis Area Team.
- » Evaluate potential changes to the SHSP and implementation process based on VRU Safety Assessment findings or future updates (e.g., Should the Non-Motorist Emphasis Area be changed to VRU Emphasis Area to avoid confusion? What changes should be made to the agency consultation process for the SHSP?).

- » Further expand SHSP stakeholders and partners to include organizations and agencies that provide services to underserved populations.

5.3 CONCLUSION

The Arkansas VRU Safety Assessment identifies strategies and actions to reduce VRU fatalities and suspected serious injuries. The assessment was developed through an analysis of Arkansas' public roads and consultation with regional and local jurisdictions. This assessment report is to be used by Arkansas and its safety partners to focus on implementing strategies that will reduce the risk of VRU fatalities and suspected serious injuries for all non-motorists. Key takeaways from this assessment include the following:

- » From 2015 to 2021, non-motorized fatalities and suspected serious injuries increased 150 percent from 112 to 280.
- » Despite accounting for 55 percent of the population in Arkansas, Justice40 designated census tract areas account for 64 percent of total non-motorist fatalities and suspected serious injuries in the State, indicating that they are more likely to happen in overburdened areas.⁴
- » Approximately 68 percent of non-motorized fatality and suspected serious injury crashes occur in urban environments in Arkansas. Metroplan's study area has the most non-motorist fatalities and suspected serious injuries and accounts for about a third of the entire State.
- » All 20 identified high-risk corridors are located within MPO boundaries, with many located in downtown areas. The identification of these roads helps to determine common factors among high-risk areas for VRUs.
- » Local consultation meetings identified potential countermeasures to address VRU safety, including road diets, leading pedestrian intervals, speed tables, enhanced lighting on streets to increase visibility, access management, bus boxes, raised medians, and crosswalks.
- » Additional analysis is needed to identify systemic corridor characteristics that represent high risks for VRU fatalities and suspected serious injuries beyond the 20 identified in this study. Identifying factors that can address risks for VRUs across the State may aid Arkansas and its safety partners as safety improvements are prioritized and implemented.

This assessment serves as a call to action for Arkansas. While the analysis has highlighted high-risk corridors, it also presents an opportunity to support broader integration of VRU safety considerations in project identification, prioritization, and implementation. The analysis and consultation conducted for this assessment serves as an impetus for stronger collaboration among State, regional, and local agencies.

⁴ Justice40 data from the White House Council on Environmental Quality

ARKANSAS

VULNERABLE ROAD USER SAFETY ASSESSMENT

