A L A B A M A
STRATEGIC HIGHWAY SAFETY PLAN

DRIVE SAFE ALABAMA

ALABAMA DEPARTMENT OF TRANSPORTATION

JULY 2017

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INTRODUCTION

A Strategic Highway Safety Plan (SHSP) is a data-driven, multiyear comprehensive plan that establishes a state's traffic safety goals, objectives, priorities, and areas of focus, and facilitates engagement with safety stakeholders and partners. The Alabama SHSP 3rd Edition was developed by the Alabama Department of Transportation (Alabama DOT) in a cooperative process with local, state, Federal, and other public and private stakeholders.

The SHSP provides a comprehensive framework for reducing fatalities and serious injuries on all public roads, with the ultimate vision of eradicating the State's roadway deaths. The strategies detailed in the plan integrate the efforts of partners and safety stakeholders from the 4 Es of safety (Engineering, Education, Enforcement, and Emergency Medical Services).

HISTORY OF THE ALABAMA SHSP

Alabama DOT developed a statewide comprehensive highway safety plan (CHSP) in 2003. A group of 100 safety agency employees and volunteers examined crash fatality data and selected five emphasis areas where they believed there would be the greatest traffic safety benefits. The plan was completed in late 2004.

> **Alabama DOT received the American Association of State Highway and Transportation Officials (AASHTO) 2010 Safety Leadership Award "for committed leadership, aggressive initiatives, and collaborative efforts toward the implementation of Alabama's SHSP."**

The Federal-Aid Highway legislation enacted in 2005, known as the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, or SAFETEA-LU, required each state to develop an SHSP using guidelines developed by the Federal Highway Administration (FHWA) by October 1, 2007. Alabama's CHSP was converted into the State's first SHSP. The first SHSP retained the initial emphasis areas identified for the CHSP: emergency medical service, legislation, older and at-risk drivers, risky driving, and run-off-road crashes. The first SHSP was highly effective in establishing safety needs and a methodology to address those needs. Alabama DOT received the American Association of State Highway and Transportation Officials (AASHTO) 2010 Safety Leadership Award "for committed leadership, aggressive initiatives, and collaborative efforts toward the implementation of Alabama's SHSP."

In late 2009, the SHSP goals, processes, and progress were evaluated and efforts were initiated to update the initial plan. The SHSP 2nd Edition was finalized in 2012 and established new goals and procedures. With AASHTO's shifted focus to the Toward Zero Deaths (TZD) approach to safety, Alabama followed suit and made the goal of the 2nd edition of the SHSP to reduce fatalities by 50 percent by 2035.

ACCOMPLISHMENTS

A host of partners worked together to make the strategies of the 2012 SHSP a reality. As a result, Alabama achieved an extensive list of notable accomplishments.

Driver Behavior

The 2012 SHSP focused efforts on education and awareness programs to improve overall driver behavior and habits. Accomplishments related to driver behavior are as follows:

- Launched a targeted public information and awareness campaign in 2014 to educate, inform, and persuade motorists to engage in safe driving habits. The campaign focused on distracted driving, seat belt safety, speeding, and driving under the influence. The campaign incorporated motorcycle safety, work zone safety, rail safety, and a flashing yellow arrow campaign.

- Implemented a multidisciplinary approach to reduce speed-related crashes. In 2014, 33 speed hotspots were identified using the CARE program. By focusing on the prevalent speeding locations, stakeholders implemented countermeasures such as evidence-based enforcement, educational programs, and engineering or design fixes to reduce fatalities. In addition to the hotspot approach, Alabama law enforcement also wrote 64,719 speeding citations in 2015.

- Educational efforts, including a social media campaign, the radio spot, and outdoor campaign, "Don't Text Your Life Goodbye," and the TV spot, "Distracted Driving Will Kill You" were initiated to curb distracted driving fatalities and serious injuries.

- Identified 176 impaired driving hotspots to reduce impaired driving crashes using the CARE program. Stakeholders implemented focused enforcement, educational programs, and engineering fixes at these 176 locations.

- Launched impaired driving marketing campaigns, including the "More People Die When It's DUI" radio and TV spots and an outdoor campaign, and the "All Initiatives" TV spot.

- Identified 455 hotspots to reduce the severity of unrestrained driving-related crashes using the CARE program. Stakeholders implemented focused enforcement, educational programs, and engineering fixes to limit fatalities at these 455 locations.

- Continued to participate in the Click It or Ticket national mobilization between April and June each year, which uses a combination of paid and earned media and enforcement to encourage restraint use by all motorists and among high-risk users.

- Launched seat belt safety marketing campaigns, including "Seat Belts, It's Hard to Live Without Them" radio and TV spots, a social media campaign, and an outdoor campaign, which included traditional billboards and transit vehicles across the State.

Infrastructure

Alabama DOT focused a great deal of its efforts on infrastructure programs to ensure the State's roadways are maintained and operated at the highest safety standards. The following infrastructure improvements and programs have been implemented since the 2012 SHSP was updated:

- Provided electronic ball bank equipment and training to division/region/district and county engineers to reduce roadway departure crashes.

- Developed a Roadway Safety Assessments Manual to provide guidance to state and local engineers and planners to evaluate existing and proposed projects for safety, and conducted 432 road safety assessments to plan and program improvement projects.

- Developed the HSIP Management Manual and associated web tools to track and dispense safety funds to identified critical safety needs.

- Developed an Alabama Roundabout Guide for planning, design, construction, operation, and maintenance of roundabouts in Alabama.

- Launched the Roadway Departure Focus state program that included an in-depth evaluation of roadway departure crashes and a set of roadway departure countermeasures such as the horizontal curve resigning program.

- Initiated development of an Alabama-specific planning-level safety tool to be used by the MPOs and State to address safety in their planning process.

- Developed red light running camera criteria and safety evaluation requirements.

- Developed a speed management manual, which includes the proper traffic engineering study methods to conduct a speed study.

- Continued the implementation of the Section 130 Rail-Highway Crossing Safety Program. Additionally, developed a rail-highway screening methodology to identify passive crossings that may warrant active devices. Currently undertaking a program to update all passive devices at each public crossing in the State.
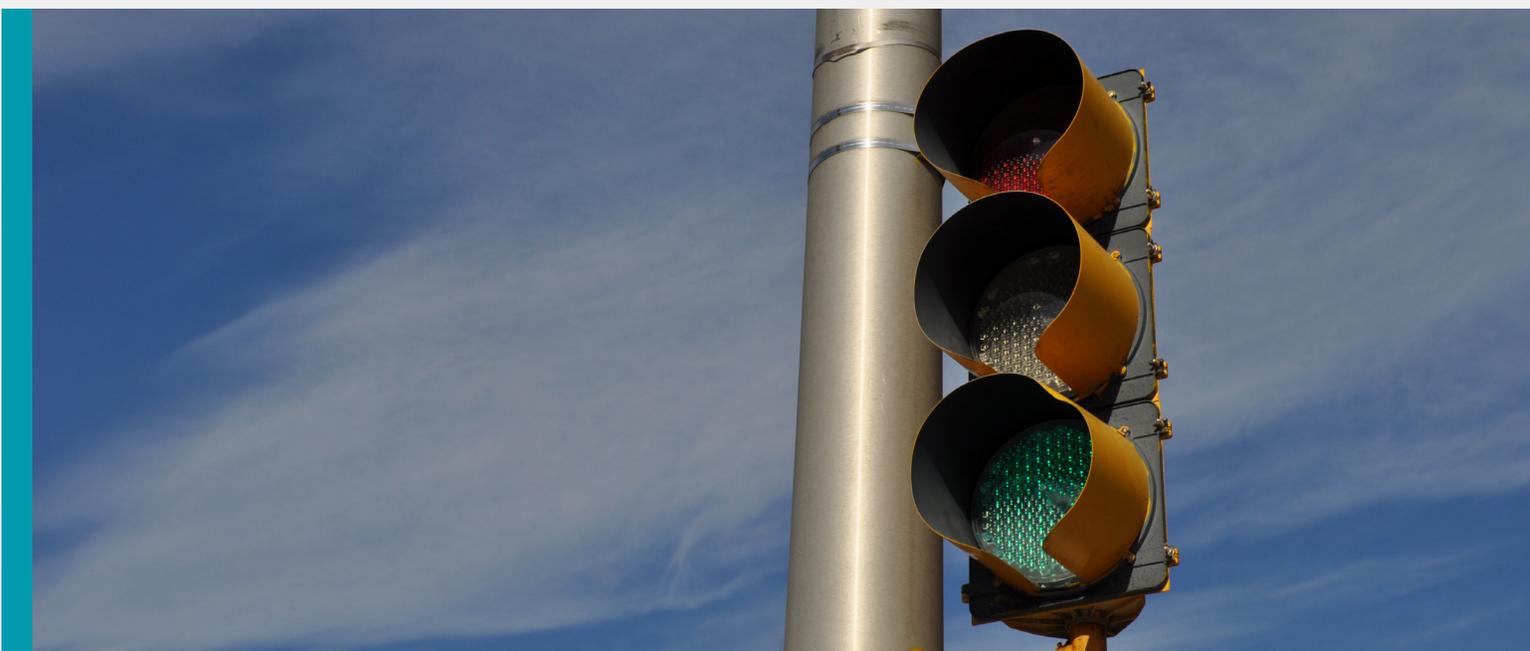
Traffic Safety Information Systems

Alabama is committed to comprehensive and accessible safety data systems. The following data system-related achievements have been realized since the 2012 plan was implemented:

- Increased electronic citations and electronic crash reporting to over 90 percent, representing a 7 percent increase.

- An Emergency Medical Services Information System (EMSIS) has been deployed and is electronically collecting data from all licensed EMS agencies.

- Initiated development of a statewide trauma registry by building on the well-established Alabama Head and Spinal Cord Injury Registry (AHSCIR).

Safety Culture

A chief element of AASHTO's TZD program is establishing a strong safety culture. Culture relates to shared values, perceptions, and attitudes about behavior. Alabama embarked on a quest to enhance the safety culture of the Alabama DOT and its safety partners by doing the following:

- Completed a study of the role, importance, and considerations of transportation safety. This study allowed the Alabama DOT to assess the role of safety across bureaus and identify which bureaus play a critical role in advancing safety across the State.

- Conducted a peer roundtable with experts from around the country to determine what safety-related skills are needed for various roles within a DOT and what existing coursework could be leveraged to provide proper education and training to develop safety skills across all appropriate disciplines at all levels.

Safety Legislation

Traffic safety laws play a critical role in keeping transportation system users safe. Alabama DOT and its safety partners provide pertinent traffic safety information and data to decision-makers in support of stronger traffic safety laws. The following traffic safety legislation was passed since the 2012 plan was adopted:

- Strengthened the Graduate Driver Licensing (GDL) program by implementing additional provisions that require 50 hours of supervised driving in the learner stage (age 15), nighttime and passenger restrictions for the intermediate stage (age 16 18), and increased penalties for drivers and their parents.

- Enacted ban on texting while driving for all drivers.

UPDATING THE SHSP

To gather more input and buy-in from its SHSP partners and stakeholders, the Alabama DOT decided to take a different approach when it was time to prepare the SHSP 3rd Edition. In 2014, the department decided to use a "bottom up" approach to update the SHSP. Figure 1 shows the three-phase process used to update and implement the SHSP. This approach involves engaging a multidisciplinary group of safety stakeholders to develop regional safety action plans during the first phase of the update to inform development of the 2017 AL SHSP.

Figure 1   Alabama's SHSP Update Process

SHSP Update Process

Phase I Regional Pilots	**Phase II** Statewide SHSP Update	**Phase III** Regional Plans
• Pilot regional safety action plan development in four regions • Establish regional safety goals, action steps, and needed resources	• Analyze statewide traffic safety data and regional plans to identify emphasis areas • Determine plan goal, key strategies, implementation approach, and evaluation framework	• Develop regional safety action plans in remaining regions • Build additional support for SHSP implementation

Regional Safety Plans

Four regions were selected to represent various geographical areas of the State and ensure a mix of urban and rural traffic safety challenges. Regional coalitions were established to convene a diverse group of stakeholder participants representing all facets of the 4 Es ranging from industry to community civic groups. The four regions are shown in Figure 2:

- Top of Alabama Regional Council of Governments (TAR-COG) (Region 12);

- Regional Planning Commission of Greater Birmingham (RPCGB) (Region 3);

- Lee Russell Council of Governments (LRCOG) (Region 10); and

- Alabama Tombigbee Regional Commission (Region 6).

Figure 2   Regional Safety Coalitions
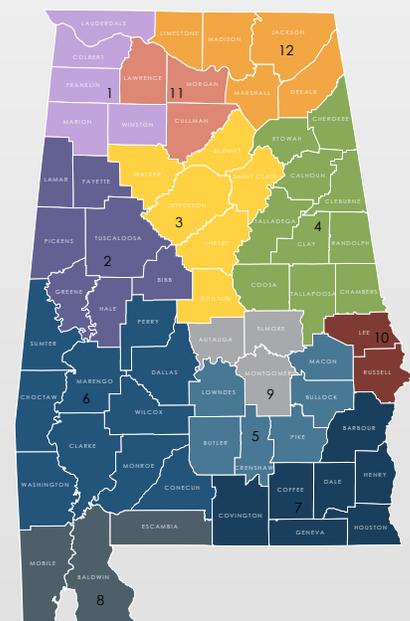
A list of organizations participating in each regional coalition is included in Appendix A. Figure 3 illustrates the regional plan development process. Stakeholders participated in a series of regional coalition meetings to review and discuss region-specific crash and transportation data and identify emphasis areas. Emphasis area teams were assembled to identify and prioritize strategies and action steps to address their most serious crash problems. The identified emphasis areas and strategies in these regional plans were used as a basis for developing the statewide SHSP. In addition, a statewide data analysis was conducted to ensure the SHSP emphasis areas addressed the State's most pressing traffic safety issues. Highlights of Alabama's transportation safety trends are summarized in the Transportation Safety Trends section on page 13.

Figure 3   Regional Safety Plan Development Process

Regional Safety Coalitions

| High-Level Regional Data Overview | → | Detailed Regional Data Overview and Emphasis Area Selection | → | Phase III Regional Plans |

Statewide Steering Committee

- Review regional plan emphasis areas, action steps, and resource needs
- Reviewed statewide data analysis
- Discussed potential policy changes
- Updated SHSP to reflect state and regional priorities

SHSP Steering Committee

At the start of the regional plan development process in 2015, an SHSP Steering Committee was convened to provide input in the process. This committee was made up of representatives from the Federal Highway Administration (FHWA) Alabama Division Office, Alabama DOT management, Alabama DOT Office of Safety, Alabama DOT Metropolitan Regional Planning, Alabama DOT Communications, Alabama DOT Modal Programs, Alabama Department of Economic and Community Affairs (ADECA), National Highway Traffic Safety Administration (NHTSA), the Alabama Highway Patrol, Federal Motor Carrier Safety Administration, and project team representatives from the University of Alabama and Cambridge Systematics, Inc. Members of the Steering Committee also participated in the regional coalition meetings.

The SHSP Steering Committee reconvened in early 2017 to guide the SHSP update process after the Phase 1 regional safety action plans were near completion. As a first step to update the SHSP, the committee reviewed the statewide data analysis conducted with the most recent data, and identified emphasis areas for the SHSP 3rd Edition based on the analysis and the emphasis areas included in the regional plans.

Vision and Goal

Continuing with the vision set forth in the previous SHSP, the Steering Committee decided to continue to support the vision of **Toward Zero Deaths** for all transportation system users and the goal to **reduce fatalities and serious injuries by 50 percent by 2035**. Figure 4 and Figure 5 show the forecasted projections to achieve this goal for fatalities and serious injuries using five-year rolling averages and 2006 to 2010 as the base period (this base period was used because the last year of data available for the 2012 SHSP was 2010 data).

Figure 4   Forecasted Fatality Projections to Achieve 50 Percent Reduction by 2035
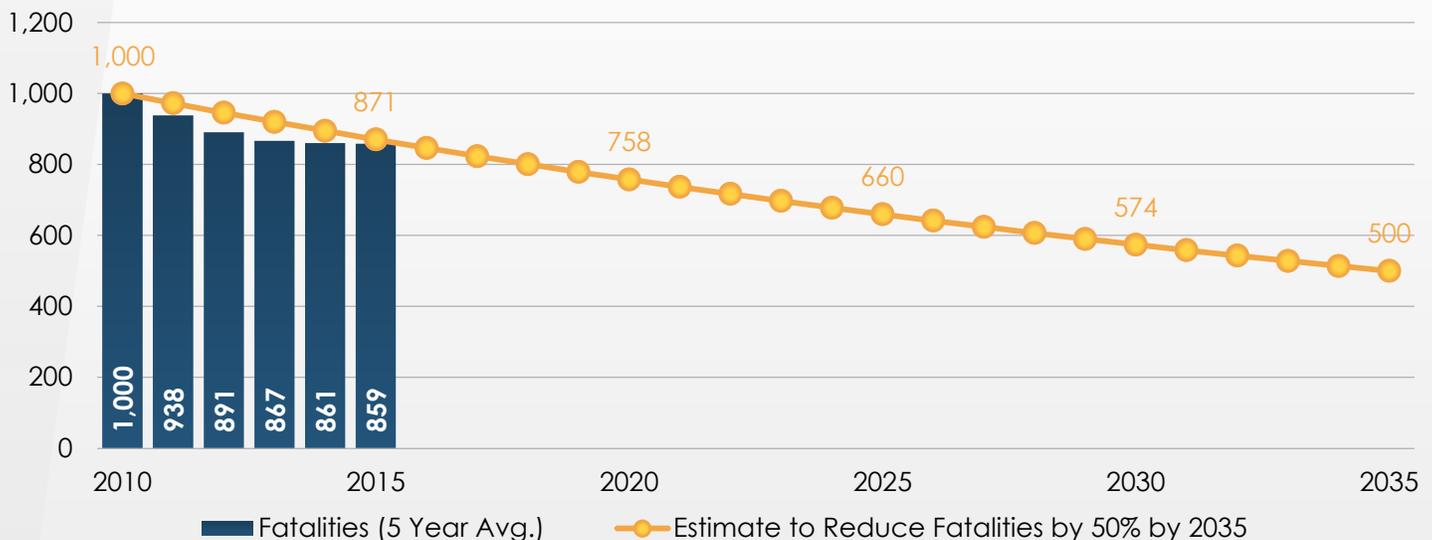
The SHSP 3rd Edition provides strategic direction and focus for each emphasis area to achieve the fatality and serious injury goal. The SHSP emphasis areas and data supporting each emphasis area are included in the Alabama Transportation Safety Trends section. The proposed strategies are proven effective countermeasures that also are often low-cost, to address the crashes in each emphasis area, based on research reported in resources such as NHTSA Countermeasures that Work, and the NCHRP Report 500 series. Many of these countermeasures also are supported in the AASHTO Highway Safety Manual (HSM). Alabama DOT uses HSM practices to aid in the selection of Highway Safety Improvement Program (HSIP) projects. Where feasible, HSM-level evaluations are performed to determine implementation of various safety improvements.

Figure 5   Forecasted Serious Injury Projections to Achieve 50 Percent Reduction by 2035[1]

Serious Injuries (5 Year Avg.) values: 18,793 · 15,756 · 13,058 · 10,712 · 9,278 · 8,863

Estimate to Reduce Serious Injuries by 50% by 2035 values: 18,793 · 16,360 · 14,242 · 12,399 · 10,794 · 9,396

Legend:
■ Serious Injuries (5 Year Avg.)   ──○── Estimate to Reduce Serious Injuries by 50% by 2035
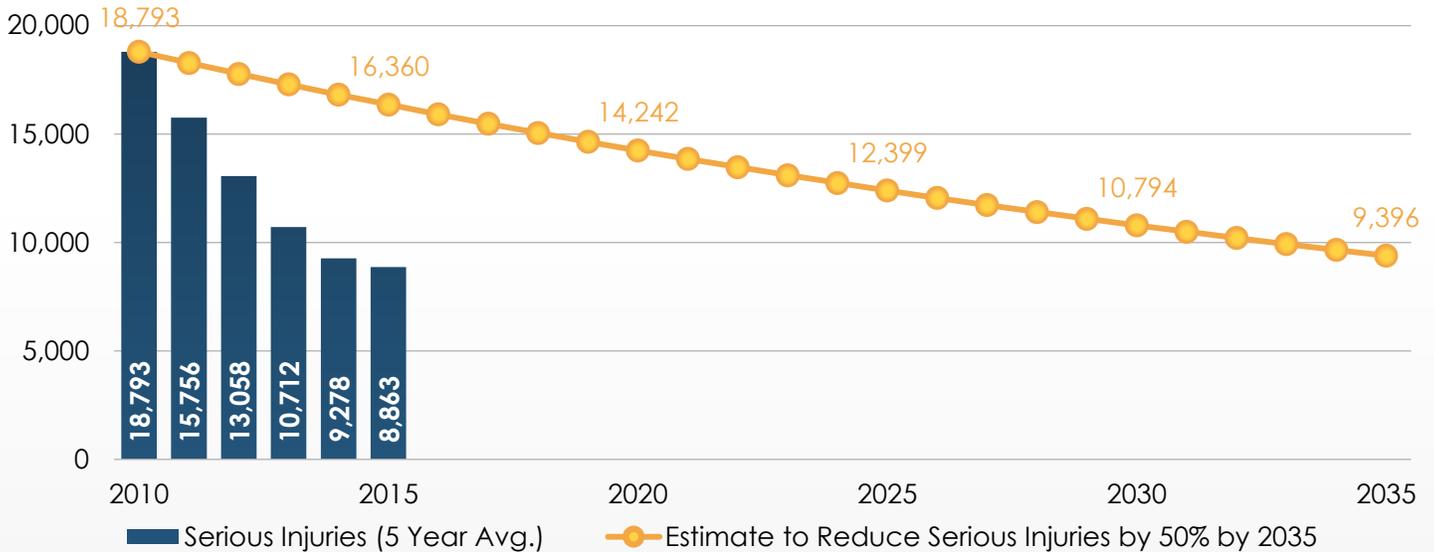
Plan Coordination

The SHSP serves as the coordinating document for other plans and programs that involve traffic safety and is designed to leverage the resources of other transportation planning and programming activities. Figure 6 shows the various plans coordinated with the SHSP. The HSIP, Highway Safety Plan (HSP), and Commercial Vehicle Safety Plan (CVSP) implement parts of the SHSP.

The HSIP is a "core" Federal funding program with the objective of achieving a significant reduction in traffic fatalities and serious injuries on all public roads. It funds various infrastructure projects, such as traffic signal upgrades, roundabouts, rumble strips, roadway delineation, and alternative intersection designs. To qualify for funding, an HSIP project must be consistent with the SHSP.

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[1]   The reporting of severe injury categories was modified when the Model Minimum Uniform Crash Criteria (MMUCC) codes were applied in eCrash, which was first released in June 2009 and by January, 2011 had become the standard for at least 95 percent of the crash reports submitted. With the addition of the new MMUCC codes and the introduction of eCrash, Alabama Law Enforcement became more consistent in reporting serious injury.

Figure 6 Plan Coordination with SHSP
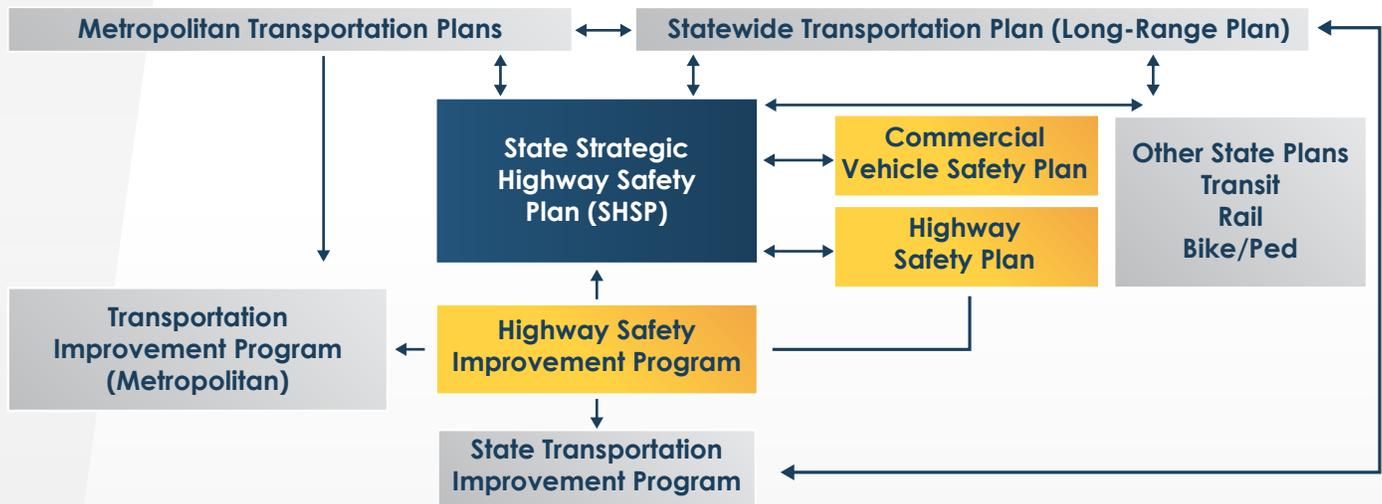
The HSP is a required plan to detail the behavioral priorities and strategies/projects to be implemented as a part of the NHTSA highway safety grant program. ADECA is responsible for the delivery of the HSP. The plan addresses the behavioral safety programs. NHTSA funds the program through their Section 402 Program. The program is composed of the behavioral safety programs such as impaired driving and occupant protection. The HSP funds behavioral safety programs such as "Click It or Ticket" and "Drive Sober or Get Pulled Over" and will be the primary resource for focusing state expertise and programs to combat behavioral safety issues identified in the SHSP. The plan is updated annually and approved by NHTSA.

The Federal Motor Carrier Safety Administration (FMCSA) requires states to develop a CVSP as an annual work program. The CVSP identifies a state's commercial motor vehicle safety objectives, strategies, activities, and performance measures. The CVSP funds efforts to target safety for trucks and buses and is therefore an important component of behavioral safety elements of the SHSP.

The Statewide Transportation Plan and Transportation Improvement Program (STIP), metropolitan transportation plans, and transportation improvement programs developed by metropolitan planning organizations should be coordinated to improve overall safety coordination and linkages among the state, regional, and local agencies. MPO planners identify existing and future short- and long-range needs, identify projects and programs, help in establishing priorities, and evaluate outcomes. Experience from each of these areas may provide insight on current safety issues and needs, as well as effective methods for addressing them. All MPOs have Transportation Policy Committees (TPC) or Policy Boards and most have Technical Advisory Committees (TAC). These groups can be used to inform stakeholders and decision-makers about traffic safety and implement the strategies identified in the SHSP. All authorized HSIP projects are included in the STIP.

FEDERAL REQUIREMENTS

The content and implementation of the Alabama SHSP 3rd Edition is directly influenced by 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 Federal Highway Administration (FHWA) published their Highway Safety Improvement Program (HSIP) Final Rules (Code of Federal Regulations – CFR) with an effective date of April 14, 2016. These regulations set policy that guides the implementation and evaluation of the SHSP established in MAP 21 and the FAST Act.

The HSIP is a core Federal-aid program with the purpose of achieving significant reductions in fatalities and serious injuries on all public roads. The HSIP focuses on performance and requires a data-driven, strategic approach to improving highway safety on all public roads. The program establishes clear performance management requirements for updating the State's SHSP. The law requires states to have an updated, approved SHSP which is consistent with specific requirements under 23 USC Section 148. The FHWA Division Administrator evaluates the SHSP update process to ensure the State has followed a process that meets these requirements. FHWA provides an SHSP Process Approval Checklist, which is a tool to assist states and the Division Offices assess the process and completeness of the SHSP update prior to FHWA's approval.

Performance management connects the HSIP and HSP to the SHSP to promote a coordinated relationship for common performance measures, resulting in comprehensive transportation and safety planning. The U.S. DOT issued two rulemakings in March 2016 on Safety Performance Management (Safety PM) and the Highway Safety Improvement Program (HSIP). The Safety PM rule detailed the requirements for safety target setting. Annual safety targets are required for five performance measures, applicable to all public roads:

1. Number of fatalities;

2. Rate of fatalities – fatalities per 100 million vehicle miles traveled (100MVMT);

3. Number of serious injuries;

4. Rate of serious injuries – serious injuries per 100MVMT; and

5. Number of nonmotorized fatalities and nonmotorized serious injuries.

For performance measures common to the HSIP and HSP (i.e., number of fatalities, rate of fatalities and number of serious injuries), targets must be identical.

ALABAMA TRANSPORTATION SAFETY TRENDS

Data-driven decisions have been the basis of the Alabama SHSP since the first edition. The SHSP 3rd Edition continues to use historical crash data to identify critical traffic safety issues and trends. Past and present transportation safety challenges and opportunities are illustrated in this section and are representative of the data used to make decisions throughout the SHSP update process. The effectiveness of the SHSP is strongly linked to the analysis and interpretation of the crash data. The SHSP Steering Committee, participating agencies and volunteers, and regional partners analyzed available crash data and developed program elements that will seek to reduce fatalities and injuries on Alabama's highways. The data presented in this document was provided by the Alabama Critical Analysis Reporting Environment (CARE) database. For this reason, the fatality data presented may not match the data provided in the 2015 Alabama Crash Fact book which used the Fatality Analysis Reporting System (FARS) as its primary data source. FARS data does not include some types of fatalities, such as those occurring on private property, fatalities delayed beyond 30 days, or pre-crash fatalities related to medical issues.

Historical Trends

Figure 7 indicates there were 858 traffic fatalities in 2015. While this is a significant reduction from the 1,208 fatalities in 2006, the trend line is mostly flat with little change from 2009 to 2015. Serious injuries trended down from 25,164 in 2006 to 8,540 in 2015.

Crash rates also are a significant factor in analyzing the trends in transportation safety. The number of fatalities per 100 million (100M) vehicle miles traveled (VMT) for Alabama, the U.S. average and the percent difference between the state and national rates are presented in Table 1. While the number of fatalities and serious injuries may not appear to be changing, it is important to note the annual VMT in Alabama has increased by more than 13 percent since 2006, with year-over-year increases since 2009. The trend of relatively constant fatalities and continually increasing VMT has resulted in a 38 percent reduction in fatalities per 100MVMT since 2006 and 9 percent reduction in fatalities per 100 MVMT from 2011 through 2015. While the fatality rate in Alabama remained greater than the national rate from 2006 through 2015, the difference between the state and national rate has decreased dramatically from 41 percent greater in 2006 to only 11 percent greater in 2015. This promising trend indicates Alabama is making progress in addressing its traffic deaths and injuries.

Figure 7   Alabama Fatalities and Serious Injuries 2006-2015[2]

Fatalities (left axis, bars): 2006: 1,208; 2007: 1,110; 2008: 963; 2009: 851; 2010: 868; 2011: 900; 2012: 874; 2013: 842; 2014: 819; 2015: 858

Serious Injuries (right axis, line): 2006: 25,164; 2007: 22,755; 2008: 20,295; 2009: 15,134; 2010: 10,616; 2011: 9,980; 2012: 9,265; 2013: 8,564; 2014: 7,966; 2015: 8,540
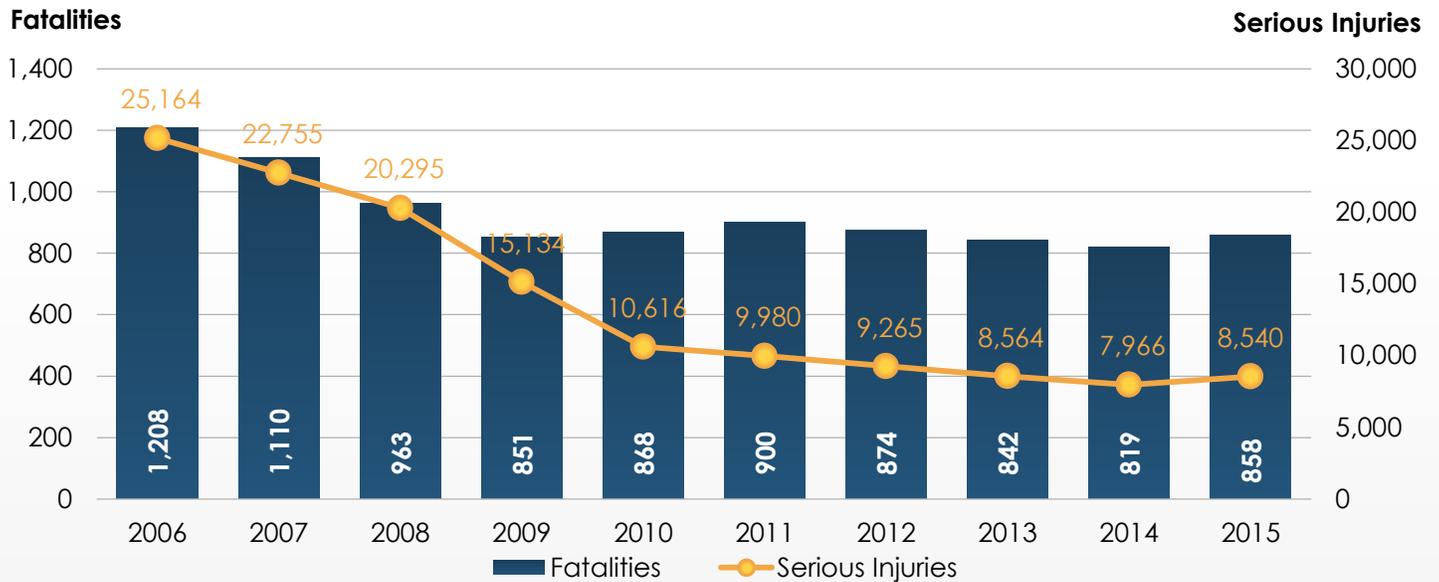
Table 1   Fatality Rate per 100 Million Vehicle Miles Traveled (100MVMT) for Alabama, the U.S. and the Percent Difference between the State and National Average

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Alabama Fatality Rate (per HMVMT)	2.00	1.81	1.63	1.38	1.34	1.38	1.34	1.31	1.24	1.24
National Fatality Rate (per HMVMT)	1.42	1.36	1.26	1.13	1.09	1.10	1.14	1.10	1.08	1.12
Percent Difference	41%	33%	29%	22%	23%	25%	18%	19%	15%	11%

Crash Locations

A fatal crash is defined as a crash that involves a motor vehicle traveling on a public road that has resulted in a death of a motorist or nonmotorist. Figure 8 shows the percentage of fatal crashes occurring on state versus locally maintained roadways, and urban versus rural roads in Alabama from 2006 to 2015. While the slight majority of fatal crashes in the State occurred on state-maintained roads, a significant proportion of fatal crashes have occurred on roads maintained by local entities. Approximately 63 percent of fatalities occurred on rural roadways. The share of fatal crashes on local roads is a major reason why Alabama chose to use a bottom-up development structure for the most recent SHSP update.

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[2] The reporting of severe injury categories was modified when the MMUCC codes were applied in eCrash, which was first released in June 2009 and by January, 2011 had become the standard for at least 95 percent of the crash reports submitted. With the addition of the new MMUCC codes and the introduction of eCrash, Alabama Law Enforcement became more consistent in reporting serious injury.

Figure 8   Percent of Fatal Crashes on State Versus Locally Maintained Roads, and Urban Versus Rural Roads
2006-2015

45%

55%

37%

63%

■State Maintained Roads
■Locally Maintained Roads
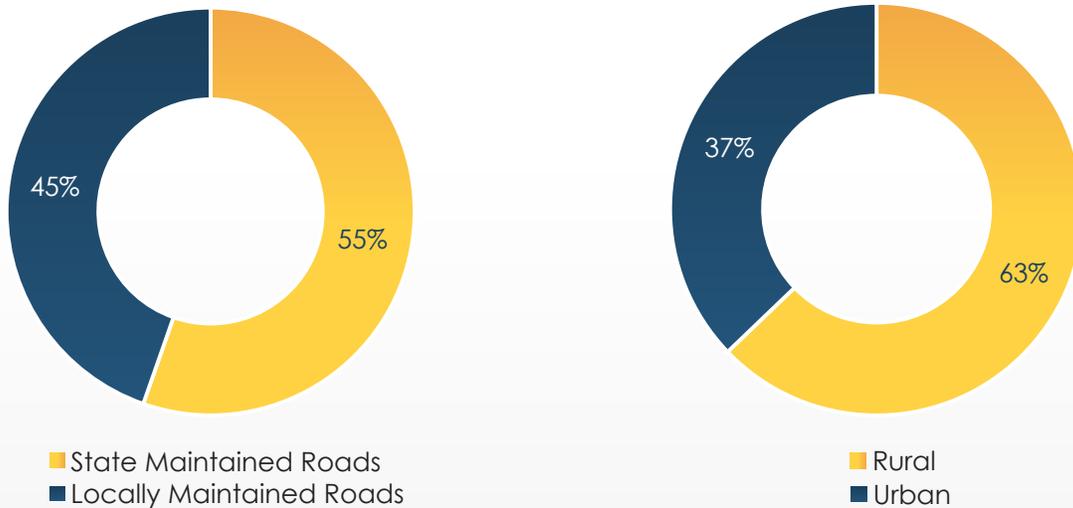
■Rural
■Urban

Figure 9 shows the percentage of serious injury crashes occurring on State versus locally maintained roadways, and urban versus rural roads from 2006 to 2015. Approximately 51 percent of serious injury crashes occur on state-maintained roads when compared with locally maintained ones. When comparing rural and urban roads, 51 percent of serious injury crashes occur on rural roads. Developing four regional pilot plans prior to the update of the statewide SHSP allowed the statewide SHSP to reflect the needs of local entities and stakeholders while balancing the priorities at the state level.

Figure 9   Percent of Serious injury Crashes on State Versus Locally Maintained Roads, and Urban Versus
Rural Roads
2006-2015

49%

51%

49%

51%

■State Maintained Roads
■Locally Maintained Roads

■Rural
■Urban
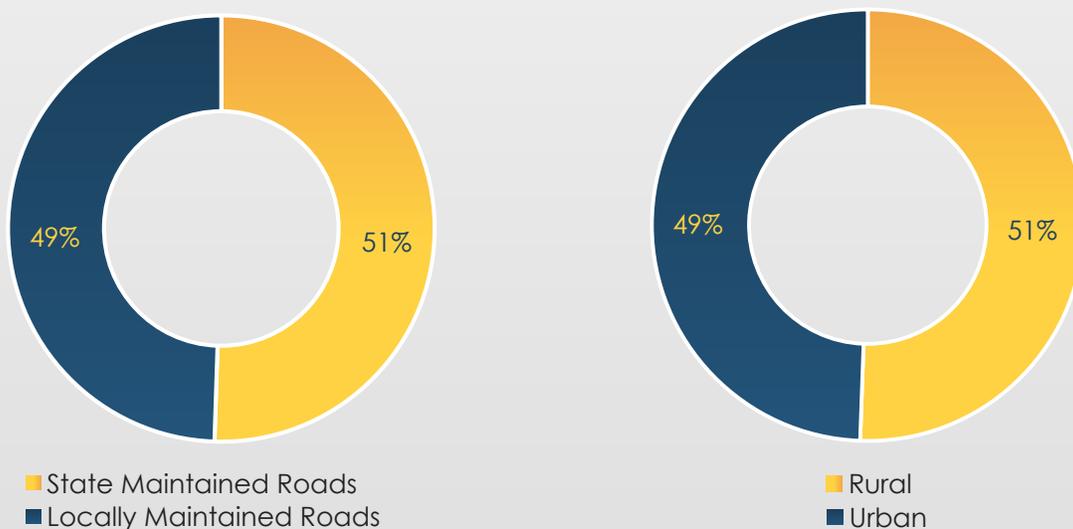
Age and Gender

Figure 10 presents the number of fatalities by age in 2015, and the percentages of gender of all persons fatally injured in crashes in Alabama from 2006 to 2015. The two highest represented age groups encompass persons aged 21-30. In addition, a significant majority of fatalities are male.

Figure 10 Fatalities by Age and Gender
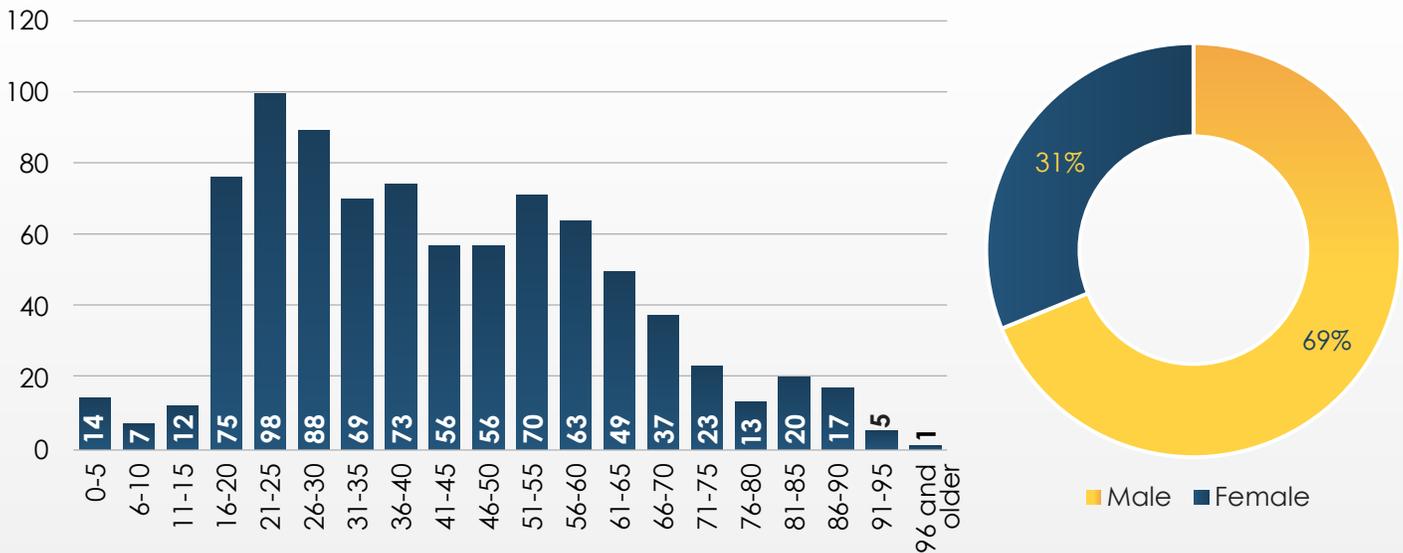
Figure 11 presents the number of serious injuries by age in 2015, and the percentages of gender of all persons seriously injured in crashes from 2006 to 2015. The two highest represented age groups encompass all persons aged 16-25. Slightly more serious injuries are female.

Figure 11 Serious Injuries by Age and Gender
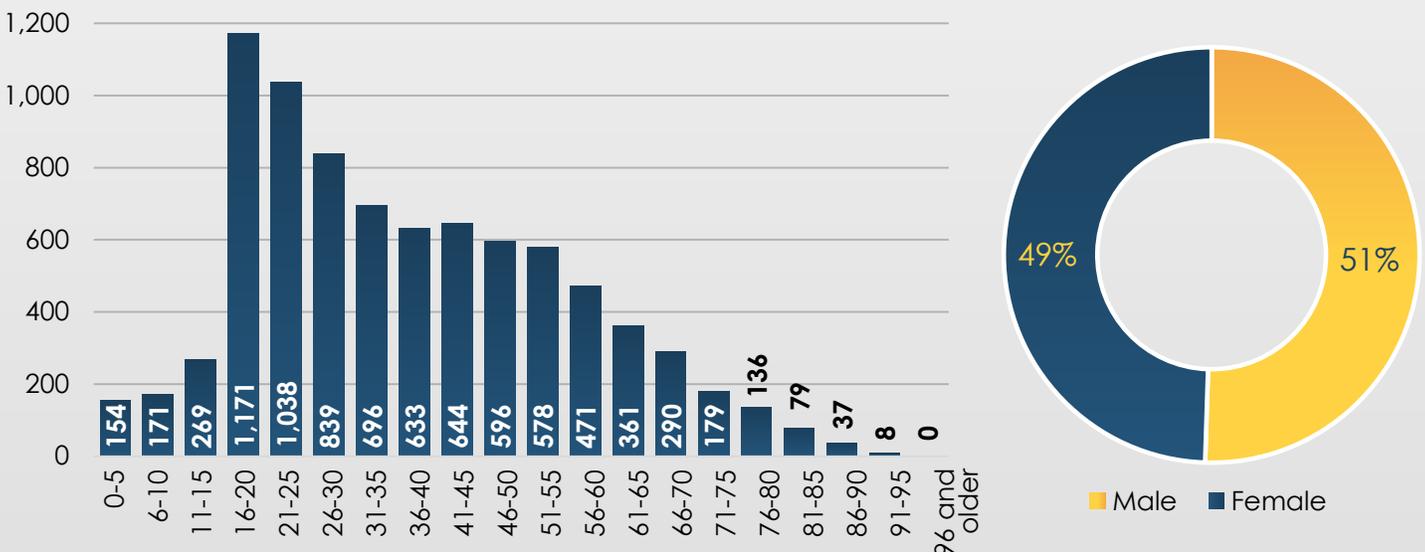
Contributing Factors

Understanding the causes and contributing factors of crashes is a critical part of making data-driven decisions. Figure 12 summarizes crash types and percentages of fatalities and serious injuries for the top crash types in 2015. They fall into three general categories: high-risk behavior, infrastructure and operations, and at-risk road users.

Each of these categories represents crashes with different root causes and potential solutions. Targeting the factors related to the largest percentages of fatalities and serious injuries helps the State prioritize the greatest opportunities to reduce traffic-related deaths and injuries. For these reasons, the three umbrella categories of high-risk behavior, infrastructure and operations, and at-risk drivers were chosen as the emphasis areas for the Alabama SHSP 3rd Edition. The most prevalent crash types related to each category were then identified as focus areas within the three general emphasis areas. A fourth emphasis area also was established to address data systems and other performance management-related strategies.

Figure 12 Percentages of Fatalities and Serious Injuries by Related Factor
2006-2015

Factor	Percent of Fatalities	Percent of Serious Injuries
Aggressive	58%	57%
Roadway Departure	50%	38%
Unrestrained	38%	15%
Speeding	31%	18%
Impaired Driver	26%	13%
Intersection	23%	29%
Older Driver Involved	17%	16%
Young Driver	17%	24%
CMV Involved	12%	6%
Motorcycle Involved	9%	5%
Pedestrian Involved	8%	2%
Distracted Driver	5%	5%
Bicycle Involved	1%	1%
Railroad Crossing Involved	0%	0%

■ Percent of Fatalities   ■ Percent of Serious Injuries

The emphasis areas selected for the regional safety plans also were taken into consideration during the update process. Table 2 shows the emphasis areas included in each regional safety plan developed in Phase 1. Additional Alabama safety data is available in the Alabama Crash Facts book published annually. The 2015 Crash Facts was the most recent available at the time of this publication.

Table 2   Regional Safety Plan Emphasis Areas

Regional Planning Commission of Birmingham
• Distracted Driving
• Impaired Driving
• Speed-Related Crashes
• Young Drivers

Top of Alabama Regional Council of Governments
• Aggressive Driving
• Distracted Driving
• Impaired Driving
• Unrestrained/Occupant Protection

Lee Russell Council of Governments
• Distracted Driving
• Impaired Driving
• Pedestrians and Bicyclists
• Young Drivers

Alabama Tombigbee Regional Commission
• Intersection Crashes
• Roadway Departure Crashes
• Speed-Related Crashes
• Unrestrained/Occupant Protection

Strategic Direction and Resource Allocation

Table 3 shows the emphasis areas and identified focus areas the SHSP 3rd Edition will address.

Table 3   2017 SHSP Emphasis Areas and Focus Areas

High-Risk Behavior
• Speeding and Aggressive Driving
• Distracted/Drowsy Driving
• Impaired Driving
• Occupant Protection
• Safety Culture

At-Risk Road Users
• Young Drivers
• Older Drivers
• Pedestrians and Bicyclists
• Motorcyclists

Infrastructure and Operations
• Roadway Departure Crashes
• Intersection Crashes

Decision and Performance Improvement
• Data Systems
• Safety Culture
• Workforce Development

To provide strategic direction and identify strategies that have the greatest potential to reduce highway fatalities and serious injuries, the strategies summarized in each emphasis and focus area are labeled as priority strategies if they address a contributing factor that accounts for 20 percent or

more of the State's fatalities and serious injuries. Based on Figure 12, these factors include speeding and aggressive driving, roadway departure, unrestrained, impaired driving, intersection crashes, and young driver crashes. The most severe crashes typically involve multiple contributing factors (e.g., an 18-year-old is driving under the influence and runs off the road in a curve). Addressing multiple contributing factors, which account for substantial percentages of the fatalities and serious injuries, allows Alabama DOT and its safety partners to prioritize action steps to advance traffic safety.

The SHSP also will provide direction for resource allocation as it is implemented. Alabama DOT and its safety partners will use the SHSP to guide investment decisions for safety programs. Alabama DOT will continue its practice of matching HSIP spending in proportion with the most severe crash types to ensure the greatest return on investments. For this reason, roadway departure, intersection improvements, and wrong-way driving improvements have been a priority for the department's safety program. Impaired driving and occupant protection have historically been priority programs for the HSP.

EMPHASIS AREA 1: HIGH-RISK BEHAVIOR

Crashes occur as a result of multiple factors associated with the roadway, vehicle, and user/operator. As an example, a distracted and unbelted young driver is speeding and runs off the roadway, crashing into a tree. Drivers, passengers, motorcyclists, pedestrians, and bicyclists engage in a number of risky behaviors associated with traffic crashes. Alabama DOT and its safety partners have identified strategies in five focus areas to reduce high-risk behaviors that pose the greatest risks to system users:

- Speeding and Aggressive Driving;

- Distracted/Drowsy Driving;

- Impaired Driving;

- Occupant Protection; and

- Safety Culture.

Focus Area – Speeding and Aggressive Driving

Challenge

In Alabama, speed is narrowly defined as driving over the speed limit or too fast for conditions. The definition for aggressive driving, however, is broad. It includes crashes which identify the two aforementioned factors or one of 14 others noted as a primary contributing circumstance, such as aggressive operation, running a traffic signal, running a stop sign, disregarding a traffic sign other than a stop sign, making an improper turn, using an improper or no signal, traveling the wrong way/wrong side, following too closely, improper passing, improper lane change or use, failure to yield right-of-way, failure to yield, traveling on the wrong side of the road, or driver not in control of the vehicle. As a result, the fatality and serious injury numbers for aggressive driving are significantly higher, but at the end of the day, the primary issue is speed. When speed and aggressive driving data are combined, they contribute most significantly to fatal crashes in Alabama. Figure 13 shows that between 2006 and 2015, there were 5,362 aggressive driving fatalities and 2,840 speeding fatalities, contributing to

58 percent and 31 percent of the fatalities respectively. While fatalities in both of these areas have trended downward since 2006, the numbers are still significant and serious injuries have remained flat or increased in recent years, signaling a need to address speed in Alabama.

Figure 13 Speeding and Aggressive Driving Fatalities and Serious Injuries 2006-2015[3]
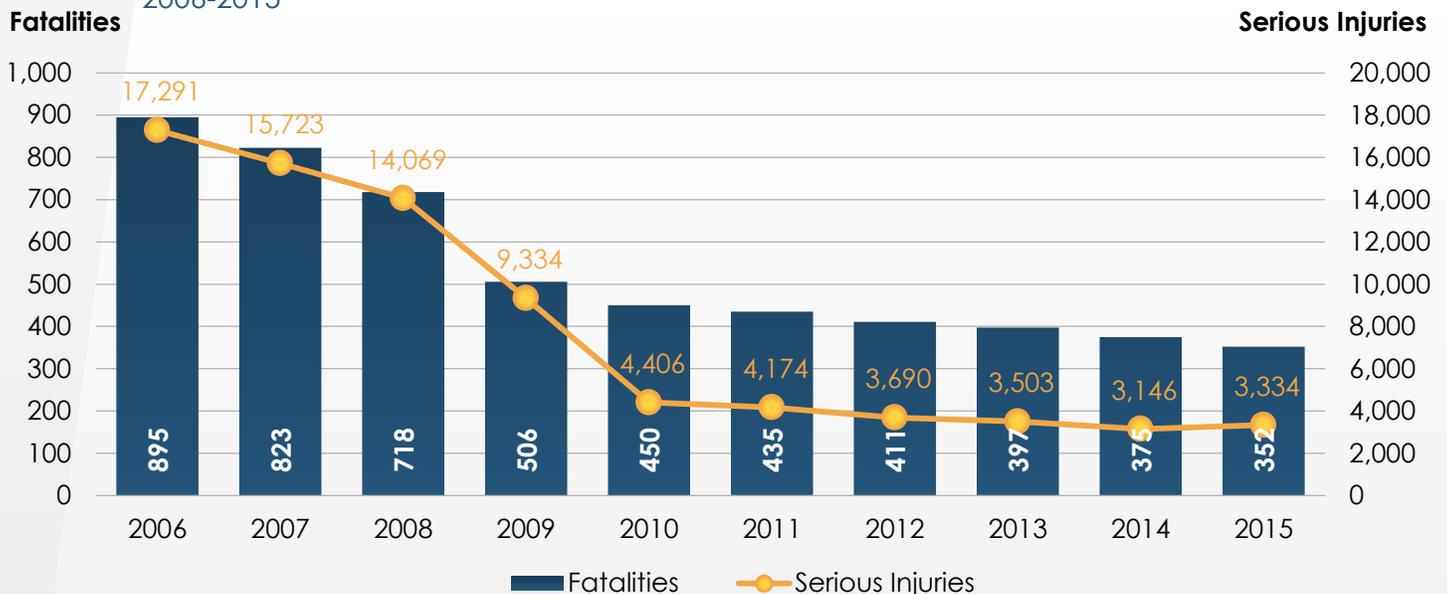
Strategies

To reduce speeding and aggressive driving the following strategies will be implemented or continued:

- **Priority Strategy 1:** Increase public awareness of speeding and aggressive driving issues through media and outreach.

- **Priority Strategy 2:** Increase high-visibility enforcement to reduce the frequency of crashes associated with speeding and aggressive driving.

- **Priority Strategy 3:** Identify specific locations where speeding and other aggressive driving behaviors are prevalent and implement infrastructure improvements to reduce the likelihood and injury severity of crashes.

[3] The reporting of severe injury categories was modified when the MMUCC codes were applied in eCrash, which was first released in June 2009 and by January, 2011 had become the standard for at least 95 percent of the crash reports submitted. With the addition of the new MMUCC codes and the introduction of eCrash, Alabama Law Enforcement became more consistent in reporting serious injury.

Focus Area – Distracted/Drowsy Driving

Challenge

In Alabama, distracted driving is defined as an activity that diverts attention from driving, usually an electronic device, but passengers and other in- and out-of-vehicle distractions also contribute to the problem. Drowsy or fatigued driving also is included in the definition. As shown in Figure 14, between 2006 and 2015, there were 467 distracted driving fatalities and 6,592 serious injuries contributing to five percent of the fatalities and serious injuries. Similar to other states, these numbers likely do not represent the actual number of distracted driving fatalities and serious injuries in Alabama, meaning the issue is larger than what the data shows. A primary reason for this discrepancy is the difficulty in determining whether a crash victim was distracted prior to a crash unless the information is seen by a law enforcement officer or self-reported.

Figure 14 Distracted/Drowsy Driving Fatalities and Serious Injuries
          2006-2015[4]
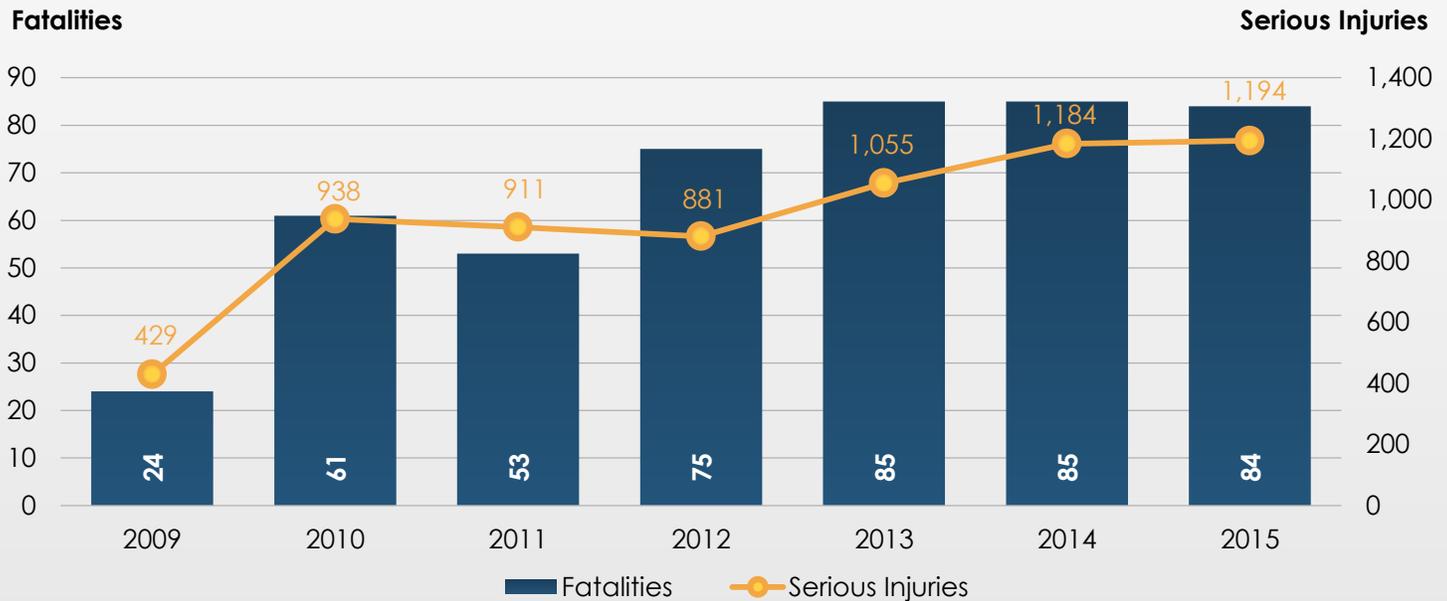
However, national data does point to distraction as a growing issue that needs to be addressed. NHTSA recently reported that approximately 660,000 drivers are using cell phones while driving. To exacerbate this, Alabama does not legislate a hand held ban for school bus drivers or any driver, with the exception of novice drivers. Legislation is in place to make texting and driving a primary offense. Also, educational efforts, including the radio spot and outdoor campaign, "Don't Text Your Life Goodbye" and TV spot

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[4] Distracted Driving became a contributing circumstance with the MMUCC codes were applied in eCrash in 2009. A new Distracted Driving variable became effective in June 2013 which enables officers to report distracted driving in conjunction with other contributing circumstance codes, which has increased the number of reported cases.

and social media campaign, "Distracted Driving Will Kill You," are in place to address distracted driving fatalities and serious injuries.

Strategies

Alabama safety partners have identified the following strategies to reduce distracted driving:

- **Strategy 1:** Increase public awareness of distracted/drowsy driving issues through media and outreach.

- **Strategy 2:** Increase distracted driving enforcement by providing law enforcement strategies to effectively enforce distracted driving.

- **Strategy 3:** Implement infrastructure improvements to reduce the injury severity of distracted/drowsy driving crashes.

- **Strategy 4:** Improve distracted driving laws.

Focus Area – Impaired Driving Challenge

In Alabama, impaired driving is defined as driving under the influence (DUI) of alcohol (.04 and higher for commercial motor vehicles and .08 and higher for passenger vehicles) and/or drugs. According to the Alabama 2015 Crash Facts, on average, less than 1 percent of crashes end in a fatality, but when someone is driving under the influence, the probability of that crash ending in a fatality is 7.6 times higher. In Figure 15, between 2006 and 2015, there were 2,401 impaired driving fatalities and 17,407 serious injuries contributing to 26 percent and 13 percent of the fatalities and serious injuries respectively. Impaired driving fatalities have remained relatively flat since 2006, but serious injuries have been steadily declining over that same timeframe, with the exception of a slight increase in 2015. Most of the drivers cited for a DUI were male and from the ages of 20 to 29. As expected, most DUI crashes occur later in the night or early in the morning and most frequently on Saturday night into Sunday morning.

Figure 15 Impaired Driving Fatalities and Serious Injuries
2006-2015[5]
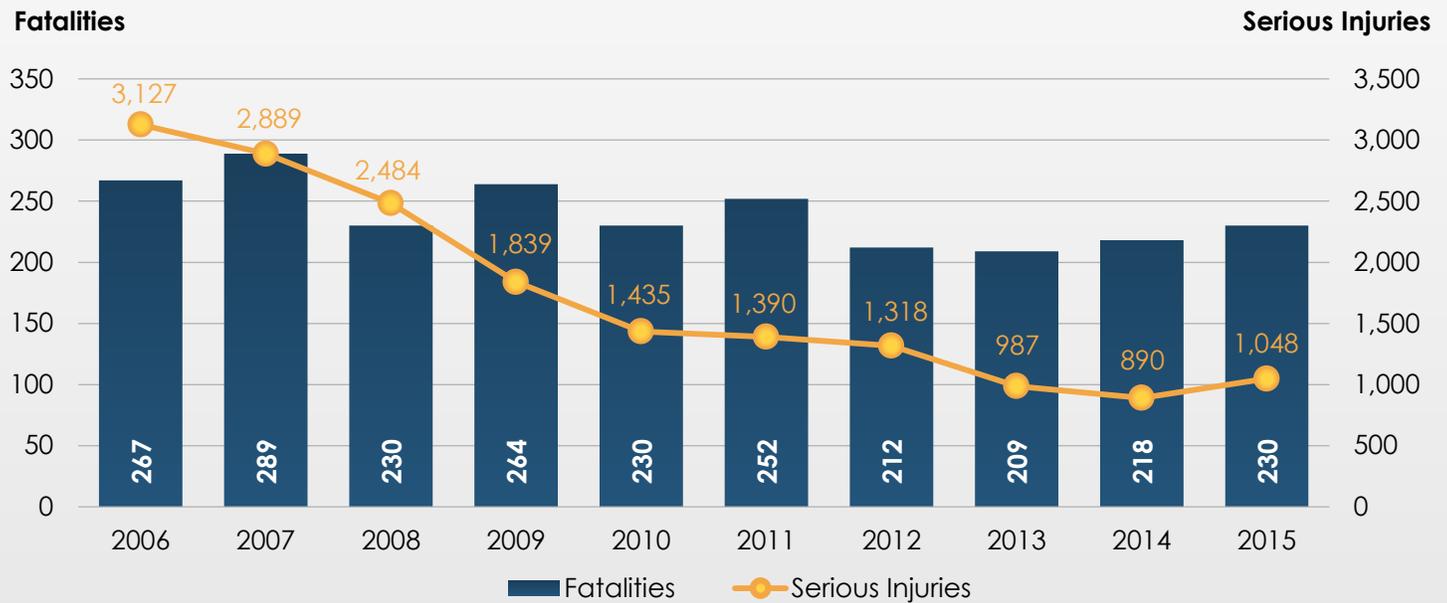
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[5] The reporting of severe injury categories was modified when the MMUCC codes were applied in eCrash, which was first released in June 2009 and by January, 2011 had become the standard for at least 95 percent of the crash reports submitted. With the addition of the new MMUCC codes and the introduction of eCrash, Alabama Law Enforcement became more consistent in reporting serious injury.

Strategies

Alabama will continue to address impaired driving crashes using the following multidisciplinary strategies:

- **Priority Strategy 1:** Sustain impaired driving enforcement efforts throughout the State by continuing enforcement strategies to reduce impaired driving, developing impaired driving enforcement experts through training, and recruiting additional agencies to participate in overtime impaired driving patrols and sobriety checkpoints.

- **Priority Strategy 2:** Improve judicial outreach/support on impaired driving issues.

- **Priority Strategy 3:** Sustain DUI public information and outreach campaigns to reduce impaired driving.

- **Priority Strategy 4:** Implement infrastructure improvements to reduce the likelihood and severity of impaired driving crashes.

Focus Area – Occupant Protection

Challenge

Nationally, as well as in Alabama, the importance of adult and child restraint use can be highlighted through critical statistics. According to NHTSA, seat belts saved an estimated 13,941 lives in 2015, and the 2015 Alabama Crash Facts states that 97.7 percent of people not harmed in crashes were reported to have been wearing their seat belts. In 2016, Alabama had an observed seat belt rate (driver and front seat outboard passenger only) of 92 percent, a reduction from 93.3 percent observed in 2015, compared to a national rate of 90.1 percent in 2016. While a number of Alabama drivers and passengers are wearing their seatbelts, between 2006 and 2015 there were 3,519 unrestrained fatalities and 20,109 unrestrained serious injuries contributing to 38 percent and 15 percent of the total fatalities and serious injuries respectively (Figure 16). Alabama has a primary law, which means front seat occupants can be ticketed simply for not using their seat belt. Another challenge in Alabama, however, is that back seat passengers over the age of 14 are not required to use a restraint, which led to 27 fatalities and 507 injuries in 2015.

Figure 16 Unrestrained Fatalities and Serious Injuries
2006-2015[6]

Fatalities   **Serious Injuries**

Legend: ▬ Fatalities —○— Serious Injuries

Bar values (Fatalities): 2006: 403, 2007: 386, 2008: 300, 2009: 326, 2010: 410, 2011: 386, 2012: 385, 2013: 354, 2014: 376, 2015: 387

Line values (Serious Injuries): 2006: 2,945; 2007: 2,504; 2008: 1,987; 2009: 1,660; 2010: 1,638; 2011: 1,435; 2012: 1,378; 2013: 1,197; 2014: 1,256; 2015: 1,391
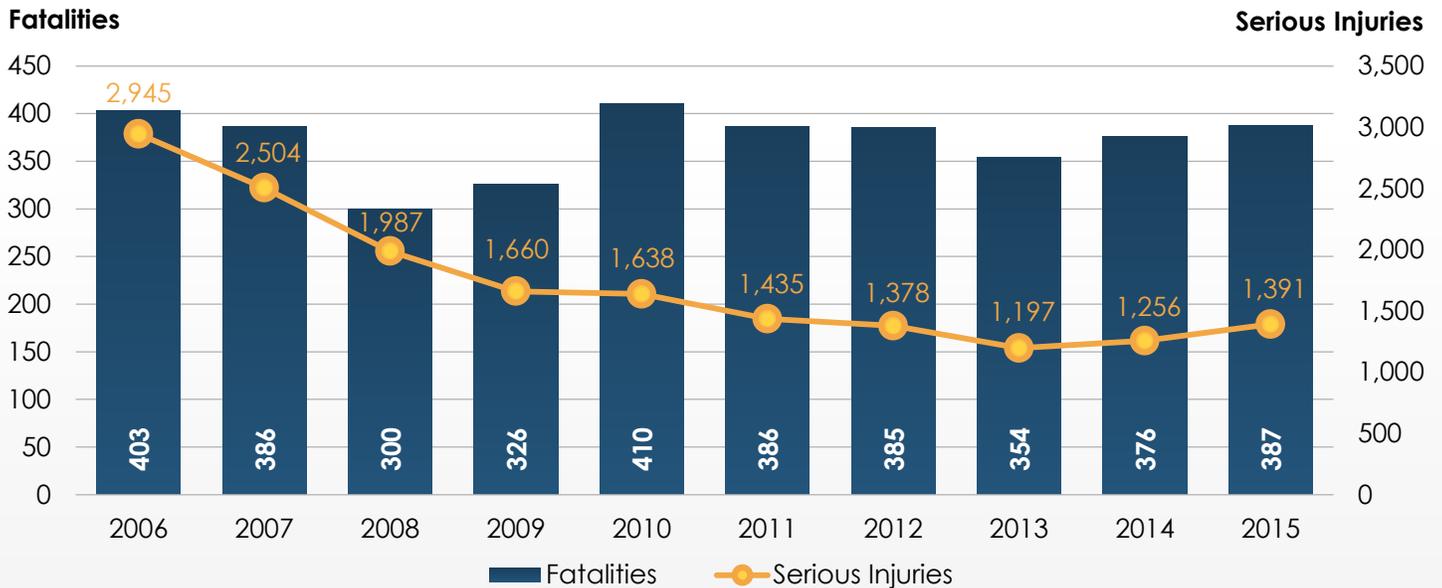
Strategies

A number of preventative programs and measures are in place to reduce fatal and serious crashes in this area. To increase seat belt usage and reduce crashes involving unrestrained passengers, Alabama will use the following strategies:

- **Priority Strategy 1:** Increase the occupant restraint use rate through increased enforcement, by prioritizing efforts geographically and by targeting populations with low-use rates.

- **Priority Strategy 2:** Sustain statewide and regional seatbelt public information and outreach campaigns.

- **Priority Strategy 3:** Investigate and support occupant protection legislation (e.g., pass an all seating positions belt law).

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6 The reporting of severe injury categories was modified when the MMUCC codes were applied in eCrash, which was first released in June 2009 and by January, 2011 had become the standard for at least 95 percent of the crash reports submitted. With the addition of the new MMUCC codes and the introduction of eCrash, Alabama Law Enforcement became more consistent in reporting serious injury.

Focus Area – Safety Culture

Challenge

To achieve zero fatalities in Alabama, a transformation needs to occur where every individual takes responsibility for their actions when driving, walking, or bicycling. To get to this point, it is partially incumbent upon transportation and safety stakeholders to help the public recognize that all transportation system users have this shared responsibility for safety. Opportunities to transform public safety culture vary, but at the core is information and education on: 1) the rules of the road; 2) respect and responsibility; and 3) roadway issues and consequences.

Strategies

Alabama DOT and its safety partners will work to transform the public's perception of safe driving behavior by implementing the following strategies:

- **Strategy 1:** Assess traffic safety culture perceptions and beliefs of the driving public and target populations.

- **Strategy 2:** Identify opportunities and programs/initiatives to enhance traffic safety culture of the driving/walking/biking public.

EMPHASIS AREA 2: INFRASTRUCTURE AND OPERATIONS

Implementation of roadway-based safety countermeasures is intended to prevent crashes from occurring and to reduce the severity of crashes that do occur. Understanding how various roadway features contribute to crashes and crash severities is a basic element of planning a safety program. Two focus areas within infrastructure and operations for Alabama are roadway departure crashes and intersection crashes.

High Risk Rural Roads in Alabama

Federal guidance requires a definition for High Risk Rural Roads (HRRR) to be incorporated in the SHSP. Roadways eligible for the HRRR Special Rule are defined as roadways with functional classifications of rural major, minor collectors, and rural local roads with "significant safety risks." Alabama has elected to determine "significant safety risk" based on information gathered through means such as field reviews, safety assessments, road safety audits, and local knowledge and experience. Using information from observations in the field can identify high-risk locations that may not otherwise be identified through data analysis or by identifying roadway characteristics.

Focus Area – Roadway Departure Crashes
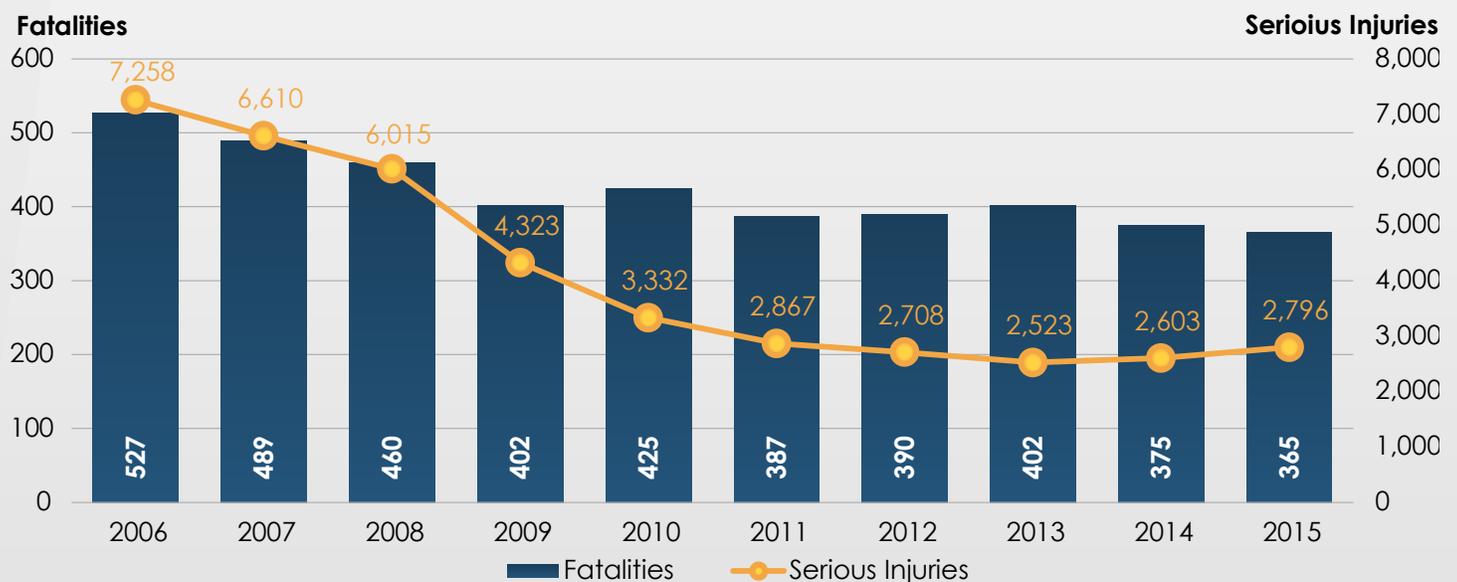
Challenge

Roadway departure crashes are defined by FHWA as crashes which occur after a vehicle crosses an edge line or a center line, or otherwise leaves the traveled way. The consequences of a vehicle leaving its travel lane can be severe, sometimes resulting in serious injury or death, as errant vehicles can strike roadside objects, collide with other vehicles, or overturn.

Figure 17 shows that from 2006 to 2015, 4,631 fatalities occurred as the result of a vehicle leaving the roadway in a crash. Roadway departure crashes during this time period accounted for 22 percent of all crashes and represented 50 percent of all fatal crashes. This situation is especially prevalent on county roads where nearly 43 percent of all rural crashes and all rural fatalities occurred.

To achieve substantial and cost-effective annual reductions in roadway departure fatalities, Alabama DOT participated in an in-depth evaluation of the State's roadway departure crashes. The result was a statewide roadway departure report that identifies locations that will benefit from the application of low-cost roadway departure countermeasures identified based on the need at each location. A horizontal curve program was initiated from the report and a road safety assessment (RSA) performed at each location on a state-maintained road. Appropriate countermeasures will be developed from each RSA and improvements will be coordinated with the Alabama DOT resurfacing program whenever possible. A second active program that will continue is the median cable barrier program. A third active program is the addition of a minimum of two feet of shoulder widening on all two-lane rural Alabama DOT-maintained roads. These programs are examples of the types of projects and programs that will continue to be implemented to address roadway departure crashes using the strategies below.

Figure 17 Fatalities and Serious Injuries Involving a Roadway Departure 2006-2015[7]

Fatalities — **Serioius Injuries**

Year	Fatalities	Serious Injuries
2006	527	7,258
2007	489	6,610
2008	460	6,015
2009	402	4,323
2010	425	3,332
2011	387	2,867
2012	390	2,708
2013	402	2,523
2014	375	2,603
2015	365	2,796

[7] The reporting of severe injury categories was modified when the MMUCC codes were applied in eCrash, which was first released in June 2009 and by January, 2011 had become the standard for at least 95 percent of the crash reports submitted. With the addition of the new MMUCC codes and the introduction of eCrash, Alabama Law Enforcement became more consistent in reporting serious injury.

Strategies

The deployment of these countermeasures will address the following strategies:

- **Priority Strategy 1:** Implement proven safety countermeasures to keep vehicles from encroaching on the roadside (e.g., rumble strips, edge line rumble strips, skid resistant surfaces, enhanced signing and marking, etc.).

- **Priority Strategy 2:** Implement proven safety countermeasures to minimize the likelihood of crashing into an object or overturning if the vehicle travels off the shoulder.

- **Priority Strategy 3:** Implement proven countermeasures to reduce the severity of roadway departure crashes.

- **Priority Strategy 4:** Use education and outreach to reduce behavioral issues associated with roadway departure crashes, including distracted driving and impaired driving.

Focus Area – Intersection Crashes

Challenge

An intersection is the point on a road at which multiple paths converge and inherently presents increased opportunities for crashes for all roadway users (motorists, bicyclists, and pedestrians).

In Alabama, intersection crashes represent 44 percent of all crashes and 23 percent of fatalities.

Figure 18 shows intersection crashes resulting in serious injuries have declined from 2006 to 2015 (29 percent) but fatalities have not shown the same steady decline. Alabama's intersection crashes are prevalent on city streets, accounting for over half of all crashes that occur on urban roadways. A multidisciplinary approach implemented at the local level, that considers the intersection design, users from all travel modes, and both spot-safety and systemic improvements, is key in addressing this focus area.

One intersection where there are special circumstances are railway-highway crossings. According to the 2015 Alabama Crash Facts Book a total of 68 railway-highway crossing fatalities occurred between 2006 and 2015. In determining which rail-highway crossings are reviewed for safety

improvements, the Alabama DOT Traffic & Safety Operations Section and Rail-Highway Safety Group utilizes a railroad/highway at-grade crossing priority list, which accounts for vehicular traffic volumes, train count and number of vehicle/train crashes. After the priority list is established and on-site diagnostic reviews are conducted, projects are initiated. Prioritized locations are forwarded to Regions to initiate crossing improvements in future design years. The program does not include private crossings.

Figure 18 Intersection Fatalities and Serious Injuries 2006-2015[8]

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[8] The reporting of severe injury categories was modified when the MMUCC codes were applied in eCrash, which was first released in June 2009 and by January, 2011 had become the standard for at least 95 percent of the crash reports submitted. With the addition of the new MMUCC codes and the introduction of eCrash, Alabama Law Enforcement became more consistent in reporting serious injury.

Strategies

The following strategies will be used to address intersection crashes:

- **Priority Strategy 1:** Implement proven countermeasures to reduce frequency and severity of intersection conflicts through traffic control devices (e.g., signs, pavement markings, etc.).

- **Priority Strategy 2:** Implement proven countermeasures to reduce frequency and severity of intersection conflicts through geometric improvements (e.g., alternative intersection designs, road diets, etc.).

- **Priority Strategy 3:** Improve driver awareness of intersection signal control and driver compliance with traffic control devices.

- **Priority Strategy 4:** Continue to develop resources and tools to aid local agencies in addressing needed intersection improvements.
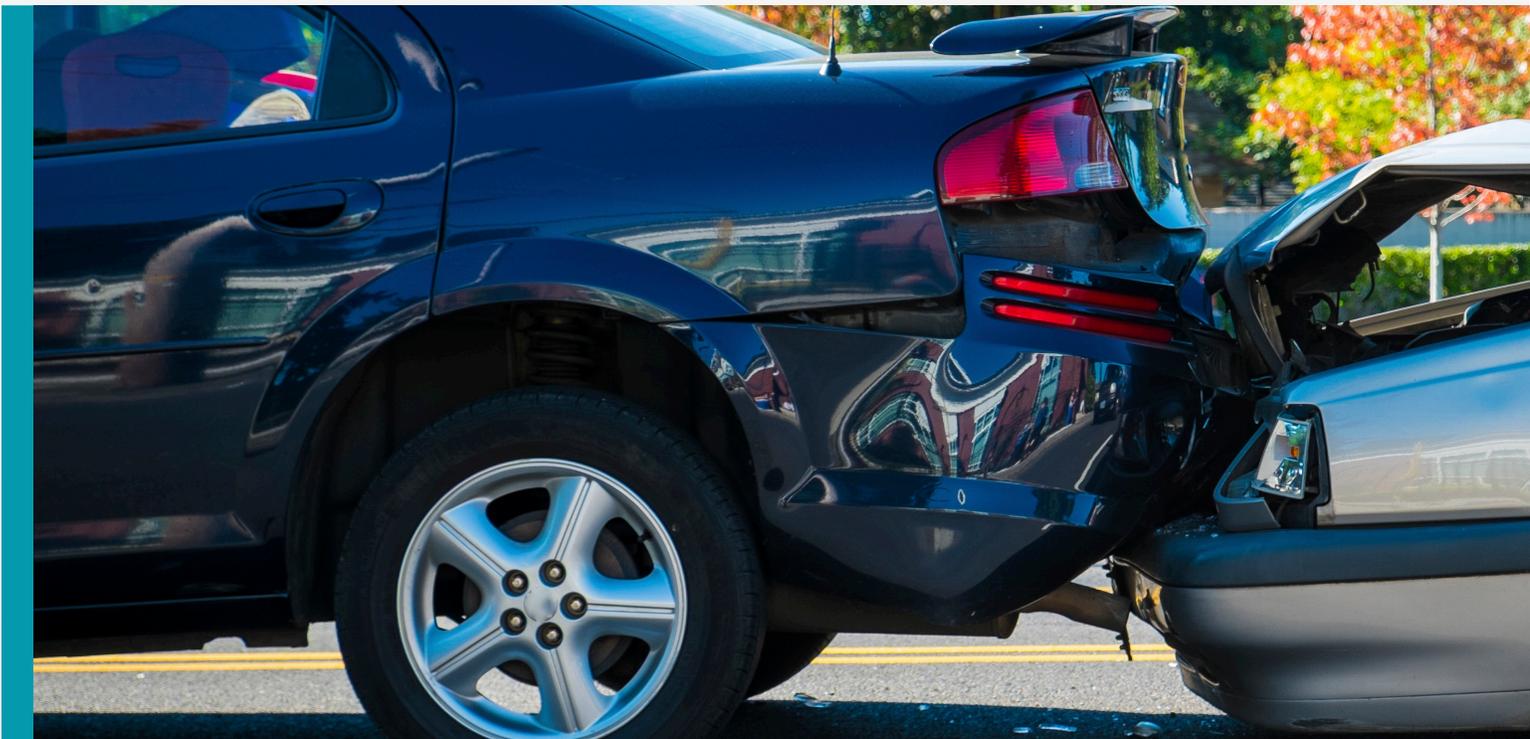
EMPHASIS AREA 3: AT-RISK ROAD USERS

The At-Risk Road Users emphasis area is comprised of young and older drivers, pedestrians, bicyclists, and motorcyclists. These roadway users are at risk for varying reasons. For instance, young drivers often have a skewed perception of risk combined with inexperience behind the wheel that can result in poor decision-making, while the driving skills of older drivers can deteriorate over time due to physical, cognitive and/or vision impairment. Pedestrians, bicyclists, and motorcyclists are the most vulnerable roadway users due to factors such as a lack of physical protection. They also are more likely to be more severely injured when involved in a crash. Alabama DOT is developing a Vulnerable Road Users Guide that will emphasize when and where to incorporate infrastructure elements that address vulnerable road users in the early stages of project development, with highest cost effectiveness.

Focus Area – Young Drivers

Challenge

Young drivers – persons aged 16 to 20 – can often pose a risk to themselves and other road users due to factors such as less driving experience, less ability to gauge risk, and an increased level of involvement in risky driving behaviors. In Alabama, young drivers represented 17 percent of fatalities and were involved in 43 percent of all crashes between 2006 and 2015.

Based on the data presented in Figure 19, fatalities involving drivers aged 16 to 20 have fluctuated since 2006 in a downward trend. In 2006, Alabama experienced 243 fatalities involving young drivers, and that number dropped until 2010 when it peaked again at 162. Fatalities began dropping again until 2015, when fatalities rose to 125.

Serious injuries involving young drivers have been on a downward trend as well. In 2006, there were 6,972 serious injuries involving young drivers, and that number steadily fell to 1,625 in 2014. In 2015, the number of serious injuries involving young drivers crept up to 1,855, as shown in Figure 19.

Figure 19   Fatalities and Severe Injuries Involving Young Drivers
2006-2015[9]
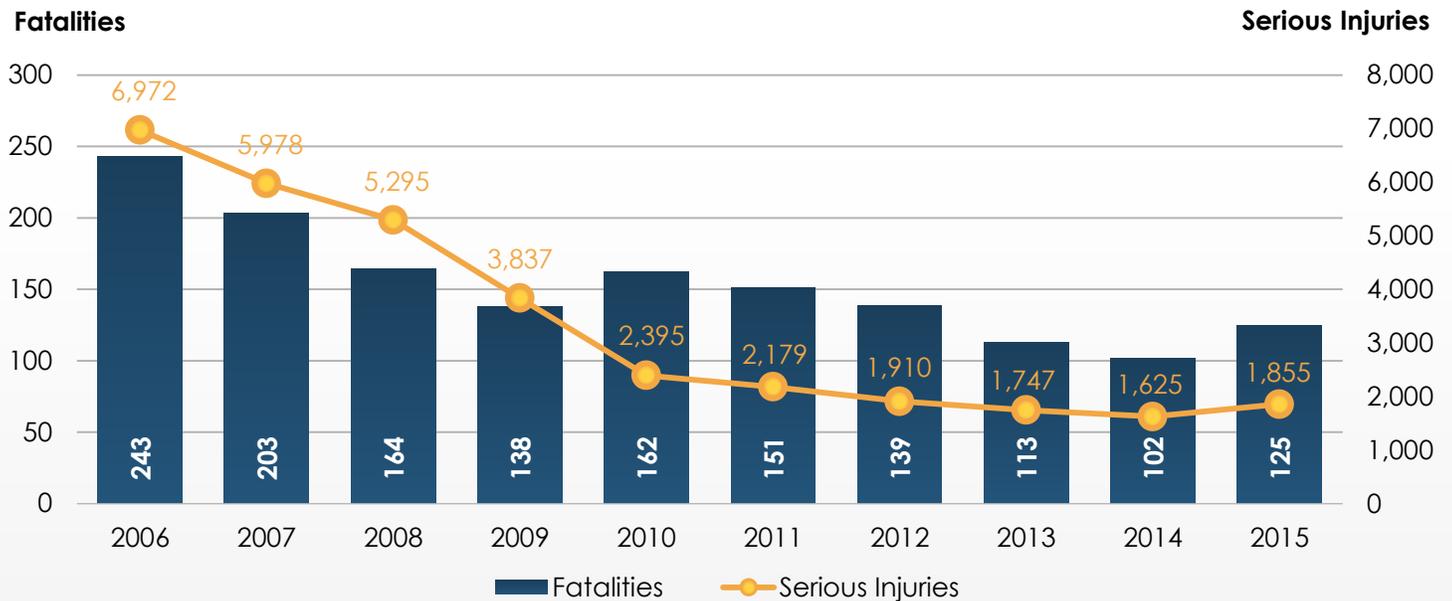
Strategies

The reductions in young driver-related fatalities and serious injuries can likely be attributed to the State strengthening its Graduated Licensing Program by adding three additional provisions. To continue this trend, the following strategies will be implemented:

- **Priority Strategy 1:** Conduct public education and outreach programs to increase awareness of young driver issues, including alcohol and illicit and prescription drugs.

- **Priority Strategy 2:** Explore options for rideshare programs.

- **Priority Strategy 3:** Explore public/private partnerships to increase driver education opportunities for young drivers.

- **Priority Strategy 4:** Continue current methods of public outreach via social media, such as advertisements on popular platforms Instagram and Facebook.

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[9] The reporting of severe injury categories was modified when the MMUCC codes were applied in eCrash, which was first released in June 2009 and by January, 2011 had become the standard for at least 95 percent of the crash reports submitted. With the addition of the new MMUCC codes and the introduction of eCrash, Alabama Law Enforcement became more consistent in reporting serious injury.

Focus Area – Older Drivers

Challenge

Older drivers (persons 65 years of age and older) possess experience behind the wheel and are accustomed to making decisions concerning safe maneuvering.[10] Yet they also contend with the impacts of aging such as vision impairment, delayed reaction time, weakened physical strength, spotty memory and restricted physical flexibility. Older drivers do tend to voluntarily limit their nighttime driving, avoid heavy traffic, and stay on familiar roadways. Despite this caution, however, they are more likely to sustain serious injuries in a crash. From 2006 to 2015 in Alabama, older drivers were involved in 19 percent of the motor vehicle crashes, representing 17 percent of the fatalities and 16 percent of the serious injuries.

Fatalities involving older drivers have fluctuated between 2006 and 2015 with a mostly downward trend and several small inclines. Figure 20 shows that from 2006 to 2015, older driver fatalities decreased by 27 percent. Older driver serious injuries show a promising trend. Overall, serious injuries have fallen most years except for when that number remained the same between 2012 and 2013, and when it increased in 2015.

Figure 20 Fatalities and Severe Injuries Involving Older Drivers
2006-2015[11]

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[10] The term older – in relation to population, drivers, occupants, and nonoccupants – refers to people 65 and older, as defined by FHWA.

[11] The reporting of severe injury categories was modified when the MMUCC codes were applied in eCrash, which was first released in June 2009 and by January, 2011 had become the standard for at least 95 percent of the crash reports submitted. With the addition of the new MMUCC codes and the introduction of eCrash, Alabama Law Enforcement became more consistent in reporting serious injuries.
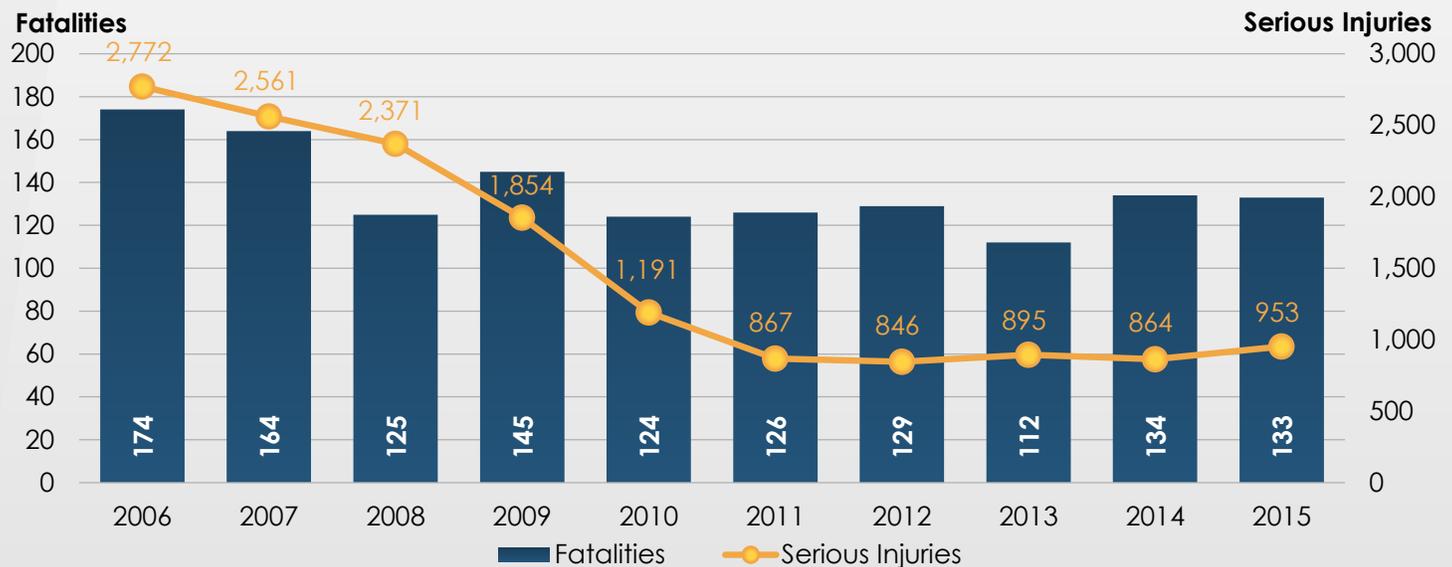
The number of Alabama residents 65 and older is expected to increase from 721,166 in 2013 to 1.2 million in 2040. The Census Bureau predicts that the 65 and older population will outnumber people younger than 18 in the U.S. in 2033. For Alabama, that occurrence may come sometime after 2040.[12]

Strategies

To proactively address the expected increase in Alabama's aging population and the associated older driver crashes, the following strategies have been identified:

- **Strategy 1:** Promote safe driving and mobility for older road users through licensing, enforcement and education.

- **Strategy 2:** Bridge the gap between driving retirement and mobility independence (i.e., alternative transportation mobility options, public transportation, etc.).

- **Strategy 3:** Implement infrastructure improvements to reduce the likelihood and severity of older driver crashes.

Focus Area – Pedestrians and Bicyclists

Challenge

Pedestrians and bicyclists are road users particularly at risk due to the nature of their transit methods. These system users do not have the physical protection that a car or truck usually provides, and are more prone to being less visible to motor vehicle operators. In many instances, pedestrians and bicyclists are at the mercy of other roadway users. It is often up to the at-risk road user to be aware of their surroundings, account for driver error, and account for environmental hazards that may reduce visibility.

Older bicyclists are more at risk of fatal injuries incurred by a crash: three of the nine fatalities in 2015 were between the ages of 51-60.

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[12] UA Researchers Project Increase in State's Aging Population, UA News, University of Alabama, May 2015, https://www.ua.edu/news.

Pedestrians represented 8 percent of the fatalities and 2 percent of the serious injuries while being involved in only 1 percent of Alabama's traffic crashes between 2006 and 2015. During this same time period, bicyclists were involved in less than 1 percent of the crashes and represented one percent of both the fatalities and serious injuries.

Figure 21 shows that while there have been short periods of decline, pedestrian fatalities have been on the rise from 2006 to 2015, increasing from 83 in 2006 to 99 in 2015. Figure 22 shows bicyclist fatalities are substantially lower than pedestrian fatalities. While bicyclist fatalities decreased to 5 in 2008 and 2011, fatalities in this group have remained relatively even from 2006 to 2015 with peaks at 9 in 2006, 2007, 2012, and 2015.

Figure 21 Fatalities and Severe Injuries Involving a Pedestrian 2006-2015[13]

Fatalities **Serious Injuries**

Year	Fatalities	Serious Injuries
2006	83	422
2007	69	385
2008	72	325
2009	67	347
2010	63	264
2011	81	247
2012	80	286
2013	59	276
2014	99	231
2015	99	234

[13] The reporting of severe injury categories was modified when the MMUCC codes were applied in eCrash, which was first released in June 2009 and by January, 2011 had become the standard for at least 95 percent of the crash reports submitted. With the addition of the new MMUCC codes and the introduction of eCrash, Alabama Law Enforcement became more consistent in reporting serious injuries.

Figure 22 Fatalities and Severe Injuries Involving a Bicyclist 2006-2015[14]

Fatalities

Serious Injuries
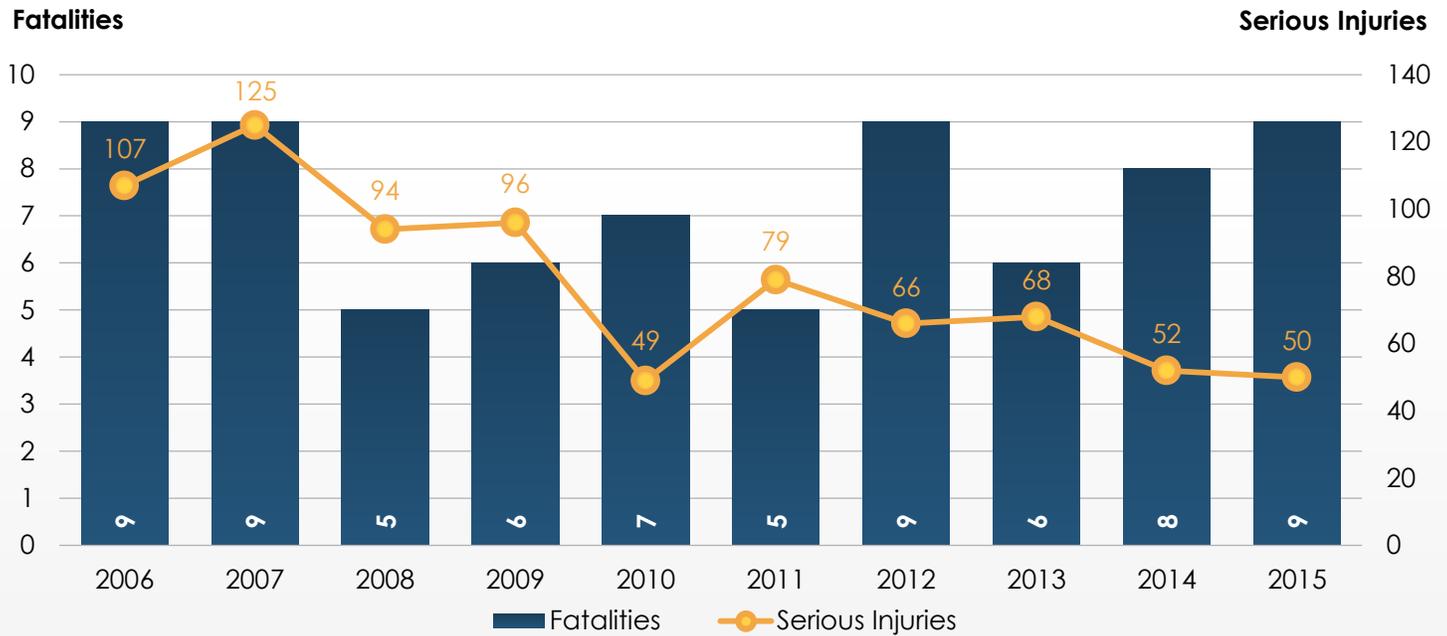
Strategies

To improve safety for pedestrians and bicyclists, Alabama will use a combination of the following strategies:

- **Strategy 1:** Increase public information and education related to pedestrian and bicycle safety (e.g., rules of the road).

- **Strategy 2:** Increase enforcement of existing pedestrian and bicycle safety laws.

- **Strategy 3:** Implement infrastructure countermeasures to allow for safe movements of pedestrians and bicyclists, and to reduce severity of pedestrian and bicycle crashes (e.g., LED crosswalk markers, protected facilities for bicyclists, HAWK systems, etc.).

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[14] The reporting of severe injury categories was modified when the MMUCC codes were applied in eCrash, which was first released in June 2009 and by January, 2011 had become the standard for at least 95 percent of the crash reports submitted. With the addition of the new MMUCC codes and the introduction of eCrash, Alabama Law Enforcement became more consistent in reporting serious injuries.

Focus Area – Motorcyclists

Challenge

Motorcyclists, like bicyclists, are at a high degree of risk due to operating a vehicle with less protection than other motor vehicles. Motorcyclist refers to the motorcycle operator and motorcycle passenger. Motorcyclists must consider their own skill level before riding, avoid riding impaired or drowsy, wear protective gear, and be alert of other roadway users who may not notice them on the road.

Alabama motorcyclists are overrepresented in fatalities. While 1 percent of all crashes involved a motorcyclist, they represented 9 percent of the fatalities from 2006 to 2015.

Motorcycle fatalities have been consistently high in the State from 2006 to 2015. Motorcyclist-involved fatalities peaked in 2006 at 100 fatalities and was at its lowest during this period at 64 fatalities in 2014. Serious injuries for motorcyclists have been on the decline, however, as illustrated in Figure 23.

Figure 23 Fatalities and Severe Injuries Involving a Motorcyclist
2006-2015[15]
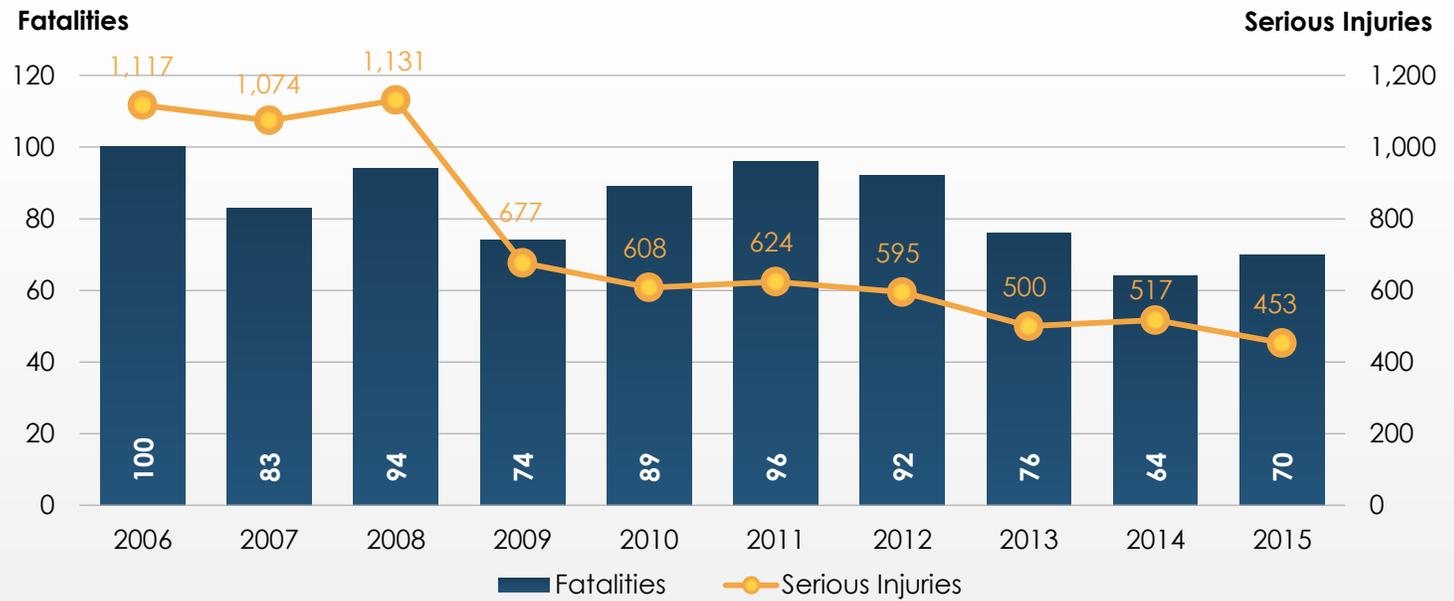
Strategies

Alabama will continue to address motorcycle crashes by implementing the following strategies:

- **Strategy 1:** Address high-risk motorcycle behavior (e.g., impairment, speeding, etc.).

- **Strategy 2:** Incorporate motorcycle-friendly policies and practices into roadway design, traffic control, construction, operation, and maintenance.

- **Strategy 3:** Develop and implement communications strategies that target high-risk populations and improve public awareness of motorcycle crash problems and programs.

- **Strategy 4:** Improve legislation related to motorcycle safety and education (e.g., training, endorsements or add on permits).

[15] The reporting of severe injury categories was modified when the MMUCC codes were applied in eCrash, which was first released in June 2009 and by January, 2011 had become the standard for at least 95 percent of the crash reports submitted. With the addition of the new MMUCC codes and the introduction of eCrash, Alabama Law Enforcement became more consistent in reporting serious injuries.

EMPHASIS AREA 4: DECISION AND PERFORMANCE IMPROVEMENT

Understanding the crash trends and factors is critical to the effectiveness of traffic safety initiatives in Alabama. Efforts to reduce crashes and their consequences require robust data, analytical tools, and analysis. The fourth emphasis area for the Alabama SHSP 3rd Edition captures the areas of transportation safety that develop, define, and empower safety decisions and decision-makers in the State. Alabama DOT uses HSM methods and other analytical tools to evaluate safety improvements. These tools require the use of robust datasets, in addition to an active capacity building and work-force development program. By improving data systems, developing a strong internal safety culture, and developing a safety-oriented workforce, Alabama can continue to improve on past successes in crash reductions, and become a national leader on the path towards zero deaths.

Focus Area – Data Systems

Challenge

A comprehensive safety data collection and management system is a critical element of a roadway safety management program. Current data systems should be reviewed, improved, and integrated to address data gaps as the State moves forward with this effort. A comprehensive data manage-ment system provides agencies with responsibilities for traffic safety timely access and appropriate information to identify problems, select optimal countermeasures; and evaluate implemented pro-grams, initiatives, and projects. For example, well-coordinated medical information systems support incident response and EMS efforts to reduce first responder and secondary crashes and to improve the injury outcomes from crashes. Comprehensive data is needed for accurate roadway inventory information, including more robust off-system or local road data.

The State's Traffic Records Coordinating Committee (TRCC) serves as the action group for safety data

issues. This group oversees planning and improvement in the key data attributes (i.e., timeliness, accuracy, completeness, uniformity, accessibility, and integration) for each of the traffic records information systems within the State. The TRCC is charged with ensuring these efforts move forward in each of the six traffic records information systems (i.e., crash, citation and adjudication, driver records, EMS/injury surveillance, roadway, and vehicle). Ultimately, the goal is for data integration and access to be possible through one source data portal, the http://www.safehomealabama.gov web site.

The following agencies participate in TRCC and share coordination responsibilities for traffic safety and their corresponding information systems:

- **Alabama Department of Economic and Community Affairs (ADECA),** is charged with the overall planning responsibilities for traffic safety in general, including various plans (e.g., impaired driving, seatbelts, selective enforcement, etc.), and the Traffic Safety Information System (TSIS) strategic plan.

- **Alabama Law Enforcement Agency (ALEA).** This agency became operational in 2014 as an umbrella agency subsuming all of the law enforcement functions that were previously being performed throughout all state agencies. The Alabama Criminal Justice Information Center (ACJIC) and Alabama Department of Public Safety (DPS) were commonly referenced individually in previous TRCC five-year plans, but will now be referenced collectively as ALEA.

  » ACJIC continues to be a major contributor to the TSIS system within the ALEA Information Technology Division; these contributions include the primary role in developing the Mobile Officer's Virtual Environment (MOVE), the Uniform Crime Reporting (UCR) Local Template for Reporting and Analysis (ULTRA), the Law Enforcement Tactical System (LETS), and the Centralized Agency Management System (CAMS), all of which have been documented in detail in previous TSIS strategic plans.

  » The department formerly known as DPS is responsible for the collection of citation and crash data, and is the custodian of several related databases.

- **Alabama Administrative Office of Courts,** coordinates responsibilities for all of the courts, which involves citation, adjudication, and criminal (including driver) histories.

- **Alabama Department of Transportation,** is responsible for building and maintaining roadways that provide operational efficiency, comfort, safety, and convenience for the motorists and other roadway users.

- **The University of Alabama Center for Advanced Public Safety (CAPS)** owns the Critical Analysis

Reporting Environment (CARE) software program, which is the exclusive analytical software used in Alabama to process traffic crash data.

- **Alabama Department of Public Health,** has jurisdiction over all Emergency Medical Services, hospital, and trauma registry data.

- **Alabama Department of Revenue,** handles the vehicle registration functions.

- Local police, departments of transportation, hospitals and emergency services agencies are responsible for collection of data related to crashes, roadway characteristics, and trauma and emergency room visits.

- **National Highway Traffic Safety Administration (NHTSA),** has general responsibility for driver and vehicle countermeasures.

- **Federal Highway Administration,** primarily focuses on roadway engineering countermeasures.

- **Federal Motor Carriers Safety Administration,** has Federal oversight of commercial vehicle and driver safety.

Strategies

The following strategies have been identified to continue improving Alabama's Traffic Safety Information System (TSIS):

- **Strategy 1:** Support Traffic Records Coordinating Committee efforts to implement a strategic plan for Traffic Safety Information System.

- **Strategy 2:** Assist in improving traffic safety information systems (i.e., crash, roadway, citation/adjudication, driver records, EMS/injury surveillance, roadway, and vehicle).

Focus Area – Safety Culture

Challenge

While embracing a traffic safety culture applies to all of the motoring public in Alabama, there is an added challenge for those working to develop, manage, and promote transportation projects.

The organizational aspect of developing a safety culture is focused on making safety a priority in all aspects of planning, project development, and performance evaluation. In the past, safety has been assigned to specific departments within the DOT. The adoption of an agencywide safety mindset is in the best interest of Alabama and leverages the resources of our citizens and those dedicated to transportation within the State. However, approaching processes from a safety first perspective is not without its challenges. Approaching all aspects of one's job from a safety first perspective may not be convenient or easy, but shifting the paradigm within the DOT is a critical step on Alabama's path toward zero deaths.

Strategies

Shifting the culture of Alabama DOT and its partner agencies will not happen overnight or by accident. As an initial move in the right direction, the following strategies will be implemented to develop a definitive set of steps directly aimed at shifting the culture of the department and its partners:

- **Strategy 1:** Assess organizational safety culture of Alabama DOT and its safety stakeholder agencies.

- **Strategy 2:** Identify opportunities/strategies to enhance safety culture.

Focus Area – Workforce Development

Challenge

Workforce safety development is a particular subset of safety culture focused on developing appropriate skill sets to enable individuals within the DOT to successfully perform their various duties with a safety first emphasis. The road safety profession is undergoing a significant evolution with increasing emphasis on managing the safety performance of the highway system as improved scientific and statistically sound approaches become available. Core safety knowledge and skills are often gained on the job, if they are obtained at all.

Incorporating safety into pertinent job functions establishes safety as an institutional priority rather than a mandated barrier, which must be overcome in order to advance the goals of the DOT. The challenges with implementing workforce safety development include:

- Assessing the current safety culture for pertinent positions and departments within the DOT;

- Identifying which personnel play a key safety role within the DOT;

- Establishing appropriate minimum safety skills and knowledge for identified parties;

- Defining industry accepted curriculum to obtain the required safety skills; and

- Developing pathways for employee learning and success.

By addressing these challenges, Alabama DOT will define a clear path to safety-based decision-making for employees. Alabama DOT launched a safety workforce development assessment in 2014 designed to develop a detailed education and training framework. The assessment included a review of the relevant safety workforce development literature, interviews with DOT employees across functional areas and an assessment of the current state of practice in other DOTs. Following the initial assessment, Alabama DOT conducted a peer exchange in 2016 among road safety experts with interest and experience addressing road safety workforce development. The purpose of the peer exchange was to build on previous efforts to create an education and training matrix for all functional areas within the DOT, as well as other safety agencies, to enhance the overall capacity of the agencies to effectively address safety.

Strategies

The following strategies will provide Alabama the opportunity to address the workforce development next steps identified in the 2016 peer exchange:

- **Strategy 1:** Implement safety workforce development study findings.

- **Strategy 2:** Develop a safety and operations training and education program for state and local agencies.

IMPLEMENTATION

The FHWA Strategic Highway Safety Plan Implementation Process Model describes the components necessary for successful SHSP implementation. The model outlined in the document features four steps for successful implementation (emphasis area action plans; linkage to existing plans, marketing, and monitoring evaluation and feedback). The SHSP 3rd Edition will be implemented using these steps to ensure success.

Alabama DOT will continue its practice of providing resources directly in proportion to the types of fatalities and serious injuries occurring on its system. Therefore the vast majority of resources for implementation will be directed to the strategies identified as priority strategies in the SHSP. Resources will be allocated to other strategies on an as needed basis, using a data-driven process to identify those needs.

The Steering Committee will continue to provide oversight during plan implementation by:

- Tracking implementation progress in each of the emphasis areas and regions as a part of Steering Committee meetings;

- Discussing strategy implementation progress and suggesting new actions as needed; and

- Evaluating the effectiveness of the overall plan as outlined in the Evaluation Section.

Once the SHSP is approved, the Steering Committee will develop an Implementation Plan which will act as a roadmap for future actions and key steps for each emphasis area. The priority strategies related to the top five most common fatalities and serious injuries will be targeted first with other identified strategies being addressed as a secondary priority. The Implementation Plan will be a living document that will be revised as needed throughout the implementation process.

The Implementation Plan will identify for each SHSP strategy, an action step leader, expected outcome(s), project type, needs and resources, and output and/or any additional outcome measures (in addition to the fatality and serious injury performance measures). The Implementation Plan also will provide information on marketing and communications, including recommendations on communication tactics and methods to inform the public and safety stakeholders about the SHSP and deliver the SHSP message. The intent is to keep the SHSP in the forefront of every stakeholder's mind so they remain interested and committed to the plan and to helping the public understand the State's highway safety issues and that they are a part of the solution in reducing roadway fatalities and injuries.

Emphasis Area Action Plans

In addition to choosing a different approach to the SHSP update, Alabama will use a new approach to develop emphasis area action plans and implement the 3rd edition of the SHSP. The regional safety coalitions will play a critical role in carrying out the SHSP's goal to reduce fatalities and serious injuries. The regional safety action plans will be used to develop statewide emphasis area action plans that encompass the statewide and regional safety priorities outlined in the SHSP. The regional safety action plans provide key strategies and action steps to implement the SHSP in four regions. These action plans will be updated as the regions move forward with implementation. Regional safety plan implementation will be tracked by the Steering Committee with semiannual updates to the Steering Committee on their progress in implementing the regional plans developed, including any resources, issues, or barriers to implementation. In addition, the eight remaining Regional Planning Councils (RPCs) will develop plans following the same processes and procedures as the first four. The remaining RPCs include: Northwest Alabama Council of Local Governments (Region 1), West Alabama Regional Commission (Region 2), East Alabama Regional Planning and Development Commission (Region 4), South Central Alabama Development Commission (Region 5), Southeast Alabama Regional Planning and Development Commission (Region 7), South Alabama Regional Planning Commission (Region 8), Central Alabama Regional Planning and Development Commission (Region 9), and North-Central Alabama Regional Council of Governments (Region 11).

Figure 24 Map of Alabama Regional Councils
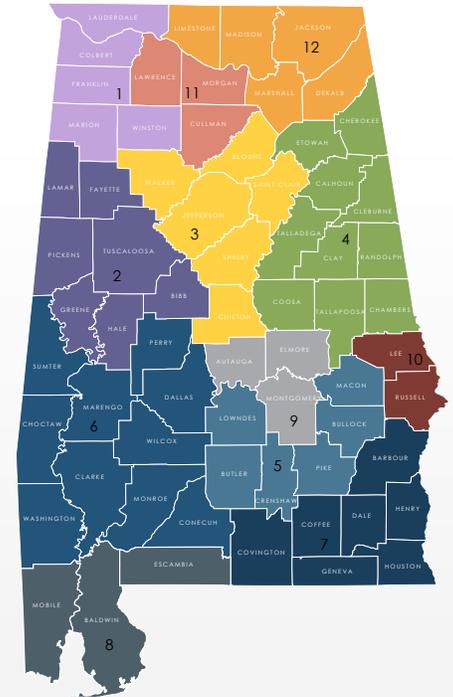
Linkage to Existing Plans

Effective SHSP implementation leverages the resources of other transportation planning and programming activities. The HSP, CVSP, Statewide Transportation Plan, STIP, and metropolitan long-range plans and TIPs will be integrated into the implementation process by using the following strategies:

- Utilize the SHSP Steering Committee and regional safety coalitions as a conduit to encourage adoption of SHSP goals, objectives, and performance measures;

- Utilize the regional safety coalition membership to attend local MPO board meetings and encourage a focus on safety;

- Encourage MPOs to utilize the regional safety coalitions as an established safety committee to adopt safety resolutions in support of the SHSP;

- Ensure safety stakeholders working on the SHSP and related programs and projects are familiar with HSP performance measures;

- Bring multiple local agencies together via the regional coalitions to encourage development of applications for HSP grant funds relevant to regional priorities;

- Identify SHSP emphasis areas and/or strategies related to the commercial motor vehicles and include them as state-specific objectives with in the CVSP; and

- Incorporate SHSP education and enforcement strategies into the CVSP.

Marketing

Marketing is a necessary component of transportation safety because the reduction of fatalities and serious injuries depends on attitude and behavior changes in the individuals who use the transportation system, not just modifications to the roadway and surrounding environment. Marketing helps safety stakeholders understand the vital role they play in saving lives and why their continued involvement in SHSP implementation is needed. The following strategies will be used to market the 3rd edition of the SHSP:

- Gain support and involvement from new safety stakeholders by hosting a statewide safety summit in late 2017 to introduce the SHSP to stakeholders, recruit additional parties to participate in existing and future regional coalitions, and to re-engage stakeholders that participated in the 2nd edition update.

- Continue to develop a robust regional safety coalition program to keep safety stakeholders interested and actively involved in implementation.

- Continue to educate the public about the SHSP and the State's most serious transportation safety issues through media campaigns and educational programs.

Monitoring, Evaluation, and Feedback

Monitoring, evaluation, and feedback are the methods for measuring SHSP progress, understanding its impact on safety, identifying and institutionalizing lesson learned, improving decision-making, and providing the information necessary to make course corrections and update the SHSP. The next section outlines the evaluation process the Steering Committee will use to establish a formal evaluation process.

EVALUATION

Evaluation is the process used to assess the progress and performance of the SHSP and uses that information to inform future decision-making on safety investments. SHSP evaluation is required by MAP 21 and the FAST Act, but more importantly, it provides an opportunity for transportation and safety stakeholders to:

- Assess safety programs and projects and associated performance results;

- Discuss and share the results to brainstorm needed corrections and continued improvements; and

- Focus efforts and resources on the most critical problems and most effective countermeasures.
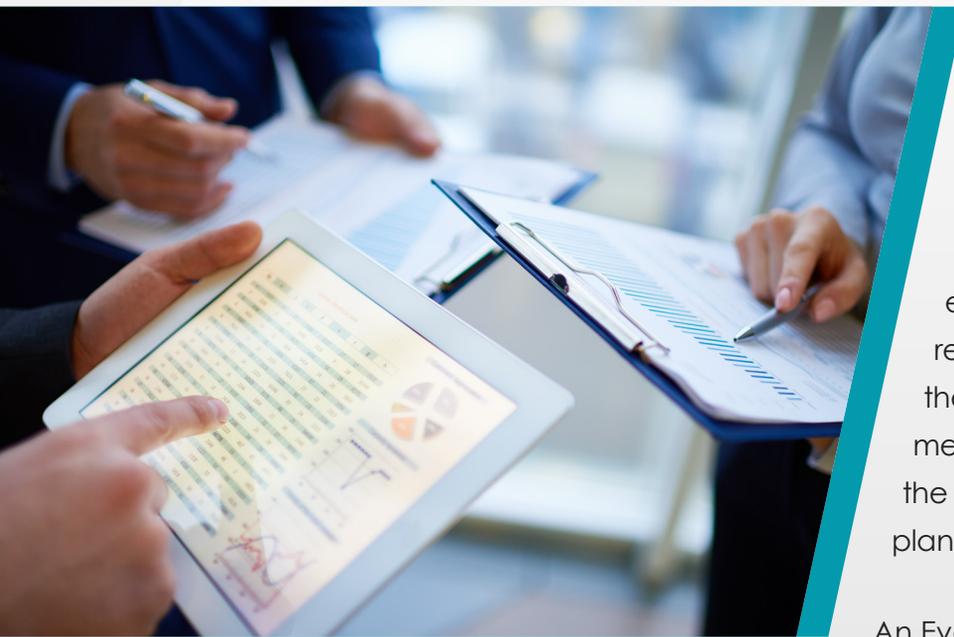
To ensure Alabama's SHSP is supporting achievement in fatality and serious injury reductions, the SHSP Steering Committee will conduct a series of semiannual workshops to evaluate the SHSP process. This evaluation process will include an annual report to the Steering Committee tracking the five required safety performance measures; elements of the SHSP included the HSIP, HSP, and CVSP; and regional safety plan implementation efforts.

An Evaluation Plan will be developed to detail the evaluation process and performance evaluation techniques. The process evaluation will examine roles, responsibilities, and process activities, and establish a timeline for monitoring, evaluating and communicating the results of the SHSP. The performance evaluation will track progress on the specific strategies to determine how well they are contributing to the overall goals of the plan.

Ultimately, evaluation reinforces the SHSP and safety planning in general, showing stakeholders and elected officials that safety investments are generating results and resources are being used effectively.

APPENDIX A – REGIONAL COALITION PARTICIPANTS

The Alabama SHSP update was made possible with input and participation from a host of safety stakeholders participating in regional safety coalitions. These participants provided thoughtful ideas, feedback and solutions to Alabama's traffic safety issues.

Regional Planning Commission of Greater Birmingham Safety Coalition

- American Automobile Association
- AirMed International, LLC
- Alabama Alcoholic Beverage Control Board
- Alabama Department of Economic and Community Affairs
- Alabama Department of Public Health
- Alabama Department of Public Safety
- Alabama Highway Patrol
- Alabama Department of Transportation
- Birmingham EMS
- Birmingham Jefferson County Transit Authority
- Cambridge Systematics
- Children's Emergency Department, Injury Free Coalition for Kids
- Children's Alabama SAFE Kids
- City of Birmingham
- FHWA Alabama Division
- Jefferson State Community College

- Neel Schaffer
- Regional Planning Commission of Greater Birmingham
- Sain and Associates
- Southeast Child Safety (ThinkFirst and Safe Kids)
- State Farm
- The Alabama Section of the Institute of Transportation Engineers
- United Way – Safe Routes to School
- University of Alabama at Birmingham
- University of Alabama at Birmingham Police
- University of Alabama at Birmingham Psychology
- University of Alabama at Birmingham Public Health
- University of Alabama Center for Advanced Public Safety
- University of Alabama University Transportation Center for Alabama
- Zyp BikeShare

Top of Alabama Regional Council of Governments (TARCOG) Safety Coalition

- Alabama Department of Economic and Community Affairs
- Alabama Department of Public Health – EMS and Trauma
- Alabama Department of Public Safety
- Alabama Department of Transportation
- Alabama Department of Transportation North Region
- Cambridge Systematics
- Croy Engineering
- Etowah County
- FHWA Alabama Division

- Federal Motor Carrier Safety Administration (FMCSA)
- Huntsville City Schools
- Huntsville Police Department
- Huntsville Traffic Engineering
- Madison County
- Redstone Arsenal
- State of Alabama Law Enforcement Agency (ALEA)
- Top of Alabama Regional Council of Governments
- University of Alabama Tuscaloosa
- University of Alabama Center for Advanced Public Safety

Lee Russell Council of Governments (LRCOG) Safety Coalition

- Alabama Department of Economic and Community Affairs
- Alabama Department of Public Health – EMS and Trauma
- Alabama Department of Public Safety
- Alabama Department of Transportation
- Alabama Department of Transportation Southeast Region
- Auburn Fire Department
- Auburn University
- Cambridge Systematics
- City of Auburn
- City of Opelika

- Columbus Consolidated Government
- East Alabama EMS
- FHWA Alabama Division
- Opelika Fire Department
- Phenix City
- State of Alabama Law Enforcement Agency (ALEA)
- The Sixfifty Company
- Top of Alabama Regional Council of Governments
- University of Alabama Tuscaloosa
- University of Alabama Center for Advanced Public Safety

Alabama Tombigbee Regional Commission Safety Coalition

- Alabama Department of Economic and Community Affairs
- Alabama Department of Public Safety
- Alabama Department of Transportation
- Alabama Department of Transportation Southwest Region
- Alabama Tombigbee Regional Commission
- Cambridge Systematics, Inc.

- Clarke County
- FHWA Alabama Division
- Perry County
- University of Alabama Center for Advanced Public Safety
- West Alabama Community Traffic Safety Organization
- Wilcox County

APPENDIX B – REGIONAL SAFETY PLAN EMPHASIS AREAS AND STRATEGIES

Regional Planning Commission of Greater Birmingham Regional Safety Plan

Impaired Driving Emphasis Area

- **Strategy 1:** Enhance DUI enforcement, training, and tools for improved detections and enforcement of impaired driving.

  » Increase the number and exposure of impaired driving checkpoints.

  » Increase DUI enforcement training for law enforcement officers.

- **Strategy 2:** Conduct education and outreach programs and campaigns to increase awareness of impaired driving issues.

  » Target messages and campaigns to college students and all drivers age 18 to 24.

  » Leverage and promote safe-ride options, including local programs and national rideshare alternatives.

- **Strategy 3:** Improve consistent, timely DUI adjudication and enhance the utilization of DUI treatment programs.

  » Improve consistent, timely DUI adjudication.

  » Enhance the utilization of DUI programs.

Distracted Driving Emphasis Area

- **Strategy 1:** Increase awareness of distracted driving issues.

  - » Increase public awareness of distracted driving through media and outreach.

  - » Expand the use of simulators to educate drivers on the dangers of distracted driving.

  - » Address distracted driving policy issues.

- **Strategy 2:** Increase distracted driving enforcement.

  - » Target and coordinate enforcement.

- **Strategy 3:** Implement infrastructure improvements to reduce the injury severity of distracted driving crashes; specifically run-off-road and intersection type crashes.

  - » Install edgeline and centerline rumble strips on at-risk rural roads to alert drivers of possible lane departures.

  - » Continue implementing guardrail installations and repairs as necessary.

  - » Install lighting and dynamic warning signs at rural intersections.

  - » Expand the use of roadway delineation and marking features, including intersection lane markers, raised pavement markers, enhanced signing, and other devices.

Speed-Related Emphasis Area

- **Strategy 1:** Increase high-visibility enforcement to reduce the frequency of crashes associated with speeding.

- **Strategy 2:** Increase awareness of speeding issues and improve community outreach.

  - » Target messages and campaigns to college students and all other drivers ages 18 to 24.

- **Strategy 3:** Implement engineering solutions to alert drivers and curb speeding.

  - » Implement traffic calming measures in select high-risk locations.

» Evaluate routes for appropriate speed limits and inspect and replace speed limit signing and marking where appropriate.

» Implement dynamic speed warning signs where appropriate.

Young Driver Emphasis Area

• **Strategy 1:** Increase public awareness of young driver issues.

» Implement public media campaign to help clarify GDL requirements in Alabama.

» Communicate safe driving behaviors to young drivers and prepare preteens for the responsibility of safe driving.

» Educate parents on the issues of teen driving.

Top of Alabama Regional Council of Governments (TARCOG) Regional Safety Plan

Aggressive Driving Emphasis Area

- **Strategy 1:** Increase awareness of aggressive driving issues.

  » Improve aggressive driving laws.

  » Increase public awareness of aggressive driving through media and outreach.

  » Increase safe driver training incentives/requirements.

- **Strategy 2:** Increase aggressive driving enforcement.

  » Target and coordinate enforcement.

- **Strategy 3:** Address infrastructure issues.

  » Implement infrastructure improvements to reduce the likelihood and injury severity of crashes related to aggressive driving.

Distracted Driving Emphasis Area

- **Strategy 1:** Increase awareness of distracted driving issues.

  » Increase public awareness of distracted driving through media and outreach.

  » Increase safe driver training incentives/requirements.

  » Improve distracted driving laws.

- **Strategy 2:** Increase distracted driving enforcement.

  » Target and coordinate enforcement.

- **Strategy 3:** Address infrastructure issues.

  » Implement infrastructure improvements to reduce the injury severity of run-off-road crashes related to distracted driving.

  » Implement infrastructure improvements to reduce the injury severity of intersection crashes related to distracted driving.

Impaired Driving

- **Strategy 1:** Sustain impaired driving enforcement efforts throughout the region.

  » Continue to conduct enforcement strategies to reduce impaired driving.

  » Continue to build advanced impaired driving experts through DRE and ARIDE training.

  » Recruit additional agencies to participate in overtime impaired driving patrols and sobriety checkpoints.

- **Strategy 2:** Improve judicial outreach/support.

  » Have State Traffic Safety Resource Prosecutor (TSRP) conduct impaired driving adjudication within the region.

- **Strategy 3:** Sustain regional DUI communication and outreach.

  » Continue to support national drive sober communication campaigns.

  » Leverage local enforcement presentations on driving sober.

  » Support campaigns/presentations in schools, including high schools and colleges/universities.

Unrestrained Passengers

- **Strategy 1:** Sustain seatbelt enforcement.

  » Continue to support national seatbelt enforcement campaigns.

- **Strategy 2:** Sustain regional seatbelt communication and outreach.

  » Continue to support national driver seatbelt communication campaigns.

  » Leverage local enforcement presentations on seatbelt use.

  » Support campaigns/presentations in schools, including high schools and colleges/universities.

Lee Russell Council of Governments (LRCOG) Regional Safety Plan

Young Drivers

- **Strategy 1:** Conduct education and outreach programs and campaigns to increase awareness of young driver (both new drivers and drivers around the university) issues.

  » Educate parents on the state's graduated driver's license laws in Alabama.

  » Continue to expand impaired driving messages, including those focused on alcohol, illicit drugs, and prescriptions.

  » Develop specific educational efforts to help international students at local universities and colleges transition to driving in Alabama.

  » Develop a "Battle of the Belts" program among local schools.

- **Strategy 2:** Explore options for safe-ride home programs.

  » Provide guaranteed rides home for students (grant for taxis/Uber, busing service provided by local bars, etc.).

  » Explore use of designated driver systems.

Impaired Driving

- **Strategy 1:** Sustain impaired driving enforcement efforts.

  » Continue statewide enforcement efforts (ADECA hotspot identification, ALEA overtime enforcement).

  » Participate in national impaired driving enforcement campaigns.

  » Establish impaired driving as a priority for new campus police department.

- **Strategy 2:** Continue/expand impaired driving educational efforts.

 » Participate in national impaired driving media campaigns.

» Utilize local school message boards (particularly when school is not in session).

» Develop student organization tasked with promoting safe driving campaign materials, including impaired driving messages.

Distracted Driving

- **Strategy 1:** Continue/expand distracted driving educational efforts.

  » Participate in national distracted driving media campaigns.

  » Develop educational materials to educate older drivers on infrastructure enhancements, par-ticularly additional requirements for intersections.

- **Strategy 2:** Continue implementing infrastructure improvements to reduce the likelihood and severity of distracted drivers being severely injured.

  » Continue infrastructure improvements to reduce the likelihood/severity of roadway departure crashes, including:

    ► Cable barrier installation;

    ► Edge line and center line rumble strips;

    ► Safety edge installation; and

    ► Road Safety Assessments.

  » Continue infrastructure improvements to reduce the likelihood/severity of intersection-related crashes, including:

    ► Roundabout installation;

    ► Yellow flashing arrow installation;

    ► Signing and marking improvements; and

    ► Road Safety Audits.

Pedestrians and Bicycles

- **Strategy 1:** Increase education and outreach relating to pedestrian and bicycle safety.

  » Educate bicyclists on how to interact with motor vehicles and pedestrians.

  » Educate motorists on how to interact with bicyclists.

  » Educate students on the roles and responsibilities of being a pedestrian around campus.

- **Strategy 2:** Increase enforcement for pedestrians and bicycles.

  » Increase enforcement of pedestrian laws, particularly on or near campus.

  » Increase enforcement of bicycle laws.

- **Strategy 3:** Install infrastructure improvements.

  » Continue to install improvements for pedestrians and bicycles, including:

    ▶ LED crosswalk markers;

    ▶ Protected facilities for bicyclists; and

    ▶ HAWK systems, like those installed at various locations throughout the State.

  » Continue to develop local vulnerable road user's guidebook.
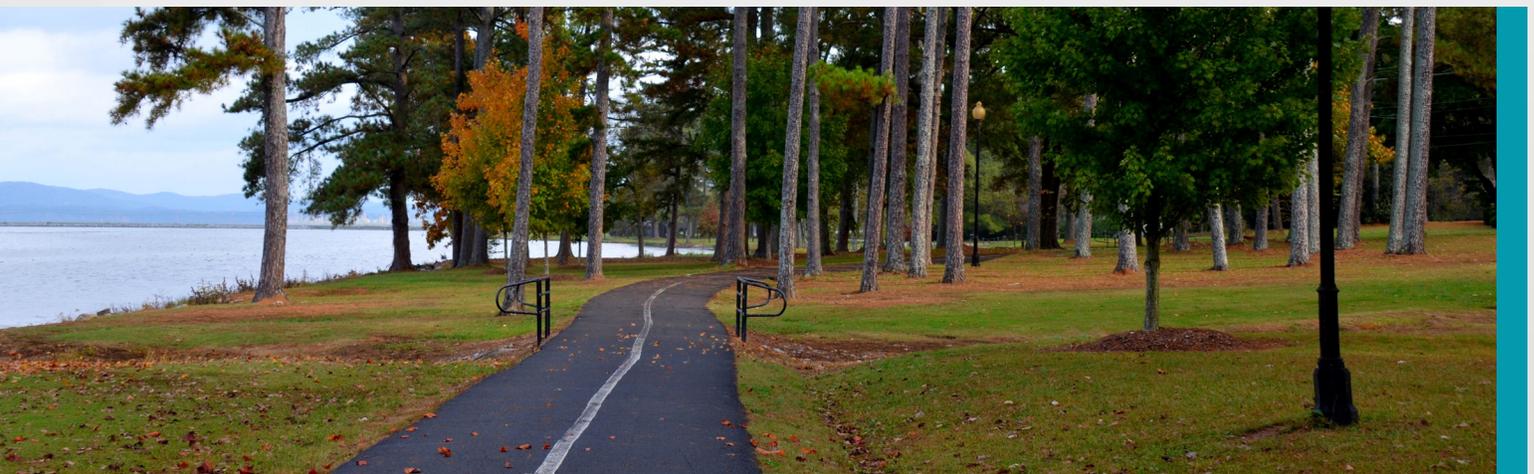
Alabama Tombigbee Regional Commission Regional Safety Plan

Speed-Related Emphasis Area

- **Strategy 1:** Increase high-visibility enforcement to reduce the frequency of crashes associated with speeding.

- **Strategy 2:** Increase awareness of speeding issues and improve community outreach.

  » Target messages and campaigns to college students and all other drivers ages 16 to 24.

- **Strategy 3:** Implement engineering solutions to alert drivers and curb speeding.

  » Implement traffic calming measures in select high-risk locations.

  » Evaluate routes for appropriate speed limits, inspect and replace speed limit signing and marking where appropriate.

  » Implement dynamic speed warning signs where appropriate.

Occupant Protection Emphasis Area

- **Strategy 1:** Maximize use of occupant restraints by all vehicle occupants.

  » Conduct highly publicized enforcement campaigns to maximize restraint use.

  » Provide enhanced public education to population groups with lower than average restraint use rates.

    ► Focus on younger drivers in the area, including middle schools, high schools, and local colleges.

- **Strategy 2:** Insure that restraints, especially child and infant restraints, are properly used.

  » Provide community locations for instruction in proper child restraint use, including both public safety agencies and health care.

  » Conduct high-profile "child restraint inspection" events at multiple community locations.

» Train law enforcement personnel to check for proper child restraint use in all motorist encounters.

- **Strategy 3:** Provide access to appropriate information, materials, and guidelines for those implementing programs to increase occupant restraint use.

» Identify "case studies" to share with those implementing programs.

» Identify program guidelines for use by those implementing local programs.

Roadway Departure Emphasis Area

- **Strategy 1:** Keep vehicle from encroaching on the roadside.

» Install shoulder rumble strips.

» Install edge line "profile marking," edgeline rumble strips or modified shoulder rumble strips on sections with narrow or no paved shoulders.

» Install centerline rumble strips.

» Provide enhanced shoulder or in-lane delineation and marking for sharp curves.

» Provide improved highway geometry for horizontal curves.

» Provide enhanced pavement markings.

» Provide skid-resistant pavement surfaces.

» Apply shoulder treatments by eliminating shoulder drop-offs and widening and/or paving shoulders.

- **Strategy 2:** Minimize the likelihood of crashing into an object or overturning if the vehicle travels off the shoulder.

» Provide safer slopes and ditch cross sections to prevent rollovers.

» Remove/relocate objects in overrepresented run-off-the-road locations.

- **Strategy 3:** Reduce the severity of the crash.

» Ensure application of appropriate yielding or break-away roadside hardware (e.g., light poles, signs, bridge rails).

» Ensure appropriate application of barrier and attenuation systems.

• **Strategy 4:** Use education and outreach to reduce behavioral issues associated with roadway departure crashes, including distracted driving and impaired driving.

Intersection Emphasis Area

• **Strategy 1:** Reduce frequency and severity of intersection conflicts through traffic control and operations improvements.

• **Strategy 2:** Reduce frequency and severity of intersection conflicts through geometric improvements.

• **Strategy 3:** Improve sight distance at signalized and unsignalized intersections.

• **Strategy 4:** Improve driver awareness of intersections and signal control.

• **Strategy 5:** Improve driver compliance with traffic control devices.

• **Strategy 6:** Guide motorists more effectively through complex intersections.